Women's Health Initiative

2011 Annual Progress Report

Data as of: September 2011

The data, if any, contained in this report/deliverable are preliminary and may contain unvalidated findings. These data are not intended for public use. Public use of these data could create erroneous conclusions which, if acted upon, could threaten public health or safety.

Women's Health Initiative
2011Annual Progress Report

Data as of: September 2011

Prepared by
WHI Clinical Coordinating Center
Fred Hutchinson Cancer Research Center

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1. Overview

1.0 Background

Between 1993 and 1997, WHI investigators at 40 Clinical Centers recruited 161,808 women into the overall program; 68,132 were randomized into one or more arms of the clinical trial component (CT) and 93,676 were enrolled into the observational study (OS). During 2004-2005, the close-out period for the original program, 115,407 women consented to five additional years of follow-up, representing 76.9% of the 150,076 participants who were alive and in active follow-up at this time. At the end of the first extension period in 2010, participants were again offered the opportunity to continue and 86.8% of the 107,706 eligible women agreed (n=93,540).

1.1 Changes associated with the 2010-2015 Extension Study

The follow-up protocol for 2010-2015 is derived from the previous phases but incorporates noteworthy streamlining. As before, all participants are contacted annually, primarily by mail for health and selected exposure updates. For reports of designated health events, the effort to obtain documentation has been reduced to a subset. During 2010-2015, cardiovascular events and hip fractures will only be documented in a subset of participants referred to as the Medical Records Cohort (MRC). The MRC is comprised of former hormone trial participants and all African American and Hispanic participants, regardless of their previous enrollment status. Active outcome data collection for the remaining participants (the Self-Report Cohort or SRC) is limited to self-report with the exception of cancer, for which NCI is supporting the documentation and coding of all incident primary cancers.

This reduction in data collection prompted streamlining of the operational infrastructure. The 40 Field Centers were consolidated into 4 Regional Centers (RC) plus the Clinical Coordinating Center (CCC). Each RC has subcontracted with one or two former sites in their geographic region to assist with the outcomes data collection (Table 1.1).

The CCC conducts annual mailings of follow-up questionnaires to all eligible participants. The RCs and their collaborating centers contact non-responders, collect and submit medical records for all of the designated outcomes to the CCC, and participate in a range of scientific endeavors. The CCC fulfills the RC role for two former Clinical Centers (Seattle and LaJolla).

1.2 Contents of this report

This report provides an update on study status through September 2011, including the reconsenting in 2005 and 2010 and follow-up rates over the entire Extension Study. Both consent and follow-up rates have been excellent. Limited information is provided regarding the former interventions (e.g., reports of hormone therapy use, dietary behavior). Clinical event rates are presented by study component, age and race. Regional Center performance in follow-up and outcomes documentation is summarized. In recognition of the growing emphasis on studies of aging, a brief summary of the current age distribution and health characteristics are included (Section 8).

The status of the WHI biorepository and a complete list of ancillary studies and publications are provided. As these are rather long lists, researchers are encouraged to access www.whiscience .org for searchable documents.

There are a few additional sources of data that are or will become available to investigators over the next year or so. The CCC has obtained Center for Medicare and Medicaid Services (CMS) data covering all participants for the years 1991-2007. A request to obtain data for subsequent years has been submitted. The primary purpose of the historical data is to expand the range of the outcomes (e.g., non-hospitalized health events and health care costs) that can be examined in association with the interventions and the large exposure database. Future data will also be useful for confirming self-reported hospitalized events for the SRC.

A second data collection activity about to be launched is WHI Long Life Study, which consists of an in-person visit among 8,000 of the oldest women in the MRC. As part of its recent renewal, the CCC has contracted with a national-based organization, Examination Management Services, Inc (EMSI) to conduct home visits among consenting older (age > 72 years) MRC participants to obtain clinical measures (blood pressure, pulse, height, weight), basic physical function measures, and a new blood collection. An ancillary study (PI: Andrea LaCroix) will support the collection of an objective measure of physical activity using actigraphy in conjunction with this visit. A separate ancillary study (PI: Jeanette Beasley) will fund the collection of a food frequency questionnaire after the visit. These activities will be launched in late 2011 with an expected completion date of December 2012.

Table 1.1
WHI Centers and Principal Investigators

Clinical Coordinating Center

Principal Investigator	Institution	Location
Garnet Anderson, PhD	Fred Hutchinson Cancer Research Center	Seattle, WA
Ross Prentice, PhD	Fred Hutchinson Cancer Research Center	Seattle, WA

Regional Centers

Principal Investigator	Institution	Location
Barbara Howard, PhD	MedStar Research Institute	Washington, D.C.
Rebecca Jackson, MD	Ohio State University	Columbus, OH
Lewis Kuller, MD, DrPH	University of Pittsburgh	Pittsburgh, PA
Marian Limacher, MD	University of Florida	Gainesville/ Jacksonville, FL
JoAnn Manson, MD, DrPH	Brigham and Women's Hospital	Boston, MA
Sally Shumaker, PhD	Wake Forest University	Winston-Salem/Greensboro, NC
Marcia Stefanick, PhD	Stanford University	San Jose, CA
Cyndi Thomson, PhD, RD	University of Arizona	Tucson/ Phoenix, AZ
Jean Wactawski-Wende, PhD	State University of New York, Buffalo	Buffalo, NY
Jennifer Robinson, MD, MPH	University of Iowa	Iowa City/ Bettendorf, IA

Former Field Centers

Principal Investigator	Institution	Location
Shirley Beresford, PhD	Fred Hutchinson Cancer Research Center	Seattle, WA
Robert Brunner, PhD	University of Nevada	Reno, NV
Robert Brzyski, MD	University of Texas	San Antonio, TX
Bette Caan, PhD	Kaiser Foundation Research Institute	Oakland, CA
Rowan Chlebowski, MD, PhD	University of California, Los Angeles	Torrance, CA
J. David Curb, MD	University of Hawaii	Honolulu, HI
Charles Eaton, MD	Memorial Hospital of Rhode Island	Pawtucket, RI
Gerardo Heiss, MD MPH	University of North Carolina, Chapel Hill	Chapel Hill, NC
Allan Hubbell, MD	University of California, Irvine	Irvine, CA
Karen Johnson, MD, MPH	University of Tennessee	Memphis, TN
Jane Kotchen, MD, MPH	Medical College of Wisconsin	Milwaukee, WI
Dorothy Lane, MD, MPH	Research Foundation SUNY, Stony Brook	Stony Brook, NY
Norman Lasser, MD, PhD	University of Medicine and Dentistry	Newark, NJ
Erin LeBlanc, M.D.	Oregon Health & Science University	Portland, OR
Cora Lewis, MD, MSPH	University of Alabama at Birmingham	Birmingham, AL
Karen Margolis, MD	University of Minnesota	Minneapolis, MN
Lisa Martin, MD, FACC	George Washington University	Washington, DC
Lauren Nathan, MD	University of California, Los Angeles	Los Angeles, CA
Mary-Jo O'Sullivan, MD	University of Miami	Miami, FL
Judith Ockene, PhD	University of Massachusetts	Worcester, MA
Larry Phillips, MD	Emory University	Atlanta, GA
Lynda Powell, PhD	Rush University Medical Center	Chicago, IL
Haleh Sangi-Haghpeykar, PhD	Baylor College of Medicine	Houston, TX

Table 1.1 (continued)
WHI Centers and Principal Investigators

Former Field Centers

Principal Investigator	Institution	Location
John Robbins, MD	University of California, Davis	Sacramento, CA
Gloria Sarto, MD	University of Wisconsin	Madison, WI
Michael Simon, MD	Wayne State University	Detroit, MI
Michael Thomas, MD	University of Cincinnati	Cincinnati, OH
Linda Van Horn, PhD, RD	Northwestern University	Chicago/ Evanston, IL
Mara Vitolins, PhD	Wake Forest University	Winston-Salem/Greensboro, NC
Sylvia Wassertheil-Smoller, PhD	Albert Einstein College of Medicine	Bronx, NY

Table 1.2
Consent Status by Study Component and Arm

Data as of: September 16, 2011

WHI Enrollment	Enrolled in WHI	Eligible for extension 2005-2010[1]	Consented N	Consented %
Hormone Therapy	27347	25194	20433	81.1
With Uterus	16608	15408	12788	83.0
E+P	8506	7878	6545	83.1
Placebo	8102	7530	6243	82.9
Without Uterus	10739	9786	7645	78.1
E-alone	5310	4851	3778	77.9
Placebo	5429	4935	3867	78.4
Dietary Modification	48835	45560	37858	83.1
Intervention	19541	18207	14769	81.1
Comparison	29294	27353	23089	84.4
Calcium and Vitamin D	36282	34447	29862	86.7
Active	18176	17280	15025	87.0
Placebo	18106	17167	14837	86.4
Clinical Trial Total	68132	63332	52176	82.4
Observational Study	93676	86744	63231	72.9
Total	161808	150076	115407	76.9

WHI Enrollment	Enrolled in extension 2005-2010	Eligible for extension 2010-2015[1]	Consented N	Consented %
Hormone Therapy	20433	18794	15581	82.9
With Uterus	12788	11789	9890	83.9
E+P	6545	6048	5046	83.4
Placebo	6243	5741	4844	84.4
Without Uterus	7645	7005	5691	81.2
E-alone	3778	3479	2833	81.4
Placebo	3867	3526	2858	81.1
Dietary Modification	37858	35594	30683	86.2
Intervention	14769	13922	12013	86.3
Comparison	23089	21672	18670	86.1
Calcium and Vitamin D	29862	27975	24228	86.6
Active	15025	14083	12239	86.9
Placebo	14837	13892	11989	86.3
Clinical Trial Total	52176	48697	41489	85.2
Observational Study	63231	59009	52051	88.2
Total	115407	107706	93540	86.8

[1] Eligibility defined as alive at the beginning of consent and willing to be contacted.

Table 1.3
Consent Status by Age and Race/Ethnicity

Data as of: September 16, 2011

	Clinical Trial				Observational Study			
		Eligible for extension	Consented			Eligible for extension	Consented	
WHI Enrollment	Enrolled in WHI	2005-2010[1]	N	%	Enrolled in WHI	2005-2010[1]	N	%
Total	68132	63332	52176	82.4	93676	86744	63231	72.9
Age								
50-54	9188	8754	7237	82.7	12381	11969	8996	76.9
55-59	14661	13940	11724	84.1	17329	16565	12732	74.2
60-69	31389	29290	24528	83.7	41200	38502	28582	65.6
70-79	12894	11348	8687	76.6	22766	19708	12921	72.9
Race/Ethnicity								
American Indian	292	260	185	71.2	421	372	217	58.3
Asian/Pacific Islander	1519	1414	1105	78.1	2671	2444	1291	52.8
Black	6983	6423	4769	74.2	7635	6868	3585	52.2
Hispanic	2875	2686	1791	66.7	3609	3333	1598	47.9
White	55525	51682	43680	84.5	78016	72504	55767	76.9
Unknown	938	867	646	74.5	1324	1223	773	63.2

	Clinical Trial				Observational Study			
	Enrolled in extension	Eligible for extension	Consented		Enrolled in extension	Eligible for extension	Consented	
WHI Enrollment	2005-2010	2010-2015[1]	N	%	2005-2010	2010-2015[1]	N	%
Total	52176	48697	41489	85.2	63231	59009	52051	88.2
Age								
50-54	7237	7068	6248	88.4	8996	8802	8222	93.4
55-59	11724	11329	10049	88.7	12732	12400	11475	92.5
60-69	24528	22940	19641	85.6	28582	26820	23711	88.4
70-79	8687	7360	5551	75.4	12921	10987	8643	78.7
Race/Ethnicity								
American Indian	185	174	146	83.9	217	204	171	83.8
Asian/Pacific Islander	1105	1050	845	80.5	1291	1224	1035	84.6
Black	4769	4459	3419	76.7	3585	3358	2714	80.8
Hispanic	1791	1701	1225	72.0	1598	1527	1245	81.5
White	43680	40704	35357	86.9	55767	51969	46282	89.1
Unknown	646	609	497	81.6	773	727	604	83.1

[1] Eligibility defined as alive at the beginning of consent and willing to be contacted.

Table 1.4
Extension 2010-2015 Consent by Current Age and Cohort[1]

Data as of: September 16, 2011

	Enrolled in Extension 2005-2010	Eligible for Extension 2010-2015[2]	Consented	
			N	%
Age on 9/16/2011				
<80	67340	64980	58497	90.0
≥80	48067	42726	35043	82.0
80-84	25690	23708	20316	85.7
85-89	16374	14329	11393	79.5
90-94	5770	4538	3235	71.3
95-99	233	151	99	65.6
Medical Records Cohort	29368	27221	22308	82.0
Self-Report Cohort	86039	80485	71232	88.5

[1] Medical Records Cohort (MRC) defined as randomized to the hormone trial, or race/ethnicity is Black or Hispanic; the Self-Report Cohort are those not in the MRC.

[2] Eligibility defined as alive at the beginning of consent and willing to be contacted.

Table 1.5
Extension 2005-2010 Consent Summary by Field Center

Data as of: March 31, 2011

	DM			HT			CaD			CT			OS		
	Eligible	**Consent**	**%**	**Eligible**	**Consent**	**%**	**Eligible**	**Consent**	**%**	**Eligible**	**Consent**	**%**	**Eligible**	**Consent**	**%**
Atlanta	1329	1068	80.4	534	441	82.6	834	722	86.6	1611	1298	80.6	2311	1831	79.2
Bettendorf	470	400	85.1	708	624	88.1	658	596	90.6	1051	922	87.7	1404	1110	79.1
Birmingham	1237	955	77.2	705	579	82.1	887	762	85.9	1695	1334	78.7	2303	1343	58.3
Bowman	1024	808	78.9	567	425	75.0	652	539	82.7	1408	1091	77.5	2083	1569	75.3
Brigham	1643	1429	87.0	770	664	86.2	1024	939	91.7	2206	1906	86.4	2841	2310	81.3
Buffalo	1057	1001	94.7	631	577	91.4	921	883	95.9	1490	1395	93.6	2042	1733	84.9
Chapel Hill	1061	943	88.9	586	488	83.3	719	650	90.4	1447	1264	87.4	1972	1584	80.3
Chi-Rush	872	627	71.9	495	353	71.3	785	604	76.9	1226	880	71.8	1881	1029	54.7
Chicago	1121	952	84.9	518	443	85.5	759	687	90.5	1493	1266	84.8	1754	1369	78.1
Cincinnati	967	881	91.1	495	444	89.7	859	803	93.5	1298	1176	90.6	2076	1616	77.8
Columbus	1072	898	83.8	558	454	81.4	845	732	86.6	1456	1199	82.3	2098	1705	81.3
Des Moines	478	400	83.7	865	624	72.1	807	638	79.1	1237	938	75.8	1513	1091	72.1
Detroit	914	707	77.4	470	360	76.6	806	650	80.6	1220	938	76.9	1911	1416	74.1
Gainesville	1289	1182	91.7	875	800	91.4	852	798	93.7	1935	1771	91.5	2565	2176	84.8
GWU-DC	1069	929	86.9	525	453	86.3	814	746	91.6	1443	1245	86.3	2132	1682	78.9
Honolulu	1006	804	79.9	372	283	76.1	628	523	83.3	1280	1003	78.4	1897	984	51.9
Houston	845	636	75.3	427	269	63.0	573	437	76.3	1160	829	71.5	1906	1403	73.6
Irvine	1104	943	85.4	550	452	82.2	881	779	88.4	1509	1274	84.4	2062	1665	80.7
L.A.	1156	912	78.9	554	410	74.0	971	803	82.7	1559	1213	77.8	2056	1615	78.6
La Jolla	1525	976	64.0	682	329	48.2	1080	721	66.8	1986	1194	60.1	3188	1884	59.1
Madison	1032	929	90.0	622	563	90.5	867	801	92.4	1484	1343	90.5	1855	1420	76.5
Medlantic	1027	880	85.7	544	448	82.4	782	694	88.7	1367	1157	84.6	2036	1456	71.5
Memphis	1164	866	74.4	663	483	72.9	839	661	78.8	1558	1148	73.7	2250	1249	55.5
Miami	1009	729	72.2	544	387	71.1	500	378	75.6	1377	987	71.7	1254	695	55.4

Table 1.5 (continued)
Extension 2005-2010 Consent Summary by Field Center

Data as of: March 31, 2011

	DM			HT			CaD			CT			OS		
	Eligible	Consent	%	Eligible	Consent	%	Eligible	Consent	%	Eligible	Consent	%	Eligible	Consent	%
Milwaukee	1084	973	89.8	683	589	86.2	953	876	91.9	1531	1352	88.3	2113	1586	75.1
Minneapolis	1262	1097	86.9	793	654	82.5	1045	949	90.8	1877	1606	85.6	2576	1949	75.7
Nevada	980	849	86.6	572	480	83.9	923	816	88.4	1362	1163	85.4	1957	1551	79.3
Newark	1269	1011	79.7	490	393	80.2	836	713	85.3	1600	1277	79.8	2369	1686	71.2
New Brunswick	375	328	87.5	368	330	89.7	436	402	92.2	657	580	88.3	779	651	83.6
NY-City	1223	1003	82.0	698	560	80.2	827	718	86.8	1767	1435	81.2	2710	1526	56.3
Oakland	1022	903	88.4	583	512	87.8	628	577	91.9	1468	1296	88.3	1895	1480	78.1
Pawtucket	1892	1676	88.6	898	780	86.9	1328	1217	91.6	2488	2187	87.9	3395	2685	79.1
Pittsburgh	1096	1005	91.7	595	540	90.8	804	754	93.8	1528	1395	91.3	1733	1381	79.7
Portland	1111	950	85.5	592	524	88.5	827	750	90.7	1523	1323	86.9	2082	1565	75.2
San Antonio	873	621	71.1	658	448	68.1	793	584	73.6	1261	875	69.4	1709	962	56.3
Seattle	1097	904	82.4	686	542	79.0	804	682	84.8	1681	1358	80.8	1515	1070	70.6
Stanford	1226	1071	87.4	633	558	88.2	948	866	91.4	1639	1445	88.2	2465	2045	83.0
Stonybrook	936	801	85.6	473	400	84.6	572	509	89.0	1266	1083	85.5	1915	1467	76.6
Torrance	745	554	74.4	288	206	71.5	507	405	79.9	916	673	73.5	1385	877	63.3
Tucson	1387	1077	77.6	714	508	71.1	1007	816	81.0	1929	1461	75.7	2544	1650	64.9
UC Davis	1358	1135	83.6	642	542	84.4	1033	904	87.5	1790	1488	83.1	2107	1393	66.1
Worcester	1153	1045	90.6	568	514	90.5	833	778	93.4	1553	1408	90.7	2105	1772	84.2
Total	45560	37858	83.1	25194	20433	81.1	34447	29862	86.7	63332	52176	82.4	86744	63231	72.9

Table 1.6
Extension 2010-2015 Consent Summary by Field Center

Data as of: September 16, 2011

	DM			HT			CaD			CT			OS		
	Eligible	Consent	%	Eligible	Consent	%	Eligible	Consent	%	Eligible	Consent	%	Eligible	Consent	%
Atlanta	1015	825	81.3	415	318	76.6	690	574	83.2	1233	986	80	1717	1481	86.3
Bettendorf	369	319	86.4	575	494	85.9	556	485	87.2	855	737	86.2	1044	910	87.2
Birmingham	892	673	75.4	529	389	73.5	707	560	79.2	1233	932	75.6	1238	1000	80.8
Bowman	763	648	84.9	397	332	83.6	511	442	86.5	1024	864	84.4	1466	1249	85.2
Brigham	1358	1178	86.7	629	540	85.9	898	798	88.9	1811	1567	86.5	2215	2023	91.3
Buffalo	918	831	90.5	502	453	90.2	805	734	91.2	1260	1139	90.4	1561	1432	91.7
Chapel Hill	892	785	88	452	383	84.7	618	542	87.7	1187	1033	87	1485	1351	91
Chi-Rush	575	467	81.2	320	244	76.3	544	433	79.6	800	633	79.1	967	847	87.6
Chicago	892	772	86.5	393	337	85.8	627	546	87.1	1173	1007	85.8	1257	1113	88.5
Cincinnati	833	713	85.6	410	328	80	752	649	86.3	1104	928	84.1	1536	1356	88.3
Columbus	835	778	93.2	417	384	92.1	674	633	93.9	1109	1032	93.1	1581	1461	92.4
Des Moines	383	345	90.1	579	501	86.5	602	536	89	879	776	88.3	1031	912	88.5
Detroit	679	596	87.8	332	286	86.1	615	547	88.9	886	773	87.2	1327	1188	89.5
Gainesville	1130	906	80.2	746	574	76.9	760	622	81.8	1680	1322	78.7	2024	1664	82.2
GWU-DC	882	777	88.1	422	361	85.5	701	621	88.6	1173	1024	87.3	1601	1472	91.9
Honolulu	775	648	83.6	265	197	74.3	500	425	85	960	784	81.7	932	780	83.7
Houston	602	522	86.7	255	214	83.9	418	369	88.3	783	669	85.4	1323	1161	87.8
Irvine	886	799	90.2	407	357	87.7	726	655	90.2	1187	1059	89.2	1559	1396	89.5
L.A.	857	780	91	368	325	88.3	747	675	90.4	1125	1019	90.6	1484	1361	91.7
La Jolla	924	832	90	313	271	86.6	683	621	90.9	1129	1006	89.1	1737	1518	87.4
Madison	879	813	92.5	524	471	89.9	759	697	91.8	1262	1153	91.4	1321	1224	92.7
Medlantic	839	682	81.3	415	329	79.3	663	546	82.4	1097	888	80.9	1376	1192	86.6
Memphis	792	624	78.8	425	319	75.1	602	488	81.1	1038	809	77.9	1127	951	84.4
Miami	692	548	79.2	374	272	72.7	363	284	78.2	941	727	77.3	657	580	88.3

Table 1.6 (continued)
Extension 2010-2015 Consent Summary by Field Center

Data as of: September 16, 2011

	DM			HT			CaD			CT			OS		
	Eligible	Consent	%	Eligible	Consent	%	Eligible	Consent	%	Eligible	Consent	%	Eligible	Consent	%
Milwaukee	918	808	88	545	464	85.1	825	739	89.6	1266	1103	87.1	1492	1345	90.1
Minneapolis	1047	936	89.4	620	550	88.7	912	808	88.6	1530	1363	89.1	1847	1666	90.2
Nevada	790	676	85.6	440	365	83	749	650	86.8	1073	906	84.4	1399	1213	86.7
Newark	962	828	86.1	367	306	83.4	678	597	88.1	1208	1033	85.5	1590	1402	88.2
New Brunswick	306	253	82.7	298	228	76.5	371	299	80.6	535	423	79.1	600	527	87.8
NY-City	939	785	83.6	516	393	76.2	678	540	79.6	1337	1082	80.9	1444	1261	87.3
Oakland	852	787	92.4	467	422	90.4	552	516	93.5	1208	1107	91.6	1367	1256	91.9
Pawtucket	1557	1316	84.5	726	591	81.4	1139	973	85.4	2031	1698	83.6	2495	2184	87.5
Pittsburgh	934	830	88.9	476	405	85.1	683	597	87.4	1274	1112	87.3	1281	1126	87.9
Portland	874	754	86.3	477	393	82.4	699	588	84.1	1215	1040	85.6	1475	1309	88.7
San Antonio	587	437	74.4	415	264	63.6	544	387	71.1	818	580	70.9	903	750	83.1
Seattle	851	774	91	502	442	88	635	574	90.4	1268	1140	89.9	984	885	89.9
Stanford	1003	895	89.2	508	448	88.2	808	731	90.5	1342	1190	88.7	1903	1675	88
Stonybrook	753	656	87.1	373	309	82.8	482	423	87.8	1016	872	85.8	1368	1218	89
Torrance	530	449	84.7	194	161	83	385	327	84.9	641	542	84.6	817	724	88.6
Tucson	983	862	87.7	448	363	81	737	631	85.6	1320	1128	85.5	1524	1306	85.7
UC Davis	1058	900	85.1	492	406	82.5	842	712	84.6	1371	1159	84.5	1287	1107	86
Worcester	988	876	88.7	466	392	84.1	735	654	89	1315	1144	87	1667	1475	88.5
Total	35594	30683	86.2	18794	15581	82.9	27975	24228	86.6	48697	41489	85.2	59009	52051	88.2

Table 1.7
Response Rates to CCC Annual Mailings, Extension 2005-2010 Year 1

Data as of: March 31, 2011

	1st Mailing Period				2nd Mailing Period						3rd Mailing Period					
Study	Form	Sent Mail 1	Response		Past 2nd mailing period	Sent Mail 2		Response		Cumulative Response	Past 3rd mailing period	Sent Mail 3		Response		Cumulative Response
Total	33	113981	96606	84.8%	113981	17826	15.6%	8717	48.9%	92.4%	113981	7883	6.9%	2903	36.8%	95.0%
	134	113991	95147	83.5%	113991	19196	16.8%	9588	50.0%	91.9%	113991	8315	7.3%	3042	36.6%	94.6%
	150	20240	15902	78.6%	20240	4496	22.2%	1904	42.4%	88.0%	20240	2247	11.1%	737	32.8%	91.6%
	151	81906	67509	82.4%	81906	14826	18.1%	7200	48.6%	91.2%	81906	6559	8.0%	2374	36.2%	94.1%
HT	33	20235	15886	78.5%	20235	4503	22.3%	1903	42.3%	87.9%	20235	2243	11.1%	734	32.7%	91.5%
	134	20237	15706	77.6%	20237	4680	23.1%	1999	42.7%	87.5%	20237	2311	11.4%	736	31.9%	91.1%
	150	20240	15902	78.6%	20240	4496	22.2%	1904	42.4%	88.0%	20240	2247	11.1%	737	32.8%	91.6%
	151	20241	15874	78.4%	20241	4520	22.3%	1917	42.4%	87.9%	20241	2258	11.2%	747	33.1%	91.6%
DM	33	37611	30715	81.7%	37611	7216	19.2%	3430	47.5%	90.8%	37611	3257	8.7%	1153	35.4%	93.9%
	134	37614	30339	80.7%	37614	7589	20.2%	3648	48.1%	90.4%	37614	3407	9.1%	1189	34.9%	93.5%
	150	6060	4655	76.8%	6060	1473	24.3%	615	41.8%	87.0%	6060	763	12.6%	235	30.8%	90.8%
	151	37618	30564	81.3%	37618	7390	19.6%	3573	48.4%	90.8%	37618	3293	8.8%	1178	35.8%	93.9%
CaD	33	29670	24166	81.5%	29670	5746	19.4%	2673	46.5%	90.5%	29670	2633	8.9%	943	35.8%	93.6%
	134	29673	23898	80.5%	29673	6008	20.3%	2819	46.9%	90.0%	29673	2735	9.2%	964	35.3%	93.3%
	150	12815	10148	79.2%	12815	2771	21.6%	1187	42.8%	88.5%	12815	1365	10.7%	469	34.4%	92.1%
	151	29678	24078	81.1%	29678	5846	19.7%	2756	47.1%	90.4%	29678	2657	9.0%	963	36.2%	93.7%
OS	33	62195	54661	87.9%	62195	7578	12.2%	3991	52.7%	94.3%	62195	3147	5.1%	1251	39.8%	96.3%
	134	62200	53707	86.4%	62200	8447	13.6%	4581	54.2%	93.7%	62200	3375	5.4%	1347	39.9%	95.9%
	151	30107	25724	85.4%	30107	4391	14.6%	2329	53.0%	93.2%	30107	1771	5.9%	683	38.6%	95.5%

Table 1.7 (continued for year 2)
Response Rates to CCC Annual Mailings, Extension 2005-2010 Year 2

Data as of: March 31, 2011

	1st Mailing Period				2nd Mailing Period						3rd Mailing Period					
Study	Form	Sent Mail 1	Response		Past 2nd mailing period	Sent Mail 2		Response		Cumulative Response	Past 3rd mailing period	Sent Mail 3		Response		Cumulative Response
Total	33	112945	95638	84.7%	112945	18499	16.4%	7846	42.4%	91.6%	112945	6282	5.6%	2185	34.8%	93.6%
	134[1]	1414	550	38.9%	1414	778	55.0%	126	16.2%	47.8%	1414	429	30.3%	63	14.7%	52.3%
	150	19782	15708	79.4%	19782	4167	21.1%	1552	37.3%	87.3%	19782	1561	7.9%	468	30.0%	89.6%
	151	112991	95498	84.5%	112991	18693	16.5%	7986	42.7%	91.6%	112991	6323	5.6%	2212	35.0%	93.5%
HT	33	19780	15693	79.3%	19780	4182	21.1%	1564	37.4%	87.2%	19780	1563	7.9%	472	30.2%	89.6%
	134[1]	332	63	19.0%	332	237	71.4%	32	13.5%	28.6%	332	148	44.6%	11	7.4%	31.9%
	150	19782	15708	79.4%	19782	4167	21.1%	1552	37.3%	87.3%	19782	1561	7.9%	468	30.0%	89.6%
	151	19785	15700	79.4%	19785	4195	21.2%	1569	37.4%	87.3%	19785	1567	7.9%	473	30.2%	89.7%
DM	33	36972	30737	83.1%	36972	6651	18.0%	2750	41.4%	90.6%	36972	2229	6.0%	767	34.4%	92.7%
	134[1]	376	87	23.1%	376	249	66.2%	23	9.2%	29.3%	376	144	38.3%	21	14.6%	34.8%
	150	5931	4657	78.5%	5931	1321	22.3%	478	36.2%	86.6%	5931	502	8.5%	154	30.7%	89.2%
	151	36981	30703	83.0%	36981	6703	18.1%	2793	41.7%	90.6%	36981	2238	6.1%	768	34.3%	92.7%
CaD	33	29172	24141	82.8%	29172	5309	18.2%	2139	40.3%	90.1%	29172	1823	6.3%	609	33.4%	92.2%
	134[1]	351	77	21.9%	351	236	67.2%	22	9.3%	28.2%	351	146	41.6%	15	10.3%	32.5%
	150	12538	10066	80.3%	12538	2529	20.2%	958	37.9%	87.9%	12538	940	7.5%	286	30.4%	90.2%
	151	29173	24109	82.6%	29173	5350	18.3%	2165	40.5%	90.1%	29173	1832	6.3%	613	33.5%	92.2%
OS	33	62122	53853	86.7%	62122	8997	14.5%	4017	44.7%	93.2%	62122	2995	4.8%	1102	36.8%	94.9%
	134[1]	805	416	51.7%	805	365	45.3%	79	21.6%	61.5%	805	179	22.2%	32	17.9%	65.5%
	151	62155	53746	86.5%	62155	9125	14.7%	4107	45.0%	93.1%	62155	3025	4.9%	1124	37.2%	94.9%

[1] Required only in Extension Study 2005-2010 Follow-up Year 1. Year 2 and 3 responses reflect data collected from Year 1 non-respondents.

Table 1.7 (continued for year 3)
Response Rates to CCC Annual Mailings, Extension 2005-2010 Year 3

Data as of: March 31, 2011

	1st Mailing Period				2nd Mailing Period						3rd Mailing Period					
Study	Form	Sent Mail 1	Response		Past 2nd mailing period	Sent Mail 2		Response		Cumulative Response	Past 3rd mailing period	Sent Mail 3		Response		Cumulative Response
Total	33	111075	92911	83.7%	111075	17976	16.2%	7626	42.4%	90.5%	111075	8266	7.4%	2608	31.6%	92.9%
	134[1]	237	35	14.8%	237	160	67.5%	8	5.0%	18.1%	237	136	57.4%	11	8.1%	22.8%
	150	19363	15165	78.3%	19363	4012	20.7%	1489	37.1%	86.0%	19363	2018	10.4%	576	28.5%	89.0%
	151	111073	92848	83.6%	111073	18055	16.3%	7676	42.5%	90.5%	111073	8319	7.5%	2643	31.8%	92.9%
HT	33	19367	15144	78.2%	19367	4032	20.8%	1509	37.4%	86.0%	19367	2011	10.4%	575	28.6%	89.0%
	134[1]	81	7	8.6%	81	64	79.0%	2	3.1%	11.1%	81	57	70.4%	4	7.0%	16.1%
	150	19363	15165	78.3%	19363	4012	20.7%	1489	37.1%	86.0%	19363	2018	10.4%	576	28.5%	89.0%
	151	19366	15170	78.3%	19366	4012	20.7%	1492	37.2%	86.0%	19366	2011	10.4%	579	28.8%	89.0%
DM	33	36412	29759	81.7%	36412	6528	17.9%	2682	41.1%	89.1%	36412	3113	8.6%	1012	32.5%	91.9%
	134[1]	79	2	2.5%	79	63	79.8%	3	4.8%	6.3%	79	55	69.6%	5	9.1%	12.7%
	150	5825	4469	76.7%	5825	1292	22.2%	465	36.0%	84.7%	5825	666	11.4%	198	29.7%	88.1%
	151	36411	29757	81.7%	36411	6540	18.0%	2692	41.2%	89.1%	36411	3126	8.6%	1023	32.7%	91.9%
CaD	33	28672	23416	81.7%	28672	5135	17.9%	2130	41.5%	89.1%	28672	2415	8.4%	753	31.2%	91.7%
	134[1]	84	4	4.8%	84	68	81.0%	4	5.9%	9.5%	84	60	71.4%	1	1.7%	10.7%
	150	12278	9743	79.4%	12278	2444	19.9%	918	37.6%	86.8%	12278	1210	9.9%	347	28.7%	89.7%
	151	28671	23427	81.7%	28671	5130	17.9%	2134	41.6%	89.2%	28671	2414	8.4%	754	31.2%	91.8%
OS	33	61123	52467	85.8%	61123	8717	14.3%	3904	44.8%	92.2%	61123	3813	6.2%	1224	32.1%	94.2%
	134[1]	108	27	25.0%	108	60	55.6%	4	6.7%	28.7%	108	49	45.4%	5	10.2%	33.3%
	151	61122	52394	85.7%	61122	8792	14.4%	3951	44.9%	92.2%	61122	3851	6.3%	1243	32.3%	94.2%

[1] Required only in Extension Study 2005-2010 Follow-up Year 1. Year 2 and 3 responses reflect data collected from Year 1 non-respondents.

Table 1.7 (continued for year 4)
Response Rates to CCC Annual Mailings, Extension 2005-2010 Year 4

Data as of: March 31, 2011

Study	Form	1st Mailing Period: Sent Mail 1	1st Mailing Period: Response		2nd Mailing Period: Past 2nd mailing period	2nd Mailing Period: Sent Mail 2		2nd Mailing Period: Response		Cumulative Response	3rd Mailing Period: Past 3rd mailing period	3rd Mailing Period: Sent Mail 3		3rd Mailing Period: Response		Cumulative Response
Total	33	109177	89462	81.9%	109177	19328	17.7%	7970	41.2%	89.2%	109177	8173	7.5%	2640	32.3%	91.7%
	150	18905	14530	76.9%	18905	4187	22.2%	1473	35.2%	84.7%	18905	1855	9.8%	533	28.7%	87.5%
	151	109177	89452	81.9%	109177	19360	17.7%	8034	41.5%	89.3%	109177	8169	7.5%	2693	33.0%	91.8%
HT	33	18905	14495	76.7%	18905	4216	22.3%	1482	35.2%	84.5%	18905	1865	9.9%	531	28.5%	87.3%
	150	18905	14530	76.9%	18905	4187	22.2%	1473	35.2%	84.7%	18905	1855	9.8%	533	28.7%	87.5%
	151	18905	14509	76.8%	18905	4208	22.3%	1494	35.5%	84.7%	18905	1858	9.8%	542	29.2%	87.5%
DM	33	35843	28885	80.6%	35843	6757	18.9%	2706	40.1%	88.1%	35843	2837	7.9%	884	31.2%	90.6%
	150	5724	4349	76.0%	5724	1304	22.8%	464	35.6%	84.1%	5724	553	9.7%	155	28.0%	86.8%
	151	35843	28886	80.6%	35843	6773	18.9%	2725	40.2%	88.2%	35843	2840	7.9%	888	31.3%	90.7%
CaD	33	28196	22665	80.4%	28196	5372	19.1%	2070	38.5%	87.7%	28196	2326	8.3%	705	30.3%	90.2%
	150	12031	9372	77.9%	12031	2551	21.2%	883	34.6%	85.2%	12031	1134	9.4%	322	28.4%	87.9%
	151	28196	22668	80.4%	28196	5374	19.1%	2096	39.0%	87.8%	28196	2318	8.2%	708	30.5%	90.3%
OS	33	60153	50416	83.8%	60153	9670	16.1%	4245	43.9%	90.9%	60153	4032	6.7%	1385	34.4%	93.2%
	151	60153	50401	83.8%	60153	9689	16.1%	4280	44.2%	90.9%	60153	4028	6.7%	1419	35.2%	93.3%

Table 1.7 (continued for year 5)
Response Rates to CCC Annual Mailings, Extension 2005-2010 Year 5

Data as of: March 31, 2011

	1st Mailing Period				2nd Mailing Period						3rd Mailing Period					
Study	Form	Sent Mail 1	Response		Past 2nd mailing period	Sent Mail 2		Response		Cumulative Response	Past 3rd mailing period	Sent Mail 3		Response		Cumulative Response
Total	33	106974	84131	78.7%	106974	21850	20.4%	8329	38.1%	86.4%	106974	9039	8.5%	3098	34.3%	89.3%
	150	18455	13434	72.8%	18455	4634	25.1%	1587	34.3%	81.4%	18455	1805	9.8%	632	32.3%	84.8%
	151	106983	84131	78.6%	106983	21899	20.5%	8401	38.4%	86.5%	106983	9015	8.4%	3120	34.6%	89.4%
HT	33	18450	13404	72.7%	18450	4646	25.2%	1601	34.5%	81.3%	18450	1792	9.7%	619	34.5%	84.7%
	150	18455	13434	72.8%	18455	4634	25.1%	1587	34.3%	81.4%	18455	1805	9.8%	632	35.0%	84.8%
	151	18456	13430	72.8%	18456	4636	25.1%	1600	34.5%	81.4%	18456	1793	9.7%	631	35.2%	84.9%
DM	33	35207	26601	75.6%	35207	8377	23.8%	3183	38.0%	84.6%	35207	3066	8.7%	1133	37.0%	87.8%
	150	5604	4007	71.5%	5604	1476	26.3%	515	34.9%	80.7%	5604	557	9.9%	210	37.7%	84.4%
	151	35213	26598	75.5%	35213	8398	23.9%	3201	38.1%	84.6%	35213	3067	8.7%	1138	37.1%	87.9%
CaD	33	27636	21021	76.1%	27636	6428	23.3%	2385	37.1%	84.7%	27636	2368	8.6%	865	36.5%	87.8%
	150	11736	8685	74.0%	11736	2861	24.4%	993	34.7%	82.5%	11736	1105	9.4%	384	34.8%	85.7%
	151	27639	21028	76.1%	27639	6436	23.3%	2398	37.3%	84.8%	27639	2368	8.6%	876	37.0%	87.9%
OS	33	58920	48124	81.7%	58920	10305	17.5%	4064	39.4%	88.6%	58920	4735	8.0%	1554	32.8%	91.2%
	151	58918	48109	81.7%	58918	10339	17.6%	4117	39.8%	88.6%	58918	4709	8.0%	1560	33.1%	91.3%

Table 1.8
Response Rates to Field Center Follow-up and Cumulative Response--Extension 2005-2010 Study Follow-up Year 1

Data as of: March 31, 2011

Study	Form	Eligible for FC Follow-up	Respondents		Total Estimated Response Rate
Total	33	5436	4983	91.7%	98.3%
	134	6095	4970	81.5%	97.9%
	150	1615	1151	71.3%	96.8%
	151	4876	1668	34.2%	94.7%
HT	33	1543	1327	86.0%	97.5%
	134	1678	1302	77.6%	97.0%
	150	1615	1151	71.3%	96.8%
	151	1632	603	37.0%	94.0%
DM	33	2174	1876	86.3%	98.4%
	134	2365	1839	77.8%	98.0%
	150	541	390	72.1%	96.7%
	151	2282	736	32.3%	95.4%
CaD	33	1718	1478	86.0%	98.2%
	134	1876	1457	77.7%	97.8%
	150	947	673	71.1%	96.9%
	151	1810	622	34.4%	95.4%
OS	33	2242	2230	99.5%	98.4%
	134	2610	2271	87.0%	98.0%
	151	1505	525	34.9%	94.2%

Table 1.8 (continued for year 2)
Response Rates to Field Center Follow-up and Cumulative Response—Extension 2005-2010 Study Follow-up Year 2

Data as of: March 31, 2011

Study	Form	Eligible for FC Follow-up	Respondents		Total Estimated Response Rate
Total	33	7009	6719	95.9%	98.4%
	134[1]	1406	432	30.7%	43.9%
	150	2010	1678	83.5%	96.5%
	151	7450	4539	60.9%	96.5%
HT	33	1944	1838	94.6%	97.3%
	134[1]	393	138	35.1%	36.9%
	150	2010	1678	83.5%	96.5%
	151	2043	1296	63.4%	94.7%
DM	33	2649	2534	95.7%	98.3%
	134[1]	518	173	33.4%	36.6%
	150	633	543	85.8%	96.7%
	151	2804	1749	62.4%	96.2%
CaD	33	2165	2055	94.9%	98.1%
	134[1]	416	151	36.3%	38.7%
	150	1189	993	83.5%	96.7%
	151	2295	1463	63.8%	96.1%
OS	33	3032	2930	96.6%	98.8%
	134[1]	622	168	27.0%	50.7%
	151	3253	1923	59.1%	97.1%

[1] Required only in Extension Study 2005-2010 Follow-up Year 1. Year 2 and 3 responses reflect data collected from Year 1 non-respondents.

Table 1.8 (continued for year 3)
Response Rates to Field Center Follow-up and Cumulative Response--Extension 2005-2010 Study Follow-up Year 3

Data as of: March 31, 2011

Study	Form	Eligible for FC Follow-up	Respondents		Total Estimated Response Rate
Total	33	7760	7421	95.6%	97.9%
	134[1]	1383	108	7.8%	7.7%
	150	2142	1760	82.2%	95.7%
	151	8157	4992	61.2%	95.8%
HT	33	2067	1950	94.3%	96.6%
	134[1]	335	36	10.8%	8.5%
	150	2142	1760	82.2%	95.7%
	151	2164	1311	60.6%	93.5%
DM	33	2893	2770	95.8%	97.8%
	134[1]	462	41	8.9%	7.1%
	150	688	581	84.5%	95.8%
	151	3007	1880	62.5%	95.4%
CaD	33	2300	2167	94.2%	97.6%
	134[1]	368	36	9.8%	7.5%
	150	1261	1049	83.2%	96.0%
	151	2391	1472	61.6%	95.2%
OS	33	3473	3332	95.9%	98.3%
	134[1]	692	45	6.5%	8.2%
	151	3683	2244	60.9%	96.5%

[1] Required only in Extension Study 2005-2010 Follow-up Year 1. Year 2 and 3 responses reflect data collected from Year 1 non-respondents.

Table 1.8 (continued for year 4)
Response Rates to Field Center Follow-up and Cumulative Response--Extension 2005-2010 Study Follow-up Year 4

Data as of: March 31, 2011

Study	Form	Eligible for FC Follow-up	Respondents		Total Estimated Response Rate
Total	33	8877	7577	85.4%	96.6%
	150	2426	1697	70.0%	93.3%
	151	9326	4778	51.2%	94.2%
HT	33	2364	1936	81.9%	94.4%
	150	2426	1697	70.0%	93.3%
	151	2469	1227	49.7%	90.9%
DM	33	3317	2799	84.4%	96.4%
	150	759	570	75.1%	94.0%
	151	3467	1798	51.9%	93.7%
CaD	33	2696	2211	82.0%	96.0%
	150	1467	1029	70.1%	93.7%
	151	2796	1414	50.6%	93.3%
OS	33	3936	3481	88.4%	97.3%
	151	4161	2203	52.9%	95.3%

Table 1.8 (continued for year 5)
Response Rates to Field Center Follow-up and Cumulative Response--Extension Study 2005-2010 Follow-up Year 5

Data as of: March 31, 2011

Study	Form	Eligible for FC Follow-up	Respondents		Total Estimated Response Rate
Total	33	11338	9634	85.0%	95.8%
	150	2937	1873	63.8%	91.2%
	151	12054	4686	38.9%	91.4%
HT	33	2832	2377	83.9%	93.7%
	150	2937	1873	63.8%	91.2%
	151	3017	1076	35.7%	87.1%
DM	33	4246	3619	85.2%	95.7%
	150	902	578	64.1%	91.5%
	151	4490	1787	39.8%	90.6%
CaD	33	3362	2824	84.0%	95.4%
	150	1757	1124	64.0%	91.8%
	151	3532	1347	38.1%	90.3%
OS	33	5134	4363	85.0%	96.5%
	151	5464	2191	40.1%	92.9%

Table 1.9
Extension 2010-2015 Consent Summary by Regional Center

Data as of: September 16, 2011

	DM			HT			CaD			CT			OS		
	Eligible	**Consent**	**%**	**Eligible**	**Consent**	**%**	**Eligible**	**Consent**	**%**	**Eligible**	**Consent**	**%**	**Eligible**	**Consent**	**%**
Boston	3903	3370	86.3	1821	1523	83.6	2772	2425	87.5	5157	4409	85.5	6377	5682	89.1
Buffalo	3878	3353	86.5	2056	1689	82.1	3014	2593	86.0	5356	4549	84.9	6563	5840	89.0
Seattle	1775	1606	90.5	815	713	87.5	1318	1195	90.7	2397	2146	89.5	2721	2403	88.3
Columbus	4053	3538	87.3	2085	1757	84.3	3422	3000	87.7	5452	4703	86.3	6833	6122	89.6
Gainesville	3557	2835	79.7	1902	1464	77.0	2390	1960	82.0	4809	3794	78.9	5574	4681	84.0
Iowa	2678	2413	90.1	2298	2016	87.7	2829	2526	89.3	4526	4029	89.0	5243	4712	89.9
Medstar	1721	1459	84.8	837	690	82.4	1364	1167	85.6	2270	1912	84.2	2977	2664	89.5
Pittsburgh	1613	1426	88.4	808	691	85.5	1298	1144	88.1	2160	1885	87.3	2608	2314	88.7
Stanford	6060	5364	88.5	2913	2512	86.2	4759	4204	88.3	8089	7116	88.0	9892	8828	89.2
Tucson	2548	2186	85.8	1153	925	80.2	1986	1706	85.9	3353	2818	84.0	3855	3299	85.6
Wake Forest	3808	3133	82.3	2106	1601	76.0	2823	2308	81.8	5128	4128	80.5	6366	5506	86.5
Total	35594	30683	86.2	18794	15581	82.9	27975	24228	86.6	48697	41489	85.2	59009	52051	88.2

Table 1.10
Response Rates to CCC Annual Mailings, Extension 2010-2015 Year 1

Data as of: September 16, 2011

		1st Mailing Period			2nd Mailing Period					
Study	**Form**	**Sent Mail 1**	**Response**		**Past 2nd mailing period**	**Sent Mail 2**		**Response**		**Cumulative Response**
Total	33	68041	57408	84.4%	58858	9286	15.8%	3649	39.3%	91.4%
	151	68041	57010	83.8%	58858	9570	16.3%	3904	40.8%	91.2%
HT	33	11535	9394	81.4%	10214	1839	18.0%	678	36.9%	89.1%
	151	11535	9330	80.9%	10214	1890	18.5%	724	38.3%	89.0%
DM	33	22532	18752	83.2%	19794	3295	16.7%	1228	37.3%	90.4%
	151	22532	18629	82.7%	19794	3376	17.1%	1309	38.8%	90.2%
CaD	33	17870	14873	83.2%	15655	2606	16.7%	999	38.3%	90.6%
	151	17870	14768	82.6%	15655	2678	17.1%	1062	39.7%	90.4%
OS	33	37476	32064	85.6%	31971	4750	14.9%	1956	41.2%	92.4%
	151	37476	31835	85.0%	31971	4919	15.4%	2097	42.6%	92.2%

Table 1.11
Response Rates to Regional Center Follow-up and Cumulative Response--Extension Study 2010-2015
Follow-up Year 1

Data as of: September 16, 2011

Study	Form	Eligible for RC Follow-up	Respondents		Total Estimated Response Rate
Total	33	1208	801	66.3	96.0
	151	1254	591	47.1	94.3
HT	33	280	190	67.9	95.2
	151	287	135	47.0	92.7
DM	33	488	318	65.2	95.5
	151	505	233	46.1	93.5
CaD	33	371	253	68.2	95.8
	151	384	185	48.2	93.8
OS	33	537	356	66.3	96.5
	151	562	267	47.5	95.0

Table 1.12
Response Rates to CCC Annual Mailings, Extension 2010-2015 Year 1 by Cohort and Regional Center

Data as of: September 16, 2011

	1st Mailing Period				2nd Mailing Period					
Cohort	Form	Sent Mail 1	Response		Past 2nd mailing period	Sent Mail 2		Response		Cumulative Response
Total	33	68041	57408	84.4%	58858	9286	15.8%	3649	39.3%	91.4%
	151	68041	57010	83.8%	58858	9570	16.3%	3904	40.8%	91.2%
Medical Records Cohort	33	16242	12947	79.7%	14339	2782	19.4%	983	35.3%	87.7%
	151	16242	12855	79.2%	14339	2859	19.9%	1045	36.6%	87.5%
Self-Report Cohort	33	51799	44461	85.8%	44519	6504	14.6%	2666	41.0%	92.5%
	151	51799	44155	85.2%	44519	6711	15.1%	2859	42.6%	92.4%
Regional Center										
Boston	33	7576	6309	83.3%	6424	1347	21.0	471	35.0%	91.0%
	151	7576	6270	82.8%	6424	1399	21.8	491	35.1%	90.7%
Buffalo	33	7326	6098	83.2%	6333	1006	15.9	396	39.4%	90.1%
	151	7326	6064	82.8%	6333	1045	16.5	412	39.4%	90.0%
Seattle	33	3385	2908	85.9%	2972	408	13.7	183	44.9%	92.7%
	151	3385	2880	85.1%	2972	432	14.5	207	47.9%	92.7%
Columbus	33	7862	6678	84.9%	6803	1021	15.0	435	42.6%	92.0%
	151	7862	6631	84.3%	6803	1063	15.6	465	43.7%	91.7%
Gainesville	33	6334	5194	82.0%	5374	915	17.0	345	37.7%	90.1%
	151	6334	5155	81.4%	5374	959	17.9	367	38.3%	89.7%
Iowa	33	6474	5608	86.6%	5726	777	13.6	398	51.2%	94.2%
	151	6474	5578	86.2%	5726	785	13.7	423	53.9%	94.2%
Medstar	33	3197	2652	83.0%	2728	458	16.8	163	35.6%	89.5%
	151	3197	2640	82.6%	2728	473	17.3	165	34.9%	89.3%
Pittsburgh	33	3163	2571	81.3%	2789	515	18.5	228	44.3%	90.0%
	151	3163	2541	80.3%	2789	518	18.6	247	47.7%	89.8%
Stanford	33	11422	9919	86.8%	9849	1325	13.5	504	38.0%	92.7%
	151	11422	9857	86.3%	9849	1341	13.6	547	40.8%	92.5%
Tucson	33	4443	3759	84.6%	3810	625	16.4	190	30.4%	90.7%
	151	4443	3717	83.7%	3810	631	16.6	217	34.4%	90.5%
Wake Forest	33	6859	5712	83.3%	6050	889	14.7	336	37.8%	90.1%
	151	6859	5677	82.8%	6050	924	15.3	363	39.3%	89.9%

Table 1.13
Response Rates to Regional Center Follow-up and Cumulative Response--Extension Study 2010-2015 Follow-up Year 1 by Cohort and Regional Center

Data as of: September 16, 2011

Cohort	Form	Eligible for RC Follow-up	Respondents		Total Estimated Response Rate
Total	33	1208	801	66.3%	96.0%
	151	1254	591	47.1%	94.3%
Medical Records Cohort	33	442	301	68.1%	94.4%
	151	455	228	50.1%	92.0%
Self-Report Cohort	33	766	500	65.3%	96.6%
	151	799	363	45.4%	95.0%
Regional Center					
Boston	33	143	115	80.4%	96.9%
	151	149	103	69.1%	95.7%
Buffalo	33	165	132	80.0%	96.8%
	151	171	108	63.2%	95.0%
Seattle	33	39	27	69.2%	97.2%
	151	39	20	51.3%	95.8%
Columbus	33	126	69	54.8%	95.6%
	151	134	54	40.3%	94.4%
Gainesville	33	105	74	70.5%	95.6%
	151	111	72	64.9%	94.9%
Iowa	33	86	21	24.4%	95.5%
	151	87	3	3.5%	94.3%
Medstar	33	67	61	91.0%	95.9%
	151	67	61	91.0%	95.7%
Pittsburgh	33	85	54	63.5%	94.9%
	151	85	51	60.0%	94.4%
Stanford	33	147	104	70.8%	97.2%
	151	157	26	16.6%	93.3%
Tucson	33	81	46	56.8%	95.3%
	151	88	6	6.8%	90.8%
Wake Forest	33	164	98	59.8%	94.7%
	151	166	87	52.4%	93.8%

Table 2.1
Hormone Therapy Component Age – and Race/Ethnicity

HT Participants	Total Randomized	% of Overall Goal	Distribution	Design Assumption
Age				
Overall	**27,347**			
50-54	3,420	125%	13%	10%
55-59	5,413	99%	20%	20%
60-69	12,360	100%	45%	45%
70-79	6,154	90%	23%	25%
Without Uterus	**10,739**			
50-54	1,396	113%	13%	10%
55-59	1,917	78%	18%	20%
60-69	4,851	88%	45%	45%
70-79	2,575	84%	24%	25%
With Uterus	**16,608**			
50-54	2,024	135%	12%	10%
55-59	3,496	116%	21%	20%
60-69	7,509	111%	45%	45%
70-79	3,579	95%	22%	25%
Race/Ethnicity				
Overall	**27,347**			
American Indian	130		<1%	
Asian	527		2%	
Black	2,738		10%	
Hispanic	1,537		6%	
White	22,030		81%	
Unknown	385		1%	
Without Uterus	**10,739**			
American Indian	75		1%	
Asian	164		2%	
Black	1,616		15%	
Hispanic	651		6%	
White	8,084		75%	
Unknown	149		1%	
With Uterus	**16,608**			
American Indian	55		<1%	
Asian	363		2%	
Black	1,122		7%	
Hispanic	886		5%	
White	13,946		84%	
Unknown	236		1%	

Table 2.2
Lost-to-Follow-up and Vital Status: HT Participants by Hysterectomy Status

Data as of: March 31, 2011; Status as of September 30, 2010
Extension Participants Only

	Without Uterus (N=7,645)		With Uterus (N=12,788)		HT Participants (N=20,433)	
	N	%	N	%	N	%
Vital Status/Participation						
Deceased	667	8.7	1029	8.0	1696	8.3
Alive: Current Participation[1]	6654	87.0	11286	88.3	17940	87.8
Alive: Recent Participation[2]	94	1.2	119	0.9	213	1.0
Alive: Past/Unknown Participation[3]	10	0.1	12	0.1	22	0.1
Stopped Follow-Up[4]	132	1.7	226	1.8	358	1.8
Lost to Follow-Up[5]	88	1.2	116	0.9	204	1.0

Data as of: September 12, 2005
Events through Study Closeout

	Without Uterus (N=10,739)		With Uterus (N=16,608)		HT Participants (N=27,347)	
	N	%	N	%	N	%
Vital Status/Participation						
Deceased	727	6.8	918	5.5	1645	6.0
Alive: Current Participation[6]	9302	86.6	14897	89.7	24199	88.5
Alive: Recent Participation[7]	89	0.8	78	0.5	167	0.6
Alive: Past/Unknown Participation[8]	4	<0.1	4	<0.1	8	<0.1
Stopped Follow-Up[4]	475	4.4	538	3.2	1013	3.7
Lost to Follow-Up[5]	142	1.3	173	1.0	315	1.2

[1] Participants who have filled in a Form 33 within the last 15 months.
[2] Participants who last filled in a Form 33 between 15 and 24 months ago.
[3] Participants without a Form 33 within the last 24 months, who have been located (as indicated on Form 23) within the last 6 months.
[4] Participants with codes 5 (no follow-up) or 8 (absolutely no follow-up) on Form 7 or 9.
[5] Participants not in any of the above categories.
[6] Participants who have filled in a Form 33 within the last 9 months.
[7] Participants who last filled in a Form 33 between 9 and 18 months ago.
[8] Participants without a Form 33 within the last 18 months, who have been located (as indicated on Form 23) within the last 6 months.

Table 2.3
Verified Outcomes (Annualized Percentages) by Age for Hormone Therapy

Data as of: March 31, 2011; Events through September 30, 2010

			Age							
Outcomes	**Total**		**50-54**		**55-59**		**60-69**		**70-79**	
Number randomized	27347		3420		5413		12360		6154	
Mean follow-up (months)	138.3		146.3		143.4		138.5		128.8	
Cardiovascular										
CHD[1]	1644	(0.52%)	84	(0.20%)	178	(0.28%)	760	(0.53%)	622	(0.94%)
CHD death[2]	548	(0.17%)	18	(0.04%)	40	(0.06%)	224	(0.16%)	266	(0.40%)
Total MI[3]	1259	(0.40%)	69	(0.17%)	150	(0.23%)	591	(0.41%)	449	(0.68%)
Clinical MI	1226	(0.39%)	68	(0.16%)	148	(0.23%)	574	(0.40%)	436	(0.66%)
CABG/PTCA	1611	(0.51%)	87	(0.21%)	230	(0.36%)	812	(0.57%)	482	(0.73%)
Carotid artery disease	329	(0.10%)	9	(0.02%)	41	(0.06%)	177	(0.12%)	102	(0.15%)
Stroke	1183	(0.38%)	46	(0.11%)	107	(0.17%)	534	(0.37%)	496	(0.75%)
Non-disabling stroke[4]	647	(0.21%)	35	(0.08%)	75	(0.12%)	284	(0.20%)	253	(0.38%)
Fatal/disabling stroke[4]	470	(0.15%)	8	(0.02%)	25	(0.04%)	216	(0.15%)	221	(0.33%)
Unknown status from stroke[4]	66	(0.02%)	3	(0.01%)	7	(0.01%)	34	(0.02%)	22	(0.03%)
PVD	333	(0.11%)	15	(0.04%)	41	(0.06%)	173	(0.12%)	104	(0.16%)
DVT	626	(0.20%)	44	(0.11%)	89	(0.14%)	292	(0.20%)	201	(0.30%)
Pulmonary embolism	485	(0.15%)	33	(0.08%)	66	(0.10%)	232	(0.16%)	154	(0.23%)
Coronary disease[5]	3509	(1.11%)	195	(0.47%)	435	(0.67%)	1652	(1.16%)	1227	(1.86%)
DVT/PE	889	(0.28%)	56	(0.13%)	120	(0.19%)	432	(0.30%)	281	(0.43%)
Total cardiovascular disease	5453	(1.73%)	303	(0.73%)	670	(1.04%)	2567	(1.80%)	1913	(2.90%)
Cancer										
Breast cancer	1385	(0.44%)	149	(0.36%)	257	(0.40%)	665	(0.47%)	314	(0.48%)
Invasive breast cancer	1120	(0.36%)	113	(0.27%)	211	(0.33%)	525	(0.37%)	271	(0.41%)
Non-invasive breast cancer	280	(0.09%)	37	(0.09%)	49	(0.08%)	148	(0.10%)	46	(0.07%)
Ovarian cancer	123	(0.04%)	9	(0.02%)	24	(0.04%)	66	(0.05%)	24	(0.04%)
Endometrial cancer[6]	164	(0.05%)	18	(0.04%)	35	(0.05%)	76	(0.05%)	35	(0.05%)
Colorectal cancer	464	(0.15%)	30	(0.07%)	56	(0.09%)	225	(0.16%)	153	(0.23%)
Other cancer[7]	2034	(0.65%)	152	(0.36%)	300	(0.46%)	993	(0.70%)	589	(0.89%)
Total cancer	3956	(1.26%)	345	(0.83%)	651	(1.01%)	1906	(1.34%)	1054	(1.60%)
Fractures										
Hip fracture	753	(0.24%)	12	(0.03%)	50	(0.08%)	281	(0.20%)	410	(0.62%)
Deaths										
Cardiovascular deaths	1071	(0.34%)	36	(0.09%)	72	(0.11%)	428	(0.30%)	535	(0.81%)
Cancer deaths	1335	(0.42%)	72	(0.17%)	162	(0.25%)	660	(0.46%)	441	(0.67%)
Other known cause	886	(0.28%)	36	(0.09%)	91	(0.14%)	363	(0.25%)	396	(0.60%)
Unknown cause	77	(0.02%)	6	(0.01%)	17	(0.03%)	25	(0.02%)	29	(0.04%)
Not yet adjudicated	12	(<0.01%)	1	(<0.01%)	0	(0.00%)	3	(<0.01%)	8	(0.01%)
Total death	3381	(1.07%)	151	(0.36%)	342	(0.53%)	1479	(1.04%)	1409	(2.13%)
Death plus post-WHI deaths[8]	3936	(1.17%)	169	(0.37%)	382	(0.55%)	1689	(1.11%)	1696	(2.39%)

[1] "CHD" includes clinical MI, evolving Q-wave MI, and CHD death; Q-wave MI is not collected in the WHI Extension Study.
[2] "CHD death" includes definite and possible CHD death.
[3] "Total MI' includes clinical MI and evolving Q-wave MI; Q-wave MI is not collected in the WHI Extension Study.
[4] Non-disabling stroke includes Glasgow scales 1 and 2; fatal/disabling includes Glasgow scales 3-5 and death within 1 month of stroke; and unknown status includes Glasgow scale 6 and status not yet known.
[5] "Coronary disease" includes clinical MI, evolving Q-wave MI, possible evolving Q-wave MI, CHD death, angina, congestive heart failure, and CABG/PTCA; Q-wave MI, angina, and congestive heart failure are not collected in the WHI Extension Study.
[6] Only women without a baseline hysterectomy are used to compute the annual rates of endometrial cancer.
[7] Only one report of "other cancer" is counted per woman; however, the first of each type is adjudicated. Excludes non-melanoma skin cancer.
[8] Includes deaths for non-Extension study participants after the main WHI study close-out.

Table 2.4
Verified Outcomes (Annualized Percentages) by Race/Ethnicity for Hormone Therapy

Data as of: March 31, 2011; Events through September 30, 2010

Outcomes	Race/Ethnicity: American Indian/ Alaskan Native		Asian/Pacific Islander		Black/African American		Hispanic/ Latino		White		Unknown	
Number randomized	130		527		2738		1537		22030		385	
Mean follow-up (months)	127.2		129.7		134.3		126.4		140.0		131.5	
Cardiovascular												
CHD[1]	5	(0.36%)	21	(0.37%)	156	(0.51%)	42	(0.26%)	1394	(0.54%)	26	(0.62%)
CHD death[2]	2	(0.15%)	8	(0.14%)	74	(0.24%)	11	(0.07%)	447	(0.17%)	6	(0.14%)
Total MI[3]	4	(0.29%)	18	(0.32%)	99	(0.32%)	33	(0.20%)	1082	(0.42%)	23	(0.55%)
Clinical MI	4	(0.29%)	17	(0.30%)	98	(0.32%)	31	(0.19%)	1054	(0.41%)	22	(0.52%)
CABG/PTCA	6	(0.44%)	20	(0.35%)	115	(0.38%)	57	(0.35%)	1391	(0.54%)	22	(0.52%)
Carotid artery disease	1	(0.07%)	2	(0.04%)	13	(0.04%)	4	(0.02%)	306	(0.12%)	3	(0.07%)
Stroke	7	(0.51%)	14	(0.25%)	145	(0.47%)	29	(0.18%)	970	(0.38%)	18	(0.43%)
Non-disabling stroke[4]	4	(0.29%)	8	(0.14%)	81	(0.26%)	18	(0.11%)	529	(0.21%)	7	(0.17%)
Fatal/disabling stroke[4]	3	(0.22%)	6	(0.11%)	53	(0.17%)	7	(0.04%)	393	(0.15%)	8	(0.19%)
Unknown status from stroke[4]	0	(0.00%)	0	(0.00%)	11	(0.04%)	4	(0.02%)	48	(0.02%)	3	(0.07%)
PVD	2	(0.15%)	5	(0.09%)	35	(0.11%)	4	(0.02%)	285	(0.11%)	2	(0.05%)
DVT	4	(0.29%)	4	(0.07%)	67	(0.22%)	10	(0.06%)	538	(0.21%)	3	(0.07%)
Pulmonary embolism	4	(0.29%)	2	(0.04%)	61	(0.20%)	4	(0.02%)	410	(0.16%)	4	(0.09%)
Coronary disease[5]	12	(0.87%)	45	(0.79%)	358	(1.17%)	119	(0.74%)	2924	(1.14%)	51	(1.21%)
DVT/PE	7	(0.51%)	4	(0.07%)	99	(0.32%)	12	(0.07%)	761	(0.30%)	6	(0.14%)
Total cardiovascular disease	24	(1.74%)	64	(1.12%)	575	(1.88%)	158	(0.98%)	4566	(1.78%)	66	(1.56%)
Cancer												
Breast cancer	3	(0.22%)	28	(0.49%)	123	(0.40%)	44	(0.27%)	1172	(0.46%)	15	(0.36%)
Invasive breast cancer	3	(0.22%)	21	(0.37%)	102	(0.33%)	35	(0.22%)	948	(0.37%)	11	(0.26%)
Non-invasive breast cancer	0	(0.00%)	8	(0.14%)	21	(0.07%)	10	(0.06%)	236	(0.09%)	5	(0.12%)
Ovarian cancer	1	(0.07%)	3	(0.05%)	9	(0.03%)	0	(0.00%)	108	(0.04%)	2	(0.05%)
Endometrial cancer[6]	1	(0.08%)	2	(0.03%)	12	(0.04%)	6	(0.04%)	141	(0.05%)	2	(0.05%)
Colorectal cancer	1	(0.07%)	13	(0.23%)	37	(0.12%)	17	(0.11%)	387	(0.15%)	9	(0.21%)
Other cancer[7]	8	(0.58%)	36	(0.63%)	149	(0.49%)	66	(0.41%)	1749	(0.68%)	26	(0.62%)
Total cancer	14	(1.02%)	80	(1.40%)	316	(1.03%)	126	(0.78%)	3370	(1.31%)	50	(1.19%)
Fractures												
Hip fracture	3	(0.22%)	8	(0.14%)	18	(0.06%)	12	(0.07%)	706	(0.27%)	6	(0.14%)
Deaths												
Cardiovascular deaths	5	(0.36%)	14	(0.25%)	139	(0.45%)	20	(0.12%)	883	(0.34%)	10	(0.24%)
Cancer deaths	5	(0.36%)	27	(0.47%)	110	(0.36%)	49	(0.30%)	1128	(0.44%)	16	(0.38%)
Other known cause	5	(0.36%)	11	(0.19%)	66	(0.22%)	19	(0.12%)	774	(0.30%)	11	(0.26%)
Unknown cause	0	(0.00%)	2	(0.04%)	14	(0.05%)	5	(0.03%)	53	(0.02%)	3	(0.07%)
Not yet adjudicated	0	(0.00%)	0	(0.00%)	1	(<0.01%)	0	(0.00%)	11	(<0.01%)	0	(0.00%)
Total Death	15	(1.09%)	54	(0.95%)	330	(1.08%)	93	(0.57%)	2849	(1.11%)	40	(0.95%)
Death plus post-WHI deaths[8]	17	(1.11%)	65	(1.02%)	395	(1.18%)	114	(0.61%)	3293	(1.21%)	52	(1.13%)

[1] "CHD" includes clinical MI, evolving Q-wave MI, and CHD death; Q-wave MI is not collected in the WHI Extension Study.
[2] "CHD death" includes definite and possible CHD death.
[3] "Total MI" includes clinical MI and evolving Q-wave MI; Q-wave MI is not collected in the WHI Extension Study.
[4] Non-disabling stroke includes Glasgow scales 1 and 2; fatal/disabling includes Glasgow scales 3-5 and death within 1 month of stroke; and unknown status includes Glasgow scale 6 and status not yet known.
[5] "Coronary disease" includes clinical MI, evolving Q-wave MI, possible evolving Q-wave MI, CHD death, angina, congestive heart failure, and CABG/PTCA; Q-wave MI, angina, and congestive heart failure are not collected in the WHI Extension Study.
[6] Only women without a baseline hysterectomy are used to compute the annual rates of endometrial cancer.
[7] Only one report of "other cancer" is counted per woman; however, the first of each type is adjudicated. Excludes non-melanoma skin cancer.
[8] Includes deaths for non-Extension study participants after the main WHI study close-out.

Table 2.5
Verified Outcomes (Annualized Percentages) for HT Participants Without and With Uterus

Data as of: March 31, 2011; Events through September 30, 2010

Outcomes	Without Uterus		With Uterus	
Number randomized	10739		16608	
Mean follow-up (months)	135.6		140.0	
Cardiovascular				
CHD[1]	748	(0.62%)	896	(0.46%)
CHD death[2]	268	(0.22%)	280	(0.14%)
Total MI[3]	566	(0.47%)	693	(0.36%)
Clinical MI	551	(0.45%)	675	(0.35%)
CABG/PTCA	724	(0.60%)	887	(0.46%)
Carotid artery disease	163	(0.13%)	166	(0.09%)
Stroke	519	(0.43%)	664	(0.34%)
Non-disabling stroke[4]	267	(0.22%)	380	(0.20%)
Fatal/disabling stroke[4]	218	(0.18%)	252	(0.13%)
Unknown status from stroke[4]	34	(0.03%)	32	(0.02%)
PVD	147	(0.12%)	186	(0.10%)
DVT	258	(0.21%)	368	(0.19%)
Pulmonary embolism	196	(0.16%)	289	(0.15%)
Coronary disease[5]	1645	(1.36%)	1864	(0.96%)
DVT/PE	370	(0.30%)	519	(0.27%)
Total cardiovascular disease	2463	(2.03%)	2990	(1.54%)
Cancer				
Breast cancer	465	(0.38%)	920	(0.47%)
Invasive breast cancer	380	(0.31%)	740	(0.38%)
Non-invasive breast cancer	89	(0.07%)	191	(0.10%)
Ovarian cancer	29	(0.02%)	94	(0.05%)
Endometrial cancer[6]	0	N/A	164	(0.08%)
Colorectal cancer	189	(0.16%)	275	(0.14%)
Other cancer[7]	796	(0.66%)	1238	(0.64%)
Total cancer	1416	(1.17%)	2540	(1.31%)
Fractures				
Hip fracture	271	(0.22%)	482	(0.25%)
Deaths				
Cardiovascular deaths	496	(0.41%)	575	(0.30%)
Cancer deaths	535	(0.44%)	800	(0.41%)
Other known cause	340	(0.28%)	546	(0.28%)
Unknown cause	41	(0.03%)	36	(0.02%)
Not yet adjudicated	6	(<0.01%)	6	(<0.01%)
Total death	1418	(1.17%)	1963	(1.01%)
Death plus post-WHI deaths[8]	1666	(1.27%)	2270	(1.10%)

[1] "CHD" includes clinical MI, evolving Q-wave MI, and CHD death; Q-wave MI is not collected in the WHI Extension Study.
[2] "CHD death" includes definite and possible CHD death.
[3] "Total MI" includes clinical MI and evolving Q-wave MI; Q-wave MI is not collected in the WHI Extension Study.
[4] Non-disabling stroke includes Glasgow scales 1 and 2; fatal/disabling includes Glasgow scales 3-5 and death within 1 month of stroke; and unknown status includes Glasgow scale 6 and status not yet known.
[5] "Coronary disease" includes clinical MI, evolving Q-wave MI, possible evolving Q-wave MI, CHD death, angina, congestive heart failure, and CABG/PTCA; Q-wave MI, angina, and congestive heart failure are not collected in the WHI Extension Study.
[6] Only women without a baseline hysterectomy are used to compute the annual rates of endometrial cancer.
[7] Only one report of "other cancer" is counted per woman; however, the first of each type is adjudicated. Excludes non-melanoma skin cancer.
[8] Includes deaths for non-Extension study participants after the main WHI study close-out.

Table 2.6
Counts (Annualized Percentages) of Participants with Self-Reported Outcomes by Age and Race/Ethnicity for HT Participants Who Did Not Report a Prevalent Condition at Baseline

Data as of: March 31, 2011; Events through September 30, 2010

Outcome	Total		Age 50-54		55-59		60-69		70-79	
Number randomized	27347		3420		5413		12360		6154	
Mean follow-up (months)	138.3		146.3		143.4		138.5		128.8	
Hospitalizations										
Ever	17229	(5.47%)	1578	(3.78%)	2839	(4.39%)	8088	(5.67%)	4724	(7.15%)
Two or more	11215	(3.56%)	834	(2.00%)	1667	(2.58%)	5301	(3.72%)	3413	(5.17%)
Other										
Diabetes (treated)	3391	(1.13%)	489	(1.22%)	691	(1.13%)	1575	(1.17%)	636	(1.02%)
Gallbladder disease[1, 2]	2117	(0.98%)	282	(0.96%)	443	(0.99%)	988	(1.03%)	404	(0.90%)
Hysterectomy	1003	(0.52%)	100	(0.40%)	217	(0.51%)	495	(0.56%)	191	(0.49%)
Glaucoma[2]	3201	(1.30%)	286	(0.86%)	548	(1.07%)	1519	(1.37%)	848	(1.66%)
Osteoporosis[2]	6112	(2.50%)	476	(1.43%)	962	(1.88%)	2954	(2.68%)	1720	(3.46%)
Osteoarthritis[3]	6734	(3.43%)	892	(2.80%)	1421	(3.13%)	3078	(3.59%)	1343	(4.01%)
Rheumatoid arthritis[2]	1697	(0.69%)	211	(0.64%)	341	(0.68%)	763	(0.69%)	382	(0.74%)
Intestinal polyps	5634	(1.92%)	666	(1.65%)	1124	(1.82%)	2778	(2.10%)	1066	(1.83%)
Lupus	385	(0.12%)	44	(0.11%)	79	(0.12%)	178	(0.13%)	84	(0.13%)
Kidney stones[2,3]	769	(0.35%)	94	(0.33%)	143	(0.32%)	346	(0.35%)	186	(0.39%)
Cataracts[2,3]	8648	(4.46%)	505	(1.78%)	1344	(3.06%)	4577	(5.15%)	2222	(6.83%)
Pills for hypertension	9545	(4.23%)	1144	(3.38%)	1918	(3.82%)	4387	(4.41%)	2096	(5.00%)

Outcomes	Race/Ethnicity: Am Indian/ Alaskan Native		Asian/Pacific Islander		Black/African American		Hispanic/ Latino		White		Unknown	
Number randomized	130		527		2738		1537		22030		385	
Mean follow-up (months)	127.2		129.7		134.3		126.4		140.0		131.5	
Hospitalizations												
Ever	80	(5.80%)	249	(4.37%)	1704	(5.56%)	726	(4.48%)	14238	(5.54%)	232	(5.50%)
Two or more	59	(4.28%)	136	(2.39%)	1117	(3.64%)	382	(2.36%)	9371	(3.65%)	150	(3.56%)
Other												
Diabetes (treated)	17	(1.40%)	68	(1.29%)	499	(1.85%)	280	(1.87%)	2477	(1.00%)	50	(1.28%)
Gallbladder disease[1, 2]	13	(1.47%)	32	(0.75%)	187	(0.82%)	129	(1.25%)	1730	(0.99%)	26	(0.91%)
Hysterectomy	4	(0.71%)	10	(0.25%)	69	(0.54%)	49	(0.52%)	858	(0.52%)	13	(0.50%)
Glaucoma[2]	16	(1.48%)	60	(1.33%)	408	(1.75%)	190	(1.44%)	2480	(1.23%)	47	(1.46%)
Osteoporosis[2]	32	(2.91%)	141	(3.13%)	348	(1.43%)	338	(2.65%)	5160	(2.60%)	93	(2.84%)
Osteoarthritis[3]	42	(4.49%)	136	(3.37%)	665	(3.55%)	465	(4.12%)	5325	(3.35%)	101	(3.69%)
Rheumatoid arthritis[2]	15	(1.47%)	30	(0.67%)	272	(1.18%)	219	(1.68%)	1126	(0.56%)	35	(1.07%)
Intestinal polyps	29	(2.28%)	88	(1.71%)	601	(2.10%)	257	(1.66%)	4591	(1.92%)	68	(1.76%)
Lupus	2	(0.15%)	4	(0.07%)	42	(0.14%)	28	(0.17%)	305	(0.12%)	4	(0.10%)
Kidney stones[2, 3]	9	(0.97%)	25	(0.62%)	82	(0.38%)	62	(0.54%)	583	(0.33%)	8	(0.27%)
Cataracts[2, 3]	44	(4.90%)	143	(4.01%)	790	(4.11%)	450	(4.03%)	7108	(4.55%)	113	(4.33%)
Pills for hypertension	54	(5.48%)	169	(4.23%)	817	(5.30%)	557	(4.56%)	7834	(4.12%)	114	(4.07%)

[1] "Gallbladder disease" includes self-reports of both hospitalized and non-hospitalized events.
[2] Data not collected for WHI Extension Study.
[3] These outcomes have not been self-reported on all versions of Form 33 during WHI follow-up. The annualized percentages are corrected for the different amounts of follow-up.

Table 2.7
Selected Medication Use after Stopping of the HT Intervention

Data as of: September 16, 2011

	Without Uterus				With Uterus			
	E-alone		Placebo		E+P		Placebo	
	N	%	N	%	N	%	N	%
Use after stopping but before closeout[1]								
Number due for medication collection					7463		7063	
% missing medication information					20.3%		21.0%	
Estrogen	N/A		N/A		385	6.5	301	5.4
Osteoporosis[2]	N/A		N/A		739	12.4	949	17.0
SERM	N/A		N/A		124	2.1	118	2.1
Use during extension[3]								
Number in extension	3778		3867		6545		6243	
Extension Year 1								
Any prescription hormone	219	6.6	122	3.6	240	4.2	177	3.2
E-alone use	126	3.9	54	1.6	94	1.6	78	1.4
E+P use	14	0.4	15	0.5	97	1.7	36	0.7
Non-prescription (natural) hormone	92	2.8	84	2.5	172	3.0	155	2.8
Osteoporosis[4]	531	16.5	626	19.5	1185	21.4	1341	25.3
SERM	72	2.2	95	2.9	222	3.9	167	3.0
Extension Year 2								
Any prescription hormone	181	5.5	112	3.4	214	3.7	133	2.4
E-alone use	90	2.8	53	1.6	82	1.4	55	1.0
E+P use	16	0.5	13	0.4	61	1.1	31	0.6
Non-prescription (natural) hormone	60	1.8	66	2.0	118	2.0	123	2.2
Osteoporosis[4]	501	15.7	598	18.5	1161	20.8	1298	24.5
SERM	78	2.4	100	3.0	193	3.3	174	3.2
Extension Year 3								
Any prescription hormone	152	4.8	110	3.4	200	3.6	138	2.6
E-alone use	78	2.5	52	1.6	77	1.4	57	1.1
E+P use	14	0.4	11	0.3	47	0.8	31	0.6
Non-prescription (natural) hormone	52	1.6	47	1.4	122	2.2	107	2.0
Osteoporosis[4]	451	14.7	555	17.7	1102	20.3	1207	23.5
SERM	67	2.1	88	2.7	197	3.5	155	2.9
Extension Year 4								
Any prescription hormone	148	5.1	94	3.2	184	3.6	148	3.0
E-alone use	68	2.4	45	1.5	70	1.4	57	1.1
E+P use	13	0.5	8	0.3	52	1.0	28	0.6
Non-prescription (natural) hormone	48	1.6	43	1.4	109	2.1	86	1.7
Osteoporosis[4]	415	14.6	492	17.1	990	19.8	1093	22.8
SERM	62	2.1	73	2.4	158	3.0	151	3.0
Extension Year 5								
Any prescription hormone	130	4.2	103	3.3	186	3.4	136	2.6
E-alone use	60	2.0	48	1.6	81	1.5	56	1.1
E+P use	5	0.2	12	0.4	45	0.8	30	0.6
Non-prescription (natural) hormone	39	1.3	40	1.3	83	1.5	98	1.9
Osteoporosis[4]	376	12.6	481	15.9	917	17.6	1020	20.6
SERM	54	1.7	76	2.4	164	3.0	144	2.8

[1] Collected at annual visits 1, 3, 6, and 9. Insufficient data available on the E-alone participants.
[2] Bisphosphonate or calcitonin.
[3] Use at any time during the extension year.
[4] Bisphosphonate, calcitonin, or PTH.

Table 3.1
Dietary Modification Component Age – and Race/Ethnicity – Specific Recruitment

	Total Randomized	% of Overall Goal	Distribution	Design Assumption
Age	**48,835**			
50-54	6,961	149%	14%	10%
55-59	11,037	118%	23%	20%
60-69	22,715	108%	47%	45%
70-79	8,122	70%	17%	25%
Race/Ethnicity	**48,835**			
American Indian	202		<1%	
Asian	1,105		2%	
Black	5,262		11%	
Hispanic	1,845		4%	
White	39,762		81%	
Unknown	659		1%	

Table 3.2
Lost-to-Follow-up and Vital Status: DM Participants

Data as of: March 31, 2011; Status as of September 30, 2010
Extension Participants Only

	DM Participants (N=37,858)	
	N	%
Vital Status/Participation		
Deceased	2437	6.4
Alive: Current Participation[1]	34436	91.0
Alive: Recent Participation[2]	315	0.8
Alive: Past/Unknown Participation[3]	21	0.1
Stopped Follow-Up[4]	419	1.1
Lost to Follow-Up[5]	230	0.6

Data as of: September 12, 2005
Events through Study Closeout

	DM Participants (N =48,835)	
	N	%
Vital Status/Participation		
Deceased	2404	4.9
Alive: Current Participation[6]	44116	90.3
Alive: Recent Participation[7]	235	0.5
Alive: Past/Unknown Participation[8]	5	<0.1
Stopped Follow-Up[4]	1553	3.2
Lost to Follow-Up[5]	522	1.1

[1] Participants who have filled in a Form 33 within the last 15 months.
[2] Participants who last filled in a Form 33 between 15 and 24 months ago.
[3] Participants without a Form 33 within the last 24 months, who have been located (as indicated on Form 23) within the last 6 months.
[4] Participants with codes 5 (no follow-up) or 8 (absolutely no follow-up) on Form 7 and 9.
[5] Participants not in any of the above categories.
[6] Participants who have filled in a Form 33 within the last 9 months.
[7] Participants who last filled in a Form 33 between 9 and 18 months ago.
[8] Participants without a Form 33 within the last 18 months, who have been located (as indicated on Form 23) within the last 6 months.

Table 3.3
Nutrient Intake Monitoring

Data as of: September 17, 2010

	Intervention			Control			Difference		
	N	Mean	SD	N	Mean	SD	Mean[1]	SE	p-value[2]
% Energy from Fat									
24 Hr Recall, post-baseline	226	23.0	9.2	262	32.1	7.6	9.2	0.8	<.01
24 Hr Recall, Year 3 Cohort	787	24.8	8.5	1183	33.0	7.6	8.3	0.4	<.01
24 Hr Recall, Year 6 Cohort	766	26.6	9.1	1167	33.9	7.8	7.3	0.4	<.01
24 Hr Recall, Year 9 Cohort	154	28.5	8.6	264	35.2	8.4	6.7	0.9	<.01
24 Hr Recall, Ext. Year 1 Cohort	281	30.4	9.4	392	34.4	9.2	4.0	0.7	<.01
24 Hr Recall, Ext. Year 2 Cohort	273	30.8	9.3	377	33.9	8.7	3.1	0.7	<.01
24 Hr Recall, Ext. Combined	554	30.6	9.3	769	34.2	9.0	3.6	0.5	<.01
Total Energy (kcal)									
24 Hr Recall, post-baseline	226	1519.8	418.2	262	1652.8	516.5	133.0	43.0	<.01
24 Hr Recall, Year 3 Cohort	787	1431.8	391.6	1183	1589.9	489.3	158.1	20.8	<.01
24 Hr Recall, Year 6 Cohort	766	1388.8	391.0	1167	1544.2	482.1	155.4	20.8	<.01
24 Hr Recall, Year 9 Cohort	154	1406.7	384.6	264	1516.8	452.9	110.2	43.5	0.02
24 Hr Recall, Ext. Year 1 Cohort	281	1419.1	457.4	392	1578.7	533.7	159.7	39.3	<.01
24 Hr Recall, Ext. Year 2 Cohort	273	1409.4	478.1	377	1505.9	526.5	96.5	40.3	0.03
24 Hr Recall, Ext. Combined	554	1414.3	467.3	769	1543.0	531.0	128.7	28.2	<.01
Total Fat (g)									
24 Hr Recall, post-baseline	226	39.6	21.9	262	60.5	26.9	20.9	2.2	<.01
24 Hr Recall, Year 3 Cohort	787	39.8	18.7	1183	59.9	25.6	20.0	1.1	<.01
24 Hr Recall, Year 6 Cohort	766	41.5	20.0	1167	59.7	26.1	18.1	1.1	<.01
24 Hr Recall, Year 9 Cohort	154	45.1	18.6	264	60.9	26.3	15.9	2.4	<.01
24 Hr Recall, Ext. Year 1 Cohort	281	48.9	24.7	392	62.2	30.9	13.3	2.2	<.01
24 Hr Recall, Ext. Year 2 Cohort	273	49.1	25.0	377	58.4	30.6	9.3	2.3	<.01
24 Hr Recall, Ext. Combined	554	49.0	24.8	769	60.3	30.8	11.3	1.6	<.01
Saturated Fat (g)									
24 Hr Recall, post-baseline	226	12.9	7.9	262	20.1	9.6	7.2	0.8	<.01
24 Hr Recall, Year 3 Cohort	787	12.4	6.8	1183	19.7	9.3	7.3	0.4	<.01
24 Hr Recall, Year 6 Cohort	766	13.1	7.1	1167	19.5	9.7	6.4	0.4	<.01
24 Hr Recall, Year 9 Cohort	154	14.5	6.8	264	20.6	10.2	6.1	0.9	<.01
24 Hr Recall, Ext. Year 1 Cohort	281	15.6	9.3	392	20.8	13.4	5.2	0.9	<.01
24 Hr Recall, Ext. Year 2 Cohort	273	16.0	9.5	377	18.9	10.3	2.9	0.8	<.01
24 Hr Recall, Ext. Combined	554	15.8	9.4	769	19.8	12.0	4.1	0.6	<.01
Polyunsaturated Fat (g)									
24 Hr Recall, post-baseline	226	8.3	5.0	262	12.6	7.3	4.3	0.6	<.01
24 Hr Recall, Year 3 Cohort	787	8.7	4.6	1183	12.2	6.9	3.6	0.3	<.01
24 Hr Recall, Year 6 Cohort	766	8.8	4.6	1167	12.3	6.2	3.5	0.3	<.01
24 Hr Recall, Year 9 Cohort	154	9.6	4.4	264	12.2	5.7	2.7	0.5	<.01
24 Hr Recall, Ext. Year 1 Cohort	281	10.8	7.0	392	13.2	8.3	2.4	0.6	<.01
24 Hr Recall, Ext. Year 2 Cohort	273	11.0	6.4	377	13.3	9.1	2.3	0.6	<.01
24 Hr Recall, Ext. Combined	554	10.9	6.7	769	13.2	8.7	2.3	0.4	<.01

[1] Absolute difference.
[2] P-values based on testing in the natural log scale except for % Energy from fat.

Table 3.4
Verified Outcomes (Annualized Percentages) by Age for Dietary Modification

Data as of: March 31, 2011; Events through September 30, 2010

Outcome	Total		Age 50-54		55-59		60-69		70-79	
Number randomized	48835		6961		11037		22715		8122	
Mean follow-up (months)	143.0		151.9		148.3		141.9		131.4	
Cancer										
Breast cancer	3102	(0.53%)	395	(0.45%)	722	(0.53%)	1472	(0.55%)	513	(0.58%)
Invasive breast cancer	2508	(0.43%)	295	(0.33%)	587	(0.43%)	1200	(0.45%)	426	(0.48%)
Non-invasive breast cancer	635	(0.11%)	105	(0.12%)	144	(0.11%)	289	(0.11%)	97	(0.11%)
Ovarian cancer	272	(0.05%)	30	(0.03%)	51	(0.04%)	138	(0.05%)	53	(0.06%)
Endometrial cancer[1]	449	(0.08%)	56	(0.06%)	111	(0.08%)	217	(0.08%)	65	(0.07%)
Colorectal cancer	760	(0.13%)	51	(0.06%)	134	(0.10%)	371	(0.14%)	204	(0.23%)
Other cancer[2]	3325	(0.57%)	298	(0.34%)	603	(0.44%)	1692	(0.63%)	732	(0.82%)
Total cancer	7437	(1.28%)	788	(0.89%)	1524	(1.12%)	3647	(1.36%)	1478	(1.66%)
Cardiovascular										
CHD[3]	2269	(0.39%)	128	(0.15%)	275	(0.20%)	1092	(0.41%)	774	(0.87%)
CHD death[4]	719	(0.12%)	36	(0.04%)	55	(0.04%)	329	(0.12%)	299	(0.34%)
Total MI[5]	1772	(0.30%)	100	(0.11%)	232	(0.17%)	853	(0.32%)	587	(0.66%)
Clinical MI	1720	(0.30%)	94	(0.11%)	225	(0.16%)	827	(0.31%)	574	(0.65%)
CABG/PTCA	2465	(0.42%)	135	(0.15%)	350	(0.26%)	1358	(0.51%)	622	(0.70%)
Carotid artery disease	435	(0.07%)	21	(0.02%)	59	(0.04%)	232	(0.09%)	123	(0.14%)
Stroke	1845	(0.32%)	89	(0.10%)	207	(0.15%)	882	(0.33%)	667	(0.75%)
PVD	397	(0.07%)	17	(0.02%)	52	(0.04%)	211	(0.08%)	117	(0.13%)
Coronary disease[6]	5148	(0.88%)	299	(0.34%)	701	(0.51%)	2615	(0.97%)	1533	(1.72%)
Total cardiovascular disease	7154	(1.23%)	403	(0.46%)	958	(0.70%)	3588	(1.34%)	2205	(2.48%)
Fractures										
Hip fracture	1040	(0.18%)	22	(0.02%)	73	(0.05%)	453	(0.17%)	492	(0.55%)
Deaths										
Cardiovascular deaths	1456	(0.25%)	61	(0.07%)	113	(0.08%)	622	(0.23%)	660	(0.74%)
Cancer deaths	2047	(0.35%)	133	(0.15%)	299	(0.22%)	1037	(0.39%)	578	(0.65%)
Other known cause	1280	(0.22%)	54	(0.06%)	129	(0.09%)	564	(0.21%)	533	(0.60%)
Unknown cause	103	(0.02%)	5	(0.01%)	12	(0.01%)	60	(0.02%)	26	(0.03%)
Not yet adjudicated	14	(<0.01%)	0	(0.00%)	2	(<0.01%)	7	(<0.01%)	5	(0.01%)
Total death	4900	(0.84%)	253	(0.29%)	555	(0.41%)	2290	(0.85%)	1802	(2.03%)
Death plus post-WHI deaths[7]	5629	(0.91%)	281	(0.30%)	613	(0.42%)	2589	(0.91%)	2146	(2.24%)

[1] Only women without a baseline hysterectomy are used to compute the annual rates of endometrial cancer.
[2] Only one report of "other cancer" is counted per woman; however, the first of each type is adjudicated. Excludes non-melanoma skin cancer.
[3] "CHD" includes clinical MI, evolving Q-wave MI, and CHD death; Q-wave MI is not collected in the WHI Extension Study.
[4] "CHD death" includes definite and possible CHD death.
[5] "Total MI" includes clinical MI and evolving Q-wave MI is not collected in the WHI Extension Study.
[6] "Coronary disease" includes clinical MI, evolving Q-wave MI, possible evolving Q-wave MI, CHD death, angina, congestive heart failure, and CABG/PTCA; Q-wave MI, angina, and congestive heart failure are not collected in the WHI Extension Study.
[7] Includes deaths for non-Extension study participants after the main WHI study close-out.

Table 3.5
Verified Outcomes (Annualized Percentages) by Race/Ethnicity for Dietary Modification

Data as of: March 31, 2011; Events through September 30, 2010

Outcome	Race/Ethnicity: American Indian/Alaskan Native		Asian/Pacific Islander		Black/African American		Hispanic/ Latino		White		Unknown	
Number randomized	202		1105		5262		1845		39762		659	
Mean follow-up (months)	134.5		138.2		136.3		129.4		144.9		133.9	
Cancer												
Breast cancer	7	(0.31%)	70	(0.55%)	267	(0.45%)	74	(0.37%)	2650	(0.55%)	34	(0.46%)
Invasive breast cancer	5	(0.22%)	54	(0.42%)	203	(0.34%)	59	(0.30%)	2159	(0.45%)	28	(0.38%)
Non-invasive breast cancer	2	(0.09%)	17	(0.13%)	68	(0.11%)	17	(0.09%)	524	(0.11%)	7	(0.10%)
Ovarian cancer	1	(0.04%)	7	(0.05%)	19	(0.03%)	9	(0.05%)	233	(0.05%)	3	(0.04%)
Endometrial cancer[1]	0	(0.00%)	5	(0.04%)	28	(0.05%)	9	(0.04%)	401	(0.08%)	6	(0.08%)
Colorectal cancer	5	(0.22%)	12	(0.09%)	87	(0.15%)	22	(0.11%)	625	(0.13%)	9	(0.12%)
Other cancer[2]	6	(0.26%)	50	(0.39%)	255	(0.43%)	67	(0.34%)	2907	(0.61%)	40	(0.54%)
Total cancer	17	(0.75%)	134	(1.05%)	616	(1.03%)	168	(0.84%)	6418	(1.34%)	84	(1.14%)
Cardiovascular												
CHD[3]	4	(0.18%)	28	(0.22%)	241	(0.40%)	41	(0.21%)	1925	(0.40%)	30	(0.41%)
CHD death[4]	0	(0.00%)	6	(0.05%)	102	(0.17%)	14	(0.07%)	583	(0.12%)	14	(0.19%)
Total MI[5]	4	(0.18%)	25	(0.20%)	166	(0.28%)	32	(0.16%)	1523	(0.32%)	22	(0.30%)
Clinical MI	4	(0.18%)	25	(0.20%)	161	(0.27%)	31	(0.16%)	1478	(0.31%)	21	(0.29%)
CABG/PTCA	8	(0.35%)	22	(0.17%)	221	(0.37%)	57	(0.29%)	2133	(0.44%)	24	(0.33%)
Carotid artery disease	2	(0.09%)	1	(0.01%)	29	(0.05%)	4	(0.02%)	393	(0.08%)	6	(0.08%)
Stroke	6	(0.26%)	28	(0.22%)	243	(0.41%)	44	(0.22%)	1499	(0.31%)	25	(0.34%)
PVD	3	(0.13%)	3	(0.02%)	78	(0.13%)	6	(0.03%)	301	(0.06%)	6	(0.08%)
Coronary disease[6]	17	(0.75%)	61	(0.48%)	612	(1.02%)	126	(0.63%)	4269	(0.89%)	63	(0.86%)
Total cardiovascular disease	27	(1.19%)	91	(0.71%)	860	(1.44%)	175	(0.88%)	5911	(1.23%)	90	(1.22%)
Fractures												
Hip fracture	2	(0.09%)	11	(0.09%)	27	(0.05%)	15	(0.08%)	976	(0.20%)	9	(0.12%)
Deaths												
Cardiovascular deaths	4	(0.18%)	18	(0.14%)	207	(0.35%)	25	(0.13%)	1184	(0.25%)	18	(0.24%)
Cancer deaths	8	(0.35%)	27	(0.21%)	177	(0.30%)	51	(0.26%)	1755	(0.37%)	29	(0.39%)
Other known cause	11	(0.49%)	11	(0.09%)	131	(0.22%)	27	(0.14%)	1085	(0.23%)	15	(0.20%)
Unknown cause	0	(0.00%)	3	(0.02%)	19	(0.03%)	6	(0.03%)	73	(0.02%)	2	(0.03%)
Not yet adjudicated	0	(0.00%)	0	(0.00%)	1	(<0.01%)	0	(0.00%)	13	(<0.01%)	0	(0.00%)
Total death	23	(1.02%)	59	(0.46%)	535	(0.90%)	109	(0.55%)	4110	(0.86%)	64	(0.87%)
Death plus post-WHI deaths[7]	31	(1.25%)	76	(0.55%)	636	(0.97%)	126	(0.55%)	4682	(0.92%)	78	(0.97%)

[1] Only women without a baseline hysterectomy are used to compute the annual rates of endometrial cancer.
[2] Only one report of "other cancer" is counted per woman; however, the first of each type is adjudicated. Excludes non-melanoma skin cancer.
[3] "CHD" includes clinical MI, evolving Q-wave MI, and CHD death; Q-wave MI is not collected in the WHI Extension Study.
[4] "CHD death" includes definite and possible CHD death.
[5] "Total MI" includes clinical MI and evolving Q-wave MI; Q-wave MI is not collected in the WHI Extension Study.
[6] "Coronary disease" includes clinical MI, evolving Q-wave MI, possible evolving Q-wave MI, CHD death, angina, congestive heart failure, and CABG/PTCA; Q-wave MI, angina, and congestive heart failure are not collected in the WHI Extension Study.
[7] Includes deaths for non-Extension study participants after the main WHI study close-out.

Table 3.6
Counts (Annualized Percentages) of Participants with Self-Reported Outcomes by Age and Race/Ethnicity for DM Participants Who Did Not Report a Prevalent Condition at Baseline

Data as of: March 31, 2011; Events through September 30, 2010

Outcome	Total	Age 50-54	55-59	60-69	70-79
Number randomized	48835	6961	11037	22715	8122
Mean follow-up (months)	143.0	151.9	148.3	141.9	131.4
Hospitalizations					
Ever	30329 (5.21%)	3287 (3.73%)	5941 (4.35%)	14858 (5.53%)	6243 (7.02%)
Two or more	19317 (3.32%)	1694 (1.92%)	3423 (2.51%)	9722 (3.62%)	4478 (5.04%)
Other					
DVT[1]	825 (0.15%)	54 (0.06%)	124 (0.09%)	411 (0.16%)	236 (0.28%)
Pulmonary embolism	628 (0.11%)	50 (0.06%)	93 (0.07%)	332 (0.12%)	153 (0.17%)
Diabetes (treated)	5777 (1.03%)	859 (1.00%)	1338 (1.02%)	2708 (1.06%)	872 (1.03%)
Gallbladder disease[2, 3]	3830 (0.98%)	573 (0.91%)	902 (0.97%)	1802 (1.02%)	553 (0.93%)
Hysterectomy	2101 (0.63%)	306 (0.61%)	517 (0.62%)	1009 (0.67%)	269 (0.56%)
Glaucoma[3]	5315 (1.18%)	567 (0.81%)	1098 (1.03%)	2587 (1.25%)	1063 (1.56%)
Osteoporosis[3]	10218 (2.31%)	1128 (1.62%)	1968 (1.86%)	5020 (2.49%)	2102 (3.19%)
Osteoarthritis[4]	12915 (3.58%)	2034 (3.07%)	3111 (3.31%)	5899 (3.76%)	1871 (4.22%)
Rheumatoid arthritis[3]	2848 (0.63%)	399 (0.58%)	631 (0.60%)	1319 (0.64%)	499 (0.71%)
Intestinal polyps	10918 (2.02%)	1561 (1.83%)	2602 (2.01%)	5285 (2.14%)	1470 (1.86%)
Lupus	666 (0.11%)	99 (0.11%)	153 (0.11%)	323 (0.12%)	91 (0.10%)
Kidney stones[3, 4]	1319 (0.34%)	175 (0.30%)	281 (0.31%)	654 (0.36%)	209 (0.33%)
Cataracts[3, 4]	15480 (4.32%)	1157 (1.98%)	2858 (3.17%)	8460 (5.12%)	3005 (6.83%)
Pills for hypertension	16470 (4.03%)	2261 (3.18%)	3804 (3.69%)	7804 (4.31%)	2601 (4.90%)

Outcomes	Race/Ethnicity: Am Indian/ Alaskan Native	Asian/Pacific Islander	Black/African American	Hispanic/ Latino	White	Unknown
Number randomized	202	1105	5262	1845	39762	659
Mean follow-up (months)	134.5	138.2	136.3	129.4	144.9	133.9
Hospitalizations						
Ever	114 (5.03%)	498 (3.91%)	3138 (5.25%)	898 (4.51%)	25308 (5.27%)	373 (5.07%)
Two or more	74 (3.27%)	258 (2.03%)	2017 (3.37%)	513 (2.58%)	16233 (3.38%)	222 (3.02%)
Other						
DVT1	3 (0.14%)	2 (0.02%)	95 (0.16%)	16 (0.08%)	697 (0.15%)	12 (0.17%)
Pulmonary embolism	4 (0.18%)	1 (0.01%)	74 (0.13%)	9 (0.05%)	533 (0.11%)	7 (0.10%)
Diabetes (treated)	29 (1.38%)	142 (1.18%)	965 (1.81%)	283 (1.51%)	4274 (0.92%)	84 (1.20%)
Gallbladder disease[1, 3]	14 (1.05%)	60 (0.65%)	304 (0.70%)	152 (1.22%)	3250 (1.01%)	50 (0.98%)
Hysterectomy	6 (0.57%)	35 (0.43%)	140 (0.52%)	65 (0.61%)	1841 (0.66%)	14 (0.33%)
Glaucoma[3]	30 (1.68%)	108 (1.10%)	762 (1.67%)	201 (1.26%)	4150 (1.11%)	64 (1.14%)
Osteoporosis[3]	43 (2.41%)	272 (2.82%)	678 (1.44%)	409 (2.67%)	8676 (2.39%)	140 (2.53%)
Osteoarthritis[4]	52 (3.95%)	305 (3.30%)	1304 (3.62%)	530 (3.90%)	10538 (3.55%)	186 (4.06%)
Rheumatoid arthritis[3]	23 (1.38%)	49 (0.50%)	505 (1.10%)	222 (1.42%)	1998 (0.54%)	51 (0.90%)
Intestinal polyps	56 (2.65%)	232 (1.99%)	1205 (2.16%)	354 (1.87%)	8925 (2.00%)	146 (2.16%)
Lupus	5 (0.22%)	10 (0.08%)	97 (0.16%)	23 (0.12%)	519 (0.11%)	12 (0.16%)
Kidney stones[3, 4]	9 (0.60%)	27 (0.31%)	137 (0.33%)	58 (0.42%)	1071 (0.33%)	17 (0.34%)
Cataracts[3, 4]	61 (4.44%)	306 (3.87%)	1509 (3.99%)	537 (4.04%)	12863 (4.39%)	204 (4.45%)
Pills for hypertension	62 (4.20%)	348 (4.05%)	1578 (5.24%)	649 (4.40%)	13635 (3.91%)	198 (3.98%)

[1] Inpatient DVT only.
[2] "Gallbladder disease" includes self-reports of both hospitalized and non-hospitalized events.
[3] Data not collected for WHI Extension Study.
[4] These outcomes have not been self-reported on all versions of Form 33 during WHI follow-up. The annualized percentages are corrected for the different amounts of follow-up.

Table 4.1
Calcium and Vitamin D Component Age – and Race/Ethnicity – Specific Recruitment

	Total Randomized	% of Overall Goal	Distribution	Design Assumption
Age	**36,282**			
50-54	5,153	118%	14%	10%
55-59	8,269	95%	23%	20%
60-69	16,519	84%	46%	45%
70-79	6,341	58%	17%	25%
Race/Ethnicity	**36,282**			
American Indian	149		<1%	
Asian	721		2%	
Black	3,315		9%	
Hispanic	1,502		4%	
White	30,155		83%	
Unknown	440		1%	

Table 4.2
Lost-to-Follow-up and Vital Status: CaD Participants

Data as of: March 31, 2011; Status as of September 30, 2010
Extension Participants Only

	CaD Participants (N = 29,862)	
	N	%
Vital Status/Participation		
Deceased	2014	6.7
Alive: Current Participation[1]	27007	90.4
Alive: Recent Participation[2]	248	0.8
Alive: Past/Unknown Participation[3]	18	0.1
Stopped Follow-Up[4]	369	1.2
Lost to Follow-Up[5]	206	0.7

Data as of: September 12, 2005
Events through Study Closeout

	CaD Participants (N = 36,282)	
	N	%
Vital Status/Participation		
Deceased	1551	4.3
Alive: Current Participation[6]	32652	90.0
Alive: Recent Participation[7]	1099	3.0
Alive: Past/Unknown Participation[8]	27	0.1
Stopped Follow-Up[4]	684	1.9
Lost to Follow-Up[5]	269	0.7

[1] Participants who have filled in a Form 33 within the last 15 months.
[2] Participants who last filled in a Form 33 between 15 and 24 months ago.
[3] Participants without a Form 33 within the last 24 months, who have been located (as indicated on Form 23) within the last 6 months.
[4] Participants with codes 5 (no follow-up) or 8 (absolutely no follow-up) on Form 7 or 9.
[5] Participants not in any of the above categories.
[6] Participants who have filled in a Form 33 within the last 9 months.
[7] Participants who last filled in a Form 33 between 9 and 18 months ago.
[8] Participants without a Form 33 within the last 18 months, who have been located (as indicated on Form 23) within the last 6 months.

Table 4.3
Verified Outcomes (Annualized Percentages) by Age for Calcium and Vitamin D

Data as of: March 31, 2011; Events through September 30, 2010

Outcome	Total		Age 50-54		55-59		60-69		70-79	
Number randomized	36282		5153		8269		16519		6341	
Mean follow-up (months)	133.2		140.6		138.1		132.2		123.1	
Fractures										
Hip fracture	795	(0.20%)	17	(0.03%)	74	(0.08%)	318	(0.17%)	386	(0.59%)
Cancer										
Colorectal cancer	538	(0.13%)	39	(0.06%)	82	(0.09%)	263	(0.14%)	154	(0.24%)
Breast cancer	2077	(0.52%)	261	(0.43%)	491	(0.52%)	977	(0.54%)	348	(0.53%)
Invasive breast cancer	1667	(0.41%)	195	(0.32%)	399	(0.42%)	785	(0.43%)	288	(0.44%)
Non-invasive breast cancer	438	(0.11%)	67	(0.11%)	97	(0.10%)	204	(0.11%)	70	(0.11%)
Ovarian cancer	186	(0.05%)	21	(0.03%)	44	(0.05%)	88	(0.05%)	33	(0.05%)
Endometrial cancer[1]	291	(0.07%)	39	(0.06%)	73	(0.08%)	129	(0.07%)	50	(0.08%)
Other cancer[2]	2380	(0.59%)	202	(0.33%)	417	(0.44%)	1206	(0.66%)	555	(0.85%)
Total cancer	5177	(1.29%)	541	(0.90%)	1058	(1.11%)	2503	(1.38%)	1075	(1.65%)
Cardiovascular										
CHD[3]	1725	(0.43%)	90	(0.15%)	214	(0.22%)	823	(0.45%)	598	(0.92%)
CHD death[4]	533	(0.13%)	22	(0.04%)	47	(0.05%)	218	(0.12%)	246	(0.38%)
Total MI[5]	1348	(0.33%)	73	(0.12%)	174	(0.18%)	669	(0.37%)	432	(0.66%)
Clinical MI	1299	(0.32%)	69	(0.11%)	169	(0.18%)	645	(0.35%)	416	(0.64%)
CABG/PTCA	1852	(0.46%)	105	(0.17%)	268	(0.28%)	995	(0.55%)	484	(0.74%)
Carotid artery disease	348	(0.09%)	15	(0.02%)	49	(0.05%)	193	(0.11%)	91	(0.14%)
Stroke	1351	(0.34%)	67	(0.11%)	156	(0.16%)	626	(0.34%)	502	(0.77%)
PVD	325	(0.08%)	11	(0.02%)	48	(0.05%)	164	(0.09%)	102	(0.16%)
Coronary disease[6]	3803	(0.94%)	218	(0.36%)	537	(0.56%)	1891	(1.04%)	1157	(1.78%)
Total cardiovascular disease	5321	(1.32%)	299	(0.50%)	738	(0.78%)	2614	(1.44%)	1670	(2.57%)
Deaths										
Cardiovascular deaths	1074	(0.27%)	42	(0.07%)	89	(0.09%)	440	(0.24%)	503	(0.77%)
Cancer deaths	1486	(0.37%)	103	(0.17%)	215	(0.23%)	757	(0.42%)	411	(0.63%)
Other known cause	957	(0.24%)	41	(0.07%)	102	(0.11%)	418	(0.23%)	396	(0.61%)
Unknown cause	70	(0.02%)	3	(<0.01%)	13	(0.01%)	35	(0.02%)	19	(0.03%)
Not yet adjudicated	11	(<0.01%)	1	(<0.01%)	0	(0.00%)	3	(<0.01%)	7	(0.01%)
Total death	3598	(0.89%)	190	(0.31%)	419	(0.44%)	1653	(0.91%)	1336	(2.05%)
Death plus post-WHI deaths[7]	4030	(0.96%)	210	(0.33%)	456	(0.46%)	1825	(0.97%)	1539	(2.27%)

[1] Only women without a baseline hysterectomy are used to compute the annual rates of endometrial cancer.
[2] Only one report of "other cancer" is counted per woman; however, the first of each type is adjudicated. Excludes non-melanoma skin cancer.
[3] "CHD" includes clinical MI, evolving Q-wave MI, and CHD death; Q-wave MI is not collected in the WHI Extension Study.
[4] "CHD death" includes definite and possible CHD death.
[5] "Total MI" includes clinical MI and evolving Q-wave MI; Q-wave MI is not collected in the WHI Extension Study.
[6] "Coronary disease" includes clinical MI, evolving Q-wave MI, possible evolving Q-wave MI, CHD death, angina, congestive heart failure, and CABG/PTCA; Q-wave MI, angina, and congestive heart failure are not collected in the WHI Extension Study.
[7] Includes deaths for non-Extension study participants after the main WHI study close-out.

Table 4.4
Verified Outcomes (Annualized Percentages) by Race/Ethnicity for Calcium and Vitamin D

Data as of: March 31, 2011; Events through September 30, 2010

	Race/Ethnicity											
Outcome	**American Indian/Alaskan Native**		**Asian/Pacific Islander**		**Black/African American**		**Hispanic/ Latino**		**White**		**Unknown**	
Number randomized	149		721		3315		1502		30155		440	
Mean follow-up (months)	126.4		127.0		127.8		122.4		134.6		123.9	
Fractures												
Hip fracture	3	(0.19%)	10	(0.13%)	14	(0.04%)	8	(0.05%)	758	(0.22%)	2	(0.04%)
Cancer												
Colorectal cancer	2	(0.13%)	9	(0.12%)	54	(0.15%)	15	(0.10%)	451	(0.13%)	7	(0.15%)
Breast cancer	4	(0.25%)	40	(0.52%)	164	(0.46%)	52	(0.34%)	1797	(0.53%)	20	(0.44%)
Invasive breast cancer	3	(0.19%)	29	(0.38%)	127	(0.36%)	42	(0.27%)	1448	(0.43%)	18	(0.40%)
Non-invasive breast cancer	1	(0.06%)	13	(0.17%)	40	(0.11%)	12	(0.08%)	369	(0.11%)	3	(0.07%)
Ovarian cancer	0	(0.00%)	7	(0.09%)	12	(0.03%)	6	(0.04%)	159	(0.05%)	2	(0.04%)
Endometrial cancer[1]	1	(0.07%)	4	(0.05%)	14	(0.04%)	6	(0.04%)	262	(0.08%)	4	(0.09%)
Other cancer[2]	6	(0.38%)	38	(0.50%)	156	(0.44%)	52	(0.34%)	2105	(0.62%)	23	(0.51%)
Total cancer	12	(0.76%)	92	(1.21%)	380	(1.08%)	123	(0.80%)	4516	(1.34%)	54	(1.19%)
Cardiovascular												
CHD[3]	5	(0.32%)	14	(0.18%)	155	(0.44%)	36	(0.24%)	1492	(0.44%)	23	(0.51%)
CHD death[4]	1	(0.06%)	3	(0.04%)	63	(0.18%)	10	(0.07%)	446	(0.13%)	10	(0.22%)
Total MI[5]	5	(0.32%)	13	(0.17%)	104	(0.29%)	30	(0.20%)	1177	(0.35%)	19	(0.42%)
Clinical MI	5	(0.32%)	13	(0.17%)	101	(0.29%)	29	(0.19%)	1133	(0.33%)	18	(0.40%)
CABG/PTCA	5	(0.32%)	17	(0.22%)	138	(0.39%)	58	(0.38%)	1609	(0.48%)	25	(0.55%)
Carotid artery disease	1	(0.06%)	1	(0.01%)	20	(0.06%)	4	(0.03%)	317	(0.09%)	5	(0.11%)
Stroke	8	(0.51%)	23	(0.30%)	139	(0.39%)	32	(0.21%)	1130	(0.33%)	19	(0.42%)
PVD	2	(0.13%)	5	(0.07%)	47	(0.13%)	3	(0.02%)	265	(0.08%)	3	(0.07%)
Coronary disease[6]	11	(0.70%)	38	(0.50%)	375	(1.06%)	111	(0.72%)	3221	(0.95%)	47	(1.03%)
Total cardiovascular disease	19	(1.21%)	62	(0.81%)	531	(1.50%)	147	(0.96%)	4495	(1.33%)	67	(1.47%)
Deaths												
Cardiovascular deaths	3	(0.19%)	13	(0.17%)	129	(0.37%)	22	(0.14%)	893	(0.26%)	14	(0.31%)
Cancer deaths	2	(0.13%)	25	(0.33%)	110	(0.31%)	42	(0.27%)	1289	(0.38%)	18	(0.40%)
Other known cause	8	(0.51%)	9	(0.12%)	77	(0.22%)	15	(0.10%)	840	(0.25%)	8	(0.18%)
Unknown cause	0	(0.00%)	4	(0.05%)	11	(0.03%)	5	(0.03%)	49	(0.01%)	1	(0.02%)
Not yet adjudicated	0	(0.00%)	0	(0.00%)	1	(<0.01%)	0	(0.00%)	10	(<0.01%)	0	(0.00%)
Total death	13	(0.83%)	51	(0.67%)	328	(0.93%)	84	(0.55%)	3081	(0.91%)	41	(0.90%)
Death plus post-WHI deaths[7]	16	(0.97%)	59	(0.73%)	380	(1.02%)	98	(0.59%)	3425	(0.98%)	52	(1.08%)

[1] Only women without a baseline hysterectomy are used to compute the annual rates of endometrial cancer.
[2] Only one report of "other cancer" is counted per woman; however, the first of each type is adjudicated. Excludes non-melanoma skin cancer.
[3] "CHD" includes clinical MI, evolving Q-wave MI, and CHD death; Q-wave MI is not collected in the WHI Extension Study.
[4] "CHD death" includes definite and possible CHD death.
[5] "Total MI" includes clinical MI and evolving Q-wave MI; Q-wave MI is not collected in the WHI Extension Study.
[6] "Coronary disease" includes clinical MI, evolving Q-wave MI, possible evolving Q-wave MI, CHD death, angina, congestive heart failure, and CABG/PTCA; Q-wave MI, angina, and congestive heart failure are not collected in the WHI Extension Study.
[7] Includes deaths for non-Extension study participants after the main WHI study close-out.

Table 4.5
Counts (Annualized Percentages) of Participants with Self-Reported Outcomes by Age and Race/Ethnicity for CaD Participants Who Did Not Report a Prevalent Condition at Baseline

Data as of: March 31, 2011; Events through September 30, 2010

Outcome	Total		Age 50-54		55-59		60-69		70-79	
Number randomized	36282		5153		8269		16519		6341	
Mean follow-up (months)	133.2		140.6		138.1		132.2		123.1	
Hospitalizations										
Ever	21891	(5.44%)	2305	(3.82%)	4288	(4.51%)	10524	(5.78%)	4774	(7.34%)
Two or more	13499	(3.35%)	1114	(1.84%)	2414	(2.54%)	6654	(3.66%)	3317	(5.10%)
Other										
DVT[1]	606	(0.15%)	39	(0.07%)	97	(0.10%)	284	(0.16%)	186	(0.30%)
Pulmonary embolism	457	(0.11%)	38	(0.06%)	77	(0.08%)	239	(0.13%)	103	(0.16%)
Diabetes (treated)	4320	(1.12%)	659	(1.12%)	982	(1.07%)	2007	(1.15%)	672	(1.09%)
Gallbladder disease[2, 3]	2484	(0.91%)	367	(0.85%)	602	(0.92%)	1156	(0.96%)	359	(0.82%)
Hysterectomy	1402	(0.59%)	189	(0.54%)	361	(0.61%)	662	(0.62%)	190	(0.52%)
Glaucoma[3]	3725	(1.20%)	400	(0.83%)	769	(1.03%)	1771	(1.27%)	785	(1.58%)
Osteoporosis[3]	7130	(2.31%)	733	(1.53%)	1361	(1.84%)	3450	(2.50%)	1586	(3.26%)
Osteoarthritis[4]	9313	(3.69%)	1439	(3.17%)	2226	(3.38%)	4210	(3.90%)	1438	(4.33%)
Rheumatoid arthritis[3]	1876	(0.60%)	267	(0.57%)	435	(0.59%)	833	(0.60%)	341	(0.67%)
Intestinal polyps	7772	(2.07%)	1120	(1.92%)	1824	(2.01%)	3692	(2.19%)	1136	(1.96%)
Lupus	485	(0.12%)	70	(0.12%)	115	(0.12%)	213	(0.12%)	87	(0.13%)
Kidney stones[3, 4]	819	(0.29%)	111	(0.27%)	180	(0.28%)	383	(0.30%)	145	(0.31%)
Cataracts[3, 4]	11117	(4.50%)	818	(2.04%)	2094	(3.33%)	5934	(5.30%)	2271	(7.08%)
Pills for hypertension	12567	(4.35%)	1722	(3.48%)	2917	(3.97%)	5817	(4.63%)	2111	(5.23%)

Outcomes	Race/Ethnicity: American Indian/ Alaskan Native		Asian/Pacific Islander		Black/African American		Hispanic/ Latino		White		Unknown	
Number randomized	149		721		3315		1502		30155		440	
Mean follow-up (months)	126.4		127.0		127.8		122.4		134.6		123.9	
Hospitalizations												
Ever	82	(5.22%)	328	(4.30%)	1944	(5.50%)	690	(4.50%)	18593	(5.50%)	254	(5.59%)
Two or more	55	(3.50%)	172	(2.25%)	1217	(3.45%)	358	(2.34%)	11541	(3.41%)	156	(3.43%)
Other												
DVT[1]	6	(0.39%)	1	(0.01%)	65	(0.19%)	13	(0.09%)	514	(0.16%)	7	(0.16%)
Pulmonary embolism	4	(0.26%)	0	(0.00%)	45	(0.13%)	7	(0.05%)	395	(0.12%)	6	(0.13%)
Diabetes (treated)	20	(1.36%)	93	(1.29%)	596	(1.88%)	261	(1.81%)	3286	(1.00%)	64	(1.51%)
Gallbladder disease[2, 3]	10	(1.00%)	39	(0.70%)	169	(0.65%)	121	(1.23%)	2117	(0.93%)	28	(0.90%)
Hysterectomy	4	(0.62%)	21	(0.42%)	82	(0.54%)	46	(0.54%)	1236	(0.60%)	13	(0.50%)
Glaucoma[3]	20	(1.62%)	59	(1.01%)	471	(1.75%)	177	(1.43%)	2965	(1.13%)	33	(0.94%)
Osteoporosis[3]	30	(2.43%)	156	(2.64%)	407	(1.47%)	299	(2.51%)	6156	(2.39%)	82	(2.38%)
Osteoarthritis[4]	49	(4.88%)	186	(3.31%)	830	(3.87%)	437	(4.15%)	7681	(3.64%)	130	(4.31%)
Rheumatoid arthritis[3]	17	(1.49%)	29	(0.50%)	304	(1.14%)	151	(1.24%)	1348	(0.52%)	27	(0.78%)
Intestinal polyps	40	(2.76%)	124	(1.77%)	759	(2.30%)	253	(1.72%)	6506	(2.06%)	90	(2.15%)
Lupus	4	(0.26%)	3	(0.04%)	57	(0.16%)	19	(0.12%)	395	(0.12%)	7	(0.16%)
Kidney stones[3, 4]	7	(0.64%)	18	(0.33%)	73	(0.30%)	46	(0.42%)	667	(0.28%)	8	(0.25%)
Cataracts[3, 4]	51	(5.04%)	178	(3.77%)	909	(4.10%)	440	(4.28%)	9404	(4.56%)	135	(4.66%)
Pills for hypertension	47	(4.71%)	230	(4.34%)	1061	(5.76%)	553	(4.68%)	10548	(4.23%)	128	(4.42%)

[1] Inpatient DVT only.
[2] "Gallbladder disease" includes self-reports of both hospitalized and non-hospitalized events.
[3] Data not collected for WHI Extension Study.
[4] These outcomes have not been self-reported on all versions of Form 33 during WHI follow-up. The annualized percentages are corrected for the different amounts of follow-up.

Table 5.1
Observational Study Age and Race/Ethnicity Specific Recruitment

	Total Enrolled	Distribution
Age	**93,676**	
50-54	12,381	13%
55-59	17,329	18%
60-69	41,200	44%
70-79	22,766	24%
Race/Ethnicity	**93,676**	
American Indian	421	<1%
Asian	2,671	3%
Black	7,635	8%
Hispanic	3,609	4%
White	78,016	83%
Unknown	1,324	1%

Table 5.2
Lost-to-Follow-up and Vital Status: OS Participants

Data as of: March 31, 2011; Status as of September 30, 2010
Extension Participants Only

	OS Participants (N=63,231)	
	N	%
Vital Status/Participation		
Deceased	4601	7.3
Alive: Current Participation[1]	57270	90.6
Alive: Recent Participation[2]	396	0.6
Alive: Past/Unknown Participation[3]	36	0.1
Stopped Follow-Up[4]	648	1.0
Lost to Follow-Up[5]	280	0.4

Data as of: September 12, 2005
Events through Study Closeout

	OS Participants (N =93,676)	
	N	%
Vital Status/Participation		
Deceased	6260	6.7
Alive: Current Participation[1]	78092	83.4
Alive: Recent Participation[2]	4818	5.1
Alive: Past/Unknown Participation[3]	51	0.1
Stopped Follow-Up[4]	2347	2.5
Lost to Follow-Up[5]	2105	2.2

[1] Participants who have filled in a Form 33 within the last 15 months.
[2] Participants who last filled in a Form 33 between 15 and 24 months ago.
[3] Participants without a Form 33 within the last 24 months, who have been located (as indicated on Form 23) within the last 6 months.
[4] Participants with codes 5 (no follow-up) or 8 (absolutely no follow-up) on Form 7 or 9.
[5] Participants not in any of the above categories.

Table 5.3
Verified Outcomes (Annualized Percentages) by Age for OS Participants

Data as of: March 31, 2011; Events through September 30, 2010

Outcome	Total		Age 50-54		55-59		60-69		70-79	
Number enrolled	93676		12381		17329		41200		22766	
Mean follow-up (months)	131.7		140.5		139.4		132.2		120.4	
Cardiovascular										
CHD[1]	4115	(0.40%)	153	(0.11%)	352	(0.17%)	1745	(0.38%)	1865	(0.82%)
CHD death[2]	1468	(0.14%)	37	(0.03%)	82	(0.04%)	514	(0.11%)	835	(0.37%)
Clinical MI	3077	(0.30%)	122	(0.08%)	287	(0.14%)	1379	(0.30%)	1289	(0.56%)
Angina[3]	2834	(0.28%)	124	(0.09%)	318	(0.16%)	1319	(0.29%)	1073	(0.47%)
CABG/PTCA	4243	(0.41%)	193	(0.13%)	511	(0.25%)	2129	(0.47%)	1410	(0.62%)
Carotid artery disease	846	(0.08%)	42	(0.03%)	79	(0.04%)	384	(0.08%)	341	(0.15%)
Congestive heart failure[3]	2295	(0.22%)	81	(0.06%)	174	(0.09%)	882	(0.19%)	1158	(0.51%)
Stroke	3230	(0.31%)	97	(0.07%)	239	(0.12%)	1369	(0.30%)	1525	(0.67%)
PVD	839	(0.08%)	23	(0.02%)	73	(0.04%)	381	(0.08%)	362	(0.16%)
Coronary disease[4]	9035	(0.88%)	387	(0.27%)	928	(0.46%)	4040	(0.89%)	3680	(1.61%)
Total cardiovascular disease	12867	(1.25%)	526	(0.36%)	1245	(0.62%)	5669	(1.25%)	5427	(2.38%)
Cancer										
Breast cancer	5846	(0.57%)	692	(0.48%)	1041	(0.52%)	2725	(0.60%)	1388	(0.61%)
Invasive breast cancer	4852	(0.47%)	556	(0.38%)	847	(0.42%)	2256	(0.50%)	1193	(0.52%)
Non-invasive breast cancer	1054	(0.10%)	146	(0.10%)	203	(0.10%)	498	(0.11%)	207	(0.09%)
Ovarian cancer	538	(0.05%)	60	(0.04%)	99	(0.05%)	241	(0.05%)	138	(0.06%)
Endometrial cancer[5]	804	(0.08%)	75	(0.05%)	148	(0.07%)	369	(0.08%)	212	(0.09%)
Colorectal cancer	1308	(0.13%)	77	(0.05%)	137	(0.07%)	600	(0.13%)	494	(0.22%)
Other cancer[6]	6443	(0.63%)	471	(0.32%)	887	(0.44%)	3066	(0.68%)	2019	(0.88%)
Total cancer	14027	(1.36%)	1309	(0.90%)	2188	(1.09%)	6538	(1.44%)	3992	(1.75%)
Fractures										
Hip fracture	2194	(0.21%)	52	(0.04%)	131	(0.07%)	775	(0.17%)	1236	(0.54%)
Deaths										
Cardiovascular deaths	3206	(0.31%)	77	(0.05%)	187	(0.09%)	1102	(0.24%)	1840	(0.81%)
Cancer deaths	4336	(0.42%)	259	(0.18%)	506	(0.25%)	1963	(0.43%)	1608	(0.70%)
Other known cause	2960	(0.29%)	113	(0.08%)	202	(0.10%)	1134	(0.25%)	1511	(0.66%)
Unknown cause	376	(0.04%)	19	(0.01%)	31	(0.02%)	143	(0.03%)	183	(0.08%)
Not yet adjudicated	57	(0.01%)	2	(<0.01%)	3	(<0.01%)	24	(0.01%)	28	(0.01%)
Total death	10935	(1.06%)	470	(0.32%)	929	(0.46%)	4366	(0.96%)	5170	(2.26%)
Death plus post-WHI deaths[7]	13581	(1.19%)	554	(0.34%)	1094	(0.49%)	5275	(1.05%)	6658	(2.57%)

[1] "CHD" includes clinical MI and CHD death.
[2] "CHD death" includes definite and possible CHD death.
[3] Angina and CHF are not verified outcomes in the WHI Extension Study. Reported statistics represent experience during the original program.
[4] "Coronary disease" includes clinical MI, CHD death, angina, congestive heart failure, and CABG/PTCA; angina and congestive heart failure are not collected in the WHI Extension Study.
[5] Only women without a baseline hysterectomy are used to compute the annual rates of endometrial cancer.
[6] Only one report of "other cancer " is counted per woman; however, the first of each type is adjudicated. Excludes non-melanoma skin cancer.
[7] Includes deaths for non-Extension study participants after the main WHI study close-out.

Table 5.4
Verified Outcomes (Annualized Percentages) by Race/Ethnicity for OS Participants

Data as of: March 31, 2011; Events through September 30, 2010

	Race/Ethnicity											
Outcomes	**American Indian/Alaskan Native**		**Asian/Pacific Islander**		**Black/African American**		**Hispanic/ Latino**		**White**		**Unknown**	
Number enrolled	421		2671		7635		3609		78016		1324	
Mean follow-up (months)	116.4		117.3		114.4		109.8		135.2		123.6	
Cardiovascular												
CHD[1]	23	(0.56%)	59	(0.23%)	351	(0.48%)	79	(0.24%)	3544	(0.40%)	59	(0.43%)
CHD death[2]	12	(0.29%)	22	(0.08%)	168	(0.23%)	23	(0.07%)	1222	(0.14%)	21	(0.15%)
Clinical MI	13	(0.32%)	44	(0.17%)	222	(0.31%)	63	(0.19%)	2692	(0.31%)	43	(0.32%)
Angina[3]	18	(0.44%)	40	(0.15%)	250	(0.34%)	80	(0.24%)	2412	(0.27%)	34	(0.25%)
CABG/PTCA	21	(0.51%)	50	(0.19%)	258	(0.35%)	115	(0.35%)	3740	(0.43%)	59	(0.43%)
Carotid artery disease	5	(0.12%)	9	(0.03%)	37	(0.05%)	17	(0.05%)	765	(0.09%)	13	(0.10%)
Congestive heart failure[3]	16	(0.39%)	22	(0.08%)	233	(0.32%)	42	(0.13%)	1948	(0.22%)	34	(0.25%)
Stroke	14	(0.34%)	72	(0.28%)	255	(0.35%)	64	(0.19%)	2769	(0.32%)	56	(0.41%)
PVD	3	(0.07%)	6	(0.02%)	87	(0.12%)	8	(0.02%)	722	(0.08%)	13	(0.10%)
Coronary disease[4]	53	(1.30%)	122	(0.47%)	768	(1.06%)	213	(0.65%)	7758	(0.88%)	121	(0.89%)
Total cardiovascular disease	66	(1.62%)	201	(0.77%)	1076	(1.48%)	288	(0.87%)	11045	(1.26%)	191	(1.40%)
Cancer												
Breast cancer	17	(0.42%)	123	(0.47%)	361	(0.50%)	130	(0.39%)	5156	(0.59%)	59	(0.43%)
Invasive breast cancer	16	(0.39%)	103	(0.39%)	291	(0.40%)	105	(0.32%)	4286	(0.49%)	51	(0.37%)
Non-invasive breast cancer	1	(0.02%)	22	(0.08%)	76	(0.10%)	27	(0.08%)	919	(0.10%)	9	(0.07%)
Ovarian cancer	1	(0.02%)	6	(0.02%)	24	(0.03%)	18	(0.05%)	486	(0.06%)	3	(0.02%)
Endometrial cancer[5]	1	(0.03%)	12	(0.05%)	27	(0.04%)	12	(0.04%)	737	(0.08%)	15	(0.11%)
Colorectal cancer	4	(0.10%)	28	(0.11%)	121	(0.17%)	27	(0.08%)	1114	(0.13%)	14	(0.10%)
Other cancer[6]	22	(0.54%)	113	(0.43%)	375	(0.52%)	114	(0.35%)	5729	(0.65%)	90	(0.66%)
Total cancer	45	(1.10%)	267	(1.02%)	855	(1.18%)	295	(0.89%)	12396	(1.41%)	169	(1.24%)
Fractures												
Hip fracture	5	(0.12%)	21	(0.08%)	47	(0.06%)	19	(0.06%)	2081	(0.24%)	21	(0.15%)
Deaths												
Cardiovascular deaths	21	(0.51%)	57	(0.22%)	318	(0.44%)	63	(0.19%)	2700	(0.31%)	47	(0.34%)
Cancer deaths	13	(0.32%)	82	(0.31%)	327	(0.45%)	92	(0.28%)	3776	(0.43%)	46	(0.34%)
Other known cause	26	(0.64%)	48	(0.18%)	223	(0.31%)	89	(0.27%)	2539	(0.29%)	35	(0.26%)
Unknown cause	1	(0.02%)	9	(0.03%)	55	(0.08%)	15	(0.05%)	292	(0.03%)	4	(0.03%)
Not yet adjudicated	0	(0.00%)	0	(0.00%)	6	(0.01%)	2	(0.01%)	48	(0.01%)	1	(0.01%)
Total death	61	(1.49%)	196	(0.75%)	929	(1.28%)	261	(0.79%)	9355	(1.06%)	133	(0.98%)
Death plus post-WHI deaths[7]	83	(1.70%)	267	(0.83%)	1222	(1.37%)	363	(0.85%)	11445	(1.20%)	201	(1.27%)

[1] "CHD" includes clinical MI and CHD death.
[2] "CHD death" includes definite and possible CHD death.
[3] Angina and CHF are not verified outcomes in the WHI Extension Study. Reported statistics represent experience during the original program.
[4] "Coronary disease" includes clinical MI, CHD death, angina, congestive heart failure, and CABG/PTCA; angina and congestive heart failure are not collected in the WHI Extension Study.
[5] Only women without a baseline hysterectomy are used to compute the annual rates of endometrial cancer.
[6] Only one report of "other cancer" is counted per woman; however, the first of each type is adjudicated. Excludes non-melanoma skin.
[7] Includes deaths for non-Extension study participants after the main WHI study close-out.

Table 5.5
Counts (Annualized Percentages) of Participants with Self-Reported Outcomes by Age and Race/Ethnicity for OS Participants Who Did Not Report a Prevalent Condition at Baseline

Data as of: March 31, 2011; Events through September 30, 2010

Outcome	Total		Age 50-54		55-59		60-69		70-79	
Number enrolled	93676		12381		17329		41200		22766	
Mean follow-up (months)	131.7		140.5		139.4		132.2		120.4	
Hospitalizations										
Ever	54808	(5.33%)	5206	(3.59%)	8425	(4.19%)	25022	(5.51%)	16155	(7.08%)
Two or more	33372	(3.25%)	2553	(1.76%)	4554	(2.26%)	15342	(3.38%)	10923	(4.78%)
Other										
DVT[1]	1188	(0.12%)	79	(0.06%)	152	(0.08%)	552	(0.13%)	405	(0.19%)
Pulmonary embolism	925	(0.09%)	78	(0.05%)	136	(0.07%)	426	(0.09%)	285	(0.13%)
Diabetes (treated)	8025	(0.81%)	1077	(0.76%)	1512	(0.77%)	3678	(0.84%)	1758	(0.80%)
Gallbladder disease[2,3]	5673	(0.97%)	834	(0.98%)	1148	(1.00%)	2543	(1.00%)	1148	(0.86%)
Hysterectomy	4553	(0.44%)	633	(0.44%)	932	(0.46%)	2072	(0.46%)	916	(0.40%)
Glaucoma[3]	8481	(1.28%)	845	(0.90%)	1372	(1.07%)	3899	(1.35%)	2365	(1.58%)
Osteoporosis[3]	20718	(3.26%)	2100	(2.27%)	3378	(2.68%)	9523	(3.44%)	5717	(4.06%)
Osteoarthritis[4]	21312	(3.55%)	3027	(2.89%)	4198	(3.18%)	9474	(3.74%)	4613	(4.21%)
Rheumatoid arthritis[3]	4587	(0.70%)	636	(0.69%)	883	(0.70%)	1888	(0.66%)	1180	(0.77%)
Intestinal polyps	18214	(1.96%)	2379	(1.72%)	3753	(1.99%)	8454	(2.07%)	3628	(1.84%)
Lupus	1338	(0.13%)	178	(0.12%)	257	(0.13%)	604	(0.13%)	299	(0.13%)
Kidney stones[3,4]	2314	(0.39%)	292	(0.37%)	433	(0.39%)	994	(0.38%)	595	(0.43%)
Cataracts[3,4]	27103	(5.41%)	1726	(2.17%)	4088	(3.78%)	14045	(6.27%)	7244	(8.18%)
Pills for hypertension	28395	(3.83%)	3474	(2.87%)	5267	(3.33%)	12714	(3.99%)	6940	(4.79%)

Outcomes	Race/Ethnicity: American Indian/ Alaskan Native		Asian/Pacific Islander		Black/African American		Hispanic/ Latino		White		Unknown	
Number enrolled	421		2671		7635		3609		78016		1324	
Mean follow-up (months)	116.4		117.3		114.4		109.8		135.2		123.6	
Hospitalizations												
Ever	247	(6.05%)	999	(3.83%)	4074	(5.60%)	1518	(4.60%)	47245	(5.38%)	725	(5.32%)
Two or more	157	(3.85%)	465	(1.78%)	2319	(3.19%)	777	(2.35%)	29221	(3.33%)	433	(3.18%)
Other												
DVT[1]	4	(0.10%)	5	(0.02%)	106	(0.15%)	22	(0.07%)	1038	(0.12%)	13	(0.10%)
Pulmonary embolism	3	(0.07%)	4	(0.02%)	65	(0.09%)	11	(0.03%)	836	(0.10%)	6	(0.04%)
Diabetes (treated)	63	(1.77%)	236	(0.95%)	1033	(1.59%)	433	(1.40%)	6131	(0.72%)	129	(0.99%)
Gallbladder disease[2,3]	31	(1.34%)	81	(0.46%)	374	(0.80%)	231	(1.22%)	4879	(0.99%)	77	(0.97%)
Hysterectomy	21	(0.51%)	86	(0.33%)	275	(0.38%)	203	(0.61%)	3896	(0.44%)	72	(0.53%)
Glaucoma[3]	45	(1.67%)	253	(1.38%)	991	(2.04%)	309	(1.35%)	6761	(1.21%)	122	(1.34%)
Osteoporosis[3]	90	(3.35%)	626	(3.57%)	1073	(2.13%)	737	(3.32%)	17869	(3.34%)	323	(3.72%)
Osteoarthritis[4]	78	(3.47%)	645	(3.50%)	1597	(3.78%)	889	(4.11%)	17797	(3.51%)	306	(3.67%)
Rheumatoid arthritis[3]	38	(1.41%)	98	(0.53%)	662	(1.37%)	383	(1.71%)	3319	(0.59%)	87	(0.98%)
Intestinal polyps	64	(1.72%)	421	(1.80%)	1367	(2.05%)	542	(1.76%)	15599	(1.96%)	221	(1.81%)
Lupus	9	(0.22%)	24	(0.09%)	128	(0.18%)	66	(0.20%)	1095	(0.13%)	16	(0.12%)
Kidney stones[3,4]	17	(0.70%)	40	(0.24%)	263	(0.57%)	125	(0.60%)	1825	(0.37%)	44	(0.54%)
Cataracts[3,4]	102	(4.83%)	683	(5.00%)	1937	(4.91%)	894	(4.66%)	23094	(5.50%)	393	(5.76%)
Pills for hypertension	118	(4.49%)	701	(3.80%)	1941	(5.40%)	1065	(4.27%)	24145	(3.71%)	425	(4.39%)

[1] Inpatient DVT only.
[2] "Gallbladder disease" includes self-reports of both hospitalized and non-hospitalized events.
[3] Data not collected for WHI extension study.
[4] These outcomes have not been self-reported on all versions of Form 33. The annualized percentages are corrected for the different amounts of follow-up.

Table 5.6
First Reported Verified Outcomes Before and After AV-3[1] for OS Participants

Data as of: March 31, 2011; Events through September 30, 2010

	Number of Events	
Outcome	**Before AV-3**	**After AV-3**
Cardiovascular		
CHD[2]	753	3362
CHD death[3]	167	1301
Clinical MI	641	2436
Angina	1270	1564
CABG/PTCA	1012	3231
Carotid artery disease	231	615
Congestive heart failure	719	1576
Stroke	576	2654
PVD	198	641
Coronary disease[4]	2580	6455
Total cardiovascular disease	3448	9419
Cancer		
Breast cancer	1606	4240
Invasive breast cancer	1340	3512
Non-invasive breast cancer	272	782
Ovarian cancer	136	402
Endometrial cancer	214	590
Colorectal cancer	332	976
Other cancer[5]	1410	5033
Total cancer	3620	10407
Fractures		
Hip fracture	294	1900
Deaths		
Cardiovascular deaths	368	2838
Cancer deaths	621	3715
Deaths: other known cause	228	2732
Deaths: unknown cause	61	315
Deaths: not yet adjudicated	1	56
Total death	1279	9656

[1] AV-3 date is the blood draw date for participants with an AV-3 blood draw and the OS enrollment date plus 3 years for participants without an AV-3 blood draw. All participants have been enrolled for at least 3 years.
[2] "CHD" includes clinical MI and CHD death.
[3] "CHD death" includes definite and possible CHD death.
[4] "Coronary disease" includes clinical MI, CHD death, angina, congestive heart failure, and CABG/PTCA; angina and congestive heart failure are not collected in the WHI Extension Study.
[5] Only one report of "other cancer" is counted per woman; however, the first of each type is adjudicated. Excludes non-melanoma skin cancer.

Table 5.7
Counts of Participants with Self-Reported Outcomes Before and After AV-3[1]
for OS Participants Who Did Not Report a Prevalent Condition at Baseline

Data as of: March 31, 2011; Events through September 30, 2010

	Number of Events	
Outcome	**Before AV-3**	**After AV-3**
Ever hospitalized	20207	34601
DVT[2]	236	952
Pulmonary embolism	136	789
Diabetes (treated)	1740	6285
Gallbladder disease[3, 4]	2137	3536
Hysterectomy	1391	3162
Glaucoma[4]	2755	5726
Osteoporosis[4]	8703	12015
Osteoarthritis[5]	6339	14973
Rheumatoid arthritis[4]	1723	2864
Intestinal polyps	4397	13817
Lupus	348	990
Kidney stones[4, 5]	646	1668
Cataracts[4, 5]	9145	17958
Pills for hypertension	8141	20254

[1] AV-3 date is the blood draw date for participants with an AV-3 blood draw and the OS enrollment date plus 3 years for participants without an AV-3 blood draw. All participants have been enrolled for at least 3 years.
[2] Inpatient DVT only.
[3] "Gallbladder disease" includes self-reports of both hospitalized and non-hospitalized events.
[4] Not collected on Form 33 after March 31, 2005.
[5] These outcomes have not been self-reported on all versions of Form 33. The annualized percentages are corrected for the different amounts of follow-up.

Table 6.1
Verified Outcomes (Annualized Percentages) by Age for CT Participants

Data as of: March 31, 2011; Events through September 30, 2010

Outcome	Total		Age 50-54		55-59		60-69		70-79	
Number randomized	68132		9188		14661		31389		12894	
Mean follow-up (months)	141.3		150.2		146.9		140.6		130.3	
Cardiovascular										
CHD[1]	3485	(0.43%)	189	(0.16%)	399	(0.22%)	1623	(0.44%)	1274	(0.91%)
CHD death[2]	1133	(0.14%)	47	(0.04%)	81	(0.05%)	484	(0.13%)	521	(0.37%)
Total MI[3]	2691	(0.34%)	152	(0.13%)	335	(0.19%)	1264	(0.34%)	940	(0.67%)
Clinical MI	2615	(0.33%)	146	(0.13%)	327	(0.18%)	1226	(0.33%)	916	(0.65%)
Angina[4]	2414	(0.30%)	129	(0.11%)	331	(0.18%)	1215	(0.33%)	739	(0.53%)
CABG/PTCA	3621	(0.45%)	198	(0.17%)	504	(0.28%)	1919	(0.52%)	1000	(0.71%)
Carotid artery disease	680	(0.08%)	25	(0.02%)	90	(0.05%)	359	(0.10%)	206	(0.15%)
Congestive heart failure[4]	1748	(0.22%)	81	(0.07%)	172	(0.10%)	745	(0.20%)	750	(0.54%)
Stroke	2676	(0.33%)	111	(0.10%)	269	(0.15%)	1251	(0.34%)	1045	(0.75%)
PVD	642	(0.08%)	29	(0.03%)	86	(0.05%)	333	(0.09%)	194	(0.14%)
Coronary disease[5]	7689	(0.96%)	437	(0.38%)	1002	(0.56%)	3747	(1.02%)	2503	(1.79%)
Total cardiovascular disease	10629	(1.32%)	572	(0.50%)	1342	(0.75%)	5146	(1.40%)	3569	(2.55%)
Cancer										
Breast cancer	4053	(0.51%)	490	(0.43%)	891	(0.50%)	1920	(0.52%)	752	(0.54%)
Invasive breast cancer	3278	(0.41%)	371	(0.32%)	727	(0.40%)	1549	(0.42%)	631	(0.45%)
Non-invasive breast cancer	826	(0.10%)	125	(0.11%)	174	(0.10%)	394	(0.11%)	133	(0.10%)
Ovary cancer	361	(0.04%)	33	(0.03%)	72	(0.04%)	185	(0.05%)	71	(0.05%)
Endometrial cancer[6]	557	(0.07%)	63	(0.05%)	133	(0.07%)	267	(0.07%)	94	(0.07%)
Colorectal cancer	1077	(0.13%)	68	(0.06%)	171	(0.10%)	524	(0.14%)	314	(0.22%)
Other cancer[7]	4779	(0.60%)	393	(0.34%)	809	(0.45%)	2388	(0.65%)	1189	(0.85%)
Total cancer	10204	(1.27%)	996	(0.87%)	1970	(1.10%)	4957	(1.35%)	2281	(1.63%)
Fractures										
Hip fracture	1606	(0.20%)	31	(0.03%)	113	(0.06%)	648	(0.18%)	814	(0.58%)
Deaths										
Cardiovascular deaths	2252	(0.28%)	82	(0.07%)	161	(0.09%)	918	(0.25%)	1091	(0.78%)
Cancer deaths	3009	(0.38%)	180	(0.16%)	414	(0.23%)	1506	(0.41%)	909	(0.65%)
Other known cause	1936	(0.24%)	79	(0.07%)	188	(0.10%)	823	(0.22%)	846	(0.60%)
Unknown cause	163	(0.02%)	9	(0.01%)	25	(0.01%)	78	(0.02%)	51	(0.04%)
Not yet adjudicated	25	(<0.01%)	1	(<0.01%)	2	(<0.01%)	10	(<0.01%)	12	(0.01%)
Total death	7385	(0.92%)	351	(0.31%)	790	(0.44%)	3335	(0.91%)	2909	(2.08%)
Death plus post-WHI deaths[8]	8548	(1.00%)	392	(0.32%)	879	(0.46%)	3799	(0.97%)	3478	(2.31%)

[1] "CHD" includes clinical MI and CHD death.
[2] "CHD death" includes definite and possible CHD death.
[3] "Total MI" includes clinical MI and evolving Q-wave MI.
[4] Angina and CHF are not verified outcomes in the WHI Extension Study. Reported statistics represent experience during the original program.
[5] "Coronary disease" includes clinical MI, evolving Q-wave MI, possible evolving Q-wave MI, CHD death, angina, congestive heart failure, and CABG/PTCA.
[6] Only women without a baseline hysterectomy are used to compute the annual rates of endometrial cancer.
[7] Only one report of "other cancer" is counted per woman; however, the first of each type is adjudicated. Excludes non-melanoma skin cancer.
[8] Includes deaths for non-Extension study participants after the main WHI study close-out.

Table 6.2
Verified Outcomes (Annualized Percentages) by Race/Ethnicity for CT Participants

Data as of: March 31, 2011; Events through September 30, 2010

	Race/Ethnicity											
Outcome	**American Indian/Alaskan Native**		**Asian/Pacific Islander**		**Black/African American**		**Hispanic/ Latino**		**White**		**Unknown**	
Number randomized	292		1519		6983		2875		55525		938	
Mean follow-up (months)	131.1		135.7		135.3		128.0		143.1		132.8	
Cardiovascular												
CHD[1]	8	(0.25%)	46	(0.27%)	341	(0.43%)	71	(0.23%)	2971	(0.45%)	48	(0.46%)
CHD death[2]	2	(0.06%)	13	(0.08%)	153	(0.19%)	21	(0.07%)	925	(0.14%)	19	(0.18%)
Total MI[3]	7	(0.22%)	40	(0.23%)	228	(0.29%)	56	(0.18%)	2323	(0.35%)	37	(0.36%)
Clinical MI	7	(0.22%)	39	(0.23%)	223	(0.28%)	54	(0.18%)	2257	(0.34%)	35	(0.34%)
Angina[4]	12	(0.38%)	30	(0.17%)	298	(0.38%)	80	(0.26%)	1964	(0.30%)	30	(0.29%)
CABG/PTCA	13	(0.41%)	38	(0.22%)	300	(0.38%)	97	(0.32%)	3132	(0.47%)	41	(0.39%)
Carotid artery disease	3	(0.09%)	3	(0.02%)	40	(0.05%)	6	(0.02%)	619	(0.09%)	9	(0.09%)
Congestive heart failure[4]	5	(0.16%)	17	(0.10%)	244	(0.31%)	49	(0.16%)	1409	(0.21%)	24	(0.23%)
Stroke	10	(0.31%)	40	(0.23%)	330	(0.42%)	64	(0.21%)	2195	(0.33%)	37	(0.36%)
PVD	5	(0.16%)	7	(0.04%)	100	(0.13%)	8	(0.03%)	514	(0.08%)	8	(0.08%)
Coronary disease[5]	26	(0.81%)	98	(0.57%)	840	(1.07%)	209	(0.68%)	6416	(0.97%)	100	(0.96%)
Total cardiovascular disease	40	(1.25%)	141	(0.82%)	1185	(1.51%)	276	(0.90%)	8851	(1.34%)	136	(1.31%)
Cancer												
Breast cancer	9	(0.28%)	90	(0.52%)	348	(0.44%)	99	(0.32%)	3465	(0.52%)	42	(0.40%)
Invasive breast cancer	7	(0.22%)	69	(0.40%)	274	(0.35%)	81	(0.26%)	2814	(0.42%)	33	(0.32%)
Non-invasive breast cancer	2	(0.06%)	23	(0.13%)	78	(0.10%)	20	(0.07%)	693	(0.10%)	10	(0.10%)
Ovary cancer	2	(0.06%)	10	(0.06%)	24	(0.03%)	9	(0.03%)	311	(0.05%)	5	(0.05%)
Endometrial cancer[6]	1	(0.03%)	7	(0.04%)	36	(0.05%)	13	(0.04%)	492	(0.07%)	8	(0.08%)
Colorectal cancer	6	(0.19%)	22	(0.13%)	110	(0.14%)	31	(0.10%)	892	(0.13%)	16	(0.15%)
Other cancer[7]	12	(0.38%)	79	(0.46%)	346	(0.44%)	118	(0.38%)	4169	(0.63%)	55	(0.53%)
Total cancer	28	(0.88%)	196	(1.14%)	817	(1.04%)	253	(0.83%)	8794	(1.33%)	116	(1.12%)
Fractures												
Hip fracture	5	(0.16%)	16	(0.09%)	39	(0.05%)	22	(0.07%)	1512	(0.23%)	12	(0.12%)
Deaths												
Cardiovascular deaths	9	(0.28%)	30	(0.17%)	298	(0.38%)	39	(0.13%)	1850	(0.28%)	26	(0.25%)
Cancer deaths	11	(0.34%)	49	(0.29%)	250	(0.32%)	86	(0.28%)	2574	(0.39%)	39	(0.38%)
Other known cause	13	(0.41%)	20	(0.12%)	174	(0.22%)	39	(0.13%)	1668	(0.25%)	22	(0.21%)
Unknown cause	0	(0.00%)	5	(0.03%)	28	(0.04%)	10	(0.03%)	116	(0.02%)	4	(0.04%)
Not yet adjudicated	0	(0.00%)	0	(0.00%)	2	(<0.01%)	0	(0.00%)	23	(<0.01%)	0	(0.00%)
Total death	33	(1.03%)	104	(0.61%)	752	(0.96%)	174	(0.57%)	6231	(0.94%)	91	(0.88%)
Death plus post-WHI deaths[8]	43	(1.22%)	130	(0.69%)	900	(1.04%)	209	(0.59%)	7150	(1.02%)	116	(1.02%)

[1] "CHD" includes clinical MI, evolving Q-wave MI, and CHD death.
[2] "CHD death" includes definite and possible CHD death.
[3] "Total MI" includes clinical MI and evolving Q-wave MI.
[4] Angina and CHF are not verified outcomes in the WHI Extension Study. Reported statistics represent experience during the original program.
[5] "Coronary disease" includes clinical MI, evolving Q-wave MI, possible evolving Q-wave MI, CHD death, angina, congestive heart failure, and CABG/PTCA.
[6] Only women without a baseline hysterectomy are used to compute the annual rates of endometrial cancer.
[7] Only one report of "other cancer" is counted per woman; however, the first of each type is adjudicated. Excludes non-melanoma skin cancer.
[8] Includes deaths for non-Extension study participants after the main WHI study close-out.

Table 6.3
Counts (Annualized Percentages) of Participants with Self-Reported Outcomes by Age and Race/Ethnicity for CT Participants Who Did Not Report a Prevalent Condition at Baseline

Data as of: March 31, 2011; Events through September 30, 2010

Outcome	Total		Age 50-54		55-59		60-69		70-79	
Number randomized	68132		9188		14661		31389		12894	
Mean follow-up (months)	141.3		150.2		146.9		140.6		130.3	
Hospitalizations										
Ever	42492	(5.30%)	4295	(3.73%)	7830	(4.36%)	20478	(5.57%)	9889	(7.06%)
Two or more	27192	(3.39%)	2233	(1.94%)	4517	(2.52%)	13332	(3.63%)	7110	(5.08%)
Other										
DVT[1]	1225	(0.16%)	81	(0.07%)	175	(0.10%)	584	(0.16%)	385	(0.28%)
Pulmonary embolism	894	(0.11%)	69	(0.06%)	129	(0.07%)	460	(0.13%)	236	(0.17%)
Diabetes (treated)	7976	(1.04%)	1144	(1.02%)	1748	(1.01%)	3744	(1.07%)	1340	(1.01%)
Gallbladder disease[2, 3]	5248	(0.97%)	746	(0.91%)	1195	(0.97%)	2463	(1.01%)	844	(0.90%)
Hysterectomy	2823	(0.60%)	360	(0.54%)	671	(0.60%)	1374	(0.65%)	418	(0.53%)
Glaucoma[3]	7565	(1.21%)	744	(0.81%)	1457	(1.03%)	3662	(1.29%)	1702	(1.58%)
Osteoporosis[3]	14697	(2.40%)	1451	(1.59%)	2635	(1.89%)	7142	(2.57%)	3469	(3.33%)
Osteoarthritis[4]	17555	(3.53%)	2601	(3.00%)	4045	(3.26%)	8006	(3.71%)	2903	(4.13%)
Rheumatoid arthritis[3]	4010	(0.64%)	538	(0.60%)	866	(0.62%)	1822	(0.64%)	784	(0.71%)
Intestinal polyps	14806	(1.99%)	1990	(1.79%)	3332	(1.95%)	7207	(2.13%)	2277	(1.84%)
Lupus	954	(0.12%)	134	(0.12%)	212	(0.12%)	449	(0.12%)	159	(0.11%)
Kidney stones[3, 4]	1877	(0.34%)	241	(0.32%)	379	(0.32%)	898	(0.36%)	359	(0.36%)
Cataracts[3, 4]	21570	(4.38%)	1468	(1.91%)	3731	(3.12%)	11649	(5.13%)	4722	(6.84%)
Pills for hypertension	23168	(4.08%)	3010	(3.23%)	5062	(3.69%)	10866	(4.32%)	4230	(4.92%)

Outcomes	Race/Ethnicity: Am Indian/ Alaskan Native		Asian/Pacific Islander		Black/African American		Hispanic/ Latino		White		Unknown	
Number randomized	292		1519		6983		2875		55525		938	
Mean follow-up (months)	131.1		135.7		135.3		128.0		143.1		132.8	
Hospitalizations												
Ever	172	(5.39%)	696	(4.05%)	4224	(5.37%)	1383	(4.51%)	35478	(5.36%)	539	(5.19%)
Two or more	118	(3.70%)	365	(2.12%)	2711	(3.44%)	763	(2.49%)	22905	(3.46%)	330	(3.18%)
Other												
DVT1	6	(0.19%)	5	(0.03%)	138	(0.18%)	23	(0.08%)	1039	(0.16%)	14	(0.14%)
Pulmonary embolism	6	(0.19%)	4	(0.02%)	95	(0.12%)	12	(0.04%)	767	(0.12%)	10	(0.10%)
Diabetes (treated)	40	(1.38%)	196	(1.21%)	1265	(1.81%)	476	(1.66%)	5886	(0.92%)	113	(1.16%)
Gallbladder disease[2, 3]	22	(1.12%)	86	(0.68%)	420	(0.73%)	243	(1.25%)	4403	(0.99%)	74	(1.03%)
Hysterectomy	8	(0.57%)	45	(0.40%)	188	(0.55%)	99	(0.57%)	2458	(0.62%)	25	(0.41%)
Glaucoma[3]	40	(1.59%)	153	(1.15%)	1005	(1.67%)	338	(1.37%)	5930	(1.15%)	99	(1.25%)
Osteoporosis[3]	66	(2.61%)	389	(2.96%)	909	(1.46%)	639	(2.68%)	12485	(2.48%)	209	(2.64%)
Osteoarthritis[4]	80	(4.16%)	416	(3.34%)	1707	(3.60%)	839	(3.98%)	14252	(3.50%)	261	(3.96%)
Rheumatoid arthritis[3]	32	(1.34%)	74	(0.56%)	682	(1.14%)	357	(1.47%)	2788	(0.54%)	77	(0.96%)
Intestinal polyps	72	(2.45%)	298	(1.90%)	1576	(2.15%)	516	(1.76%)	12149	(1.98%)	195	(2.04%)
Lupus	7	(0.22%)	14	(0.08%)	128	(0.16%)	46	(0.15%)	745	(0.11%)	14	(0.14%)
Kidney stones[3, 4]	15	(0.70%)	47	(0.40%)	190	(0.35%)	100	(0.46%)	1501	(0.33%)	24	(0.33%)
Cataracts[3, 4]	92	(4.63%)	428	(4.00%)	2002	(4.04%)	828	(3.99%)	17927	(4.45%)	293	(4.50%)
Pills for hypertension	97	(4.61%)	485	(4.13%)	2087	(5.26%)	1010	(4.40%)	19213	(3.96%)	276	(3.97%)

[1] Inpatient DVT only.
[2] "Gallbladder disease" includes self-reports of both hospitalized and non-hospitalized events.
[3] Data not collected for WHI extension study.
[4] These outcomes have not been self-reported on all versions of Form 33 during WHI follow-up. The annualized percentages are corrected for the different amounts of follow-up.

Table 6.4
First Reported Verified Outcomes Before and After AV-1[1] for CT Participants

Data as of: March 31, 2011; Events through September 30, 2010

Outcome	Number of Events	
	Before AV-1	After AV-1
Cardiovascular		
CHD[2]	215	3270
CHD death[3]	44	1089
Clinical MI	181	2434
Angina	300	2114
CABG/PTCA	207	3414
Carotid artery disease	63	617
Congestive heart failure	114	1634
Stroke	143	2533
PVD	33	609
Coronary disease[4]	611	7078
Total cardiovascular disease	839	9790
Cancer		
Breast cancer	201	3852
Invasive breast cancer	158	3120
Non-invasive breast cancer	43	783
Ovarian cancer	20	341
Endometrial cancer	40	517
Colorectal cancer	79	998
Other cancer[5]	269	4510
Total cancer	602	9602
Fractures		
Hip fracture	50	1556
Deaths		
Cardiovascular deaths	73	2179
Cancer deaths	53	2956
Deaths: other known cause	17	1919
Deaths: unknown cause	5	158
Deaths: not yet adjudicated	0	25
Total death	148	7237

[1] AV-1 date is the blood draw for participants with an AV-1 blood draw and the CT randomization date plus 1 year for participants without an AV-1 blood draw. All participants have been enrolled for at least 1 year.
[2] "CHD" includes clinical MI and CHD death.
[3] "CHD death" includes definite and possible CHD death.
[4] "Coronary disease" includes clinical MI, CHD death, angina, congestive heart failure, and CABG/PTCA; angina and congestive heart failure are not collected in the WHI Extension Study.
[5] Only one report of "other cancer" is counted per woman; however, the first of each type is adjudicated. Excludes non-melanoma skin cancer.

Table 6.5
Counts of Participants with Self-Reported Outcomes Before and After AV-1[1]
for CT Participants Who Did Not Report a Prevalent Condition at Baseline

Data as of: March 31, 2011; Events through September 30, 2010

	Number of Events	
Outcome	**Before AV-1**	**After AV-1**
Ever hospitalized	6136	36356
DVT[2]	99	1126
Pulmonary embolism	50	844
Diabetes (treated)	573	7403
Gallbladder disease[3,4]	606	4642
Hysterectomy	184	1942
Glaucoma[4]	767	6798
Osteoporosis[4]	1502	13195
Osteoarthritis[5]	1248	16307
Rheumatoid arthritis[4]	587	3423
Intestinal polyps	956	13850
Lupus	75	879
Kidney stones[4,5]	128	1749
Cataracts[4,5]	1660	19910
Pills for hypertension	2190	20978

[1] AV-1 date is the blood draw date for participants with an AV-1 blood draw and the CT randomization date plus 1 year for participants without an AV-1 blood draw. All participants have been enrolled for at least 1 year.
[2] Inpatient DVT only.
[3] "Gallbladder disease" includes self-reports of both hospitalized and non-hospitalized events.
[4] Not collected on Form 33 after March 312005.
[5] These outcomes have not been self-reported on all versions of Form 33. The annualized percentages are corrected for the different amounts of follow-up.

Table 6.6
Verified Other Cancers (Annualized Percentages): CT and OS Participants

Data as of: March 31, 2011; Events through September 30, 2010

	CT		OS	
Number of participants	68132		93676	
Mean follow-up time (months)	141.3		131.7	
Ppts with other cancer	4779	(0.60%)	6443	(0.63%)
Accessory sinus	1	(<0.01%)	2	(<0.01%)
Adrenal gland	3	(<0.01%)	8	(<0.01%)
Anus	25	(<0.01%)	41	(<0.01%)
Appendix	13	(<0.01%)	14	(<0.01%)
Biliary tract, parts of (other/unspecified)	39	(<0.01%)	44	(<0.01%)
Bladder	264	(0.03%)	339	(0.03%)
Bones/joints/articular cartilage (limbs)	4	(<0.01%)	9	(<0.01%)
Bones/joints/articular cartilage (other)	8	(<0.01%)	2	(<0.01%)
Brain	92	(0.01%)	111	(0.01%)
Cervix	56	(0.01%)	54	(0.01%)
Central Nervous System (excludes brain)	0	(0.00%)	4	(<0.01%)
Connective/subcutaneous/soft tissues	42	(0.01%)	57	(0.01%)
Endocrine glands, related structures	6	(<0.01%)	7	(<0.01%)
Esophagus	39	(<0.01%)	42	(<0.01%)
Eye and adnexa	34	(<0.01%)	24	(<0.01%)
Genital organs	29	(<0.01%)	41	(<0.01%)
Kidney	224	(0.03%)	249	(0.02%)
Larynx	24	(<0.01%)	18	(<0.01%)
Leukemia	256	(0.03%)	320	(0.03%)
Liver	50	(0.01%)	76	(0.01%)
Lung	984	(0.12%)	1273	(0.12%)
Lymph nodes	12	(<0.01%)	9	(<0.01%)
Lymphoma, Hodgkins	22	(<0.01%)	30	(<0.01%)
Lymphoma, Non-Hodgkins	460	(0.06%)	623	(0.06%)
Melanoma of the skin	608	(0.08%)	799	(0.08%)
Multiple myeloma	167	(0.02%)	177	(0.02%)
Oral (mouth)	30	(<0.01%)	20	(<0.01%)
Palate	11	(<0.01%)	16	(<0.01%)
Pancreas	253	(0.03%)	308	(0.03%)
Parotid gland (Stensen's duct)	15	(<0.01%)	33	(<0.01%)
Peripheral nerves and autonomic nervous system	1	(<0.01%)	5	(<0.01%)
Pyriform sinus	1	(<0.01%)	4	(<0.01%)
Respiratory system, intrathoracic, other	11	(<0.01%)	20	(<0.01%)
Salivary glands, major (other/unspecified)	6	(<0.01%)	13	(<0.01%)
Stomach	79	(0.01%)	108	(0.01%)
Thyroid	152	(0.02%)	204	(0.02%)
Tongue, part of (other/unspecified)	25	(<0.01%)	33	(<0.01%)
Urinary organs (other/unspecified)	18	(<0.01%)	36	(<0.01%)
Uterus, not otherwise specified	45	(0.01%)	86	(0.01%)
Other/unknown site of cancer	410	(0.05%)	558	(0.05%)
Other/unknown cancers reported on death form	418	(0.05%)	823	(0.08%)

Table 6.7
Other Fractures (Annualized Percentages): CT and OS Participants

Data as of: March 31, 2011; Events through September 30, 2010

	CT		OS	
Number of participants	68132		93676	
Mean follow-up time (months)	141.3		131.7	
Self-Reports				
Elbow	843	(0.11%)	1106	(0.11%)
Foot	2914	(0.36%)	3644	(0.35%)
Hand	746	(0.09%)	841	(0.08%)
Hip	1653	(0.21%)	2299	(0.22%)
Knee	1115	(0.14%)	1474	(0.14%)
Lower arm	4093	(0.51%)	5137	(0.50%)
Lower leg	3236	(0.40%)	3927	(0.38%)
Pelvis	838	(0.10%)	1379	(0.13%)
Tailbone	298	(0.04%)	413	(0.04%)
Upper arm	2095	(0.26%)	2578	(0.25%)
Upper leg	610	(0.08%)	844	(0.08%)
Spine	2388	(0.30%)	3452	(0.34%)
Other	5251	(0.65%)	6654	(0.65%)
Total fracture	18658	(2.33%)	24250	(2.36%)

Data as of: August 18, 2006
Events through Intervention Closeout

	CT		OS	
Number of participants	68132		6365	
Mean follow-up time (months)	96.1		97.6	
Locally verified				
Ppts with other fractures[1]	8341	(1.53%)	780	(1.51%)
Ankle	1353	(0.25%)	129	(0.25%)
Carpal bone(s) in wrist	192	(0.04%)	13	(0.03%)
Clavicle or collar bone	147	(0.03%)	14	(0.03%)
Elbow, not otherwise specified	31	(0.01%)	1	(<0.01%)
Humerus, shaft/unspecified	86	(0.02%)	7	(0.01%)
Humerus, upper end	844	(0.15%)	71	(0.14%)
Lower end of humerus	104	(0.02%)	10	(0.02%)
Metacarpal bone(s)	272	(0.05%)	27	(0.05%)
Patella	359	(0.07%)	29	(0.06%)
Pelvis	364	(0.07%)	51	(0.10%)
Radius or ulna	2227	(0.41%)	210	(0.41%)
Sacrum and coccyx	108	(0.02%)	12	(0.02%)
Scapula	37	(0.01%)	6	(0.01%)
lShaft of femur	113	(0.02%)	9	(0.02%)
Tarsal/metatarsal bones	1291	(0.24%)	129	(0.25%)
Tibia and fibula	641	(0.12%)	32	(0.06%)
Tibial plateau	176	(0.03%)	10	(0.02%)
Upper radius/ulna	382	(0.07%)	34	(0.07%)
Vertebral	830	(0.15%)	122	(0.24%)
Unknown other fracture	0	(0.00%)	0	(0.00%)

[1] "Other fractures" excludes non-vertebral fractures indicated as pathological.

Table 6.8
Cause of Death[1] (Annualized Percentages): CT and OS Participants

Data as of: March 31, 2011; Events through September 30, 2010

	CT		OS	
Number of participants	68132		93676	
Mean Follow-up Time (months)	150.7		146.3	
Death plus post-WHI deaths	8548	(1.00%)	13581	(1.19%)
Adjudicated death	8277	(0.97%)	13059	(1.14%)
Centrally adjudicated death	7075	(0.83%)	4684	(0.41%)
Locally adjudicated death (final)	1	(<0.01%)	5613	(0.49%)
Temporary adjudicated death	0	(0.00%)	0	(0.00%)
Identified by NDI search	1201	(0.14%)	2762	(0.24%)
Cardiovascular				
Atherosclerotic cardiac	1267	(0.15%)	1785	(0.16%)
CHD deaths locally adjudicated before 10/99	0	(0.00%)	0	(0.00%)
Definite CHD deaths	503	(0.06%)	646	(0.06%)
Possible CHD deaths	764	(0.09%)	1139	(0.10%)
Cerebrovascular	646	(0.08%)	1025	(0.09%)
Pulmonary embolism	79	(0.01%)	76	(0.01%)
Other cardiovascular	522	(0.06%)	958	(0.08%)
Unknown cardiovascular	24	(<0.01%)	107	(0.01%)
Total cardiovascular deaths	2538	(0.30%)	3951	(0.35%)
Cancer				
Breast cancer	246	(0.03%)	694	(0.06%)
Ovarian cancer	202	(0.02%)	346	(0.03%)
Endometrial cancer	57	(0.01%)	81	(0.01%)
Colorectal cancer	289	(0.03%)	384	(0.03%)
Other cancer	2289	(0.27%)	3091	(0.27%)
Unknown cancer site	155	(0.02%)	238	(0.02%)
Total cancer deaths	3238	(0.38%)	4834	(0.42%)
Accident/injury				
Homicide	12	(<0.01%)	17	(<0.01%)
Accident	240	(0.03%)	322	(0.03%)
Suicide	23	(<0.01%)	50	(<0.01%)
Other injury	12	(<0.01%)	29	(<0.01%)
Total accidental deaths	287	(0.03%)	418	(0.04%)
Other				
Other known cause	2045	(0.24%)	3466	(0.30%)
Unknown cause	440	(0.05%)	912	(0.08%)
Total deaths – other causes	2485	(0.29%)	4378	(0.38%)

[1] Includes deaths for non-Extension study participants after the main WHI study close-out

Table 7.1
Agreement of the Central Adjudications with Self-Reports

Data as of: March 31, 2011

	Participants with a self-report[1]	Closed		Confirmed		Denied – related outcome found[2]		Denied – unrelated outcome found		Denied – no outcome found		Administrative denials	
		N	(%)[3]	N	(%)[3]	N	(%)[3]	N	(%)[3]	N	(%)[3]	N	(%)[3]
Cardiovascular													
Clinical MI	1719	1710	(99%)	1184	(69%)	107	(6%)	8	(0%)	406	(24%)	4	(0%)
CABG	766	763	(100%)	671	(88%)	31	(4%)	0	(0%)	61	(8%)	0	(0%)
PTCA	2422	2398	(99%)	1913	(80%)	186	(8%)	4	(0%)	294	(12%)	1	(0%)
Carotid artery disease	522	520	(100%)	410	(79%)	45	(9%)	0	(0%)	56	(11%)	9	(2%)
Stroke/TIA[4]	2888	2849	(99%)	1755	(62%)	27	(1%)	0	(0%)	800	(28%)	11	(0%)
PVD	584	574	(98%)	312	(54%)	46	(8%)	20	(3%)	195	(34%)	1	(0%)
DVT[5]	254	247	(97%)	165	(67%)	10	(4%)	24	(10%)	46	(19%)	2	(1%)
Pulmonary embolism[5]	164	163	(99%)	134	(82%)	3	(2%)	6	(4%)	19	(12%)	1	(1%)
Cancers													
Breast cancer	2764	2758	(100%)	2672	(97%)	10	(0%)	3	(0%)	70	(3%)	3	(0%)
Ovarian cancer	311	308	(99%)	213	(69%)	68	(22%)	11	(4%)	15	(5%)	1	(0%)
Endometrial cancer	343	342	(100%)	315	(92%)	15	(4%)	3	(1%)	9	(3%)	0	(0%)
Cervical cancer	60	60	(100%)	11	(18%)	36	(60%)	4	(7%)	9	(15%)	0	(0%)
Colorectal cancer	772	755	(98%)	638	(85%)	57	(8%)	5	(1%)	50	(7%)	5	(1%)
Melanoma	595	586	(98%)	475	(81%)	37	(6%)	1	(0%)	61	(10%)	12	(2%)
Lung cancer	956	946	(99%)	789	(83%)	54	(6%)	10	(1%)	90	(10%)	3	(0%)
Liver cancer	182	173	(95%)	45	(26%)	64	(37%)	10	(6%)	52	(30%)	2	(1%)
Bone cancer	93	89	(96%)	1	(1%)	39	(44%)	7	(8%)	42	(47%)	0	(0%)
Lymphoma/Hodgkin's	397	395	(99%)	345	(87%)	24	(6%)	4	(1%)	19	(5%)	3	(1%)
Leukemia	247	244	(99%)	194	(80%)	17	(7%)	3	(1%)	29	(12%)	1	(0%)
Meningioma	22	22	(100%)	3	(14%)	4	(18%)	0	(0%)	15	(68%)	0	(0%)
Other cancer[6]	1887	1863	(99%)	1304	(70%)	252	(14%)	32	(2%)	253	(14%)	22	(1%)
Fractures													
Hip fracture	1782	1761	(99%)	1469	(83%)	0	(0%)	0	(0%)	286	(16%)	6	(0%)
Upper leg fracture[7]	639	637	(100%)	0	(0%)	280	(44%)	37	(6%)	319	(50%)	1	(0%)

[1] Excludes duplicates and prior conditions.
[2] All cardiovascular outcomes are considered related, all cancers are considered related and all fractures are considered related.
[3] Percentages between parentheses' are relative to "closed".
[4] Stroke and TIA have a combined self-report. Only stroke is monitored.
[5] HRT participants only.
[6] Any cancer other than those listed above, excluding non-melanoma skin cancer.
[7] Upper leg fractures are only investigated for possible occurrence of hip fracture.

Table 7.2
Source of Outcomes Identified by Central Adjudications

Data as of: March 31, 2011

	Centrally confirmed	Reason for central investigation					
		Self-report same outcome		Self-report related outcome[1]		Self-report unrelated outcome[2]	
	N	N	%	N	%	N	%
Cardiovascular							
Clinical MI	1966	1153	59%	554	28%	259	13%
CABG	527	471	89%	49	9%	7	1%
PTCA	2044	1878	92%	149	7%	17	1%
Carotid artery disease	447	306	68%	42	9%	99	22%
Stroke	2080	1819	87%	0	0%	261	13%
PVD	513	308	60%	118	23%	87	17%
DVT	214	161	75%	14	7%	39	18%
Pulmonary embolism	180	135	75%	10	6%	35	19%
Cancers							
Breast cancer	2681	2662	99%	13	<1%	6	<1%
Ovarian cancer	243	214	88%	17	7%	12	5%
Endometrial cancer	402	315	78%	77	19%	10	2%
Cervical cancer	14	11	79%	1	7%	2	14%
Colorectal cancer	678	629	93%	13	2%	36	5%
Melanoma	492	472	96%	15	3%	5	1%
Lung cancer	863	786	91%	40	5%	37	4%
Liver cancer	60	45	75%	10	17%	5	8%
Lymphoma/Hodgkin's	414	341	82%	60	14%	13	3%
Leukemia	240	195	81%	24	10%	21	9%
Other cancer	1678	0	0%	1596	95%	82	5%
Fractures							
Hip fracture	1795	1463	82%	268	15%	64	4%

[1] All cardiovascular outcomes are considered related, all cancers are considered related and all fractures are considered related.
[2] Includes self-report of hospitalizations.

Table 8.1
Age[1] Distribution by Race/Ethnicity for Active[2] CT and OS Extension 2005-2010 Study Participants

Data as of: March 31, 2011; Events as of September 30, 2010

Age at start of Extension 2010-2015 (September 30, 2010)	Total		Race/Ethnicity											
			American Indian/ Alaskan Native		Asian/Pacific Islander		Black/African American		Hispanic/ Latino		White		Unknown	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
<65	1127	1.1	11	3.0	58	2.6	198	2.7	113	3.8	730	0.8	17	1.3
65-69	16389	15.7	89	24.5	454	20.7	1594	21.5	781	26.2	13262	14.7	209	16.5
70-79	50636	48.6	174	47.8	1017	46.3	3864	52.2	1485	49.7	43533	48.4	563	44.4
80-89	33198	31.9	88	24.2	612	27.9	1598	21.6	578	19.4	29890	33.2	432	34.1
90+	2854	2.7	2	0.5	56	2.5	145	2.0	28	0.9	2576	2.9	47	3.7

[1] Age on September 30, 2010.
[2] Vital status is alive with current participation on September 30, 2010.

Table 8.2
Counts (Percentages) of Participants with Self-Reported Outcomes by Age at the Beginning of the Extension 2005-2010 and Race/Ethnicity for CT and OS Extension Study Participants

Data as of: March 31, 2011; Events as of September 30, 2010

Outcome	Total		Age on April 1, 2005 60-64		65-69		70-79		80-89		90+	
Number enrolled	115407		20767		27346		50793		16482		19	
Mean follow-up (months)	157.5		160.8		158.8		156.2		155.2		171.8	
Number of outcomes[1] reported at baseline and during follow-up	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
0	3240	2.8	1415	6.8	994	3.6	732	1.4	99	0.6	0	0
1	11139	9.7	3724	17.9	3468	12.7	3362	6.6	583	3.5	2	10.5
2	20705	17.9	5045	24.3	5841	21.4	8017	15.8	1801	10.9	1	5.3
3	26301	22.8	4656	22.4	6466	23.6	11746	23.1	3429	20.8	4	21.1
4+	54022	46.8	5927	28.5	10577	38.7	26936	53.0	10570	64.1	12	63.2

Outcome	Race/Ethnicity American Indian/ Alaskan Native		Asian/Pacific Islander		Black/African American		Hispanic/ Latino		White		Unknown	
Number enrolled	402		2396		8354		3389		99447		1419	
Mean follow-up (months)	156.8		155.4		157.0		154.5		157.7		155.3	
Number of outcomes[1] reported at baseline and during follow-up	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
0	9	2.2	97	4.0	117	1.4	87	2.6	2887	2.9	43	3.0
1	25	6.2	284	11.9	513	6.1	351	10.4	9834	9.9	132	9.3
2	49	12.2	511	21.3	1246	14.9	549	16.2	18117	18.2	233	16.4
3	78	19.4	570	23.8	1838	22.0	729	21.5	22789	22.9	297	20.9
4+	241	60.0	934	39.0	4640	55.5	1673	49.4	45820	46.1	714	50.3

[1] Self-reported outcomes include DVT, pulmonary embolism, diabetes (treated), hypertension (treated), hysterectomy, osteoarthritis, intestinal polyps, lupus, gallbladder disease, glaucoma, osteoporosis, kidney stones, cataracts, and rheumatoid arthritis. Data for gallbladder disease, glaucoma, osteoporosis, kidney stones, cataracts, and rheumatoid arthritis not collected for WHI Extension Study.

Table 8.3
Counts (Percentages) of Participants with Adjudicated Outcomes by Age at the Beginning of the Extension 2005-2010 and Race/Ethnicity for CT and OS Extension 2005-2010 Study Participants

Data as of: March 31, 2011; Events as of September 30, 2010

	Total		Age on April 1, 2005 <65		65-69		70-79		80-89		90+	
Number enrolled	115407		20767		27346		50793		16482		19	
Mean follow-up (months)	157.5		160.8		158.8		156.2		155.2		171.8	
Number of outcomes[1] since WHI enrollment	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
0	84087	72.9	17383	83.7	21577	78.9	35502	69.9	9616	58.3	9	47.4
1	26915	23.3	3183	15.3	5246	19.2	13098	25.8	5380	32.6	8	42.1
2	3951	3.4	185	0.9	475	1.7	1982	3.9	1307	7.9	2	10.5
3	423	0.4	16	0.1	46	0.2	198	0.4	163	1.0	0	0
4+	31	0.0	0	0	2	0.0	13	0.0	16	0.1	0	0

	Race/Ethnicity: American Indian/ Alaskan Native		Asian/Pacific Islander		Black/African American		Hispanic/ Latino		White		Unknown	
Number enrolled	402		2396		8354		3389		99447		1419	
Mean follow-up (months)	156.8		155.4		157.0		154.5		157.7		155.3	
Number of outcomes[1] since WHI enrollment	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
0	310	77.1	1920	80.1	6264	75.0	2745	81.0	71778	72.2	1070	75.4
1	81	20.1	436	18.2	1806	21.6	587	17.3	23704	23.8	301	21.2
2	10	2.5	38	1.6	253	3.0	56	1.7	3551	3.6	43	3.0
3	1	0.2	2	0.1	29	0.3	1	0.0	386	0.4	4	0.3
4+	0	0	0	0	2	0.0	0	0	28	0.0	1	0.1

[1] Adjudicated outcomes include incident reports of coronary disease (clinical MI, (possible) evolving Q-wave MI, CHD death, and CABG/PTCA), stroke, PVD, PVD, cancer (all), and hip fracture.

Table 8.4
Counts (Percentages) of Participants Reporting Any (Self-reported or Adjudicated) Outcomes by Age at the Beginning of the Extension 2005-2010 and Race/Ethnicity for CT and OS Extension 2005-2010 Study Participants

Data as of: March 31, 2011; Events as of September 30, 2010

	Total		Age on April 1, 2005 <65		65-69		70-79		80-89		90+	
Number enrolled	115407		20767		27346		50793		16482		19	
Mean follow-up (months)	157.5		160.8		158.8		156.2		155.2		171.8	
Number of outcomes[1] reported at baseline[2] and and during follow-up	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
0	2804	2.4	1270	6.1	865	3.2	596	1.2	73	0.4	0	0
1	9615	8.3	3403	16.4	3033	11.1	2774	5.5	403	2.4	2	10.5
2	18124	15.7	4756	22.9	5330	19.5	6659	13.1	1379	8.4	0	0
3	23665	20.5	4572	22.0	6144	22.5	10316	20.3	2631	16.0	2	10.5
4+	61199	53.0	6766	32.6	11974	43.8	30448	59.9	11996	72.8	15	78.9

	Race/Ethnicity: American Indian/ Alaskan Native		Asian/Pacific Islander		Black/African American		Hispanic/ Latino		White		Unknown	
Number enrolled	402		2396		8354		3389		99447		1419	
Mean follow-up (months)	156.8		155.4		157.0		154.5		157.7		155.3	
Number of outcomes[1] reported at baseline[2] and during follow-up	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
0	9	2.2	85	3.5	103	1.2	78	2.3	2490	2.5	39	2.7
1	21	5.2	267	11.1	454	5.4	314	9.3	8437	8.5	122	8.6
2	48	11.9	457	19.1	1115	13.3	519	15.3	15792	15.9	193	13.6
3	61	15.2	544	22.7	1611	19.3	679	20.0	20492	20.6	278	19.6
4+	263	65.4	1043	43.5	5071	60.7	1799	53.1	52236	52.5	787	55.5

[1] Self-reported outcomes include first report (baseline or incident) of DVT, pulmonary embolism, diabetes (treated), hypertension (treated), hysterectomy, osteoarthritis, intestinal polyps, lupus, gallbladder disease, glaucoma, osteoporosis, kidney stones, cataracts, and rheumatoid arthritis. Adjudicated outcomes include incident reports of coronary disease (clinical MI, (possible) evolving Q-wave MI, CHD death, and CABG/PTCA), stroke, PVD, cancer (all), and hip fracture. Data for gallbladder disease, glaucoma, osteoporosis, kidney stones, cataracts, and rheumatoid arthritis is not collected for the WHI Extension Study.

[2] Only reports of DVT, pulmonary embolism, diabetes (treated), hypertension (treated), hysterectomy, osteoarthritis, intestinal polyps, lupus, gallbladder disease, disease, glaucoma, osteoporosis, kidney stones, cataracts, and rheumatoid arthritis at baseline are counted.

Table 8.5
Distribution of Aging Indicators Collected During the WHI Extension 2005-2010 Study Stratified by Age at the Beginning of the Extension 2005-2010 for CT and OS Extension 2005-2010 Study Participants

Data as of: March 31, 2011; Events as of September 30, 2010

	Total (N =115,407)		Age on April 1, 2005 <65 (N =20,767)		65-69 (N =27,346)		70-79 (N =50,793)		80-89 (N =16,482)		90+ (N =19)	
	N	%	N	%	N	%	N	%	N	%	N	%
Never completed Form 151	2021	1.8	220	1.1	281	1.0	861	1.7	658	4.0	1	5.3
Perceived Health Status												
Excellent	5201	4.6	1615	7.9	1658	6.1	1666	3.3	262	1.7	0	0.0
Very good	33160	29.3	7768	37.8	9478	35.0	13138	26.4	2773	17.6	3	17.6
Good	50490	44.6	8372	40.8	11725	43.3	23242	46.6	7144	45.3	7	41.2
Fair	20615	18.2	2423	11.8	3625	13.4	9997	20.1	4563	28.9	7	41.2
Poor	3771	3.3	362	1.8	564	2.1	1814	3.6	1031	6.5	0	0.0
Quality of Life												
Worst, 0-3	450	0.4	35	0.2	64	0.2	185	0.4	166	1.1	0	0.0
Halfway, 4-6	5967	5.3	740	3.6	1001	3.7	2689	5.4	1535	9.7	2	11.8
Best, 7-10	106851	94.3	19766	96.2	25985	96.1	46998	94.2	14087	89.2	15	88.2
Functional Capacity, ADL Dependencies												
None[1]	91140	80.5	18824	91.6	23974	88.6	39414	79.0	8923	56.5	5	29.4
Eating	2380	2.1	190	0.9	314	1.2	1084	2.2	790	5.0	2	11.8
Dressing	5630	5.0	420	2.0	782	2.9	2583	5.2	1841	11.7	4	23.5
Transferring	3721	3.3	301	1.5	491	1.8	1655	3.3	1271	8.1	3	17.6
Bathing	7888	7.0	527	2.6	956	3.5	3567	7.2	2830	17.9	8	47.1
Grocery Shopping	20088	17.7	1481	7.2	2732	10.1	9438	18.9	6425	40.7	12	70.6
Taking Medication	8114	7.2	442	2.2	805	3.0	3733	7.5	3127	19.8	7	41.2
Performance Measures, Rand-36 Scale												
0-25	18160	16.1	1640	8.0	2757	10.2	8618	17.3	5138	32.9	7	41.2
25-50	20796	18.4	2304	11.2	3903	14.5	10475	21.1	4109	26.3	5	29.4
51-75	28924	25.6	4395	21.4	6768	25.1	13968	28.1	3788	24.3	5	29.4
76-100	44951	39.8	12174	59.3	13567	50.3	16646	33.5	2564	16.4	0	0.0
Independence												
Supportive Services Availability	40160	35.5	5264	25.7	8108	30.0	18616	37.4	8159	52.1	13	76.5
Supportive Services Use	11119	28.3	435	8.5	951	12.0	5026	27.6	4695	58.4	12	92.3
Need for nursing care	8478	7.5	467	2.3	1098	4.1	4220	8.5	2687	17.0	6	35.3
Use of walking aid[2]	22197	19.6	1497	7.3	2887	10.7	10595	21.3	7206	45.8	12	70.6
Lives alone[3]	15492	31.4	1880	21.8	3046	24.3	7547	34.3	3014	48.4	5	45.5
Geriatric Conditions[3]	**(N =52,176)**		**(N =9,228)**		**(N =13,150)**		**(N =23,118)**		**(N =6,669)**		**(N =11)**	
Cognitive Impairment[4]	524	5.9	0	0.0	5	55.6	237	4.2	279	8.9	3	50.0
Falls[5]	2849	5.5	443	4.8	625	4.8	1233	5.3	548	8.2	0	0.0
Incontinence	37667	76.2	6316	73.2	9384	74.9	16998	77.2	4961	79.5	8	72.7
Low BMI (<18.5 kg/m^2)	366	0.7	47	0.5	74	0.6	170	0.7	75	1.1	0	0.0
Dizziness	11340	23.0	1663	19.3	2517	20.1	5329	24.3	1827	29.4	4	36.4
Vision Impairment	11713	23.9	1694	19.8	2513	20.2	5526	25.3	1976	32.2	4	36.4
Hearing Impairment	15288	31.1	1618	18.8	2889	23.2	7608	34.7	3169	51.2	4	36.4

[1] No limitations or need for help reported at any follow-up visit.
[2] Cane, crutches, walker, or wheelchair.
[3] Data not collected during WHI Extension Study; limited to WHI-CT participants.
[4] Limited to WHI HT participants 65 years and older at baseline.
[5] Two or more falls per year between April 1, 2002 and March 31, 2005.

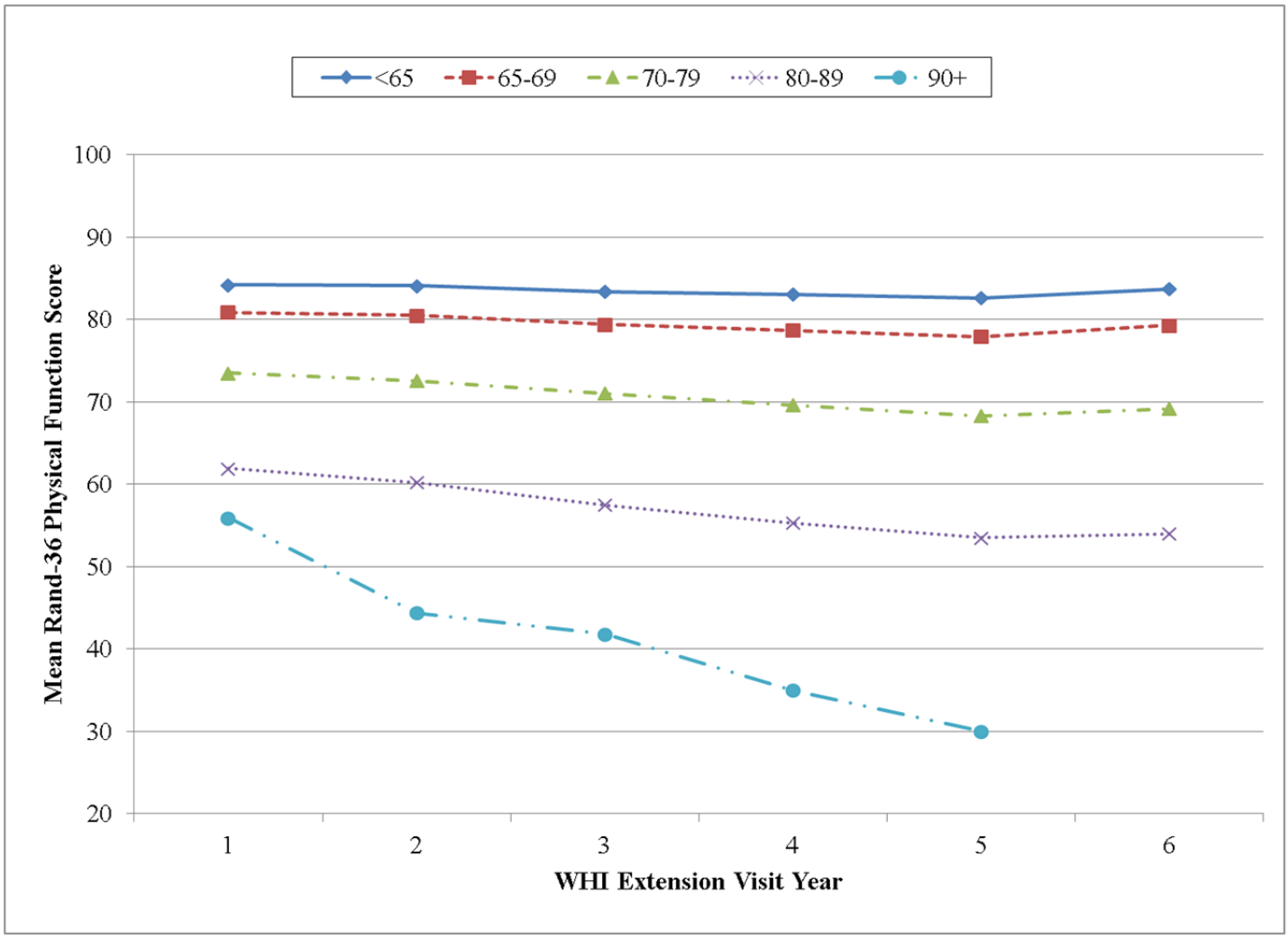
Table 8.6
Distribution of Aging Indicators Collected During the WHI Extension 2005-2010 Study Stratified by Race/Ethnicity for CT and OS WHI Extension 2005-2010 Study Participants

Data as of: March 31, 2011; Events as of September 30, 2010

	Race/Ethnicity											
	American Indian/ Alaskan Native (N =402)		Asian/Pacific Islander (N =2,396)		Black/African American (N =8,354)		Hispanic/ Latino (N =3,389)		White (N =99,447)		Unknown (N =1,419)	
	N	%	N	%	N	%	N	%	N	%	N	%
Never completed Form	13	3.2	59	2.5	218	2.6	95	2.8	1613	1.6	23	1.6
Perceived Health Status												
Excellent	14	3.6	92	3.9	154	1.9	99	3.0	4799	4.9	43	3.1
Very good	101	26.0	625	26.8	1368	16.8	690	21.0	30031	30.7	345	24.8
Good	153	39.3	1132	48.5	4054	49.9	1491	45.3	42995	44.0	665	47.7
Fair	100	25.7	418	17.9	2226	27.4	851	25.9	16727	17.1	293	21.0
Poor	21	5.4	65	2.8	320	3.9	157	4.8	3161	3.2	47	3.4
Quality of Life												
Worst, 0-3	2	0.5	6	0.3	14	0.2	15	0.5	406	0.4	7	0.5
Halfway, 4-6	30	7.7	104	4.5	501	6.2	268	8.2	4965	5.1	99	7.1
Best, 7-10	357	91.8	2225	95.3	7609	93.7	3004	91.4	92369	94.5	1287	92.4
Functional Capacity, ADL Dependencies												
None[1]	282	72.5	1981	84.8	6098	75.0	2624	79.9	79072	80.9	1083	77.6
Eating	6	1.5	23	1.0	198	2.4	87	2.6	2032	2.1	34	2.4
Dressing	28	7.2	69	3.0	493	6.1	149	4.5	4813	4.9	78	5.6
Transferring	18	4.6	47	2.0	330	4.1	115	3.5	3153	3.2	58	4.2
Bathing	37	9.5	79	3.4	776	9.5	183	5.6	6716	6.9	97	7.0
Grocery Shopping	94	24.2	318	13.6	1846	22.7	588	17.9	16962	17.4	280	20.1
Taking Medication	37	9.5	109	4.7	657	8.1	223	6.8	6973	7.1	115	8.2
Performance Measures, Rand-36 Scale												
0-25	86	22.2	249	10.7	1643	20.4	448	13.8	15513	15.9	221	16.0
25-50	81	20.9	337	14.5	1688	20.9	548	16.8	17876	18.4	266	19.2
51-75	85	22.0	616	26.5	2034	25.2	852	26.2	24991	25.7	346	25.0
76-100	135	34.9	1126	48.4	2702	33.5	1407	43.2	39032	40.1	549	39.7
Independence												
Supportive Services Availability	187	48.4	1040	44.7	2980	36.9	1175	36.0	34238	35.1	540	38.9
Supportive Services Use	44	23.8	164	16.1	853	29.3	250	21.8	9663	28.8	145	27.4
Need for nursing care	22	5.7	57	2.4	421	5.2	128	3.9	7752	7.9	98	7.0
Use of walking aid[2]	103	26.6	316	13.6	2252	27.8	537	16.4	18678	19.1	311	22.3
Lives alone[3]	59	33.7	192	18.3	1620	36.8	395	25.1	13046	31.4	180	29.8
Geriatric Conditions[3]	**(N =185)**		**(N =1,105)**		**(N =4,769)**		**(N =1,791)**		**(N =43,680)**		**(N =646)**	
Cognitive Impairment[4]	0	0.0	23	15.0	109	19.5	30	15.1	352	4.5	10	9.4
Falls[5]	15	8.1	38	3.4	181	3.8	72	4.0	2501	5.7	42	6.5
Incontinence	133	76.0	719	68.4	2614	59.2	1048	66.6	32739	78.7	414	68.0
Low BMI (<18.5 kg/m^2)	0	0.0	21	1.9	19	0.4	9	0.5	314	0.7	3	0.5
Dizziness	44	25.4	226	21.5	1143	26.0	418	26.7	9363	22.6	146	24.1
Vision Impairment	55	32.0	312	29.8	1193	27.5	453	29.4	9544	23.1	156	26.1
Hearing Impairment	49	28.5	332	31.6	938	21.4	453	29.0	13320	32.2	196	32.5

[1] No limitations or need for help reported at any follow-up visit.
[2] Cane, crutches, walker, or wheelchair.
[3] Data not collected during WHI Extension Study; limited to WHI-CT participants.
[4] Limited to WHI HT participants 65 years and older at baseline.
[5] Two or more falls per year between April 1, 2002 and March 31, 2005.

Figure 8.1
Mean Rand-36 Physical Function Score Over Time by Age[1] at the Beginning of the Extension 2005-2010



[1] Age on April 1, 2005.

Table 9.1
Extension Study 2010-2015 Form 33 – Medical History Update Processing

Data as of 10/31/11

	Form 33 – Due 7-1-10 thru 6-3-11[1]															
	Self-Report and Screening Outcomes Qxs 2-16										Outcomes Qxs 17-46				Cases to forward to CCC in last 12 Mo[5]	
	Total		CCC Mailings Not Collected		Ppts Due for RC Collection				Incomplete Qx 2-16		Incomplete[3] Qx 17-end			Incomplete Form 33[4]		
	# Due	% Collected	#	%	#	% of Due	Not Collected #	Not Collected %	#	% of Collected	# Required[2]	#	% of Collected	# Forms	# Cases	% Scanned
Boston	10,119	95.1	856	8.5	389	3.8	32	8.2	0		672	0		0	359	*Data*
Buffalo	9,553	95.8	973	10.2	592	6.2	18	3.0	24	0.3	888	18	2.0	24	577	*not yet*
Seattle	4,250	94.7	344	8.1	130	3.1	12	9.2	2	0.0	288	0		2	216	*available*
Columbus	10,191	94.3	814	8.0	266	2.6	32	12.0	2	0.0	872	4	0.5	4	504	
Gainesville	8,095	92.8	908	11.2	332	4.1	4	1.2	0		752	2	0.3	2	246	
Iowa	8,130	94.7	471	5.8	45	0.6	2	4.4	6	0.1	792	10	1.3	10	265	
Medstar	4,363	94.9	587	13.5	372	8.5	6	1.6	2	0.0	500	2	0.4	2	215	
Pittsburgh	4,031	94.8	431	10.7	241	6.0	18	7.5	0		404	0		0	242	
Stanford	14,961	94.7	1,107	7.4	315	2.1	8	2.5	12	0.1	948	4	0.4	12	660	
Tucson	5,813	92.5	586	10.1	159	2.7	10	6.3	4	0.1	378	6	1.6	6	231	
Wake Forest	8,940	92.6	979	11.0	329	3.7	8	2.4	22	0.3	716	6	0.8	22	139	
All RCs	88,446	94.3	8,056	9.1	3,170	3.6	150	4.7	74	0.1	7,210	52	0.7	84	3,654	

[1] Includes Form 33, ver 11, with mailings starting Nov 2010; excludes absolutely no contact and deceased participants

[2] Required based on responses to Qx 8-16 for MRC and to Qx 9-Cancer for SRC

[3] Includes Form 33s with incomplete/missing data in Qxs 17-end and forms with responses needing data entry at RC (e.g., dates, provider names and addresses)

[4] Maximum of Incomplete Form 33, Qx 2-15 or Qx 17-end

[5] Outcomes cases closed with a code '9-forward to CCC'; not limited to Form 33, ver. 11 (ES 1 cases)

Table 9.2
Extension Study 2010-2015 Outcomes Processing Workload

Data as of 10/31/11

	Outcomes Cases[1]	Closed Cases[2]				Open Cases[3]								
		Total Closed		Sent to CCC[4]		Total Open		No MRs Requested[5]		No MRs Received[6]		Some MRs Received[7]		Open > 12 Mos
	Total #	#	%	#	% of Closed	#	%	#	% of Open	#	% of Open	#	% of Open	#
Boston	494	441	89.3	359	81.4	53	10.7	3	5.7	50	94.3	0		3
Buffalo	796	686	86.2	577	84.1	110	13.8	20	18.2	55	50.0	35	31.8	14
CCC	283	257	90.8	216	84.0	26	9.2	5	19.2	16	61.5	5	19.2	2
Columbus	652	541	83.0	504	93.2	111	17.0	22	19.8	89	80.2	0	0.0	3
Gainesville	482	277	57.5	246	88.8	205	42.5	28	13.7	155	75.6	22	10.7	16
Iowa	535	335	62.6	265	79.1	200	37.4	42	21.0	120	60.0	38	19.0	3
Medstar	342	250	73.1	215	86.0	92	26.9	20	21.7	45	48.9	27	29.3	6
Pittsburgh	409	322	78.7	242	75.2	87	21.3	27	31.0	45	51.7	15	17.2	12
Stanford	931	784	84.2	660	84.2	147	15.8	47	32.0	26	17.7	74	50.3	11
Tucson	299	264	88.3	231	87.5	35	11.7	0		24	68.6	11	31.4	9
Wakeforest	473	180	38.1	139	77.2	293	61.9	166	56.7	49	16.7	78	26.6	15
All RCs	5,696	4,337	76.1	3,654	84.3	1,359	23.9	380	28.0	674	49.6	305	22.4	94

[1] Outcomes cases processed at the Regional Center since Oct. 1, 2011.

[2] Closed cases includes all cases closed since Oct. 1, 2010 (date ES 2015 started for the RCs)

[3] Open cases includes all open cases for ES 2015 participants (not restricted to ES 2 cases)

[4] Cases to be adjudicated; other closed cases do not require adjudication or cannot be processed (no ROI or no records received)

[5] Request for MR documents not yet done; RC needs to obtain signed ROI before requesting records.

[6] MR documents have been requested but none received

[7] Some but not all MR documents received or case not yet reviewed and closed

Table 9.3
Extension Study 2010–2015 Workload for Form 33 and Outcomes

Data as of 10/31/11

	Form 33 Workload			Outcomes Workload			Combined Form 33 and Outcomes Workload	MRC Deaths[3]			# Open Cases with Deaths[3,4]
	Missing and Incomplete Forms[1]	Ave # Collected/Mo last 12 Mo	Est Months to Catch Up	Open Cases[2]	Avg # Cases Closed/Mo last 12 Mo	Est Months to Catch Up		Cum	Open		
	# Forms	# Forms	# Months	# Cases	# Cases	# Months	# Months	#	#	%	#
Boston	32	30	1.1	53	37	1.5	2.5	17	8	47.1	14
Buffalo	42	48	0.9	110	56	2.0	2.9	34	14	41.2	17
Seattle	14	10	1.4	26	21	1.3	2.7	14	4	28.6	4
Columbus	36	20	1.8	111	44	2.5	4.3	27	12	44.4	20
Gainesville	6	27	0.2	205	23	8.9	9.1	22	14	63.6	19
Iowa	12	4	3.3	200	28	7.3	10.6	27	26	96.3	20
Medstar	8	31	0.3	92	21	4.5	4.7	9	4	44.4	5
Pittsburgh	18	19	1.0	87	25	3.5	4.4	11	6	54.5	7
Stanford	20	26	0.8	147	65	2.3	3.1	31	7	22.6	11
Tucson	16	12	1.3	35	22	1.6	2.9	14	4	28.6	5
Wake Forest	30	27	1.1	293	15	20.1	21.2	19	16	84.2	13
All RCs	234	252	0.9	1,359	354	3.8	4.8	225	115	51.1	135

[1] From Table 9.1

[2] From Table 9.2

[3] Medical Record Cohort (MRC) deaths since Oct. 1, 2010. RCs do not follow-up on Self Report Deaths (SRD).

[4] A death may have more than one open case (i.e., the number of open cases may be larger than the number of open deaths).

Table 9.4
Extension Study 2010-2015 Closure Codes for Closed Outcomes Cases

Data as of 10/31/11

	Closed Cases[1]	**Send to CCC** (Code 9)		**Adjudication Not Needed** (Code 10)		**Duplicate** (Code 11)		**No Doc in 12 Months** (Code 12)		**No ROI** (Code 13)		**Administrative** (Code 14)	
	#	#	%	#	%	#	%	#	%	#	%	#	%
Boston	441	359	81.4	44	10.0	35	7.9	2	0.5	1	0.2	0	
Buffalo	686	577	84.1	70	10.2	25	3.6	7	1.0	7	1.0	0	
Seattle	257	216	84.0	15	5.8	24	9.3	2	0.8	0		0	
Columbus	541	504	93.2	18	3.3	12	2.2	2	0.4	5	0.9	0	
Gainesville	277	246	88.8	14	5.1	6	2.2	6	2.2	5	1.8	0	
Iowa	335	265	79.1	44	13.1	26	7.8	0		0		0	
Medstar	250	215	86.0	26	10.4	9	3.6	0		0		0	
Pittsburgh	322	242	75.2	9	2.8	58	18.0	3	0.9	10	3.1	0	
Stanford	784	660	84.2	79	10.1	38	4.8	5	0.6	2	0.3	0	
Tucson	264	231	87.5	8	3.0	16	6.1	2	0.8	7	2.7	0	
Wake Forest	180	139	77.2	19	10.6	21	11.7	1	0.6	0		0	
All RCs	4,337	3,654	84.3	346	8.0	270	6.2	30	0.7	37	0.9	0	

[1] Closed cases includes all cases closed since Oct. 1, 2010

Table 9.5
Extension Study 2010-2015 Participant Follow-up Status[1]

Data as of 10/31/11

	# Participants	Full		Partial/Custom		Proxy		Lost		No Follow-up		Absolutely No Contact		Deceased	
		#	%	#	%	#	%	#	%	#	%	#	%	#	%
Boston	10,092	9,783	96.9	182	1.8	26	0.3	0		4	0.0	17	0.2	80	0.8
Buffalo	10,390	9,546	91.9	646	6.2	47	0.5	0		7	0.1	15	0.1	129	1.2
Seattle	4,550	4,139	91.0	320	7.0	20	0.4	0		5	0.1	1	0.0	65	1.4
Columbus	10,825	10,053	92.9	624	5.8	18	0.2	0		8	0.1	13	0.1	109	1.0
Gainesville	8,477	7,611	89.8	762	9.0	4	0.0	0		19	0.2	7	0.1	74	0.9
Iowa	8,742	8,131	93.0	460	5.3	32	0.4	0		5	0.1	3	0.0	111	1.3
Medstar	4,576	4,173	91.2	363	7.9	8	0.2	0		1	0.0	3	0.1	28	0.6
Pittsburgh	4,200	3,826	91.1	317	7.5	12	0.3	0		0		7	0.2	38	0.9
Stanford	15,946	14,890	93.4	854	5.4	14	0.1	0		4	0.0	6	0.0	178	1.1
Tucson	6,117	5,681	92.9	375	6.1	10	0.2	0		1	0.0	4	0.1	46	0.8
Wake Forest	9,634	9,167	95.2	356	3.7	20	0.2	4	0.0	5	0.1	2	0.0	80	0.8
All RCs	93,549	87,000	93.0	5,259	5.6	211	0.2	4	0.0	59	0.1	78	0.1	938	1.0

[1] Follow-up Status from *Form 9-WHI ES Participation Status*; Deceased from *Form 120-Initial Notification of Death* (all versions)

Table 9.6
CCC Data Entry Volume

10-1-10 to 9-30-11

Form	Forms					Sheets Scanned	Forms with Comments	
	Total	Key-Entered		Scanned				
	#	#	%	#	%	#	#	%
33 - Medical History Update[1]	84,942	204	0.2	84,738	99.8	677,904	13,100	15.5
33D - Medical History Update (Detail)[2]	31	31	100.0					
115 - Extension 2 Consent Status	11,043	11,043	100.0					
116 - Request For Extension 2 Consent–Third Mailing	5,102	5,102	100.0					
120 - Report Of Death[3]	3,881	3,881	100.0					
150 - Hormone Use Update[2]	88	2	2.3	86	97.7	344	0	0.0
151 - Activities Of Daily Living	83,443	124	0.1	83,319	99.9	83,319	420	0.5
153 - Medication And Supplement Inventory[2]	71	71	100.0					
154 - Breast Health Supplement To Med Inventory[2]	1	1	100.0					
155 - Lifestyle Questionnaire	1,339	109	8.1	1,230	91.9	9,840	1	0.1
Totals	189,941	20,568	10.8	169,373	89.2	771,407	13,521	8.0

[1] Includes Form 33 from both Extension Study 1 and Extension Study 2

[2] Includes forms from only Extension Study 1 (2005-2010)

[3] Includes over 3,000 deaths received from NDI search done in 2010

Table 9.7
Status of Outcomes Adjudication

Data as of 10/26/11

Committees	Total # Cases in WHIX	Cases at RCs Not Yet Sent to CCC				Cases at CCC					
		< 14 Days	14-29 Days	≥ 30 Days	Total (not sent)	Referred From: Rec'd from RCs	Referred From: Form 125 Review	Referred From: Other Committee	Total Cases From RCs and Referrals	QA Cases	# Cases to Adjudicate
Extension[1]											
Primary Cancers[2]	5,945	44	52	341	437	5,187	219	102	5,508	1,765	7,273
Other Cancers[3]	11,932	52	54	350	456	11,472		4	11,457	761	12,218
CVD[4]	11,052	54	58	386	498	8,995	1,311	248	10,554	1,291	11,845
Fatal Events	12,019	13	8	54	75	11,916	16	12	11,944	393	12,337
Stroke	5,846	8	12	86	106	4,686	893	161	5,740	311	6,051
Fracture	2,889	8	4	33	45	2,723	91	30	2,844	128	2,972
Miscellaneous										455	455
Extension Total	**49,683**	**179**	**188**	**1,250**	**1,617**	**44,979**	**2,530**	**557**	**48,047**	**5,104**	**53,151**
Form 125-Hospital	41,944	79	77	527	683	41,250		11	41,261		41,261
Retrospective Cases[5]											
HF (UNC)[6]	2,600					2,600			2,600		2,600
Stroke[7]	3,960					3,960			3,960		3,960

[1] Includes cases identified starting with Extension Study 2005

[2] Includes breast, endometrial, ovarian, colon, and rectal cancer sites

[3] Includes WHI and Extension Other Cancers

[4] Includes additional Extension 2010 cases of aortic aneurysm, heart valve, atrial fibrulation (A Fib), and heart failure (HF)

[5] Retrospective cases identified during Extension Study 2005 and scheduled to be adjudicated during Extension Study 2015

[6] Estimated HF cases to be forwarded to UNC

[7] DM and OS strokes

Table 9.8
CCC Adjudication Workload

Data as of 10/26/11

	# Cases at CCC			Status of Open Case Packets					
	Total	**# Closed**	**# Open**	**To Forward to Adj**	**Wait for Return from Adj**	**Adj Follow-up**	**Queries**	**Full Committee Review**	**Data Enter and Close**
Extension									
Cancer, Primary[1]	7,273	7,054	219	137	3		11		68
Cancer, Other[2] (WHI + ES)	12,218	11,851	367	238	21				108
CVD[3]	11,845	11,351	494	493	0		1		0
Fatal Events	12,337	12,297	40	40	0				0
Stroke	6,051	5,970	81	74	0	5	2		0
Fracture	2,972	2,942	30	30	0				0
Miscellaneous Cases	455	455	0						
Extension Total	**52,696**	**51,465**	**1,231**	**1,012**	**21**	**5**	**3**	**0**	**108**
Form 125-Hospitalization	41,261	41,078	183	183	0	0	0	0	0
Retrospective Cases									
HF (UNC)[4]	2,600	0	2,600	2,600					
Stroke[5]	3,960	0	3,960	3,952	8				

[1] Includes breast, endometrial, ovarian, colon, and rectal cancer

[2] Includes WHI and Extension Study other cancer

[3] Includes aortic aneurysm, heart valve, atrial fibrillation (A Fib), and heart failure (HF)

[4] Estimated HF cases to be forwarded to UNC

[5] DM and OS strokes

Table 10.1
CT Outcomes Cases with Remaining Blood Sample by Estimated Volume (in ml)
After Accounting for Approved Core, BAA, and Ancillary Studies

Visit	Outcome As of 03/11	Total*** Ppts	No Draw*	Blood Type	Volume of Designated Blood Components (mL)** as of October 2011																	
					0*		>0 - <.5		.5 - <1		1 - <1.5		1.5 - <2		2 - <2.5		2.5 - <3		3 - <3.5		3.5 - <4		4+	
					Ppt	%	Ppt	%	Ppt	%	Ppt	%	Ppt	%	Ppt	%	Ppt	%	Ppt	%	Ppt	%	Ppt	%
Base-line	Breast Cancer	4053	9	Serum	15	0%	3	0%	5	0%	54	1%	23	1%	209	5%	108	3%	798	20%	209	5%	2629	65%
				Citrate	29	1%	7	0%	2	0%	58	1%	11	0%	240	6%	41	1%	3570	88%			95	2%
				EDTA	58	1%			1	0%	16	0%	15	0%	277	7%	34	1%	3559	88%			93	2%
	Breast Cancer In Situ	826	3	Serum	4	0%	1	0%	1	0%	6	1%			27	3%	15	2%	107	13%	86	10%	579	70%
				Citrate	6	1%	2	0%	1	0%	7	1%	2	0%	47	6%	8	1%	737	89%			16	2%
				EDTA	12	1%					5	1%	5	1%	49	6%	7	1%	732	89%			16	2%
	Breast Cancer Invasive	3278	6	Serum	11	0%	2	0%	4	0%	49	1%	23	1%	185	6%	93	3%	699	21%	125	4%	2087	64%
				Citrate	23	1%	5	0%	1	0%	52	2%	9	0%	195	6%	35	1%	2875	88%			83	3%
				EDTA	47	1%			1	0%	11	0%	10	0%	230	7%	28	1%	2870	88%			81	2%
	CHD	3489	10	Serum	20	1%	7	0%	40	1%	83	2%	120	3%	240	7%	142	4%	647	19%	284	8%	1906	55%
				Citrate	34	1%	33	1%	32	1%	233	7%	62	2%	297	9%	41	1%	2657	76%			100	3%
				EDTA	52	1%	9	0%	23	1%	70	2%	187	5%	385	11%	86	2%	2578	74%	2	0%	97	3%
	Clinical MI	2614	9	Serum	17	1%	4	0%	31	1%	62	2%	102	4%	180	7%	102	4%	470	18%	215	8%	1431	55%
				Citrate	26	1%	28	1%	26	1%	179	7%	50	2%	222	8%	29	1%	1979	76%			75	3%
				EDTA	43	2%	8	0%	18	1%	59	2%	138	5%	291	11%	49	2%	1934	74%	1	0%	73	3%
	Colorectal Cancer	1077	2	Serum	3	0%	1	0%	3	0%	20	2%	15	1%	102	9%	55	5%	386	36%	69	6%	423	39%
				Citrate	10	1%	4	0%	3	0%	18	2%	4	0%	71	7%	19	2%	930	86%			18	2%
				EDTA	19	2%			3	0%	5	0%	6	1%	87	8%	21	2%	918	85%			18	2%
	DVT/PE	876	2	Serum	2	0%	3	0%	6	1%	24	3%	25	3%	117	13%	118	13%	318	36%	115	13%	148	17%
				Citrate	12	1%	21	2%	28	3%	152	17%	66	8%	49	6%	211	24%	306	35%	1	0%	30	3%
				EDTA	10	1%	4	0	4	0%	28	3%	22	3%	253	29%	48	5%	475	54%			32	4%
	Endometrial Cancer	558	3	Serum	5	1%	2	0%			7	1%	4	1%	15	3%	6	1%	92	16%	23	4%	404	72%
				Citrate	6	1%			2	0%	11	2%	3	1%	31	6%	3	1%	491	88%			11	2%
				EDTA	7	1%					4	1%	6	1%	39	7%	4	1%	488	87%			10	2%
	Hip Fracture	1606	3	Serum	10	1%	2	0%	3	0%	23	1%	21	1%	76	5%	65	4%	341	21%	161	10%	904	56%
				Citrate	18	1%	5	0%	6	0%	56	3%	11	1%	92	6%	17	1%	1365	85%			36	2%
				EDTA	22	1%	1	0%	2	0%	12	1%	18	1%	137	9%	13	1%	1366	85%			35	2%
	Ovarian Cancer	361	1	Serum	1	0%			3	1%	4	1%	5	1%	14	4%	10	3%	60	17%	61	17%	203	56%
				Citrate	5	1%	1	0%	1	0%	9	2%			25	7%			311	86%			9	2%
				EDTA	2	1%					5	1%	5	1%	30	8%	5	1%	305	84%			9	2%
	Stroke	2679	7	Serum	16	1%	6	0%	16	1%	64	2%	65	2%	189	7%	206	8%	471	18%	149	6%	1497	56%
				Citrate	37	1%	25	1%	27	1%	272	10%	27	1%	332	12%	49	2%	1851	69%	1	0%	58	2%
				EDTA	40	1%	3	0%	3	0%	39	1%	42	2%	411	15%	41	2%	2042	76%			58	2%

* Participants with no draw included in 0 volume column.

** Includes sample reserved for BAA (2 mL serum, 1 mL citrate, and 1 mL EDTA) and future WHI use (1 mL each serum, citrate, and EDTA)

Represents conservative estimate of 1 mL in each vial collected, with 4 serum, 3 citrate, and 3 EDTA vials collected at baseline for CT/OS, and at AV3 for OS.

*** Total # of participants whose first occurence of outcome occurred after blood draw.

Table 10.1 (continued)
CT Outcomes Cases with Remaining Blood Sample by Estimated Volume (in ml)
After Accounting for Approved Core, BAA, and Ancillary Studies

					Volume of Designated Blood Components (mL)** as of October 2011																			
Visit	Outcome As of 03/11	Total*** Ppts	No Draw*	Blood Type	0*		>0 - <.5		.5 - <1		1 - <1.5		1.5 - <2		2 - <2.5		2.5 - <3		3 - <3.5		3.5 - <4		4+	
					Ppt	%	Ppt	%	Ppt	%	Ppt	%	Ppt	%	Ppt	%	Ppt	%	Ppt	%	Ppt	%	Ppt	%
AV1	Breast Cancer	3852	201	Serum	208	5%			3	0%	28	1%	8	0%	87	2%	85	2%	539	14%	400	10%	2494	65%
				Citrate	218	6%	4	0%	1	0%	43	1%	6	0%	242	6%	13	0%	3323	86%			5	0%
				EDTA	256	7%	1	0			18	0%	11	0%	255	7%	9	0%	3302	86%			5	0%
	Breast Cancer In Situ	783	26	Serum	26	3%					6	1%			9	1%	7	1%	58	7%	41	5%	636	81%
				Citrate	30	4%	2	0%			8	1%	1	0%	49	6%	2	0%	691	88%			1	0%
				EDTA	40	5%	1	0			3	0%	2	0%	48	6%	2	0%	687	88%			1	0%
	Breast Cancer Invasive	3120	176	Serum	183	6%			3	0%	24	1%	8	0%	78	2%	78	2%	486	16%	365	12%	1895	61%
				Citrate	189	6%	2	0%	1	0%	36	1%	5	0%	195	6%	11	0%	2678	86%			5	0%
				EDTA	218	7%					15	0%	9	0%	209	7%	7	0%	2661	85%			5	0%
	CHD	3275	242	Serum	250	8%			3	0%	20	1%	14	0%	46	1%	54	2%	310	9%	225	7%	2355	72%
				Citrate	280	9%	20	1%	16	0%	155	5%	48	1%	273	8%	13	0%	2473	76%			2	0%
				EDTA	294	9%	4	0%	13	0%	50	2%	102	3%	325	10%	7	0%	2484	76%			2	0%
	Clinical MI	2434	158	Serum	164	7%			3	0%	16	1%	13	1%	33	1%	40	2%	227	9%	170	7%	1770	73%
				Citrate	191	8%	17	1%	13	1%	124	5%	40	2%	194	8%	9	0%	1849	76%			2	0%
				EDTA	202	8%	4	0%	8	0%	44	2%	80	3%	241	10%	6	0%	1853	76%			2	0%
	Colorectal Cancer	998	62	Serum	64	6%	1	0%			11	1%	1	0%	12	1%	12	1%	90	9%	80	8%	728	73%
				Citrate	68	7%	3	0%	2	0%	15	2%	2	0%	76	8%	2	0%	830	83%			1	0%
				EDTA	74	7%			1	0%	6	1%	4	0%	80	8%	2	0%	831	83%			1	0%
	DVT/PE	790	39	Serum	40	5%					1	0%	1	0%	13	2%	25	3%	117	15%	100	13%	493	62%
				Citrate	52	7%	13	2%	20	3%	87	11%	52	7%	47	6%	195	25%	324	41%			1	0%
				EDTA	50	6%	2	0%	2	0%	23	3%	9	1%	178	23%	36	5%	490	62%			1	0%
	Endometrial Cancer	518	26	Serum	26	5%					3	1%	1	0%	9	2%	6	1%	42	8%	21	4%	410	79%
				Citrate	32	6%					10	2%	1	0%	31	6%			445	86%				
				EDTA	31	6%					2	0%	3	1%	39	8%			445	86%				
	Hip Fracture	1556	82	Serum	85	5%	1	0%	1	0%	12	1%	2	0%	27	2%	23	1%	132	8%	121	8%	1152	74%
				Citrate	100	6%	4	0%	6	0%	46	3%	5	0%	93	6%	7	0%	1296	83%			1	0%
				EDTA	108	7%			1	0%	16	1%	8	1%	115	7%	2	0%	1307	84%			1	0%
	Ovarian Cancer	341	18	Serum	18	5%					4	1%			1	0%	3	1%	44	13%	56	16%	215	63%
				Citrate	19	6%	1	0%	1	0%	4	1%	1	0	30	9%			285	84%				
				EDTA	23	7%					1	0%	2	1%	35	10%			280	82%				
	Stroke	2536	150	Serum	158	6%	3	0%	1	0%	15	1%	7	0%	30	1%	66	3%	260	10%	205	8%	1791	71%
				Citrate	176	7%	21	1%	23	1%	183	7%	24	1%	333	13%	27	1%	1749	69%			1	0%
				EDTA	193	8%			1	0%	37	1%	21	1%	330	13%	7	0%	1947	77%			1	0%

* Participants with no draw included in 0 volume column.

** Includes sample reserved for BAA (2 mL serum, 1 mL citrate, and 1 mL EDTA) and future WHI use (1 mL each serum, citrate, and EDTA)

Represents conservative estimate of 1 mL in each vial collected, with 4 serum, 3 citrate, and 3 EDTA vials collected at baseline for CT/OS, and at AV3 for OS.

*** Total # of participants whose first occurence of outcome occurred after blood draw.

Table 10.2
OS Outcomes Cases with Remaining Blood Sample by Estimated Volume (in ml)
After Accounting for Approved Core, BAA, and Ancillary Studies

Visit	Outcome As of 03/11	Total*** Ppts	No Draw*	Blood Type	Volume of Designated Blood Components (ml)** as of October 2011																	
					0*		>0 - <.5		.5 - <1		1 - <1.5		1.5 - <2		2 - <2.5		2.5 - <3		3 - <3.5		3.5 - <4		4+	
					Ppt	%	Ppt	%	Ppt	%	Ppt	%	Ppt	%	Ppt	%	Ppt	%	Ppt	%	Ppt	%	Ppt	%
Base-line	Breast Cancer	5848	3	Serum	19	0%	4	0%	7	0%	41	1%	22	0%	266	5%	317	5%	716	12%	647	11%	3809	65%
				Citrate	65	1%	5	0%	6	0%	55	1%	69	1%	471	8%	907	16%	4155	71%			115	2%
				EDTA	117	2%	4	0%	5	0%	96	2%	111	2%	594	10%	840	14%	3966	68%	2	0%	113	2%
	Breast Cancer In Situ	1055	0	Serum	2	0%			2	0%	8	1%	6	0.01	22	2%	21	2%	82	8%	74	7%	838	79%
				Citrate	9	1%			1	0%	9	1%	6	1%	60	6%	117	11%	838	79%			15	1%
				EDTA	18	2%					11	1%	17	2%	106	10%	64	6%	824	78%			15	1%
	Breast Cancer Invasive	4853	3	Serum	17	0%	4	0%	6	0%	34	1%	17	0%	245	5%	299	6%	643	13%	578	12%	3010	62%
				Citrate	57	1%	5	0%	5	0%	46	1%	63	1%	415	9%	802	17%	3360	69%			100	2%
				EDTA	100	2%	4	0%	5	0%	86	2%	95	2%	495	10%	780	16%	3188	66%	2	0%	98	2%
	CHD	4122	2	Serum	17	0%	10	0%	20	0%	79	2%	51	1%	331	8%	103	2%	415	10%	566	14%	2530	61%
				Citrate	64	2%	30	1%	37	1%	182	4%	169	4%	720	17%	523	13%	2287	55%	2	0%	108	3%
				EDTA	99	2%	9	0%	40	1%	180	4%	257	6%	929	23%	774	19%	1725	42%	3	0%	106	3%
	Clinical MI	3078	1	Serum	13	0%	8	0%	15	0%	60	2%	40	1%	255	8%	81	3%	324	11%	464	15%	1818	59%
				Citrate	50	2%	25	1%	36	1%	141	5%	146	5%	566	18%	388	13%	1647	54%	2	0%	77	3%
				EDTA	78	3%	6	0%	36	1%	139	5%	203	7%	734	24%	584	19%	1219	40%	1	0%	78	3%
	Colorectal Cancer	1308	1	Serum	5	0%	2	0%	6	0%	20	2%	27	2%	145	11%	77	6%	329	25%	244	19%	453	35%
				Citrate	15	1%	5	0%	5	0%	24	2%	30	2%	235	18%	359	27%	598	46%			37	3%
				EDTA	35	3%	9	1%	10	1%	94	7%	117	9%	610	47%	186	14%	213	16%			34	3%
	Endometrial Cancer	804	1	Serum	5	1%	5	1%	5	1%	23	3%	20	2%	93	12%	72	9%	231	29%	111	14%	239	30%
				Citrate	10	1%					11	1%	12	1%	86	11%	185	23%	482	60%			18	2%
				EDTA	19	2%			2	0%	20	2%	17	2%	71	9%	67	8%	590	73%			18	2%
	Hip Fracture	2194	2	Serum	7	0%	10	0%	25	1%	77	4%	81	4%	210	10%	146	7%	315	14%	175	8%	1148	52%
				Citrate	24	1%	2	0%	1	0%	19	1%	39	2%	195	9%	166	8%	1707	78%			41	2%
				EDTA	47	2%	3	0%	2	0%	54	2%	64	3%	252	11%	255	12%	1477	67%	1	0%	39	2%
	Ovarian Cancer	539	0	Serum			2	0%	2	0%	9	2%	7	1%	37	7%	41	8%	187	35%	99	18%	155	29%
				Citrate	4	1%			1	0%	4	1%	3	0.01	31	6%	31	6%	455	84%			10	2%
				EDTA	6	1%	2	0%	1	0%	9	2%	14	3%	54	10%	88	16%	355	66%			10	2%
	Stroke	3233	0	Serum	4	0%	7	0%	9	0%	34	1%	38	1%	141	4%	78	2%	437	14%	562	17%	1923	59%
				Citrate	34	1%	16	0%	18	1%	178	6%	325	10%	592	18%	161	5%	1833	57%			76	2%
				EDTA	59	2%	37	1%	59	2%	464	14%	366	11%	504	16%	535	17%	1134	35%	2	0%	73	2%

* Participants with no draw included in 0 volume column.

** Includes sample reserved for BAA (2 mL serum, 1 mL citrate, and 1 mL EDTA) and future WHI use (1 mL each serum, citrate, and EDTA)

Represents conservative estimate of 1 mL in each vial collected, with 4 serum, 3 citrate, and 3 EDTA vials collected at baseline for CT/OS, and at AV3 for OS.

*** Total # of participants whose first occurence of outcome occurred after blood draw.

Table 10.2 (continued)
OS Outcomes Cases with Remaining Blood Sample by Estimated Volume (in ml)
After Accounting for Approved Core, BAA, and Ancillary Studies

					Volume of Designated Blood Components (mL)** as of October 2011																	
Visit	Outcome As of 03/11	Total*** Ppts	No Draw*	Blood Type	0*		>0 - <.5		.5 - <1		1 - <1.5		1.5 - <2		2 - <2.5		2.5 - <3		3 - <3.5		3.5 - <4		4+	
					Ppt	%	Ppt	%	Ppt	%	Ppt	%	Ppt	%	Ppt	%	Ppt	%	Ppt	%	Ppt	%	Ppt	%
AV3	Breast Cancer	4241	525	Serum	543	13%					12	0%			28	1%	1	0%	65	2%	84	2%	3513	83%
				Citrate	597	14%					22	1%			46	1%			3600	85%			1	0%
				EDTA	652	15%	1	0	1	0%	27	1%	13	0%	218	5%	297	7%	3075	73%			2	0%
	Breast Cancer In Situ	783	82	Serum	82	10%					2	0%			2	0%			11	1%	15	2%	671	86%
				Citrate	93	12%					5	1%			7	1%			680	87%				
				EDTA	106	14%					2	0%	1	0%	23	3%	10	1%	650	83%				
	Breast Cancer Invasive	3512	450	Serum	468	13%					11	0%			26	1%	1	0%	55	2%	69	2%	2887	82%
				Citrate	511	15%					18	1%			39	1%			2966	84%			1	0%
				EDTA	553	16%	1	0	1	0%	25	1%	13	0%	198	6%	288	8%	2467	70%			2	0%
	CHD	3369	587	Serum	607	18%					6	0%	1	0%	23	1%	13	0%	92	3%	108	3%	2526	75%
				Citrate	638	19%					9	0%			101	3%			2631	78%			1	0%
				EDTA	673	20%	1	0%			36	1%	32	1%	523	16%	139	4%	1983	59%			1	0%
	Clinical MI	2436	351	Serum	370	15%					3	0%	1	0%	17	1%	11	0%	64	3%	81	3%	1896	78%
				Citrate	392	16%					6	0%			80	3%			1969	81%				
				EDTA	418	17%	1	0%			30	1%	26	1%	424	17%	107	4%	1449	59%				
	Colorectal Cancer	976	156	Serum	164	17%	1	0%	1	0%	3	0%	2	0%	6	1%	3	0%	49	5%	230	24%	520	53%
				Citrate	169	17%					2	0%			15	2%			795	81%				
				EDTA	179	18%					9	1%	4	0%	60	6%	74	8%	656	67%				
	Endometrial Cancer	591	82	Serum	85	14%									5	1%			16	3%	15	3%	471	80%
				Citrate	90	15%					3	1%			8	1%			492	83%				
				EDTA	96	16%					2	0%	1	0%	16	3%	15	3%	466	79%				
	Hip Fracture	1900	280	Serum	294	15%					1	0%			9	0%			29	2%	27	1%	1541	81%
				Citrate	311	16%					6	0%			16	1%			1566	82%			1	0%
				EDTA	327	17%	1	0%			9	0%	2	0%	68	4%	32	2%	1462	77%			1	0%
	Ovarian Cancer	403	66	Serum	69	17%									2	0%			20	5%	57	14%	255	63%
				Citrate	72	18%					2	0%			2	0%			328	81%				
				EDTA	74	18%					2	0%	2	0%	14	3%	56	14%	257	64%				
	Stroke	2657	436	Serum	454	17%					6	0%			23	1%	2	0%	49	2%	35	1%	2091	79%
				Citrate	481	18%					14	1%			43	2%			2128	80%				
				EDTA	521	20%					17	1%	4	0%	116	4%	48	2%	1965	74%				

* Participants with no draw included in 0 volume column.

** Includes sample reserved for BAA (2 mL serum, 1 mL citrate, and 1 mL EDTA) and future WHI use (1 mL each serum, citrate, and EDTA)

Represents conservative estimate of 1 mL in each vial collected, with 4 serum, 3 citrate, and 3 EDTA vials collected at baseline for CT/OS, and at AV3 for OS.

*** Total # of participants whose first occurence of outcome occurred after blood draw.

Table 10.3
CT and OS Outcomes Cases with DNA* Available
Data as of 10/31/11

		No DNA Available[1]		< 25 ug Extracted, no Buffy Coat Available for Extraction[2]		< 25 ug Extracted, with Buffy Coat Available for Extraction[3]		> 25 ug Extracted[4]	
Outcome As of 3/11	**Ppts**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
CT									
Breast Cancer	4053	61	1.5%	37	0.9%	518	12.8%	3437	85%
Breast Cancer Invasive	3278	45	1.4%	35	1.1%	214	6.5%	2984	91%
CHD	3489	61	1.8%	50	1.4%	394	11.3%	2984	86%
Clinical MI	2614	44	1.7%	38	1.5%	267	10.2%	2265	87%
Colorectal Cancer	1077	19	1.8%	22	2.0%	142	13.2%	894	83%
Endometrial Cancer	558	10	1.8%	4	0.7%	73	13.1%	471	84%
Hip Fracture	1606	37	2.3%	43	2.7%	119	7.4%	1407	88%
Ovarian Cancer	361	5	1.4%	3	0.8%	46	12.7%	307	85%
Stroke	2679	39	1.5%	72	2.7%	302	11.3%	2266	85%
OS									
Breast Cancer	5848	59	1.0%	15	0.3%	911	15.6%	4863	83%
Breast Cancer Invasive	4853	54	1.1%	14	0.3%	405	8.3%	4380	90%
CHD	4122	52	1.3%	23	0.6%	446	10.8%	3601	87%
Clinical MI	3078	33	1.1%	16	0.5%	307	10.0%	2722	88%
Colorectal Cancer	1308	19	1.5%	12	0.9%	117	8.9%	1160	89%
Endometrial Cancer	804	8	1.0%	1	0.1%	96	11.9%	699	87%
Hip Fracture	2194	24	1.1%	11	0.5%	232	10.6%	1927	88%
Ovarian Cancer	539	7	1.3%	5	0.9%	92	17.1%	435	81%
Stroke	3233	42	1.3%	16	0.5%	352	10.9%	2823	87%

* DNA measured by OD ratio or PicoGreen
[1] < 25 ug DNA in inventory, either in daughter or parent aliquots, and no buffy coat available
[2] < 25 ug DNA in inventory, either in daughter or parent aliquots, and no buffy coat available
[3] < 25 ug DNA in inventory, either in daughter or parent aliquots, and 1 or more buffy coats not yet extracted
[4] 25+ ug DNA in inventory, either in daughter or parent aliquots, regardless of number of buffy coats not yet extracted

Table 10.4
Number of Funded Core, BAA, and Ancillary Studies
Using Blood Sample
by Outcome[1] and Specimen Type

	Serum/Plasma Only	Both Serum/Plasma and DNA	DNA Only	GWAS[2]	Urine	RBCs	Total[3]
Cancer							
Bladder Cancer			1	1			1
Breast Cancer	9	1	6	4	2		17
Colon Cancer	1		1				2
Colorectal Cancer	6	4	4	1		1	14
Endometrial Cancer	3		2				5
Gastric/Esophageal Cancer		1		1			1
Glioma			1	1			1
Kidney Cancer			1	1			1
Lung Cancer	1	2	1				4
Lymphoma, Non Hodgkins		1	2	1			3
Melanoma			2				2
Multiple Myeloma		1					1
Pancreatic Cancer	1	2	1	1		1	4
Ovarian Cancer	5		1				6
Cardiovascular							
CHD	12	2	5	2		1	19
Hypertension		1					1
Stroke	9	2	6	2		1	17
VTE	2	1	2	1			5
Fracture							
Elbow, Lower Humerus	1						1
Hip Fracture	4	2	2	1		1	8
Spine	2						2
Overall Fracture	1						1
Other							
Cognitive decline	1		1			1	2
Eye Disease	1						1
Fraility-disability		1					1
Sarcopenia		1					1
Type 2 Diabetes		2	3	1			5
Blacks/Hispanics			1	1			1

[1] Several studies include more than one outcome
[2] GWAS counted in number of DNA studies
[3] Several studies may use more than one specimen type

Table 11.1
Approved and Proposed Core Studies[1]

Ref #	Title	Status	Study Population	Blood	Analytes/Data	Used in Approved Publications
W1	CT core analytes on 6% subsample; quarterly core analytes on QC pools A and B	Funded	CT Controls:3800 *B, Y1, Y3, Y6 on 6% Blood Subsample	Y	Citrate 1ml: FVII Ag; FVII Conc; Fibrinogen EDTA 1ml: Cholesterol; HDL2; HDL3; HDLC; LDLC; Lp(a); Trig Serum 1ml: Carotene, alpha; Carotene, beta; Cryptoxan, beta; Glucose; Insulin; Lutein+Zeax; Lycopene; Retinol; Tocopherol, alpha; Tocopherol, gamma	204, 210, 222, 240, 273, 345, 347, 350, 447, 448, 449, 520, 521, 524, 866
W2	OS-measurement precision study (OS-MPS)	Complete	OS Controls:800 *B, 3 month	Y	Citrate 1ml: FVII Ag; FVII Conc; Fibrinogen EDTA 1ml: Cholesterol; HDL2; HDL3; HDLC; LDLC; Lp(a); Trig Serum 1ml: Carotene, alpha; Carotene, beta; Cryptoxan, beta; Glucose; Insulin; Lutein+Zeax; Lycopene; Retinol; Tocopherol, alpha; Tocopherol, gamma	442, 524
W4	National validation and quality control assurance of vitamin D absorption from CaD tablets for WHI	Complete	CaD Controls:448 *Y3	Y	Serum 1ml: Vit D 25-OH	
W5	Correlates of endogenous sex hormone concentrations in WHI	Complete	DM Controls:300 *150 DM Intervention + 150 DM controls at B and Y1	Y	Serum 3ml: Albumin; Androstenedione; DHEA; DHEAS; DHT; Estradiol (E2); Estradiol, bioavail; Estradiol, bioavail (%); Estrone (E1); Estrone sulfate; Progesterone; Prolactin; SHBG; Testosterone	20, 280, 1218

Table 11.1 (continued)
Approved and Proposed Core Studies[1]

Ref #	Title	Status	Study Population	Blood	Analytes/Data	Used in Approved Publications
W6	HT CVD Biomarkers: study of CHD, Stroke and VTE - Phase I	Complete	HRT CHD:402 Stroke:272 VTE:223 Controls:877 *B, Y1	Y	Citrate 1ml: ATIII; CRP; D-dimers; F1+2; FIX Conc; FVIII Activity; Fibrinogen; PAI-1 Ag; PAP; Protein C; Protein S Free; Protein S Total; Prothrombin Ag; TAFI; vWF DNA 3ug: ESR1; ESR2; GP3A-P1A; GPIba; ITGA2807CT DNA 3ug: FV Leiden; FV-HR2; FXIII val34leu; MTHFR; PAI-1; PRO2; PROT EDTA .25ml: NMR Lipids EDTA 1ml: Cholesterol; E-Selectin; HDL2; HDL3; HDLC; Homocysteine; IL-6; LDLC; Lipo-particles; Lp(a); Trig Serum 1ml: MMP-9	204, 210, 222, 273, 345, 347, 350, 380, 429, 445, 462, 526, 854, 866, 972
W7	Genome-wide scan on breast cancer, CHD, and stroke	Complete	General Population Breast Cancer:2145 CHD:2119 Stroke:2215 Controls:6479	Y	DNA 2ug: Pooled GWAS	1104

Table 11.1 (continued)
Approved and Proposed Core Studies[1]

Ref #	Title	Status	Study Population	Blood	Analytes/Data	Used in Approved Publications
W8	Nutritional biomarkers study (NBS)	Complete	DM	Y	EDTA 1ml: NBS-24hr Urine 1.85ml: 24 hr Urine Volume; PABA; PABA24; PABACMP; PABACMPH; PABARCVR; PABARCVRH; Paba mg/24hr (hplc); Paba mg/L (hplc); Urine N g/L; Urine N g/day; 24 hr urine volume, nitrogen g/day, nitrogen g/L, sodium, potasium; Paba mg/L (colorimetric and HPLC); Paba mg/24 hr (colorimetric); Paba completeness (colorimetric and HPLC); Paba recovery (colorimetric and HPLC); NBS-24hr Urine 4ml: BUN; Urinary potassium NBS-Spot Urine 4ml: % Fat; DE-SU3; DE-SU4; DE-SU5; DE-SU6; DSRATIO; EE3/5; EE4/6; Fat-free mass; Fluid; H2CONST; LOT; Nd; No; O18-SU3; O18-SU4; O18-SU5; O18-SU6; O18CONST; RCO2-3/5; RCO2-4/6; TEE-CONRQ; TEE-INTVRQ; TEE-USRQ; Total Body Water; r-H2O; NBS Spot Urine 4 ml: %Fat; DE-SU3; DE-SU4; DE-SU5; DE-SU6; EE3/5; EE4/6; Fat-free mass; Fluid; H2CONST; Internal check DSRatio; LOT; Nd; No; O18-SU3; O18-SU4; O18-SU5; O18-SU6; O18CONST; RCO2-3/5; RCO2-4/6; TEE-CONRQ RQ Control group (38.1/44.7/17.2 %E from F/C/P); TEE-INTVRQ Intervention (29.8/52.7/17.5 %E from F/C/P); TEE-USRQ RQ assumed general US (34/47/18 %E F/C/P); Total Body Water; r-H2O Serum .2ml: Carotene, alpha; Carotene, beta; Cholesterol; Folate; Tocopherol, alpha; Tocopherol, gamma; Alpha-carotene, alpha-tocopherol, beta-carotene, folate, gamma-tocopherol, total cholesterol	464, 624, 646, 708, 831, 941, 945
W9	Biological markers of the effect of HT on risk of fractures in the Women's Health Initiative clinical trial	Analysis	HRT Fracture - Hip:750 Controls:750 *Fill in with non-spine fractures to make 750	Y	Serum .65ml: Estradiol (E2); Estradiol, bioavail (FE2+AE2); Estradiol, free; SHBG Serum .25ml:	433, 1218

Table 11.1 (continued)
Approved and Proposed Core Studies[1]

Ref #	Title	Status	Study Population	Blood	Analytes/Data	Used in Approved Publications
W10	Biological markers of the effect of HT on risk of breast cancer in the Women's Health Initiative clinical trial	Complete	HRT Breast Cancer:755 Controls:755 *498 E+P and 260 E-Alone cases through Sept 2005; B, Y1	Y	Serum .95ml: Estradiol (E2); Estradiol, bioavail (FE2+AE2); Estradiol, free; Estrone (E1); Estrone sulfate; Progesterone; SHBG; Testosterone; Testosterone, bioavail; Testosterone, free; (progesterone and testosterone at baseline only)	1033, 1218
W11	CVD biomarkers - Phase II: strokes after Feb. 2001	Complete	HRT Stroke:316 Controls:316 *108 new E+P cases up to July 2002, 174 E alone cases up to March 2005 (316 total as of 4-8-05); B, Y1	Y	Citrate .35ml: TFPI activity; TFPI, free; TFPI, total Citrate .65ml: APC-ETP; LT_APC; NAPCSR DNA 1ug: ESR1; ESR2; GP3A-P1A; GPIba; ITGA2807CT; Serum .25ml: Glucose; Insulin	462, 1114
W14	CVD biomarkers - Phase I: additional asays	Analysis	HRT CHD:390 Stroke:270 VTE:220 Controls:880 *B, Y1	Y	Citrate .95ml: Citrate .35ml: TFPI activity; TFPI, free; TFPI, total Citrate .65ml: APC-ETP; LT_APC; NAPCSR Serum .25ml: Glucose; Insulin;	866, 972, 1114
W15	CaD Vitamin D levels in CaD participants with colorectal cancer or fractures	Complete	CaD Colorectal Cancer:334 Fracture - Hip:360 Fracture - Elbow, Lower humerous:853 Fracture - Spine Only:283 Controls:1830 *Y1; B only if Y1 not available	Y	Serum .2ml: Vit D 25-OH	450, 451, 581, 861, 876, 878, 910, 1121
W18	HT Hormone Pretest	Analysis	HRT Controls:240 *120 active + 120 placebo; B, Y1	Y	Serum .95ml: Estradiol (E2); Estradiol, bioavail (FE2+AE2); Estradiol, free; Estrone (E1); Progesterone; SHBG; Testosterone; Testosterone, bioavail; Testosterone, free; (progesterone and testosterone only on E+P samples)	795, 1218

Table 11.1 (continued)
Approved and Proposed Core Studies[1]

Ref #	Title	Status	Study Population	Blood	Analytes/Data	Used in Approved Publications
W19	WHI HT Proteomic Pilot Study	Analysis	HRT Controls:200 *100 active, 100 control; B, AV1	Y	Serum .1ml: Proteomics Serum .3ml: Phase II proteins	843, 921
W20	WHI-EDRN pilot study for the identification of circulating biomarkers for colon cancer in pre-clinical specimens	Analysis	OS Colorectal Cancer:100 Controls:120 *Colon cancer cases 6-18 mo after Year 3	Y	EDTA .2ml: Proteomics; Calibration for Wayne State lab. EDTA .55ml: Proteomics	
W22	Vitamin D levels in 6% blood subsample of CaD	Complete	CaD *600 ppts from CaD trial at AV1 and AV3	Y	Serum .2ml: 25-OH Vitamin D3	
W23	Genotyping to explore CaD intervention effect on hip fracture	Dropped	CaD Fracture - Hip	Y	DNA 1ug: 3 SNPs of VDR: Bsm I, Apa I, Taq I; 4 SNPs in the non-coding region of CYP27B1; 4 SNPs CASR: CA repeat; A986; R990G; Q1011E	
W24	CaD vitamin D and breast cancer	Analysis	CaD Breast Cancer:1081 Controls:1081 *Use controls from W15 when possible	Y	Serum .2ml: Vit D 25-OH	470, 861, 876, 878, 910, 1121
W25	WHI coronary artery calcification study in E-alone (WHI-CACS)	Complete	HRT *1150 E-Alone ppts aged 50-59	N		503, 506, 570, 591, 806, 816, 912, 955
W26	Food grouping in WHI by FHCRC nutrition shared resource group	Complete	DM	N		

Table 11.1 (continued)
Approved and Proposed Core Studies[1]

Ref #	Title	Status	Study Population	Blood	Analytes/Data	Used in Approved Publications
W27	Nutrition and physical activity assessment study (AS218) lab work	Funded	OS *450 ppts	Y	EDTA 1.8ml: NPAAS-24hr Urine 1.8ml 4ml: 24 hr urine volume, unirary nitrogen g/day, urinary nitrogen g/L NPAAS-24hr Urine 1.8ml 4ml NPAAS-24hr Urine 1.8ml 1ml NPAAS-Spot Urine 4ml: % Fat; BMI; DSRATIO; Fat-free mass; Fluid; Isotope Approval; Nd; No; RCO2-3/5; RCO2-4/6; RQ; TEE; TEE mj/day; Total Body Water; r-H2O; %Fat; DE-SU3; DE-SU4; DE-SU5; DE-SU6; EE3/5; EE4/6; Fat-free mass; Fluid; H2CONST; Internal check DSRatio; LOT; Nd; No; O18-SU3; O18-SU4; O18-SU5; O18-SU6; O18CONST; RCO2-3/5; RCO2-4/6; TEE-CONRQ RQ Control group (38.1/44.7/17.2 %E from F/C/P); TEE-INTVRQ Intervention (29.8/52.7/17.5 %E from F/C/P); TEE-USRQ RQ assumed general US (34/47/18 %E F/C/P); Total Body Water; r-H2O Serum 1ml	1178, 1385, 1532
W28	Medicare claims data linkage	Complete	General Population	N		
W30	Dietary assessment study	Complete	DM *160 ppts for 4DFR analyses, repeat 24 hr recalls, and repeat FFQs	N		35
W31	4DFR on DM ovarian cancers	Complete	DM Ovarian Cancer:160 *For DM Other Cancer paper	N		469
W32	Coding diagnosis text on Form 125-Hospitalization	Dropped	General Population	N		
W33	4DFR and DM breast cancer	Complete	DM Breast Cancer:1800 *For DM Breast Cancer paper	N		448

Table 11.1 (continued)
Approved and Proposed Core Studies[1]

Ref #	Title	Status	Study Population	Blood	Analytes/Data	Used in Approved Publications
W34	Extension of WHI stroke genome-wide association study (W-7)	Complete	General Population Stroke:2096 Controls:2096	Y	DNA 2ug: SNPs 5.4K	
W35	Full CMS data on all CT and OS participants aged 65 or over	Complete	General Population	N		889, 1217, 1409
W37	EDRN WHI Phase 2: identification of circulating colon cancer biomarkers in pre-clinical and clinical specimens	Dropped	General Population Colon cancer:100 Controls:100 *Cases within 2 years of blood draw, either baseline, AV1 (CT), or AV3 (OS)	Y	EDTA .55ml: ANG; APP; ARMET; C8G; CATHB; CATHD; CFH; CST6; CULLIN; DJ1; F5; HP; HPR; IGFBP-2; KNG1; LOC442043; LRG1; MAPRE1; PDIA3; PKM2; PPBP; RAB; RANBP1; SPARC; TF; TNC	
W38	WHI-CACs and lipids and inflammation	Dropped	HRT *Cases: 422 CAC Score > 10; controls: 422 CAC scire=0	Y	EDTA .55ml: NMR lipids, CRP, E-selectin, homocysteine, MMP-9, glucose, insulin, osteoprotogerin, CTx	
W39	27-hydroxycholesterol in CVD biomarkers (W-6)	Complete	HRT CHD:359 Controls:820 *CHD cases from W6-HT CVD Biomarkers	Y	Serum .55ml: Chol, 27-OH	1300
W40	Validation of E-alone proteins in W19-HT proteomics	Complete	HRT Controls:100 *100 E-Alone ppts in active treatment arm	Y	Serum .4ml: AHSG; CLL16; CP; FIX; FX; ICAM-1; IGF-I; IGFBP-1; IGFBP-2; IGFBP-3; IGFBP-4; IGFBP-6; KNG1; MCAM; MMP-2; NOV; Protein Z; Proteomics; SHBG; TFF3; VTN; VitD Binding	843
W41	Medications inventory on WHI Extension participants	Complete	General Population	N		
W42	SEER code WHI and ES non-primary cancers	Complete	General Population	N		
W43	Gene sequencing of selected genes in breast cancer and stroke SNP studies (W7 and W34)	Complete	HRT E+P Breast Cancer:60 Controls:60 *60 active treatment. 60 placebo	Y	DNA 0ug: Gene seq; Use samples from W7 and W34.	
W44	Biological validation of E+P effects on the serum proteome and comparison of E+P and E-Alone effects (see W19 and W40)	Complete	HRT Controls:50 *50 E+P ppts at baseline,AV1	Y	Serum .55ml: ACE; AGTASE; ANG; Apo D; Apo F; B2M; CAPPT; CCL18; CP; CSF1; FX; ICAM-1; IGF-I; IGFBP-1; IGFBP-2; IGFBP-4; KNG1; LCN2; LGALS3BP; LYVE1; MCAM; MCSF1; MMP-2; NOV; PARCq; RNASE4; TFF3; THBS1; TNC; VTN; XLKD1	921

Table 11.1 (continued)
Approved and Proposed Core Studies[1]

Ref #	Title	Status	Study Population	Blood	Analytes/Data	Used in Approved Publications
W45	Proteomic Colon Cancer Study	Complete	OS Colon cancer:100 Controls:100	Y	Citrate .15ml: ADAMTS13; APP; CEA; ENO1; IGFBP-1; IGFBP-2; IGFBP-6; LGALS3BP; LRG1; LTF; MAPRE1; MMP-2; NID1; PKM2; PPBP; PPIA; SPARC	
W46	HT Proteomics: CHD, stroke and breast cancer	Dropped	HRT CHD:100	Y	Serum .14ml: Proteomics	
W47	Breast Tumor Tissue Pilot	Complete	General Population	N		
W48	Estradiol and hot flashes in DM	Dropped	DM	Y		
W49	Assessing Recurrent Breast Cancer	Dropped	General Population	N		
W50	Biomarkers in Minorities	Dropped	General Population	Y		
W51	Transfer of AS62-WHISE blood samples to WHI repository	Complete	General Population	N		
W52	SHARe data clean-up	Complete	General Population	N		
W53	HT CHD Proteomics Coronary Heart Disease Pathogenesis and Postmenopausal Hormones	Dropped	HRT	Y		
W54	CVD Biomarkers for 2010-2015 (SHARe cohort only)	Complete	General Population Controls:12008 *SHARe ppts (12,008)	Y	Serum .25ml: CREA; hsCRP; Cholesterol; Glucose; HDL; Insulin; LDL; Trig; Lipid panel, creatinine	
W55	Biomarkers for M13 "Fill in the Gaps"	Dropped	General Population	Y		
W56	Validity and reproducibility of RT-PCR assays as a measure of telomere length	Dropped	General Population	Y		
W57	Proposal to Extend CVD Biomarker Study using HT Proteomics Study	Complete	General Population CHD:356 Stroke:348 Controls: 704 *B+Yr 1	Y	Citrate .15ml: B2M Citrate .15ml: IGFBP-4	1065
W58	CVD Biomarkers on non-SHARe participants	Funded	General Population	Y	Serum .25ml: CREA; hsCRP; Cholesterol; Glucose; HDL; Insulin; LDL; Trig; Lipid panel, creatinine	
W59	Collaborative telomere studies pilot study	Funded	General Population	Y	DNA .0625ug: Leukocyte Telomere	
W60	Proteomic Risk Factors for CHD, Stroke, and Breast Cancer	Dropped	General Population	Y		

Table 11.1 (continued)
Approved and Proposed Core Studies[1]

Ref #	Title	Status	Study Population	Blood	Analytes/Data	Used in Approved Publications
W61	DNA Extraction of Medical Records Cohort Participants	Complete	General Population Controls:12000 *~12,000 Med Records Cohort ppts who need to be extracted.	Y		
W62	Full Telomere Project - follow up to W59 Telomere Pilot	Funded	HRT	Y		
W63	GWAS on the 80+ Year Old Women	Funded	General Population	Y		
W64	In-Person Visit	Funded	General Population	N		
AS286[2]	Objective physical activity and cardiovascular health in women aged 80 and older	Funded	CT *6500 E+P women, 2500 E - alone women, 1000 SHARe participants	N		
M3[2]	NCI Cancer Genetic Markers of Susceptibility (CGEMS) Initiative: Replication Phase	Analysis	OS Breast Cancer:2956 Controls:2956 *Caucasians only.	Y	DNA 4ug: SNPs 30K	874, 906, 907, 908, 1104, 1109
M4[2]	Whole genome scan for pancreatic cancer risk in the pancreatic cancer cohort consortium (PANSCAN)	Analysis	General Population Pancreatic Cancer:283 Controls:283	Y	DNA 4ug: GWAS	875, 930, 931, 932, 933, 934, 936, 1075, 1085, 1201, 1266, 1276, 1530, 1588
M5[2]	SHARe (SNP Health Association Resource) GWAS	Analysis	General Population Controls:12500 *Blacks, Hispanics who signed Supplemental Consent	Y	DNA 2ug: GWAS	981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 993, 994, 995, 996, 998, 999, 1001, 1002, 1003, 1004, 1006, 1007, 1008, 1010, 1013, 1014, 1015, 1016, 1018, 1019, 1020, 1022, 1024, 1050, 1082, 1089, 1092, 1105, 1108, 1112, 1119, 1122, 1157, 1160, 1167, 1176, 1180, 1199, 1219, 1256, 1258, 1268, 1286, 1299, 1313, 1314, 1316, 1356, 1370, 1401, 1423, 1453, 1459, 1469, 1486, 1505, 1552

Table 11.1 (continued)
Approved and Proposed Core Studies[1]

Ref #	Title	Status	Study Population	Blood	Analytes/Data	Used in Approved Publications
M6[2]	PAGE: Population Architecture of Genes and Environment (formally Epidemiologic investigation of putative causal genetic variants: The Women's Health Initiative)	Funded	General Population Colorectal Cancer:1436 Endometrial Cancer:1103 CHD:4274 Type 2 Diabetes:4000 Stroke:3455 Ovarian Cancer:703 Lung Cancer:1751 Melanoma - Skin:1102 Lymphoma, Non Hodgkins:843 Breast Cancer - Invasive:1961 Controls:80000 *~20,000 ppts (cases & controls) every year for 4 years (new set of outcomes each year); Yr 01 Outcomes: CVD, Stroke, T2D	Y	DNA 1ug: Metabochip DNA 2ug: SNPs 96 DNA 2ug: SNPs 384; year 2 DNA 2ug: SNPs 384 ekg DNA 2ug: AIMS	1072, 1073, 1170, 1171, 1172, 1192, 1193, 1194, 1221, 1235, 1236, 1237, 1238, 1239, 1240, 1241, 1242, 1243, 1244, 1245, 1246, 1247, 1248, 1249, 1250, 1345, 1346, 1347, 1348, 1349, 1350, 1351, 1352, 1353, 1380, 1423, 1439, 1440, 1441, 1491
M13[2]	HT CVD/Diabetes GWAS of treatment response in randomized clinical trials	Funded	General Population CHD:615 Type 2 Diabetes:1184 Stroke:438 VTE:373 Controls:2610	Y	DNA 2ug: Illumina 1M Omni DNA 2ug: Phase II Validation	1122, 1342, 1362, 1483
M15[2]	Beyond GWAS: Study of Type 2 Diabetes Genes in Multiethnic Populations.	Seeking Approval	General Population Controls:5350	Y	DNA 1ug: Fine Mapping DNA 5ug: TBD	

Table 11.1 (continued)
Approved and Proposed Core Studies[1]

Ref #	Title	Status	Study Population	Blood	Analytes/Data	Used in Approved Publications
M21[2]	WHI Share-CARe minority cohort post-GWAS	Dropped	General Population CHD:8515	Y	Citrate .55ml: D-dimers; Fibrinogen DNA 2ug: GWAS EDTA .15ml: LipoSubfract. EDTA .4ml: Apo A1; Apo B; CRP; Cystatin-C RBC .15ml: HGA1c Serum 1.05ml: CREA; Cholesterol; E-Selectin; GGTP; Glucose; HDL; ICAM-1; Insulin; Lp-PLA2; Trig; Vit D 25-OH	
M24[2]	WHI Sequencing Project (WHISP)	Funded	General Population *Phase I: BMI/T2D, Early MI. Phase II: Stroke, Blood Pressure, Deeply Phenotyped Reference Group (DPR)	Y	DNA 5ug: DNA 5ug: Exomic Sequencing; large-scale genetic sequencing DNA 5ug:	1458, 1501, 1543, 1544, 1545, 1546, 1547, 1548, 1549, 1550, 1551

[1] Core studies are conducted using internal WHI Funds included in the Clinical Coordinating Center budget. Studies are developed and monitored by a study-wide Core Resources Working Group. NHLBI conducts additional peer review of proposed uses beyond those specified in the study protocol (certain subsamples) and pilot projects.
[2] Core initiative studies that are not funded through WHI funds (they are externally funded)

Table 11.2
Broad Agency Announcement Activities

BAA	Title	PI	Institution	Approved Publications
1	Ancestry Association Analyses of WHI Traits	Dr. Michael Seldin	University of California, Davis	964, 1158, 1185, 1253, 1315, 1500
2	High-Dimensional Genotype in Relation to Breast Cancer and WHI Clinical Trial Interventions	Dr. Ross Prentice	Fred Hutchinson Cancer Research Center	846, 1045, 1055, 1070, 1104
3	Genome-wide Association Study to Identify Genetic Components of Hip Fracture	Dr. Rebecca Jackson	Ohio State University Research Foundation	
4	Proteomics and the Health Effects of Postmenopausal Hormone Therapy	Dr. Ross Prentice	Fred Hutchinson Cancer Research Center	1064, 1065
5	Identification and Validation of Circulating Biomarkers for the Early Detection of Breast Cancer in Pre-Clinical Specimens	Dr. Christopher Li	Fred Hutchinson Cancer Research Center	1127, 1448
6	Interaction Effects of Genes in the Inflammatory Pathway and Dietary, Supplement, and Medication Exposures on General Cancer Risk	Dr. Jianfeng Xu	Wake Forest University	1068, 1069
7	Endogenous Estradiol and the Effects of Estrogen Therapy on Major Outcomes of WHI	Dr. Steve Cummings	California Pacific Medical Center	1033, 1123, 1141, 1218, 1329
8	Predictive Value of Nutrient Biomarkers for CHD Death	Dr. Alice Lichtenstein	Tufts University	1151
9	Biochemical Antecedents of Fracture in Minority Women	Dr. Jane Cauley	University of Pittsburgh	841, 863, 945, 1158, 1218, 1422
10	Adipokines and Risk of Obesity-Related Diseases	Dr. Gloria Ho	Albert Einstein College of Medicine	893, 894, 922, 1025, 1029, 1061, 1083, 1507
11	Physical Activity, Obesity, Inflammation and CHD in a Multi-Ethnic Cohort of Women	Dr. I-Min Lee	Brigham and Women’s Hospital	895
12	Hormone Therapy, Estrogen Metabolism and Risk of Breast Cancer or Hip Fracture in the WHI Hormone Trial	Dr. Lewis Kuller	University of Pittsburgh	916, 917
13	Markers of B-cell stimulation as potential predictors of Non-Hodgkins lymphoma	Dr. Anne DeRoos	Fred Hutchinson Cancer Research Center	1283, 1374
14	Inflammation and thrombosis gene pathways and cardiovascular disease	Dr. Alex Reiner	Fred Hutchinson Cancer Research Center	1186, 1215, 1216, 1251, 1252, 1508, 1533

Table 11.2 (continued)
Broad Agency Announcement Activities

BAA	Title	PI	Institution	Approved Publications
15	Discovery and confirmation of cancer specific serum protein markers for ovarian cancer early detection	Dr. Martin McIntosh	Fred Hutchinson Cancer Research Center	1433
16	Identifying biomarkers for pancreatic cancer	Dr. Sunil Hingorani	Fred Hutchinson Cancer Research Center	
17	Proteomics based discovery of blood based biomarkers and risk factors for lung cancer among women smokers and never smokers	Dr. Sam Hanash	Fred Hutchinson Cancer Research Center	
18	Follow-up studies of genetically determined risk factors	Dr. Rebecca Jackson	Ohio State University	1554
19	Omega-3 fatty acid biomarkers and cognitive decline in WHIMS	Dr. William Harris	Sanford Research/University of South Dakota	1058, 1259, 1260, 1558
20	Evaluation of specific markers of rheumatoid arthritis, Inflammation, thrombogenesis and risk of cardiovascular disease and total mortality	Dr. Larry Mooreland	University of Pittsburgh	1078
21	Understanding the role of sex hormones in colorectal cancer	Dr. Marc Gunter	Albert Einstein College of Medicine	1173, 1218, 1338
22	Predictive modeling for CVD in a multiethnic cohort in women	Dr. Nancy Cook	Brigham and Women’s Hospital and Harvard Medical School	1272, 1318, 1319, 1416

Table 11.3
Summary of Ancillary Studies

Data as of Oct. 31, 2011

Current Status	Number of Studies	Led by WHI Investigator	
		Yes	No
Dropped	149	67	82
Seeking approval	37	8	29
Approved	40	14	26
Funded	37	13	24
Data analysis in progress	45	22	23
Complete	60	34	26
Total	**368**	**158**	**210**

Table 11.4
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
355	Trial of Vitamin D, alpha-linolenic acid, and resveratrol for CVD and cancer prevention among high-risk WHI participants	Manson - Brigham and Women's/Harvard University	Yes	Seeking Approval	12/01/12-11/30/17	General population	N	
354	Epigenetic analysis of blood pressure variation in women	Krushkal - University of Tennessee	No	Seeking Approval	09/01/12-09/30/17	General population Controls:2971 *All SHARe	Y	
353	Prospective study of ocular, nutritional and lifestyle factors reducing risk for cognitive impairment and decline in older women	Mares - University of Wisconsin	Yes	Seeking Approval	12/01/12-11/20/17	OS	N	
352	PILOT for Trial of vitamin D, alpha-linolenic acid, and resveratrol for CVD and cancer prevention among high-risk WHI participants	Manson - Brigham and Women's/Harvard University	Yes	Seeking Approval	12/01/12-11/30/17	General population	N	
351	Epigenetics, dietary intake and ovarian cancer risk	Genkinger - Mailman School of Public Health at Columbia University	No	Seeking Approval	07/01/12-07/31/17	OS Ovarian Cancer:539 Controls:539	Y	
350	An exome-wide association study to identify low frequency coding variants associated with breast and prostate cancer	Kraft - Harvard School of Public Health	No	Seeking Approval	07/01/12-06/30/13	General population	N	
349	Exomic analysis of cardiovascular risk factors in minority women from WHI	Kooperberg - Fred Hutchinson Cancer Research Center	Yes	Approved	07/01/12-06/30/15	General population Controls:23619 *dbGaP-able OS and CT ppts (12,151 AA, 6,000 EA)	Y	
348	The effects of estrogen-alone hormone therapy on body composition	Allison - University of California, San Diego	No	Seeking Approval	07/01/12-06/30/15	HT E alone Controls:2128 *WHI-CACS	Y	

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
347	Systemic autoimmunity, autoimmune diseases and risk of breast cancer	Parks - National Institute of Environmental Health Sciences	No	Approved	09/01/12-09/30/14	General population Breast Cancer:1400 Controls:2800 *1,400 incident breast cancer cases, 500 RA or SLE cases 2,800 controls	Y	
346	Serum 25-hydroxyvitamin D levels and risk of developing melanoma	Tang - Stanford University	No	Approved	07/01/11-07/31/12	OS Melanoma - Skin:700 Controls:700 *Whites only	Y	
345	The pharmacogenomics of estrogen for the arthralgias of menopause	Jackson - Ohio State University	Yes	Seeking Approval	09/01/11-09/30/12	HT Controls:4813 *cases: joint pain after stopping HT or join pain improved after HT; Controls: no change in pain	Y	
344	Proteomic risk markers for breast cancer and their ability to mediate HT effects	Hanash - Fred Hutchinson Cancer Research Center	Yes	Approved	07/01/11-06/30/13	HT Breast Cancer - Invasive:586 Controls:586 *586 HRT breast cancer cases and 586 controls	Y	
343	Cardiovascular disease biomarkers and mediation of hormone therapy effects	Prentice - Fred Hutchinson Cancer Research Center	Yes	Approved	07/01/11-06/30/13	HT CHD:20 Stroke:22 Controls:42 *Cases and controls are from the W57 participants in the 6% subsample	Y	
342	E+P effect on breast cancer recurrence risk prediction using tumor molecular profiling with the 21-gene recurrence score (RS) (Oncotype DX) vs Histopathology (Adjuvant! Online): A pilot study	Chlebowski - UCLA Medical Center	Yes	Seeking Approval	05/01/11-09/30/11	HT	N	

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
341	A pooled study of relationships between Vit D and retinal diseases of aging among postmenopausal women (WHISE)	Millen - University of Buffalo	Yes	Approved	07/01/11-07/31/13	HT	Y	
340	Evidence for Establishing Optimum Protein Intake in Older Adults	Beasley - Fred Hutchinson Cancer Research Center	No	Approved	12/01/11-11/30/13	General population	N	
338	The role of patient beliefs and preferences in adherence to guideline Recommended medications for post-AMI patients.	Urmie - University of Iowa	No	Seeking Approval	07/01/12-06/30/15	General population	N	
337	Lymphocyte subpopulations and clonal expansions in older women: epidemiologic factors and relationship to health and aging during the WHI 2010-2015 Extension	Edlefsen - University of Washington	No	Approved	12/01/11-11/30/14	CT	Y	
336	Use of ibuprofen, statin, and Parkinson's disease	Ascherio - Harvard School of Public Health	No	Approved	04/01/12-03/31/17	General population	Y	
335	Residential environment and coronary heart disease risk factors (REACH)	Li, W - University of Massachusetts Medical School	No	Approved	04/01/12-03/31/17	General population	N	
334	Inflammation, energy balance and metastasis	Paskett - Ohio State University	Yes	Seeking Approval	04/01/12-03/31/17	General population Breast Cancer - Invasive:1060	Y	
333	Comprehensive Blood Pressure Loci Discovery in Postmenopausal Women	Franceschini - University of North Carolina	No	Approved	07/01/12-06/30/16	HT	Y	
332	Utility of the AVIIR score in predicting incident coronary heart disease in the WHI	Assimes - Stanford University	Yes	Funded	09/01/11-08/31/12	OS CHD:700 Controls:700 *case cohort design ~700 cases with incident CHD within 5 years of baseline/700 random controls	Y	

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
331	Heavy metals, calcium-containing supplements and fractures in postmenopausal women	Neuhouser - Fred Hutchinson Cancer Research Center	Yes	Approved	12/01/11-11/30/13	General population Fracture (general):400 Controls:400 *150 CaD (CT 6% subsample) cases occurring during CaD intervention, 250 OS cases	Y	
330	The relationship between the FTO obesity gene, regional brain volumes, ventricular size and incident dementia in the WHIMS-MRI study	Kerwin - Northwestern University	No	Seeking Approval	07/01/11-06/30/12	HT	Y	
329	FMR1 CGG repeat polymorphism: examination of its effect on ovarian insufficiency	Sherman - Emory University School of Medicine	No	Seeking Approval	12/01/11-11/30/14	General population Controls:2950 *1475 women in the lowest 1% of age at onset of menopause, 1475 controls in the highest 1%	Y	
328	Carotenoids in age-related eye disease study II: prospective studies on nutritional and lifestyle factors reducing risk for aging of the eye in older women	Mares - University of Wisconsin	Yes	Approved	09/01/12-08/31/17	OS Eye:297 Controls:1187 *297 AMD cases from CAREDS AS105 and 1187 controls from CAREDS	N	
327	Serum 25-hydroxyvitamin D and lung cancer risk in never-smoking, postmenopausal women	Neuhouser - Fred Hutchinson Cancer Research Center	Yes	Approved	12/01/11-11/30/13	General population Cancer of Lung:300 Controls:300	Y	
326	Relationship between markers of bone differentiation and vascular calcification	Poornima - Allegheny Singer Research Institute	No	Approved	07/01/11-06/30/13	CT	Y	
325	Racial/Ethnic Differences in 25(OH)D and PTH Levels and CVD among Women	Song - Brigham and Women's Hospital/ Harvard University	No	Approved	04/01/12-03/31/16	OS CHD:2550 Controls:4400	Y	

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
324	Effective Components of Care for Preventing Post-stroke Rehospitalization Rates	Lakshminarayan - University of Minnesota	No	Approved	07/01/12-06/30/15	General population Stroke: *Strokes in the OS (and the WHI extension study)	N	
323	Mercury, omega-3 fatty acids, and CVD	Meliker - Stony Brook University	No	Seeking Approval	01/01/13-12/31/16	OS	Y	
322	Tobacco smoke carcinogens and breast cancer risk in postmenopausal smokers	Luo - West Virginia University	No	Approved	04/01/12-03/31/14	General population Breast Cancer - Invasive:500 Controls:1000 *current smokers at enrollment	Y	
321	Estrogen DNA adducts: a novel estrogen biomarker and breast cancer risk	Reding - University of Washington/Fred Hutchinson Cancer Research Center	No	Approved	09/01/11-09/30/14	General population Breast Cancer - Invasive:352 Controls:704 *age-matched controls	Y	
320	Association between Venous Thrombosis and Gamma' Fibrinogen	Farrell - Oregon Health and Science University	No	Approved	09/01/11-08/30/13	HT VTE:450 Controls:450 *cases should be limited to events occuring while on active intervention (2005)	Y	
318	Hypercalciuria and Osteoporosis: Findings from the WHI	Carbone - University of Tennessee	No	Approved	12/01/11-11/30/13	OS Fracture (general):978 Controls:978 *In BMD cohort	Y	
317	Built environment and cancer	Allison - University of California, San Diego	No	Seeking Approval		General population	N	
316	Validation of promising breast cancer early detection biomarkers	Li, C - Fred Hutchinson Cancer Research Center	No	Funded	11/01/10-10/31/12	OS Breast Cancer - Invasive:322 Controls:322 *blood within 17 months of dx; exclude cases from BA05	Y	

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
315	Epigenetic Mechanisms of PM-Mediated CVD Risk	Whitsel - University of North Carolina	No	Approved	12/01/11-11/30/16	CT Controls:4300 *4300 ppts from 6% CT subsample	Y	
314	Vitamin D, inflammation and depression in older women	Bertone-Johnson - University of Massachusetts, Amherst	No	Seeking Approval	07/01/11-06/30/16	OS Controls:2000 *1,000 depression cases + 1,000 controls	Y	
313	MUC1 and MUC16 antigens, antibodies, and immune complexes as ovarian cancer biomarkers	Cramer - Brigham and Women's Hospital/ Harvard University	No	Seeking Approval	06/01/11-06/30/16	General population Ovarian Cancer:802 Controls:802	Y	
312	Adverse pregnancy outcomes and CVD among mothers and their daughters from the Rhode Island WHI	Parker - Memorial Hospital of Rhode Island	No	Seeking Approval	01/01/11-06/30/12	OS	N	
311	Global DNA methylation measured in prospectively collected blood samples and risk of bladder cancer among post-menopausal women	Bhatti - Fred Hutchinson Cancer Research Center	No	Approved	07/01/12-06/30/14	General population Cancer of Bladder:600 Controls:600	Y	
310	Thyroid stimulating hormone and risk of thyroid cancer among post-menopausal women	Bhatti - Fred Hutchinson Cancer Research Center	No	Seeking Approval	05/01/11-05/01/13	General population Cancer of Thyroid:265 Controls:530	Y	
309	Environmental arsenic exposure, inflammation and osteoporosis in postmenopausal women	Chen, Z - University of Arizona	No	Approved	04/01/12-03/31/15	General population Controls:5000 *5000 BMD	Y	
308	Heavy metals and renal cell cancer risk	Wilson - Penn State University	No	Seeking Approval	01/01/11-12/31/15	General population Renal Cancer:361 Controls:722	Y	
307	Epigenetic analysis of blood markers in relation to CHD risk	Krushkal - University of Tennessee	No	Approved	04/01/12-03/31/17	General population CHD:559 Controls:1677 *from SHARe	Y	

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
306	Gene Modification of the Alcohol-Breast Cancer Association	Dorgan - Fox Chase Cancer Center	No	Approved	04/01/11-03/31/15	OS Breast Cancer - Invasive:3945 Controls:3945 *Caucasians only.	Y	
305	Pooled Studies of Nutrition and Early Age-Related Macular Degeneration	Millen - University of Buffalo	Yes	Approved	04/01/14-03/31/15	General population Controls:471 *471 CAREDS ppts who don't have VitDOH measurements	Y	
304	Vitamin D status and periodontal disease	Millen - University of Buffalo	Yes	Funded	05/05/10-04/30/12	General population	N	
303	Saliva and serum inflammatory biomarkers in Periodontitis: A study in older women	Wactawski-Wende - University of Buffalo	Yes	Funded	09/22/09-08/31/11	General population	N	
302	Ischemic Stroke and Endogenous Estrogens	Smoller - Albert Einstein College of Medicine	Yes	Approved	07/01/12-06/30/13	OS Ischemic Stroke:474 Controls:474 *From AS126 - only ppts not on hormone use at baseline	Y	
301	GWAS of NonHodgkins Lymphoma	Berndt - National Institute of Health - NCI	No	Funded	09/15/10-09/14/11	General population Lymphoma, Non Hodgkins:1004 Controls:400	Y	
300	Accuracy of self-reported non-melanoma skin cancer	Tang - Stanford University	No	Seeking Approval	04/01/10-04/30/11	General population	N	
299	Plasma phospholipid omega 3 fatty acids and risk of heart failure in post-menopausal women	Djousse - Brigham and Women's Hospital/ Harvard University	No	Seeking Approval	04/01/11-03/31/16	CT CHF:700 Controls:1400	Y	
298	Genes, the environment and breast cancer risk	Dorgan - Fox Chase Cancer Center	No	Seeking Approval	12/01/10-11/30/15	General population Breast Cancer - Invasive:5949 Controls:5949	Y	

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
297	Associations of estrogens, estrogen metabolites, and androgens with risks of endometrial and ovarian cancers in a prospective case-cohort study	Brinton - National Institute of Health – NCI	No	Funded	09/15/10-09/14/11	OS Endometrial Cancer:430 Ovarian Cancer:240 Controls:540	Y	
296	Cohort consortium study of etiology of hepatocellular carcinoma in the United States s	McGlynn - National Institute of Health - NCI	No	Funded	09/24/10-09/23/11	General population Cancer of Liver:121 Controls:242	Y	
295	A study to determine obesity-related risk factors of cognitive decline in an older cohort: Follow-up of the cognitive change in women study (CCW)	Kerwin - Northwestern University	No	Approved	03/01/10-06/05/15	General population	N	
294	Investigation of one-carbon metabolism pathway and lung cancer with the cohort consortium	Brennan - International Agency for Research on Cancer (IARC)	No	Approved	07/01/11-06/30/15	General population Cancer of Lung:200 Controls:200	Y	
293	Parity, microchimerism, and multiple sclerosis	Mueller - Fred Hutchinson Cancer Research Center	No	Seeking Approval	08/01/10-07/31/12	OS	Y	
292	Advanced Glycation End Products, the Receptor, and Colorectal Cancer Risk in WHI	Jiao - Baylor College of Medicine	Yes	Funded	09/01/11-08/31/13	OS Colorectal Cancer:425 Controls:791 *From AS129	Y	
291	Abnormal glucose metabolism and hormonal factors in the etiology of head and neck squamous cell carcinoma (HNSCC) in women	Chen, C - Fred Hutchinson Cancer Research Center	Yes	Approved	01/01/11-12/31/12	General population Oral Cancer Unspecified:41 Tongue Cancer:46 Palate Cancer:23 Larynx Cancer:33 Controls:286 *Head and neck squamous cell	Y	
290	Cadmium Exposure and Risk of Breast Cancer in the Women's Health Initiative	Newcomb - Fred Hutchinson Cancer Research Center	No	Funded	09/01/11-08/31/14	General population Breast Cancer - Invasive:500 Controls:1000	Y	

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
289	Pooling validation studies with recovery biomarkers	Kipnis - National Institute of Health	No	Funded	11/01/10-06/01/12	DM	N	
288	Diet and activity methods study and evaluation of longitudinal (DAMSEL) effects in WHI women	Prentice - Fred Hutchinson Cancer Research Center	Yes	Dropped	04/01/11-03/31/14	DM	N	
287	Metabolic syndrome, lifestyle factors and risk of periodontitis in older women	LaMonte - University of Buffalo	Yes	Approved		OS	N	
285	SNP-energy interaction and the risk of breast cancer	Sun - Wake Forest University	No	Approved	07/01/10-06/30/13	General population Breast Cancer:1700 Controls:1700 *700 DM case/control pairs for GWAS; 1,000 OS case/control pairs for SNPs	Y	
284	Obesity-related pathways and risk of benign proliferative breast disease	Gunter - Albert Einstein College of Medicine	No	Approved	07/01/11-06/30/13	CT Benign Breast Disease:700 Controls:1400	Y	
283	Association between a LPA gene variant and CHD according to aspirin use in the WHI	Shiffman - University of Pittsburgh	No	Seeking Approval	05/01/09-05/31/10	General population	Y	
282	Evaluation of serum markers for use in multi-stage ovarian cancer screening	Urban - Fred Hutchinson Cancer Research Center	Yes	Funded	08/16/10-06/30/15	General population Ovarian Cancer:183 Controls:732	Y	1504
281	Epigenomics of obesity and nutrition in the WHI	Rajkovic - Baylor College of Medicine	Yes	Dropped	09/30/09-09/29/11	DM	Y	
280	Phenotyping estrogen effects on pericardial fat, coronary calcified plaque, hepatic steatosis, BMD and associated biomarkers in the WHI-CACS substudy	Carr - Wake Forest University	No	Dropped	09/01/09-08/30/11	CT	Y	
279	Vitamin D, serotonin and loss of skeletal muscle mass in relationship to bone strength and bone metabolism in multiethnic older women	Chen, Z - University of Arizona	No	Seeking Approval	07/01/10-06/30/15	General population	Y	

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
278	Hemostatic and inflammatory biomarkers as risk factors for hemorrhagic stroke	Greenland - Northwestern University	Yes	Approved	04/01/12-03/31/14	General population Hemorrhagic Stroke:632 Controls:1264	Y	
277	The role of adiponectin and its receptors in breast cancer risk in the WHI	Kaklamani - Northwestern University	No	Dropped	07/01/11-06/30/13	OS Breast Cancer:835 Controls:816 *from AS129	Y	
276	Genetic variants of habitual physical activity	Nguyen - University of Washington	No	Dropped	04/01/10-03/31/14	OS Controls:8000 *Caucasians: 4,000 highly active/4,000 sedentary)	Y	
275	Urinary levels of melatonin and risk of breast cancer	Sturgeon - University of Massachusetts	No	Funded	08/01/10-07/31/12	OS Breast Cancer - Invasive:260 Controls:519	Y	1443
274	Cellular aging in postmenopausal women with depression	Simon - Massachusetts General Hospital	No	Dropped	09/30/09-09/30/11	OS Controls:250 *250 cases with depression	Y	
273	Evaluation of angiogenic factors as possible biological markers of breast cancer	Reeves - University of Massachusetts	No	Seeking Approval	04/01/11-03/31/13	OS Breast Cancer:267 Controls:267	Y	
272	WHI Nutrition and Physical Activity Assessment Study (NPAAS) (Competitive Renewal)	Prentice - Fred Hutchinson Cancer Research Center	Yes	Funded	07/01/10-04/30/14	General population 35 Ppts@Ccc-Rc	N	
271	Omega-3 and omega-6 fatty acids as a biomarker of hip fracture risk	Jackson - The Ohio State University	Yes	Analysis	08/01/09-07/31/10	General population Fracture - Hip:400 Controls:400 *half BMD, half non-BMD	Y	1292, 1293
270	Sodium intake and osteoporosis: Findings from the WHI.	Carbone - University of Tennessee	No	Dropped	04/01/10-03/31/13	OS Fracture (general):1248 Controls:1248 * number of AV3 samples reduced by 15%.	Y	

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
269	An association study of mitochondrial DNA variation and breast cancer risk	Rohan - Albert Einstein College of Medicine	Yes	Approved	12/01/10-11/30/13	General population Breast Cancer - Invasive:5679 Controls:5679 *Caucasians	Y	
268	Hepatic nuclear factor-4 alpha-a potential candidate for lower triglycerides in individuals of African ancestry	Mackey, R - University. of Pittsburgh	No	Dropped	01/09/09-06/30/09	OS CHD:144 Controls:1172 *Same case/controls as AS189	Y	
267	Genetic variants of habitual physical activity	Nguyen - University of Washington	No	Dropped	11/01/09-08/31/13	OS Controls:1000 *500 with physical activity	Y	
266	Serum levels of EGFR-signaling-network activators/inhibitor and risk of lung cancer	Ho - Albert Einstein College of Medicine	No	Funded	09/01/10-08/31/13	General population Cancer of Lung:1384 Controls:1601 *1:2 matching for never smokers, 1:1 matching for former/current smokers; 321 CT control ppts; 500 cases from BA06	Y	
265	Urinary levels of endocrine disruptors (bisphenol A and phthalates) and risk of diabetes, CHD, and breast cancer in a case-cohort study	Ho - Albert Einstein College of Medicine	No	Seeking Approval	07/01/09-06/30/11	OS Breast Cancer:350 CHD:500 Type 2 Diabetes:490 Controls:1000	Y	
264	Modification of PM-Mediated Arrhythmogenesis in Populations (MOPMAP)	Whitsel - University of North Carolina	Yes	Funded	08/01/10-05/31/13	General population Controls:3094 *5 geographical locations; ppts with ECG readings	Y	1157, 1160, 1199, 1299

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
263	Gene-hormone therapy interaction and the risk of breast cancer	Sun - Wake Forest University	No	Funded	03/01/11-02/28/14	General population Breast Cancer - Invasive:2690 Controls:1800 *583 E+P and 307 E-alone cases for GWAS; 1800 OS case/control pairs for sequencing	Y	
262	Women's Health Initiative memory study of younger women (WHIMS-Y)	Shumaker - Wake Forest School of Medicine	Yes	Analysis	10/01/08-05/05/16	HT 11 Ppts@2 clinics	N	
261	Genetic variants of serum lipid concentrations in different ethnic groups	Wang, T - Albert Einstein College of Medicine	No	Seeking Approval	01/01/09-12/31/12	General population Controls:3800 *1500 Blacks, 1500 Whites, 800 Hispanics with lipid measurements	Y	
260	Anti-anticyclic citrulinated peptide (anti-CCP) antibody as a test for rheumatoid arthritis (RA)	Kuller - University of Pittsburgh	Yes	Dropped	07/01/08-12/31/08	OS Controls:95 *622 RA cases (245 in AS217)	Y	
259	Telomere length and breast cancer in women	Liu, S - University of California – Los Angeles	Yes	Seeking Approval	07/01/08-06/30/10	OS Breast Cancer:2100 Controls:2100	Y	
258	Genetic variation in Wnt pathway and breast cancer risks	Agalliu - Albert Einstein College of Medicine	No	Dropped	07/01/10-06/30/13	General population Breast Cancer - Invasive:3933 Controls:3933 *OS invasive (3933)	Y	
257	Diet and Lifestyle Factors Reducing Risk for Age-Related Eye Disease	Mares - University of Wisconsin	Yes	Funded	12/01/10-11/30/12	OS Eye:361 Controls:1426 *PI has a list of participants from AS105-CAREDS	Y	

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
256	Long term effects of hormonal interventions on change in levels of inflammatory markers and adipokines	Rajpathak - Albert Einstein College of Medicine	No	Seeking Approval	06/01/09-05/31/10	CT Controls:1024 *From CT 6% blood subsample	Y	
255	Androgens and CHD in women with type 2 diabetes	Rajpathak - Albert Einstein College of Medicine	No	Seeking Approval	01/01/08-08/31/10	OS CHD:500 Controls:1000 *CHD cases with diabetes	Y	
254	Telomere and its biochemical and genetic regulators as predictors for clinical diabetes in women	Liu, S - University of California – Los Angeles	Yes	Analysis	06/01/09-05/31/12	OS Type 2 Diabetes:1800 Controls:2620	Y	1224
253	Serum selenium and pancreatic cancer risk	Stolzenberg-Solomon - National Institute of Health - NCI	No	Dropped		General population Pancreatic Cancer:300 Controls:300	Y	
252	Environmental determinants of cognitive aging in WHIMS	Chen, JC - University of Southern California Keck School of Medicine	No	Funded	07/01/08-06/30/13	HT	N	
251	Ambient Air Pollution and Incident Stroke in Postmenopausal Women	Wellenius - Brown University	No	Approved	12/01/11-11/30/13	General population	N	
250	Genetic contributions to cognitive decline in normal and pathological aging in older post-menopausal women and modification by hormone therapy	Driscoll - National Institute of Health – NIA	No	Analysis	03/01/09-09/03/10	HT Controls:7479 *Phase 1: 2,266 WHISCA; Phase 2: 719 WHIMS. Phase 3 not yet funded for remaining 4,500 WHIMS	Y	
249	Epidemiology of alcohol metabolism genes, alcohol and Women's Health outcomes	Freiberg - University of Pittsburgh	No	Dropped	07/01/11-06/30/14	General population Breast Cancer:4500 MI:1900 Stroke:1800 Controls:10942 *CVD: 1117; Alcohol related cancer: 3390	Y	

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
248	Hormone therapy, changes in subpopulations of triglyceride-rich lipoproteins and HDL, and development of CHD in women.	Lamon-Fava - Tufts University	No	Seeking Approval	07/01/08-06/30/12	General population CHD:444 Controls:444	Y	
247	Genetic factors associated with the risk of Parkinson Disease in the multiethnic cohort of the WHI	Saunders-Pullman - Albert Einstein College of Medicine	No	Seeking Approval	01/01/08-12/31/10	General population Death - other cause:1376 Controls:450	Y	
246	Prospective study of hormones, autoantibodies and biomarkers and risk of systemic lupus erythematosus in women	Costenbader – Partners Health Care, Boston	No	Seeking Approval	07/01/08-06/01/13	General population Death - other cause:547 Controls:1641	Y	
245	Ghrelin, adiposity-derived hormones, and colorectal cancer	Lin, J - Brigham and Women's Hospital/ Harvard University	Yes	Seeking Approval	01/01/09-12/31/11	OS Colorectal Cancer:700 Controls:700	Y	
244	Women’s Health Initiative memory study epidemiology of cognitive health (WHIMS-ECOH)	Shumaker - Wake Forest School of Medicine	Yes	Funded	10/01/07-12/31/10	HT	N	
243	Validation of direct measures of physical activity: an ancillary study to the Women’s Health Initiative (WHI) Nutrition and Physical Activity Assessment Study (NPAAS; AS218)	Sternfeld - Kaiser Permanente Division of Research	No	Analysis	04/15/07-12/31/08	OS	N	
242	DNA repair, telomere length and cutaneous malignant melanoma risk	Han - Brigham and Women's Hospital/ Harvard University	No	Analysis	05/01/08-04/30/11	OS Melanoma - Skin:259 Controls:259 *Malignant melanoma	Y	1163
241	Dietary relationships to inflammatory bowel disease (IBD) in older women	Tamboli - University of Iowa	No	Dropped	04/01/07-04/01/08	OS	N	
240	Microalbuminuria and cardiovascular risk in the WHI	Hsia - George Washington University	Yes	Dropped	02/01/07-01/31/08	General population CHD:5500 Controls	Y	

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
239	Biomarkers related to energy balance and renal cell cancer	Cho - Brigham and Women's Hospital/ Harvard University	No	Dropped	03/01/08-02/28/12	General population Renal Cancer:182 Controls:546	Y	
238	Biochemical predictors of type 2 DM in women	Liu, S - University of California – Los Angeles	Yes	Analysis	03/01/10-05/31/10	OS Type 2 Diabetes:700 Controls:1400 *Only minorities from AS132	Y	1452
237	The hypothalamic-pituitary-adrenal (HPA) axis and postmenopausal breast cancer risk	Dorgan - Fox Chase Cancer Center	No	Dropped	12/01/09-11/30/13	OS Breast Cancer:4738 Controls:4738 *Caucasian only	Y	
236	Choline/betaine habitual intake and chronic disease endpoints	Siega-Riz - University of North Carolina	No	Analysis	10/01/07-09/01/08	General population	N	1294
235	Pilot study to explore assoc between task performance on fMRI w/ cog functioning and vascular, genetic & inflam. risk factors in WHISCA ppt characterized by differing body weight & waist-hip ratios	Kerwin - Northwestern University	No	Analysis	11/01/06-06/30/09	CT	N	
234	Adipokines, inflammation and energy balance in postmenopausal women	Neuhouser - Fred Hutchinson Cancer Research Center	Yes	Dropped	11/01/07-10/31/10	DM	Y	
233	WHIMS (AS39) extension	Shumaker - Wake Forest School of Medicine	Yes	Analysis	12/13/03-07/31/08	HT 3074 Ppts@32 clinics	N	
232	Carotenoids and incidence and progression of age-related eye disease in women	Mares - University of Wisconsin	Yes	Dropped	02/01/09-12/31/09	OS Eye:650 Controls:1250	Y	
231	Relationship between circulating nutrient biomarkers and death from coronary heart disease or myocardial infarct	Lichtenstein - Tufts University	No	Dropped	09/01/07-08/31/09	OS CHD:1200 Controls:1200	Y	

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
230	Markers of inflammation and renal function and the risk of coronary heart disease and mortality in women with diabetes	Rajpathak - Albert Einstein College of Medicine	No	Dropped	10/20/08-10/20/10	OS CHD:764 Controls:1736 *764 CHD+500 death cases (382+250 baseline diabetes)	Y	
229	Genome wide, case-control analysis of SNP associations with cardiovascular disease in African American women	Carlson - Fred Hutchinson Cancer Research Center	No	Dropped	09/20/06-09/20/09	OS CHD:1825 Controls:1825	Y	
228	Obesity, diet, physical activity and Medicare costs	Yan - Northwestern University	No	Dropped	01/01/07-12/31/11	General population	N	
227	Risk factors and biomarkers for Parkinson's disease	Ascherio - Harvard School of Public Health	No	Dropped	07/01/11-06/30/16	General population Controls:1191 *OS and HT Parkinson's disease: 397 cases + 794 controls for DNA; 308 cases + 616 controls for serum	Y	
226	Ambient air pollution and sleep disturbance in postmenopausal women	Chen, JC - University of Southern California Keck School of Medicine	No	Funded	09/01/07-08/31/12	General population	N	844
225	Potential gene-environment interaction on the association between chronic air pollution exposure and incident MI in the WHI OS	Sullivan - University of Washington	No	Dropped		OS	N	
224	GWAS for nonsynonymous SNPs in colon cancer	Peters - Fred Hutchinson Cancer Research Center	No	Funded	07/02/07-06/30/14	General population Colon cancer:1309 Controls:1309 * Stage 1: GWAS 556 cases/69 controls, Caucasian only; Stage 2: GWAS 1309/1309 cases/controls; Stage 3: 7600 SNPs	Y	962, 1059, 1060, 1131, 1557, 1567, 1568, 1569, 1570, 1571, 1572, 1582

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
223	Women's Health Initiative cancer survivor cohort: biological, psychosocial, and behavioral predictors of survival: pilot study	Paskett - The Ohio State University	Yes	Funded	10/01/05-09/30/10	General population	N	
222	Developmental research of air pollution as a cause of common cancers	DeRoos - University of Washington	No	Dropped		General population	N	
221	Dietary modification, calcium/vitamin D supplementation, and change in breast density	Rohan - Albert Einstein College of Medicine	Yes	Dropped	04/15/05-04/14/10	ppts in DM & CaD	N	
220	Neighborhoods, women, and coronary heart disease: a prospective study	Bird - Rand Corp	No	Complete	07/01/07-04/30/11	General population	N	703, 704, 705, 726, 824, 854, 1088, 1096, 1149, 1159
219	Diet and eye health in the WHI: end of trial study: pilot study	Mares - University of Wisconsin	Yes	Complete	01/01/06-12/31/06	DM 400 Ppts@Madison	N	577
218	WHI nutrition and physical activity assessment study (NPAAS)	Prentice - Fred Hutchinson Cancer Research Center	Yes	Analysis	07/12/06-06/30/10	OS	N	1178, 1273, 1385, 1532, 1564
217	Validation of the self-report of rheumatoid arthritis and systemic lupus erythematosus: The Women's Health Initiative	Walitt - Medstar Research Institute	Yes	Complete	07/01/04-06/01/06	CT	N	635
216	Decision-making about cancer screening among older women	Messina - Stony Brook University Medical Center	No	Analysis	07/01/06-06/30/09	General population 1300 Ppts@Stonybrk	N	
215	UGTs, NSAIDs, and breast cancer risk in the WHI observational study	Lampe - Fred Hutchinson Cancer Research Center	No	Dropped	12/01/05-11/30/09	OS Breast Cancer:3398 Controls:3398	Y	
214	Prospective cohort collaborative in pancreatic cancer epidemiology and pathogenesis (AS146 extension)	Fuchs - Brigham and Women's Hospital/ Harvard University	No	Funded	09/01/07-08/31/13	OS Pancreatic Cancer:209 Controls:418 *Assays done on those missing in AS146; Pilot: 40 AV3 samples from controls	Y	930, 936, 1075, 1175, 1182, 1405, 1406, 1407, 1408

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
213	Assays for early detection of cancer	Hendrix - Wayne State University Medical School	Yes	Dropped		OS Ovarian Cancer:200 Controls:200	Y	
212	Biochemical antecedents of fracture in minority women (funded as BA09)	Cauley - University of Pittsburgh	Yes	Dropped	07/01/07-06/30/11	OS Fracture (general):1320 Controls:1320	Y	
211	Homocysteine levels, B vitamins and bone health in women	LeBoff - Partners Health Care	No	Dropped	12/01/07-11/30/10	OS Fracture (general):2500 Controls:2500	Y	
210	The effect of a low fat diet on lipid profiles and adipokines in post-menopausal women: potential modulation by select genetic variants	Thomson - University of Arizona	Yes	Dropped		DM	Y	
209	Red blood cell omega-3 and trans fatty levels and the risk of coronary heart disease death	Robinson - University of Iowa	Yes	Dropped	04/01/06-03/31/08	OS CHD:800 Controls:800	Y	
208	Pro and anti-inflammatory cytokines and colorectal cancer	Ho - Albert Einstein College of Medicine	No	Funded	04/25/08-03/31/12	OS Colorectal Cancer:500 Controls:900 *same cases/controls as AS129	Y	
207	IGF and multiple myeloma	Colditz - Washington University Saint Louis	No	Funded	08/01/07-05/31/11	General population Multiple Myeloma:197 Controls:394	Y	1164, 1165
206	The effects of estrogen-alone hormone therapy on body composition	Peters - Fred Hutchinson Cancer Research Center	No	Analysis	07/01/06-06/30/14	OS Colorectal Cancer:805 Controls:805 *Same cases/controls as AS195; controls include 100 Y3 samples	Y	814, 815, 828, 1026, 1557

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
205	Genome-wide scan of cardiovascular disease and breast cancer and combined postmenopausal hormone therapy	Prentice - Fred Hutchinson Cancer Research Center	Yes	Dropped		General population Breast Cancer	Y	
204	Genetic susceptibility of chronic kidney disease	Vupputuri - University of North Carolina - Chapel Hill	No	Dropped		OS Kidney Disease:2278 Controls:6834	Y	
203	Infection of helicobacter pylori, other helicobacter species and the risk of pancreatic cancer among postmenopausal women	Ye - Karolinska Institute, Sweden	No	Dropped		General population Pancreatic Cancer:310 Controls:620	Y	
202	Insulin/IGF and risk of benign breast disease (BBD): a cohort study	Rohan - Albert Einstein College of Medicine	Yes	Dropped		CT Benign Breast Disease:1000 Controls:1700	Y	
201	Effect of hormone therapy on angiotensin II and microalbuminuria among postmenopausal women	Agarwal - Wake Forest University School of Medicine	Yes	Dropped		HT Microalbuminuria:820 Controls:820 *120 samples for blood measurements	Y	
200	Women's Health Initiative cancer survivor cohort: biological, psychosocial, and behavioral predictors of survival	Paskett - The Ohio State University	Yes	Dropped		OS	Y	
199	Genetic factors of muscle loss (added to AS191)	Chen, Z - University of Arizona	No	Funded		OS Sarcopenia:800 Controls:2000 *Combined with AS191	Y	1531
198	Women's thoughts and feelings about participating in a clinical trial	Furniss – University of Medicine and Dentistry of New Jersey	No	Dropped		HT	N	
197	Validity of self-reported diabetes mellitus in the Women's Health Initiative	Margolis - Health Partners Minnesota	Yes	Analysis	07/01/07-02/28/11	CT 738 Ppts@4 clinics	N	1100, 1217

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
196	Heart failure evaluation in post-menopausal women: the Women's Health Initiative study	Klein - University of California - San Francisco	No	Analysis	09/30/07-08/31/10	HT	N	364, 935
195	Candidate pathways in colorectal carcinogenesis: one-carbon metabolism and inflammation	Ulrich - Fred Hutchinson Cancer Research Center	No	Funded	05/01/08-01/31/13	OS Colorectal Cancer:988 Controls:988 *Same cases/controls as AS206 where possible	Y	1181, 1226, 1227, 1377
194	Genetic epidemiology of hip fracture in WHI & SOF	Zmuda - University of Pittsburgh	No	Dropped		OS Fracture - Hip:700 Controls:1400	Y	
193	Immune dysregulation in the pathogenesis of non Hodgkin's lymphoma	DeRoos - University of Washington	No	Dropped		OS Lymphoma, Non Hodgkins:500 Controls:1000	Y	
192	Estrogen and progesterone-related genes and colorectal cancer risk	Zhang - Brigham and Women's Hospital	No	Analysis	09/01/06-07/31/11	OS Colorectal Cancer:644 Controls:1288 *Requests 10% blind duplicates (96 pairs)	Y	1126, 1507
191	Biomarkers and genetic factors related to sarcopenia in older women (includes AS199)	Chen, Z - University of Arizona	No	Funded	09/15/07-06/30/12	OS Sarcopenia:2800 *2800 for DNA, subset of 1400 for EDTA	Y	1531
190	Insulin resistance and vitamin D	Hsia - George Washington University	Yes	Dropped		CaD Insulin Resistance:	Y	
189	Biochemical and anthropometric heterogeneity among morbid obese women in the Women's Health Initiative observational study	Mackey, R - University. of Pittsburgh	No	Analysis	05/01/06-04/30/10	OS CHD:144 Controls:1172	Y	698, 699

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
188	Inflammation and the risk of hormonally-linked cancer	Modugno – Carnegie Mellon University	No	Dropped	07/01/07-06/30/10	OS Breast Cancer:500 Endometrial Cancer:500 Ovarian Cancer:350 Controls:1250 *Maximize case/control overlap with AS129. Extra 750 breast cancer cases for DNA analyses	Y	
187	Serum fatty acids and incidence of ischemic stroke in women	He - University of North Carolina	No	Analysis	04/01/08-03/31/11	OS Stroke:971 Controls:971 *shares cases and controls with AS 126	Y	944, 1493
186	Plasma fatty acids and risk of non-Hodgkin's lymphoma in the Women's Health Initiative observational study: a nested case-control study	Chiu - Northwestern University	No	Dropped		OS Lymphoma, Non Hodgkins:290 Controls:870	Y	
185	An assessment of symptoms and symptom self-management for women abruptly stopping hormone replacement study pills (extension of AS160)	Ritenbaugh - University of Arizona	Yes	Dropped	03/19/04-09/30/04	HT E alone	N	
184	Measures for changes in skeletal muscle mass	Chen, Z - University of Arizona	No	Dropped		General population	N	
183	Effects of hormone therapy on subclinical neurological pathology: WHIMS-MRI	Shumaker - Wake Forest School of Medicine	Yes	Funded	07/01/04-06/30/11	HT E+P	N	542, 625, 626, 680, 683, 696, 727, 794, 883, 909, 937, 979, 1047, 1058, 1115, 1150, 1214, 1414, 1518, 1525, 1526
182	Genetic and epigenetic markers of lung cancer risk in post-menopausal women	Schlecht - Albert Einstein College of Medicine	No	Dropped	04/01/07-03/30/10	OS Cancer of Lung:720 Controls:1440	Y	

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
181	Estradiol, cytokines, and bone turnover: effects on hip fracture	Cauley - University of Pittsburgh	Yes	Analysis	07/01/05-06/30/10	OS Fracture - Hip:400 Controls:400 *same as AS90	Y	634, 681, 714, 861, 878, 910
180	Macrovascular complications of diabetes in postmenopausal women	Li, R - University of Tennessee Health Science Center	No	Dropped	12/01/05-11/30/09	OS Type 2 Diabetes:3164	Y	
179	Frailty in WHI: drugs, inflammatory and genetic markers	LaCroix - Fred Hutchinson Cancer Research Center	Yes	Analysis	09/15/05-07/31/10	OS Fraility-disability:900 Controls:900	Y	301, 302, 303, 662, 831
178	Mammographic density and invasive breast cancer	Pisano - University of North Carolina	No	Analysis	03/12/04-08/31/08	CT 793 Ppts@34 clinics Breast Cancer:	N	640
177	Relative risk differences between FFQs and food records	Subar - National Institute of Health	No	Complete	09/30/03-09/30/04	DM	N	
176	Long term breast and colorectal cancer survivors in the OS	Rahmani - Albert Einstein College of Medicine	Yes	Dropped		OS	N	
175	Physical function determinants in minority women	Nicholas - University of Arizona	No	Funded	12/01/03-12/01/10	OS	N	
174	Proinflammatory markers and colorectal cancer	Ho - Albert Einstein College of Medicine	No	Dropped		OS Colorectal Cancer:500 Controls:900	Y	
173	Relationship of biomarkers and genetic markers to risk of congestive heart failure	Chae - Partners Health Care	No	Dropped		OS CHF:656 Controls:1312	Y	
172	Estrogen receptor polymorphisms and cardiovascular effects of HRT	Herrington - Wake Forest University School of Medicine	No	Dropped		CT	N	
171	Analysis of heart rate variability from ultra-short records: the WHI study	Michael, Y - Drexel University	Yes	Complete	01/01/03-06/01/03	CT	N	

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
170	WHI nutrition and diabetes study (WHINDS)	Margolis - Health Partners Minnesota	Yes	Dropped	01/01/04-12/31/06	DM	N	
169	Risk factors for hemorrhagic stroke among postmenopausal women	Kaplan - Albert Einstein College of Medicine	Yes	Dropped	04/01/06-07/30/10	OS Stroke:357 Controls:757	Y	
168	Plasma inflammatory markers and colorectal cancer	Ho - Albert Einstein College of Medicine	No	Dropped		OS	Y	
167	Sex hormones, risk factors, and risk of ER+ and ER- breast cancer	Cummings - University of California - San Francisco	Yes	Complete	01/01/05-05/30/08	OS Breast Cancer:311 Controls:592	Y	622, 1173, 1218
166	Estrogen replacement therapy and autoantibodies	Mackay, M – Albert Einstein College of Medicine	No	Dropped		OS	Y	
165	Subclinical thyroid dysfunction and risk of myocardial infarction and stroke	Lorenz - University of North Carolina	No	Analysis	09/01/04-07/31/08	OS CHD:800 Stroke:591 Controls:3136	Y	402, 403
164	The IGF system and coronary heart disease	Kaplan - Albert Einstein College of Medicine	Yes	Dropped	01/01/06-12/31/06	OS CHD:350 Controls:350	Y	
163	Hormone use following the WHI E+P trial termination: a pilot study	Hays - Scott and White Health Care	Yes	Complete	01/01/03-12/01/04	HT E+P	N	
162	Interactive telephone strategy to maintain diet change	Beresford - University of Washington	Yes	Dropped	07/01/03-06/30/08	CT	N	
161	Bone mass response to termination of estrogen + progestin	Cauley - University of Pittsburgh	Yes	Analysis	07/10/02-10/01/02	HT E+P	N	
160	An assessment of symptoms and symptom self-management for women abruptly stopping hormone replacement study pills	Valanis - Kaiser Permanente Center for Health Research - Portland	Yes	Complete	07/01/02-08/17/02	HT E+P	N	
159	The insulin-like growth factor (IGF) system and coronary heart disease	Kaplan - Albert Einstein College of Medicine	Yes	Dropped		OS	Y	

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
158	Potential mediators of the association of depression with CVD	Wylie-Rosett - Albert Einstein College of Medicine	Yes	Dropped		OS	Y	
157	Prediction of CHD among postmenopausal women using NMR spectroscopy lipoproteins	Kuller - University of Pittsburgh	Yes	Dropped		OS	Y	
156	The effect of domestic violence on health care costs and utilization	Mouton - Howard University	Yes	Approved	11/01/02-09/30/05	OS	N	
155	Carotenoids, transforming growth factors, and breast cancer risk	Rohan - Albert Einstein College of Medicine	Yes	Dropped		OS Breast Cancer:3500 Controls:3500	Y	
154	Serum and DNA precursors of colon cancer	Garland - University of California - San Diego	Yes	Dropped	09/01/02-08/30/03	OS Colon cancer:400 Controls:400	Y	
153	Longitudinal changes in hip geometry and skeletal muscle	Chen, Z - University of Arizona	No	Analysis	08/15/03-06/30/09	OS 47 Ppts@Tucson Fracture - Hip:	N	340, 456, 487, 489, 547, 566, 569, 633, 658, 687, 690, 691, 712, 888, 960, 964, 1522
152	Growth factor genes and female breast, colorectal, and endometrial cancers	Ho - Albert Einstein College of Medicine	No	Analysis	08/01/03-07/31/08	OS Breast Cancer:900 Colorectal Cancer:500 Endometrial Cancer:300 Controls:900 *Same as AS129	Y	559, 689, 776, 789, 790, 791, 1507
151	Behavioral management of urinary incontinence in african-american women	Ruff - MedStar Research Institute	No	Dropped		OS	N	
150	Effect of airborne particulate matter and other air pollutants on the incidence of cardiovascular events in the Women's Health Initiative observational study	Kaufman - University of Washington	No	Analysis	05/01/02-05/31/06	General population CHD	N	363, 725, 1159, 1321

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
149	Gene-environment interactions and human breast cancer risk	Hu - Wake Forest University	No	Dropped	06/01/04-05/31/06	OS Breast Cancer:800 Controls:800	Y	
148	Relationship between monoclonal hemopoiesis and other molecular abnormalities and the development of leukemia in older women	Preisler - Rush University Medical Center - Chicago	No	Dropped		OS Leukemia:59 Controls:177	Y	
147	Gene-gene and gene-environment interactions and breast cancer risk	Eng - Ohio State University	No	Dropped		OS	Y	
146	A prospective study of pancreatic cancer pathogenesis	Fuchs - Brigham and Women's Hospital/ Harvard University	No	Complete	03/01/03-12/31/04	OS Pancreatic Cancer:104 Controls:312	Y	482, 483, 484, 576
145	Pancreatic cancer	Whitcomb – University of Pittsburgh	No	Dropped		OS	Y	
144	Interactions of polymorphisms in selected genes of thrombogenic & thrombolytic systems with hormone replacement therapy as risk factors for atherothrombotic events in postmenopausal women	Liu, J - University of Cincinnati	Yes	Dropped		OS	Y	
143	Treatment of elevated cholesterol among US postmenopausal women	Kaplan - Albert Einstein College of Medicine	Yes	Dropped		OS	Y	
142	Thrombosis-related genes in population subgroups narrowly defined by race, ethnicity, and place of birth	Kaplan - Albert Einstein College of Medicine	Yes	Dropped		OS	Y	
141	Periodontal disease and subclinical cardiovascular disease in post-menopausal women	Dorn - University of Buffalo	No	Complete	06/01/01-03/16/05	OS	N	
140	Air pollution and electrocardiographic abnormalities (Environmental Epidemiology of Arrhythmogenesis in WHI)	Whitsel - University of North Carolina	Yes	Analysis	09/01/03-05/31/10	CT	N	388, 389, 415, 430, 528, 529, 608, 609, 710, 850, 854, 1159

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
139	Follow-up of healthy breast cancer survivors in the WHI observational study	Paskett - The Ohio State University	Yes	Complete	02/01/02-01/31/03	OS	N	
138	The study of tamoxifen, raloxifene, and cognition (Co-STAR)	Shumaker - Wake Forest School of Medicine	Yes	Dropped		HT	N	
137	Postmenopause CHD risk: platelet genes and hormone therapy	Bray - Thomas Jefferson University	Yes	Analysis	09/27/03-08/31/07	OS CHD:1060 Controls:2120	Y	593
136	The natural history of female pelvic organ prolapse	Handa – University of California – Davis	No	Dropped		HT	N	
135	Natural history of pelvic organ prolapse in WHI women	Nygaard - University of Utah Health Sciences	No	Complete	02/01/02-06/30/07	HT	N	317, 323, 331, 495, 592
134	Serum estrogen hormone metabolites, hormone replacement therapy and the risk of breast cancer	Modugno - Carnegie Mellon University	No	Complete	07/01/02-05/31/04	OS Breast Cancer:200 Controls:200	Y	209
133	Biochemical and genetic predictors of incident hypertension in white and black women	Sesso - Brigham and Women's Hospital	No	Analysis	08/01/04-07/31/10	OS Hypertension:800 Controls:800	Y	654, 655
132	A prospective study of genetic and biochemical predictors of type 2 diabetes mellitus	Liu, S - University of California – Los Angeles	Yes	Analysis	08/01/02-07/31/10	OS Type 2 Diabetes:1800 Controls:2500	Y	369, 376, 486, 550, 554, 555, 572, 573, 582, 594, 660, 664, 668, 688, 719, 1024,1050, 1148
131	Sex steroid hormones, inflammatory cytokines and the risk of rheumatoid arthritis: a nested case control study	Shadick – Brigham and Women’s Hospital/ Harvard University	No	Dropped		OS	Y	
130	Randomized controlled trial of fat reduction, calcium/Vitamin D supplementation, hormone replacement therapy, and risk of proliferative forms of benign breast disease	Rohan - Albert Einstein College of Medicine	Yes	Complete	07/01/01-07/31/08	CT 3901 Ppts@49 clinics Benign Breast Disease: Controls:0	N	508, 509, 544, 584, 585, 586, 587

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
129	Association of diabetes and insulin-like growth factor-I (IGF-I) with risks of colorectal, breast, and endometrial cancer	Strickler - Albert Einstein College of Medicine	No	Analysis	01/15/02-04/30/11	OS Breast Cancer:900 Colorectal Cancer:500 Endometrial Cancer:300 Controls:900 *same as AS152	Y	459, 460, 461, 959, 1061, 1173
128	Mismatch repair gene associated malignancies in women	Weber - Albert Einstein College of Medicine	No	Dropped	04/01/04-03/31/08	OS Colorectal Cancer:1025 Endometrial Cancer:710 Ovarian Cancer:405 Controls:1000 *sharing ovarian cases with AS97	Y	
127	CHD risk perception study	Barnhart - Albert Einstein College of Medicine	No	Analysis	05/15/02-04/30/07	OS	N	659
126	Stroke risk factors and molecular markers in postmenopausal women	Smoller - Albert Einstein College of Medicine	Yes	Analysis	08/01/03-07/31/06	OS Stroke:972 Controls:972	Y	601, 602, 603, 604, 672, 679, 829, 869, 872, 944 1061, 1223
125	Osteoporosis in caribbean hispanic women	Cohen - Albert Einstein College of Medicine	No	Dropped		General population	N	
124	Sociocultural influences on motivation for and maintenance of health-related dietary change among women	Namie – University of California – San Diego	No	Complete	06/01/00-12/01/00	DM	N	
123	Genetic and ethnic determinants of nicotine addiction in postmenopausal women	David - Brown University	No	Dropped		General population	N	
122	Feasibility study of computerized tailored dietary feedback	Glanz - University of Hawaii	No	Complete	03/10/00-09/01/00	DM	N	

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
121	Hyperinsulinemia and ovarian cancer	Modugno - Carnegie Mellon University	No	Complete	09/01/02-08/31/04	OS Ovarian Cancer:225 Controls:225 *originally a subset of AS97	Y	
120	Epidemiology of cervical and lumbar stenosis	Vogt - University of Pittsburgh	No	Dropped		OS	N	
119	The longevity consortium	Langer - University of California - San Diego	Yes	Dropped		General population	N	
118	Accuracy of food portion estimation among postmenopausal women	Coy – University of California - Irvine	No	Complete	12/01/99-04/01/00	DM	N	312
117	Risk factors for dry eye syndrome in postmenopausal women	Nichols – Ohio State University	No	Analysis	02/01/01-04/30/12	OS 217 Ppts@Columbus	N	
116	National validation and quality assurance of vitamin D absorption from CaD tablets	Garland - University of California - San Diego	Yes	Dropped		CaD	N	
115	Diabetes in postmenopausal women	Howard - MedStar Research Institute	Yes	Dropped		General population Type 2 Diabetes:	N	
114	Effects of hormone replacement therapy on cardiac function and ischemia	Haan - University of California - Davis	Yes	Dropped		HT	N	
113	Some aspects of mediterranean diet in relation to risk of chronic diseases among postmenopausal women	Hakim - University of Arizona	No	Complete	08/01/99-07/31/02	OS	N	
112	Motivators and barriers to exercise in older women	Haan - University of California - San Francisco	Yes	Dropped		OS	N	
111	Glycemic index/glycemic load and blood lipids in the WHI	Shikany - University of Alabama at Birmingham	Yes	Complete	07/01/03-06/30/05	General population	N	172, 385, 463, 574

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
110	Sex steroid hormones and risk of coronary heart disease: a nested case control study	Rexrode - Partners Health Care	Yes	Analysis	09/01/00-07/31/05	OS CHD:385 Controls:385 *79 matched cases-controls and 92 cases (but not controls) overlap with AS83.	Y	159, 266, 305, 1218, 1436
109	Proteomics initiative	Hsia - George Washington University	Yes	Dropped	10/01/02-09/30/05	HT CHD:100 Controls:100	Y	
108	Gene-environment effects and colorectal cancer	Lin, H - University of California – Los Angeles	No	Complete	04/01/03-07/31/07	OS Colorectal Cancer:50 Controls:150	Y	507
107	Hashimoto's thyroiditis in postmenopausal women	Zakarija - University of Miami	No	Dropped	12/01/02-11/30/05	OS Controls:2900	Y	
106	Gene-diet interactions in human breast cancer risk	Hu - Wake Forest University	No	Dropped		General population	N	
105	Carotenoids in age-related eye disease study (also see M1)	Mares - University of Wisconsin	Yes	Complete	06/01/00-08/31/10	OS 2007 Ppts@4 clinics Eye:1000 Controls:1000	Y	307, 308, 371, 444, 452, 835, 903, 904, 915, 950, 1381
104	Tamoxifen prevention: Is it acceptable to women at risk?	Melnikow – University of California - Davis	No	Complete	07/01/99-06/30/02	OS	N	
103	Effects of hormone replacement therapy on cognitive aging: Women's Health Initiative study of cognitive aging (WHISCA)	Shumaker - Wake Forest School of Medicine	Yes	Analysis	04/01/99-06/30/10	HT 2266 Ppts@15 clinics	N	216, 237, 325, 579, 598, 695, 899, 914, 980, 1038, 1121, 1229, 1259, 1415
102	Quality of life improvements and willingness to pay: an investigation of selective estrogen receptor modulators	Fouad - University of Alabama at Birmingham	Yes	Complete	09/01/98-10/01/98	OS	N	

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
101	Women's Health oral history project	Allen - Northwestern University	Yes	Dropped			N	
100	Genetic, biochemical and behavioral determinants of obesity	Hays - Scott and White Health Care	Yes	Complete	01/01/99-04/30/04	OS 797 Ppts@3 clinics	N	
99	Genetics of non-insulin dependent diabetes (GENNID)	Chlebowski - Los Angeles Biomedical Research Institute at Harbor - UCLA Medical Center	Yes	Complete	12/01/98-03/31/00	General population	N	
98	Bone mineral density as a predictor for periodontitis	Wactawski-Wende - University of Buffalo	Yes	Analysis	04/01/02-03/30/07	OS 969 Ppts@Buffalo	N	271, 326, 527, 632, 652, 813, 928, 1162
97	Modeling serum markers for cost-effective ovarian cancer screening	Anderson - Fred Hutchinson Cancer Research Center	Yes	Analysis	09/30/01-06/30/09	OS Ovarian Cancer:280 Controls:558	Y	381, 1504
96	Longitudinal insulin sensitivity and postmenopausal HRT	Cottrell -	No	Dropped		General population	N	
95	Work organization, psychological distress, and health among minority older women	Rodriguez - University of Hawaii	Yes	Complete	12/01/97-12/01/97	OS	N	
94	The effect of lowfat dietary modification on markers of bone turnover and bone mineral density	Jackson - The Ohio State University	Yes	Dropped		General population	N	
93	The epidemiology of venous disease	Criqui - University of California - San Diego	Yes	Complete	03/11/98-06/30/99	OS	N	
92	Fasting glucose in baseline plasma from all CT participants	Howard - c	Yes	Dropped		CT	N	
91	Alterations in calcium and calcitropic hormone levels in 4 ethnic groups in response to CaD supplementation: possible effect modulation by VDR phenotype	Lester -	No	Dropped		CT	N	

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
90	WHI sex hormone and genetic risk factors for hip fracture	Cummings - University of California - San Francisco	Yes	Analysis	04/01/03-03/31/07	OS Fracture - Hip:400 Controls:400 *same as AS181	Y	479, 480, 481, 543, 563, 1218
89	Effect of HRT on plasma homocysteine concentration	Manson - Brigham and Women's/Harvard University	Yes	Dropped		HT	N	
88	Cholesterol distribution in lipoprotein particles in WHI DM intervention participants consuming a low-fat dietary pattern compared to comparison participants consuming their usual fat intake	Tinker - Fred Hutchinson Cancer Research Center	Yes	Dropped		DM	N	
87	The effect of dietary change on blood flavonoid and F2-isoprostane levels	Simon M - Wayne State University Medical School	No	Dropped		DM	N	
86	A pilot study to determine the sensitivity of Form 39 to impaired executive control function (ECF) as measured by the CLOX: an executive clock-drawing task	Polk – University of Texas – San Antonio	No	Complete		HT	N	
85	Brain imaging with fluorometatyrosine in post-menopausal women on or off hormonal replacement therapy - implications for schizophrenia	Nordahl -	Yes	Dropped			N	
84	Cognitive change in women	Dunn - New England School of Acupuncture	Yes	Analysis	09/01/01-02/28/10	General population 546 Ppts@2 clinics	N	421, 600, 616, 621, 940
83	Thrombotic, inflammatory and genetic markers for coronary heart disease in postmenopausal women: a WHI umbrella study	Ridker - Partners Health Care	No	Complete	09/01/99-08/31/03	OS CHD:650 Controls:650	Y	127, 128, 129
82	Extension of bone mineral density assessment in WHI Native American women	Chen, Z - University of Arizona	No	Complete	07/01/97-06/30/01	OS	N	

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
81	Androgeneic hair growth in postmenopausal women	Freeman - Albert Einstein College of Medicine	No	Dropped		OS	N	
80	Combine effect of HRT and heritable prothrombotic mutations on the risk of deep venous thrombosis (DVT) and pulmonary embolus (PE)	Psaty – University of Washington	Yes	Dropped		HT	N	
79	How a low fat diet is related to adiposity and body fat distribution: cross-sectional and longitudinal evaluation	Wylie-Rosett - Albert Einstein College of Medicine	Yes	Dropped		General population	N	
78	Community strategy to retain women enrolled in research	Fouad - University of Alabama at Birmingham	Yes	Complete	07/01/97-09/30/97	CT	N	
77	HRT decision project	Kerner - University of California - San Diego	No	Dropped		General population	N	
76	Tailored messages to enhance adherence of older women to dietary programs for breast cancer control	Chlebowski - Los Angeles Biomedical Research Institute at Harbor - UCLA Medical Center	Yes	Complete	09/01/97-08/13/98	DM	N	
75	Adherence to dietary modification in the WHI	Rosal - University of Massachusetts Medical School	No	Analysis	09/01/97-08/30/02	DM	N	126, 267
74	The effectiveness of individual versus group behavioral strategies to increase participants adherence	Wodarski – State University of New York - Buffalo	Yes	Complete	07/01/97-09/30/97	DM	N	
73	Psychosocial and cultural determinants of NIDDM in Latinas	Ritenbaugh - University of Arizona	Yes	Complete	05/01/97-04/30/98	OS	N	
72	Ethnicity, body composition, bone density and breast cancer	Chen, Z - University of Arizona	No	Dropped	09/01/97-08/30/02	OS	N	

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
71	Assessing stages of change in postmenopausal women enrolled in the dietary modification arm of the WHI	Brewer - University of Tennessee, Memphis	No	Dropped		DM	N	
70	The prevalence and prognostic importance of myocardial ischemia during daily life, and its relationship to migraine status: WHI	Sheps - University of Florida Department of Medicine	Yes	Complete	09/01/97-08/31/00	OS	N	171, 183, 716
69	Birth place and CVD risk in women	Wylie-Rosett - Albert Einstein College of Medicine	Yes	Dropped		General population	N	
68	Coronary artery calcification detected with ultrafast CT as an indication of CAD in OS participants	Hsia - George Washington University	Yes	Complete	01/01/97-12/31/05	OS 735 Ppts@2 clinics	N	
67	Prevalence and natural history of autoimmune thyroid disease in postmenopausal women	Zakarija - University of Miamil	No	Dropped	03/31/97-02/28/10	OS	N	
66	Quantitative, patient-specific serially comparable (QPS) mammography	Morrisett - Baylor College of Medicine	No	Dropped		General population	N	
65	Benign breast disease	Rohan - Albert Einstein College of Medicine	Yes	Complete	07/01/98-08/30/00	DM 101 Ppts@12 clinics	N	
64	Examine mammography sensitivity in WHI women	Foreyt – Nutrition Research Clinic - Houston	Yes	Dropped		CT	N	
63	Development and evaluation of eating style index	Haines - University of North Carolina	No	Complete	10/01/96-06/30/99	OS	N	
62	Prevention of age-related maculopathy in the WHI HRT CT: WHI-SE	Haan - University of California – San Francisco	Yes	Analysis	01/01/99-01/01/07	HT 4430 Ppts@21 clinics	N	250, 251, 253, 476, 819, 1150

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
61	Longitudinal assessment of memory functioning in the WHI clinical trial	Ober – University of California -Davis	No	Analysis	09/01/96-08/31/09	HT	N	
60	Fat intake in husbands of WHI dietary arm participants	Shikany - University of Alabama at Birmingham	Yes	Complete	12/01/96-12/01/96	DM	N	
59	Prevalence and natural history of autoimmune thyroid disease (AITD) in postmenopausal women	Zakarija - University of Miami	No	Dropped		General population	N	
58	Enrollment of hispanic women in prevention trials	Trapido - University of MiamiI	No	Dropped		General population	N	
57	Hispanic women's advocacy and retention strategies	Ritenbaugh - University of Arizona	Yes	Complete	09/01/96-08/31/98	OS	N	
56	Behavioral and psychosocial predictors of dietary change in postmenopausal women	Pleuss – Wake Forest University of Medicine	Yes	Complete	09/01/96-08/31/98	DM	N	
55	Predictors of participation among latinos in clinical trials	Talavera – University of California – San Diego	Yes	Dropped		General population	N	
54	Women and minority recruitment / retention: a community-based intervention	Fouad - University of Alabama at Birmingham	Yes	Dropped		DM	N	
53	A prospective study of diet and hormones in the development of prostate cancer	Kabat – Albert Einstein College of Medicine	No	Dropped		General population	N	
52	Genetic polymorphisms in the hormonal etiology of breast cancer	McTiernan - Fred Hutchinson Cancer Research Center	Yes	Dropped		OS	N	
51	Cross-sectional and longitudinal evaluation of bone quality	LeBlanc - Nutrition Research Clinic, Houston	Yes	Dropped		General population	N	

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
50	Nutrition practice guidelines for maintaining low-fat dietary change in post menopausal women	Burrows - Fred Hutchinson Cancer Research Center	Yes	Complete	10/01/96-09/30/97	DM	N	
49	Applying creative self-monitoring in the WHI	Rahmani – Albert Einstein College of Medicine	Yes	Dropped		DM	N	
48	Prostate cancer survey of spouses of WHI screened women	Smoller - Albert Einstein College of Medicine	Yes	Complete	02/01/96-06/30/96	General population	N	
47	Effect of diet intervention on motivation to make other health-related changes	Langer - University of California - San Diego	Yes	Complete	05/01/96-04/30/97	DM	N	
46	Prostate and colorectal cancer in WHI dietary arm husbands	Oberman - University of Alabama at Birmingham	Yes	Dropped		DM	N	
45	Response set biases in dietary self-report in the WHI DM	Herbert - University of Massascusetts Medical Center	Yes	Dropped		DM	N	
44	Estrogen and vaginal pH	Schaeffer – Northwestern University	No	Dropped		HT	N	
43	Decrease of bone mass in older women	Goodman – UCLA Medical Center	No	Dropped		CT	N	
42	Impact of insurance status on health outcomes and health services utilization in the WHI	Hsia - George Washington University	Yes	Dropped	11/01/96-10/31/99	OS	N	
41	Metabolism of lipoprotein and HRT	Morrisett - Baylor College of Medicine	No	Dropped		OS	N	
40	Ethnic and age differences in use of mammography	Smoller - Albert Einstein College of Medicine	Yes	Complete		OS	N	

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
39	The effects of HRT on the development and progression of dementia (WHIMS)	Shumaker - Wake Forest School of Medicine	Yes	Complete	06/01/96-05/31/05	HT 7528 Ppts@48 clinics	N	60, 138, 157, 173, 225, 226, 274, 276, 332, 336, 360, 370, 390, 397, 399, 427, 546, 558, 595, 597, 612, 639, 665, 670, 683, 727, 750, 881, 883, 884, 919, 938, 1038, 1042, 1053, 1095, 1121, 1150, 1156, 1214, 1260, 1295, 1384, 1558
38	Hemostatic/thrombotic and genetic markers for coronary disease in postmenopausal women	Ridker - Partners Health Care	No	Dropped		OS	Y	
37	Lipid markers of atherosclerotic disease in post menopausal women	Manson - Brigham and Women's/Harvard University	Yes	Dropped		OS	Y	
36	HRT and changes in mammographic density	Hulka - University of North Carolina	Yes	Complete	01/31/98-12/31/02	HT Breast Cancer: 857 Ppts@19 clinics	N	285, 358, 694, 1447
35	Risk factors for fatigue in women ages 50 to 75	Hartz - Medical College of Wisconsin	No	Dropped		CT	N	
34	Ethnic differences in hip bone geometry by DXA and QCT	Nelson - Wayne State University School of Medicine	No	Complete	12/01/96-12/31/02	HT 311 Ppts@Detroit	N	
33	The association of HRT with abdominal and total body fat in postmenopausal women	Mayo - University of Alabama at Birmingham	No	Complete	07/31/95-03/31/96	OS	N	
32	Recruitment techniques in getting minority women to participate in breast cancer clinical trials	Boe - University of California - Berkeley	No	Dropped		General population	N	
31	Eye care use	Kleinstein - University of Alabama at Birmingham	No	Complete		OS	N	
30	The role of endocrine factors in the etiology of lung cancer in women	Kabat - Albert Einstein College of Medicine	No	Dropped		OS	N	

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
29	HRT and cardiovascular biomarkers related to oxidation status and platelet function	Gaziano - Brigham and Woman's Hospital	No	Dropped		HT	N	
28	Perspectives on aging	Smoller - Albert Einstein College of Medicine	Yes	Dropped		General population	N	
27	Vitamin D, calcium, and breast cancer	Hulka - University of North Carolina	Yes	Dropped		General population	Y	
26	HRT and knee/hip osteoarthritis	Cerhan - Mayo School	No	Dropped		HT	N	
25	Ankle-arm blood pressure index measurement	Masaki – University of Hawaii	Yes	Complete	02/01/96-01/01/98	OS	N	
24	Cross-ethnic comparisons of skeletal health of postmenopausal women in San Diego county	Schneider – University of California – San Diego	No	Complete	01/03/95-01/02/97	OS	N	
23	Non-steroidal anti-inflammatory drugs and cancers of the breast and colon	Harris – Ohio State University	No	Dropped		General population	N	
22	Vascular compliance as a predictor of cardiovascular disease in postmenopausal women	Robinson - University of Iowa	Yes	Dropped		CT	N	
21	Effect of DM, HRT and CaD admin on progression of coronary atherosclerosis assessed by EBCT	Detrano - Harbor-UCLA Research and Education Institute	Yes	Dropped		CT	N	
20	Coronary screening of postmenopausal women using EBCT	Detrano - Harbor-UCLA Research and Education Institute	Yes	Dropped		OS	N	
19	Coagulation proteins, anticardiolipin antibodies and stroke in women	Orencia - Northwestern University	No	Dropped		General population	N	
18	WHT:FSMP DM follow-up	Grizzle – Fred Hutchinson Cancer Research Center	No	Dropped		DM	N	
17	Domestic violence in older women	Mouton - Howard University	Yes	Complete	10/25/94-10/24/96	OS	N	

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
16	Lower extremity atherosclerotic disease	McDermott - Northwestern University	No	Dropped		OS	N	
15	The relationship between osteopenia and periodontitis	Wactawski-Wende - University of Buffalo	Yes	Complete	09/16/96-09/15/01	OS 1468 Ppts@Buffalo	N	553, 1358, 1360
14	High density lipoprotein metabolism	Going - University of Arizona	No	Complete	07/01/94-06/30/96	OS	N	
13	Prevalence and correlates of lumbar spinal stenosis	Vogt - University of Pittsburgh	No	Complete		CT	N	
12	Empowerment/nutritional counseling	Mouton - Howard University	Yes	Dropped		DM	N	
11	Validation and exploration of sleep and mood predictors	Kripke - University of California - San Diego	No	Complete	08/01/95-07/31/99	OS	N	43, 749, 1113, 1205, 1206, 1207, 1208, 1209, 1210, 1437
10	Urinary estrogen metabolites and breast cancer risk	Meilahn - University of Pittsburgh	Yes	Dropped		DM	N	
9	Oral bone loss	Jeffcoat - Penn Dental School	No	Complete	05/29/95-11/30/04	OS 450 Ppts@Birming	N	72
8	Partner's health study	Langer - University of California - San Diego	Yes	Dropped			N	
7	Effect of HRT on cardiovascular morbidity and mortality in postmenopausal women with a low ankle/arm BPI	Kuller - University of Pittsburgh	Yes	Dropped		HT	N	
6	Incidence and impact of arthritis in older women	Hughes - Northwestern University	No	Dropped		General population	N	
5	Explanations for the development of fat distaste	Green - Fred Hutchinson Cancer Research Center	No	Complete	04/01/95-09/30/96	DM	N	
4	Dietary modification and prostate cancer in WHI husbands	Shikany - University of Alabama at Birmingham	No	Dropped		DM	N	
3	PLCO offer to WHI-partners (PLCO-Partners)	Weissfeld – University of Pittsburgh	No	Dropped		General population	N	
2	Prostate, lung, colorectal, and ovarian cancer screening trial (PLCO-OS)	Weissfeld - University of Pittsburgh	No	Dropped		General population	N	

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
1	Arterial disease artherosclerosis prevention trial (ADAPT)	Crouse - Wake Forest University School of Medicine	No	Dropped		DM	N	
M26	Screen for rare alleles by deep resequencing of colorectal cancer cases	Peters - Fred Hutchinson Cancer Research Center	No	Seeking Approval	09/01/09-08/31/11	General population	Y	
M25	GWAS of chronic periodontitis	Wactawski-Wende - University of Buffalo	Yes	Funded	09/30/09-09/29/11	OS	N	
M23	A prospective study of telomere length in lung cancer	Han - Brigham and Women's Hospital/ Harvard University	No	Approved	04/01/11-03/31/16	OS Cancer of Lung:980 Controls:980	Y	
M20	A collaborative GWAS of breast cancer outcomes	Caan – Kaiser Foundation Research Institute - Oakland	Yes	Dropped	07/01/11-06/30/15	General population Breast Cancer - Invasive:911 Controls:1223	Y	
M18	Breast cancer post GWAS	Hunter - Brigham and Women's Hospital/ Harvard University	No	Funded		General population Breast Cancer:4500 Controls:4500	Y	
M17	Urine BPA -FDA Study	FDA	No	Dropped		General population	Y	
M16	Stroke GWAS	Smoller - Albert Einstein College of Medicine	Yes	Funded	07/01/10-06/30/14	General population Stroke:680 Controls:680 *680 cases and 680 control - stroke cases from AS126 that signed the supplemental consent (dbGAP)	Y	
M14	Cohort-based GWAS of Glioma	Rajaraman - National Cancer Institute - NIH	No	Approved	08/01/10-10/30/11	General population Cancer of Brain:192 Controls:192 *Glioma	Y	

Table 11.4 (continued)
All Ancillary Studies

AS #	Title	PI and Institution	WHI Investigator	Status	Study dates	Case controls	Blood study	Ms #(s)
M12	Use of Urinary Sugars Biomarker to Assess Measurement Error Structure of Self Reported Intake in NPAAS	Kipnis – National Institute of Health	No	Funded	06/21/10-03/31/11	DM Controls:450 *450 NPAAS ppts	Y	1273
M11	NCI - Upper GI cancer GWAS and telomere length evaluation	Taylor - National Institute of Health - NCI	No	Funded	08/01/09-07/31/10	General population Cancer of Stomach:119 Controls:238	Y	
M10	NCI GWAS in upper gastrointestinal (UGI) cancers	Taylor - National Institute of Health - NCI	No	Dropped		General population Cancer of Esophagus:80 Cancer of Stomach:119 Controls:199	Y	
M09	NCI GWAS in renal cell carcinoma (RCC): expansion of a primary scan	Purdue – National Institute of Health - NCI	No	Funded	09/15/09-09/14/10	General population Cancer of Kidney:299 Controls:299 *Non-Hispanic caucasians - ALL. Non dbGaP ppts will only go for Taqman. Rest for GWAS	Y	
M08	NCI GWAS in bladder cancer	Chanock – National Institute of Health – NCI	No	Funded	09/15/09-12/31/10	General population Cancer of Bladder:427 Controls:427 *ALL non-hispanic Caucasians; Non-dbGaP cases only for Taqman, with rest for GWAS	Y	
M07	Caucasian GWAS	WHI Core Resources Working Group	Yes	Dropped		General population	Y	
M02	Anemia and its relationship with sarcopenia, physical function and mortality (Paper)	Chen, Z – University of Arizona	No	Analysis	05/15/07-02/28/10	General population	N	562, 836, 867, 868
M01	Diet and lifestyle factors reducing risk for age-related eye disease (AS105 extension)	Mares - University of Wisconsin	Yes	Analysis	09/01/07-08/31/09	OS	N	

*Number of Field Centers includes number of satellite sites.

Table 11.5
Recruitment to Ancillary Studies Requiring Separate Consents by Field Centers
Data as of Sept. 16, 2011

	9	15	34	36	39	62	65	68	84	98	100	103	105	117
	Oral Bone Loss	The Relationship Between Osteopenia and Periodontitis	Ethnic Differences in Hip Bone Geometry by DXA and QCT	HRT and Changes in Mammographic Density	The Effects of HRT on the Development and Progression of Dementia (WHIMS)	Prevention of Age-Related Maculopathy in the WHI HRT CT: WHI-SE	Benign Breast Disease	Coronary Artery Calcification Detected with Ultrafast CT as an Indication of CAD in OS	Estrogen, Vitamin E and Cognitive Change in Women	Bone Mineral Density as a Predictor for Periodontitis	Genetic, Biochemical and Behav Determinants of Obesity	Effects of HRT on Cognitive Aging: WHI Studyof Cognitive Aging(WHISCA)	Carotenoids in Age-Related Eye Disease Study	Risk Factors for Dry Eye Syndrome in Postmenopausal Women
Total	**450**	**1468**	**311**	**857**	**7528**	**4430**	**101**	**735**	**546**	**969**	**797**	**2266**	**2007**	**217**

Table 11.5 (continued)
Recruitment to Ancillary Studies Requiring Separate Consents by Field Centers
Data as of Sept. 16, 2011

	130	153	178	197	216	218	219	233	262	272	W25	W30	W47	Total
	Randomized Controlled Trial of Fat Reduction, Calcium/ Vitamin D Supplementation, HRT, and Risk of Proliferative Forms of Benign Breast Disease	Longitudinal Changes in Hip Geometry and Skeletal Muscle	Mammographic Density and Invasive Breast Cancer	Validity of self-reported diabetes mellitus in the WHI	Decision-making About Cancer Screening Among Older Women	WHI Nutrition and Physical Activity Assessment Study (NPAAS)	Diet and Eye Health in the WHI: End of Trial Study	WHIMS Extension	Memory Study of Younger Women (WHIMS-Y)	WHI Nutrition and Physical Activity Assessment Study (NPAAS)	WHI Coronary Artery Calcification Study in E-Alone	Dietary Assessment Study	Breast Tumor Tissue Pilot	
Total	**3901**	**47**	**793**	**738**	**1300**	**450**	**400**	**3074**	**1372**	**29**	**1141**	**134**	**340**	**36401**

Table 11.6
Participant Enrollment in WHI Ancillary Studies
Requiring Separate Consents

Data as of Sept. 16, 2011

CT+OS			
	Ppts	**%**	
CT+OS	161808		
Not Enrolled in Ancillary Studies	137267	84.83	
Enrolled in Ancillary Studies	24541	15.17	
Number of Studies	**Ppts**	**%**	**Enrollments**
2	4464	2.76	8928
1	17664	10.92	17664
5	71	0.04	355
6	3	0.00	18
4	554	0.34	2216
3	1785	1.10	5355
Total	**24541**	**15.17**	**34536**

Extension			
	Ppts	**%**	
Consented to Extension	115407		
Not Enrolled in Ancillary Studies	95085	82.39	
Enrolled in Ancillary Studies	20322	17.61	
Number of Studies	**Ppts**	**%**	**Enrollments**
2	3867	3.35	7734
4	547	0.47	2188
1	14156	12.27	14156
5	70	0.06	350
3	1679	1.45	5037
6	3	0.00	18
Total	**20322**	**17.61**	**29483**

Table 11.7
Funded BAA and Ancillary Studies PI List
(As of 2011)

Last Name	First Name	WHI Investigator	Institution	PI for Study #	Sponsoring WHI PI for Study #	Supporting CCC PI for Study #
Anderson	Garnet	Yes	Fred Hutchinson Cancer Research Center	97	282, 97 , 150, 297, M11	97, 121, 129, 140, 150, 282, 297, BA6, BA11, BA15, BA21, M8, M9, M11
Assimes	Tim	Yes	Stanford University School of Medicine	332		
Barnhart	Janice	No	Albert Einstein College of Medicine	127		
Bassford	Tamsen	Former	University of Arizona		113, 153, 175, 191, 199	
Beresford	Shirley	Former	University of Washington		272	
Berndt	Sonja	No	National Institute of Health - NCI	301		
Bird	Cloe	No	Rand Corp	220		
Bowen	Deborah	Former	Fred Hutchinson Cancer Research Center		5	39
Bray	Paul	Former	Thomas Jefferson University	137		
Brinton	Louise	No	National Institute of Health - NCI	297		
Burke	Greg	Former	Wake Forest University School of Medicine		56, 139	
Burrows	Beth	Yes	Fred Hutchinson Cancer Research Center	50		
Caan	Bette	Yes	Kaiser Foundation Research Institute - Oakland		243	
Cauley	Jane	Yes	University of Pittsburgh	181, 161, BA9		
Chanock	Stephen	No	National Institute of Health	M8, M3		
Chen	Jiu-Chiuan	No	University of Southern California Keck School of Medicine	226,252		
Chen	Zhao	Yes	University of Arizona	82, 153, 191, 199, M2		
Chlebowski	Rowan	Yes	Los Angeles Biomedical Research Institute at Harbor-UCLA Medical Center	76, 99	76, 99, 108	
Cochrane	Barbara	Yes	Fred Hutchinson Cancer Research Center			110,133, 134, 146, 167, 192, 196, 214, 242, 250, 262
Colditz	Graham	No	Washington University Saint Louis	207		
Cook	Nancy	No	Brigham and Women's Hospital/ Harvard University	BA22		

Table 11.7 (continued)
Funded BAA and Ancillary Studies PI List

Last Name	First Name	WHI Investigator	Institution	PI for Study #	Sponsoring WHI PI for Study #	Supporting CCC PI for Study #
Coy	Christine	No	University of California - Irvine	118		
Criqui	Michael	Former	University of California - San Diego	93		
Cummings	Steve	Former	University of California - San Francisco	90, 167, BA7		
Curb	David	Yes	Pacific Health Research and Education Institute		25, 95, 122	
DeRoos	Anneclaire	No	University of Washington	BA13		
Dorn	Joan	No	University of Buffalo	141		
Driscoll	Ira	No	National Institute of Health - NIA	250		
Dunn	Julie	Former	New England School of Acupuncture	84		
Fouad	Mona	Former	University of Alabama at Birmingham	78,102		
Fuchs	Charles	No	Brigham and Women's Hospital/ Harvard University	146, 214		
Glanz	Karen	No	University of Hawaii	122		
Going	Scott	Yes	University of Arizona	14		
Green	Pamela	No	Fred Hutchinson Cancer Research Center	5		
Grimm	Richard	Former	University of Minnesota		50	
Gunter	Marc	No	Albert Einstein College of Medicine	BA21		
Haan	Mary	Former	University of California - San Francisco	62		
Haines	Pam	No	University of North Carolina	63		
Hakim	Iman	No	University of Arizona	113		
Han	Jiali	No	Brigham and Women's Hospital/ Harvard University	242		
Hanash	Sam	Yes	Fred Hutchinson Cancer Research Center	BA17		
Harris	William S.	No	Stanford Health	BA19		
Hays	Jennifer	Yes	Scott and White Health Care	100, 163	100, 137, 163	
He	Ka	No	University of North Carolina	187		
Heiss	Gerardo	Yes	University of North Carolina at Chapel Hill		36, 63, 70, 140, 165, 178, 226, 236, 252, 264	
Hendrix	Susan	Former	Wayne State University		34	
Hingorani	Sunil	No	Fred Hutchinson Cancer Research Center	BA16		
Ho	Gloria	No	Albert Einstein College of Medicine	152, 208, 266, BA10		

Table 11.7 (continued)
Funded BAA and Ancillary Studies PI List

Last Name	First Name	WHI Investigator	Institution	PI for Study #	Sponsoring WHI PI for Study #	Supporting CCC PI for Study #
Howard	Barbara	Yes	Medstar Health Maryland		217	
Hsia	Judith	Yes	George Washington University	68	68	
Hubble	Allan	Former	University of California - Irvine		118	
Hulka	Barbara	Former	University of North Carolina at Chapel Hill	36		
Hunt	Julie	Yes	Fred Hutchinson Cancer Research Center			220, 223, 226, 252
Hunter	David	No	Brigham and Women's Hospital/ Harvard University	M18		
Jackson	Rebecca	Yes	The Ohio State University	271, BA3, BA18, M24	117, 223, 271, 301, BA3, M24,	
Jeffcoat	Marjorie	No	Penn Dental School	9		
Jiao	Li	Yes	Baylor College of Medicine	292		
Kaufman	Joel	No	University of Washington	150		
Kerwin	Diana	No	Northwestern University	235		
Kipnis	Victor	No	National Institute of Health	289, M12		
Klein	Liviu	No	University of California - San Francisco	196		
Kleinstein	Robert	No	University of Alabama at Birmingham	31		
Kooperberg	Charles	Yes	Fred Hutchinson Cancer Research Center	M6	M6, M13, M26,	90, 126, BA10, BA12, BA18, BA19, BA20, M4
Kotchen	Jane	Yes	Medical College of Wisconsin		235	
Kripke	Daniel	No	University of California - San Diego	11		
Kuller	Lew	Yes	University of Pittsburgh	BA12	13, 121, 134, 161,181, 189, M9	
LaCroix	Andrea	Yes	Fred Hutchinson Cancer Research Center	179, 286	179, 286, 290, M4	83, 137, 153, 165, 179, 181, 191, 199, 286, 290, BA3, BA7, BA9, BA13, BA14, BA22, M2
Lane	Dorothy	Former	Stony Brook University - New York		216	
Langer	Robert	Former	University of California – San Diego		11, 24, 47, 73, 93, 124	
Lasser	Norm	Former	University of Medicine and Dentistry at New Jersey		17	
Lee	I-Minn	No	Brigham and Women's Hospital/ Harvard University	BA11		

Table 11.7 (continued)
Funded BAA and Ancillary Studies PI List

Last Name	First Name	WHI Investigator	Institution	PI for Study #	Sponsoring WHI PI for Study #	Supporting CCC PI for Study #
Lewis	Cora (Beth)	Yes	University of Alabama at Birmingham		9, 111	
Li	Christopher	No	Fred Hutchinson Cancer Research Center	316		
Li	Rongling	No	University of Tennessee Health Science Center	BA5		
Lichtenstein	Alice	No	Tufts University	BA8		
Lin	Henry	No	Harbor-UCLA	108		
Liu	Simin	Yes	University of California - Los Angeles	132, 238, 254,		
Lorenz	Carol	No	University of North Carolina	165		
Lund	Bernedine	Yes	Fred Hutchinson Cancer Research Center			206, 224
Mackey	Rachel	No	University of Pittsburgh	189		
Mann	Sue	Yes	Fred Hutchinson Cancer Research Center			M26
Manson	JoAnn	Yes	Brigham and Women's Hospital/ Harvard University		83, 110, 132, 133, 146, 192, 207, 214, 242, BA11	
Mares	Julie	Former	University of Wisconsin	105, 219, 257, M1		
Margolis	Karen	Yes	Health Partners Minnesota	197	197, 220	
Masaki	Kamal	Former	University of Hawaii	25		
Mayo	Charlotte	No	University of Alabama at Birmingham	33		
McGlynn	Katherine	No	National Institute of Health - NCI	296		
McIntosh	Martin	Yes	Fred Hutchinson Cancer Research Center	BA15		
McTiernan	Anne	Yes	Fred Hutchinson Cancer Research Center			36, 178
Melnikow	Joy	No	University of California - Davis	104		
Messina	Catherine	No	Stony Brook University Medical Center	216		
Michael	Yvonne	Yes	Drexel University	171		
Millen	Amy	Yes	University of Buffalo	304		
Modugno	Francesmary	No	Carnegie Mellon University	121, 134		
Moon	Thomas E	Former	University of Arizona		14	
Moreland	Larry W.	No	University of Pittsburgh	BA20		
Mouton	Charles	Former	University of Texas	17		
Namie	Joylin	No	University of California – San Diego	124		

Table 11.7 (continued)
Funded BAA and Ancillary Studies PI List

Last Name	First Name	WHI Investigator	Institution	PI for Study #	Sponsoring WHI PI for Study #	Supporting CCC PI for Study #
Nathan	Lauren	Former	University of California – Los Angeles		238, 254	
Nelson	Dorothy	No	Wayne State University School of Medicine	34		
Neuhouser	Marian	Yes	Fred Hutchinson Cancer Research Center			130, 195, 207, 236, 275, BA8
Newcomb	Polly	No	Fred Hutchinson Cancer Research Center	290		
Nicholas	J. Skye	No	University of Arizona	175		
Nichols	Kelley	No	Ohio State University	117		
Nygaard	Ingrid	No	University of Iowa	135		
Ober	Beth	No	University of California - Davis	61		
Oberman	Albert	Former	University of Alabama at Birmingham		31, 33, 60, 78, 102	
Ockene	Judith	Former	University of Massachusetts		75, 275	
Paskett	Electra	Yes	The Ohio State University	139, 223		
Patterson	Ruth	Former	UCSD Moores Cancer Center		177	65, 108
Peters	Ulrike	No	Fred Hutchinson Cancer Research Center	206, 224, M26,		
Pisano	Etta	No	University of North Carolina - School of Medicine	178		
Pleuss	Joan	Former	Wake Forest University of Medicine	56		
Polk	M.J.	No	University of Texas	86		
Prentice	Ross	Yes	Fred Hutchinson Cancer Research Center	218, 272, BA2, BA4,	195, 206, 218, 224, 289, 316, M3, M12, M18	84, 263, 316, BA1, BA2, BA4, BA5, BA16, BA17
Purdue	Mark	No	National Institute of Health - NCI	M9		
Rajkovic	Aleksandar	Former	Baylor College of Medicine		M8	
Reiner	Alexander	Yes	University of Washington	BA14, M13		
Rexrode	Kathryn	Yes	Partners Health Care	110		
Ridker	Paul	No	Partners Health Care	83		
Ritenbaugh	Cheryl	Former	University of Arizona	57, 73	57, 82, 160, 171	
Robbins	John	Former	University of California - Davis		61, 62, 104, BA1	
Rodriguez	Beatriz	Yes	University of Hawaii System	95		
Rohan	Tom	Former	Albert Einstein College of Medicine	65, 130		
Rosal	Milagros	No	University of Massachusetts Medical School	75		
Sangi-Haghpaykar	Haleh	Former	Baylor College of Medicine		292	

Table 11.7 (continued)
Funded BAA and Ancillary Studies PI List

Last Name	First Name	WHI Investigator	Institution	PI for Study #	Sponsoring WHI PI for Study #	Supporting CCC PI for Study #
Sarto	Gloria	Yes	University of Wisconsin		105, 219, 257, M1	
Schenken	Robert	Former	University of Texas		86	
Schneider	Diane	No	University of California - San Diego	24		
Seldin	Michael	No	University of California - Davis	BA1		
Sesso	Howard	No	Brigham and Women's Hospital/ Harvard University	133		
Sheps	David	Former	University of Florida Department of Medicine	70		
Shikany	James	Former	University of Alabama at Birmingham	60, 111		
Shumaker	Sally	Yes	Wake Forest School of Medicine	39, 103 183, 233, 244, 262	39, 103 183, 233, 250, 262	
Siega-Riz	Anna Maria	No	University of North Carolina	236		
Smoller	Sylvia	Yes	Albert Einstein College of Medicine	40, 48, 126, M16	40, 48, 126, 127, 129, 130, 152, 208, 266, BA10, M16	
Stefanick	Marcia	Yes	Stanford University		332	
Sternfeld	Barbara	No	Kaiser Permanente	243		
Stolzenberg-Solomon	Rachael	No	National Institute of Health - NCI	M4		
Strickler	Howard	No	Albert Einstein College of Medicine	129		
Sturgeon	Susan	No	University of Massachusetts	275		
Subar	Amy	No	National Institute of Health	177		
Sun	Jielin	No	Wake Forest University	263		
Taylor	Phil	No	National Institute of Health	M11		
Tinker	Lesley	Yes	Fred Hutchinson Cancer Research Center			105, 111, 132, 152, 187, 189, 208, 218, 219, 238, 254, 257, 264, 266, 271, 292, 296, 301, 332, M1, M12
Trevisan	Maurizio	Former	State University of New York - Buffalo		15, 74, 98, 141	
Ulrich	Cornelia	No	Fred Hutchinson Cancer Research Center	195		
Urban	Nicole	Yesr	Fred Hutchinson Cancer Research Center	282		

Table 11.7 (continued)
Funded BAA and Ancillary Studies PI List

Last Name	First Name	WHI Investigator	Institution	PI for Study #	Sponsoring WHI PI for Study #	Supporting CCC PI for Study #
Valanis	Barbara	Former	Kaiser Permanente Center for Health Research - Portland	160		
Van Horn	Linda	Yes	Northwestern University		84, 187, 196	
Vitolins	Mara	Yes	Wake Forest University Health Sciences		244, 263	
Vogt	Molly	No	University of Pittsburgh	13		
Wactawski-Wende	Jean	Yes	University of Buffalo	15, 98, 303, M25	296, 303, 304, M25	
Walitt	Brian	Yes	Medstar Health Maryland	217		
Wallace	Robert	Yes	University of Iowa		135	
Wang	C.Y.	Former	Fred Hutchinson Cancer Research Center			9
Whitsel	Eric	Yes	University of North Carolina	140, 264		
Wodarski	Lois	No	University of Buffalo	74		
Xu	Jianfeng	No	Wake Forest University School of Medicine	BA6		
Zhang	Shumin	No	Brigham and Women's Hospital/ Harvard University	192		

Table 12.1
WHI Manuscript Stages

Stage #	Definition	Number
12	Published	631
11	In press / accepted by journal	15
10	Submitted to journal	21
9	Final manuscript approved by P&P Committee	99
8	Final manuscript submitted to P&P Committee	19
7	Draft manuscript	26
6	Analysis completed	22
5	Analysis in progress	46
4	Analysis proposed	6
3	Manuscript proposal and writing group approved	372
2*	Approved/Writing group nominations open	63
Total		**1320**

*Stage 2 papers not included in Table 12.2

Table 12.2
Manuscripts - Stages 3 through 12

MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1	Informed consent in the Women's Health Initiative Clinical Trial and Observational Study	McTiernan, Rossouw, Manson, Franzi, Taylor, Carleton, Johnson, Nevitt	12	Gen	J Womens Health. 1995;4(5):519-29	
4	The Women's Health Initiative: Overview of the nutrition components	Tinker, Burrows, Henry, Patterson, VanHorn, Rupp	12	Gen	In: Krummel DA, Kris-Etherton PM, eds. Nutrition and women's health. Gaithersburg, MD: Aspen Publishers,1996:510-42	
5	Women's Health Initiative: Why now? What is it? What's new?	Matthews, Shumaker, Bowen, Langer, Hunt, Kaplan, Klesges, Ritenbaugh	12	Gen	Am Psychol. 1997 Feb;52(2):101-16	
6	Low-fat diet practices of older women: Prevalence and implications for dietary assessment	Patterson, Kristal, Coates, Tylavsky, Ritenbaugh, VanHorn, Caggiula, Snetselaar	12	Gen	J Am Diet Assoc. 1996 Jul;96(7):670-9	
7	The evolution of the Women's Health Initiative: Perspectives from the NIH	Rossouw, Finnegan, Harlan, Pinn, Clifford, McGowan	12	Gen	J Am Med Womens Assoc. 1995 Mar-Apr;50(2):50-5	
8	Design of the Women's Health Initiative clinical trial and observational study	The Women's Health Initiative Study Group	12	Gen	Control Clin Trials. 1998 Feb;19(1):61-109	
9	Approaches to monitoring the results of long-term disease prevention trials: Examples from the Women's Health Initiative	Freedman, Anderson, Kipnis, Prentice, Wang, Rossouw, Wittes, DeMets	12	CT	Control Clin Trials. 1996;Dec 17(6):509-525	
11	The role of randomized controlled trials in assessing the benefits and risks of long-term hormone replacement therapy: Example of the Women's Health Initiative	Prentice, Rossouw, Johnson, Freedman, McTiernan	12	CT	Menopause. 1996;3(2):71-76	
12	Is insurance a more important determinant of healthcare access than perceived health? Evidence from the Women's Health Initiative	Hsia, Kemper, Sofaer, Bowen, Kiefe, Zapka, Mason, Lillington, Limacher	12	Gen	J Womens Health Gend Based Med. 2000 Oct;9(8):881-9	
13	Depression and cardiovascular sequelae in postmenopausal women. The Women's Health Initiative (WHI)	Wassertheil-Smoller, Shumaker, Ockene, Talavera, Greenland, Cochrane, Robbins, Aragaki, Dunbar	12	Gen	Arch Intern Med. 2004 Feb 9;164(3):289-98	
16	Differences between estimated caloric requirements and self-reported caloric intake in the Women's Health Initiative	Hebert, Patterson, Gorfine, Ebbeling, St. Jeor, Chlebowski	12	Gen	Ann Epidemiol. 2003 Oct;13(9):629-37	

Table 12.2
Manuscripts - Stages 3 through 12

MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
17	Sexual orientation and health: Comparisons in the Women's Health Initiative sample	Valanis, Bowen, Bassford, Whitlock, Charney, Carter	12	CT	Arch Fam Med. 2000 Sep-Oct;9(9):843-53	
19	Ethnic, socioeconomic, and lifestyle correlates of obesity in U.S. women: The Women's Health Initiative	Manson, Lewis, Kotchen, Allen, Johnson, Stefanick, Foreyt, Klesges, Tinker, Noonan, Perri, Hall	12	Gen	Clin J Womens Health. 2001;Dec 1(5):225-34	
20	Relation of demographic factors, menstrual history, reproduction and medication use to sex hormones in postmenopausal women	McTiernan, Wu, Barnabei, Chen, Hendrix, Modugno, Rohan, Stanczyk, Wang	12	CT	Breast Cancer Res Treat. 2008 Mar;108(2):217-231. Epub 2007 May 22	W5
21	Hypertension and its treatment in postmenopausal women: Baseline data from the Women's Health Initiative	Wassertheil-Smoller, Anderson, Psaty, Black, Manson, Wong, Francis, Grimm, Kotchen, Langer, Lasser	12	OS	Hypertension. 2000 Nov;36(5):780-9	
22	Pelvic organ prolapse in the Women's Health Initiative: Gravity and gravidity	Hendrix, Clark, Nygaard, Aragaki, Barnabei, McTiernan	12	CT	Am J Obstet Gynecol. 2002 Jun;186(6):1160-6	
24	Estimation of the correlation between nutrient intake measures under restricted sampling	Wang, Anderson, Prentice	12	Gen	Biometrics. 1999 Sep;55(3):711-7	
25	Estrogen and progestin use and the QT interval in postmenopausal women	Kadish, Greenland, Limacher, Frishman, Daugherty, Schwartz	12	CT	Ann Noninvasive Electrocardiol. 2004 Oct;9(4):366-74	
26	Special populations recruitment for the Women's Health Initiative: Successes and limitations	Fouad, Corbie-Smith, Curb, Howard, Mouton, Simon, Talavera, Thompson, Wang, White, Young	12	Gen	Control Clin Trials. 2004 Aug;25(4):335-52	
27	The effects of insurance coverage and ethnicity on mammography utilization in a postmenopausal population	Bush, Langer	12	Gen	West J Med. 1998 Apr;168(4):236-40	
35	Measurement characteristics of the Women's Health Initiative food frequency questionnaire	Patterson, Kristal, Tinker, Carter, Bolton, Agurs-Collins	12	Gen	Ann Epidemiol. 1999 Apr;9(3):178-87	W30
40	The associations between health and domestic violence in older women: Results of a pilot study	Mouton, Rovi, Furniss, Lasser	12	OS	J Womens Health Gend Based Med. 1999 Nov;8(9):1173-9	

Table 12.2
Manuscripts - Stages 3 through 12

MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
41	Cross-sectional correlates of fasting hyperinsulinaemia in post-menopausal women of different ethnic origin	Pradhan, Manson, Hendrix, Johnson, Wagenknecht, Haan, Weidner, LaCroix, Cook	12	Gen	Diabet Med. 2006 Jan;23(1):77-85	
43	Sleep complaints of postmenopausal women	Kripke, Brunner, Freeman, Hendrix, Jackson, Masaki, Carter	12	CT	Clin J Womens Health. 2001;1(5):244-52	AS11
51	Relationship of social support and social burden to repeated breast cancer screening in the Women's Health Initiative	Messina, Lane, Glanz, West, Taylor, Frishman, Powell	12	Gen	Health Psychol. 2004 Nov;23(6):582-94	
55	Factor structure and measurement invariance of the Women's Health Initiative Insomnia Rating Scale	Levine, Kaplan, Kripke, Bowen, Naughton, Shumaker	12	Gen	Psychol Assess. 2003 Jun;15(2):123-36	
59	Risk factors for kidney stones in postmenopausal women in the southern United States	Hall, Pettinger, Oberman, Watts, Johnson, Paskett, Limacher, Hays-Grudo	12	Gen	Am J Med Sci. 2001 Jul;322(1):12-8	
60	The Women's Health Initiative Memory Study (WHIMS): A trial of the effect of estrogen therapy in preventing and slowing the progression of dementia	Shumaker, Reboussin, Espeland, Rapp, McBee, Dailey, Bowen, Terrell, Jones	12	WHIMS	Control Clin Trials. 1998 Dec;19(6):604-21	AS39
62	Self-reported urogential symptoms in postmenopausal women: Women's Health Initiative	Pastore, Carter, Hulka, Wells	12	Gen	Maturitas. 2004 Dec 10;49(4):292-303	
63	The importance of health insurance as a determinant of cancer screening: Evidence from the Women's Health Initiative	Hsia, Kemper, Kiefe, Zapka, Sofaer, Pettinger, Bowen, Limacher, Lillington, Mason	12	OS	Prev Med. 2000 Sep;31(3):261-70	
66	Walking compared with vigorous exercise for the prevention of cardiovascular events in women	Manson, Greenland, LaCroix, Stefanick, Mouton, Oberman, Perri, Sheps, Pettinger, Siscovick	12	OS	N Engl J Med. 2002 Sep 5;347(10):716-25	
67	Yogurt consumption is associated with healthy behavior in postmenopausal women	Mossavar-Rahmani, Garland, Caan, Hebert, Wodarski, Vitolins, Himes, Parker	12	OS	Clin J Womens Health. 2002;2(3):128-134	
69	Correlates of serum lypocene in older women	Casso, White, Patterson, Agurs-Collins, Kooperberg, Haines	12	CT	Nutr Cancer. 2000;36:163-69	

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
70	Correlates of serum alpha- and gamma-tocopherol in the Women's Health Initiative	White, Kristal, Shikany, Wilson, Chen, Mares-Perlman, Masaki, Caan	12	CT	Ann Epidemiol. 2001 Feb;11(2):136-44	
71	The Women's Health Initiative: Goals, rationale, and current status	Liu	12	Gen	Menopausal Medicine. 1998;6(2):1-4	
72	Postmenopausal bone loss and its relationship to oral bone loss	Jeffcoat, Lewis, Reddy, Wang, Redford	12	Gen	Periodontol. 2000; June23(1):94-102	AS9
74	Breast cancer survivors' health-related quality of life: Racial differences and comparisons with noncancer controls	Paskett, Alfano, Davidson, Andersen, Naughton, Sherman, McDonald, Hays-Grudo	12	OS	Cancer. 2008 Dec 1;113(11):3222-30. Epub 2008 Oct 30	
76	Differences in eating pattern labels between maintainers and nonmaintainers in the Women's Health Initiative	Hopkins, Burrows, Bowen, Tinker	12	CT	J Nutr Educ. 2001 Sep-Oct;33(5):278-83	
78	Lack of a relation between vitamin and mineral antioxidants and bone mineral density: Results from the Women's Health Initiative	Wolf, Cauley, Pettinger, Jackson, LaCroix, LeBoff, Lewis, Nevitt, Simon, Stone, Wactawski-Wende	12	Gen	Am J Clin Nutr. 2005 Sep;82(3):581-8	
80	Insulin resistance and weight gain in postmenopausal women of diverse ethnic groups	Howard, Adams-Campbell, Allen, Black, Pasaro, Rodabough, Rodriguez, Safford, Stevens, Wagenknecht	12	Gen	Int J Obes Relat Metab Disord. 2004 Aug;28(8):1039-47	
83	Recreational physical activity and the risk of breast cancer in postmenopausal women: The Women's Health Initiative Cohort Study	McTiernan, Kooperberg, White, Wilcox, Coates, Adams-Campbell, Woods, Ockene	12	Gen	JAMA. 2003 Sep 10;290(10):1331-6	
84	Research staff turnover and participant adherence in the Women's Health Initiative	Jackson, Berman, Huber, Snetselaar, Granek, Boe, Milas, Spivak, Chlebowski	12	CT	Control Clin Trials. 2003 Aug;24(4):422-35	
85	The Women's Health Initiative: Rationale, design and progress report	Johnson, Anderson, Barad, Stefanick	12	CT	J Br Menopause Soc. 1999;5:155-9	
86	The effects of physical and emotional status on adherence to a low-fat dietary pattern in the Women's Health Initiative	Tinker, Perri, Patterson, Bowen, McIntosh, Parker, Sevick, Wodarski	12	CT	J Am Diet Assoc. 2002 Jun;102(6):789-800, 888	
88	Estimating normal hemogram values for postmenopausal women	Assaf, Carleton, Miller, Coccio	12	Gen	Clin J Womens Health. 2000;1(1):23-28	

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
91	Compliance with National Cholesterol Education Program dietary and lifestyle guidelines among older women with self-reported hypercholesterolemia. The Women's Health Initiative	Hsia, Rodabough, Rosal, Cochrane, Howard, Snetselaar, Frishman, Stefanick	12	OS	Am J Med. 2002 Oct 1;113(5):384-92	
92	Comparison of self-report, hospital discharge codes, and adjudication of cardiovascular events in the Women's Health Initiative	Heckbert, Kooperberg, Safford, Psaty, Hsia, McTiernan, Gaziano, Frishman, Curb	12	Gen	Am J Epidemiol. 2004 Dec 15;160(12):1152-8	
93	Fat intake in husbands of participants in the dietary modification component of the Women's Health Initiative	Shikany	12	Gen	Nutr Res. 2002;22:577-586	
95	The effects of widowhood on physical and mental health, health behaviors, and health outcomes: The Women's Health Initiative	Wilcox, Evenson, Aragaki, Wassertheil-Smoller, Mouton, Loevinger	12	OS	Health Psychol. 2003 Sep;22(5):513-22	
98	Antioxidant supplement use in Women's Health Initiative participants	Shikany, Patterson, Agurs-Collins, Anderson	12	Gen	Prev Med. 2003 Mar;36(3):379-87	
99	Risk factor clustering in the insulin resistance syndrome and its relationship to cardiovascular disease in postmenopausal white, black, hispanic, and Asian/Pacific Islander women	Howard, Criqui, Curb, Rodabough, Safford, Santoro, Wilson, Wylie-Rosette	12	OS	Metabolism. 2003 Mar;52(3):362-71	
100	Frequency and predictive value of a mammographic recommendation for short-interval follow-up	Yasmeen, Romano, Pettinger, Chlebowski, Robbins, Lane, Hendrix	12	Gen	J Natl Cancer Inst. 2003 Mar 19;95(6):429-36	
102	Association between cardiovascular outcomes and antihypertensive drug treatment in older women	Wassertheil-Smoller, Psaty, Greenland, Oberman, Kotchen, Mouton, Black, Aragaki, Trevisan	12	OS	JAMA. 2004 Dec 15;292(23):2849-59	
103	The Women's Health Initiative: Recruitment complete--looking back and looking forward	Rossouw, Hurd	12	CT	J Womens Health. 1999 Jan-Feb;8(1):3-5	
104	Promoting adherence and retention to clinical trials in special populations: A Women's Health Initiative workshop	Wilcox, Shumaker, Bowen, Naughton, Rosal, Ludlam, Dugan, Hunt, Stevens	12	Gen	Control Clin Trials. 2001 Jun;22(3):279-89	
105	Retention of under-served women in clinical trials: A focus group study	Johnson, Williams, Nagy, Fouad	12	CT	Ethn Dis. 2003 Spring;13(2):268-78	

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
107	Vigorous leisure activity through women's adult life: The Women's Health Initiative Observational Cohort Study	Evenson, Wilcox, Pettinger, Brunner, King, McTiernan	12	OS	Am J Epidemiol. 2002 Nov 15;156(10):945-53	
108	Cross-sectional geometry, bone strength, and bone mass in the proximal femur in black and white postmenopausal women	Nelson, Barondess, Hendrix, Beck	12	CT	J Bone Miner Res. 2000 Oct;15(10):1992-7	
111	Effects of fat content on fat hedonics: Cognition or taste?	Bowen, Green, Vizenor, Vu, Kreuter, Rolls	12	OS	Physiol Behav. 2003 Feb;78(2):247-53	
112	Results of an adjunct dietary intervention program in the Women's Health Initiative	Bowen, Ehret, Pedersen, Snetselaar, Johnson, Tinker, Hollinger, Lichty, Bland, Sivertsen, Ocken, Staats, Beedoe	12	OS	J Am Diet Assoc. 2002 Nov;102(11):1631-7	
113	Prior oral contraception and postmenopausal fracture: A Women's Health Initiative observational cohort study	Barad, Kooperberg, Wactawski-Wende, Liu, Hendrix, Watts	12	Gen	Fertil Steril. 2005 Aug;84(2):374-83	
115	Prevalence and 3-year incidence of abuse among postmenopausal women	Mouton, Rodabough, Rovi, Hunt, Talamantes, Brzyski, Burge	12	OS	Am J Public Health. 2004 Apr;94(4):605-12	
120	Obesity, body size, and risk of postmenopausal breast cancer: the Women's Health Initiative (United States)	Morimoto, White, Chen, Chlebowski, Hays-Grudo, Kuller, Lopez, Manson, Margolis, Muti, Stefanick, McTiernan	12	OS	Cancer Causes Control. 2002 Oct;13(8):741-51	
122	Statin use, clinical fracture, and bone density in postmenopausal women: Results from the Women's Health Initiative Observational Study	LaCroix, Cauley, Pettinger, Hsia, Bauer, McGowan, Chen, Lewis, McNeeley, Pasaro, Jackson	12	OS	Ann Intern Med. 2003 Jul 15;139(2):97-104	
126	Influences on older women's adherence to a low-fat diet in the Women's Health Initiative	Kearney, Rosal, Ockene, Churchill	12	CT	Psychosom Med. 2002 May-Jun;64(3):450-7	AS75
128	Inflammatory biomarkers, hormone replacement therapy, and incident coronary heart disease: Prospective analysis from the Women's Health Initiative observational study	Pradhan, Manson, Rossouw, Siscovick, Mouton, Rifai, Wallace, Jackson, Pettinger, Ridker	12	OS	JAMA. 2002 Aug 28;288(8):980-7	AS83
129	Tissue plasminogen activator antigen and D-dimer as markers for atherothrombotic risk among healthy postmenopausal women	Pradhan, LaCroix, Langer, Trevisan, Lewis, Hsia, Oberman, Kotchen, Ridker	12	OS	Circulation. 2004 Jul 20;110(3):292-300. Epub 2004 Jul 6	AS83

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
130	Baseline associations between post and inflammatory, haemostatic, and lipid biomarkers of coronary heart disease. The Women's Health Initiative Observational Study	Langer, Pradhan, Lewis, Manson, Rossouw, Hendrix, LaCroix, Ridker	12	OS	Thromb Haemost. 2005 Jun;93(6):1108-16	
132	Association of nonmelanoma skin cancer with second malignancy	Rosenberg, Greenland, Khandekar, Loar, Ascensao, Lopez	12	Gen	Cancer. 2004 Jan 1;100(1):130-8	
134	Additional self-monitoring tools in the dietary modification component of the Women's Health Initiative	Mossavar-Rahmani, Henry, Rodabough, Bragg, Brewer, Freed, Kinzel, Pedersen, Soule, Vosburg	12	CT	J Am Diet Assoc. 2004 Jan;104(1):76-85	
135	Radiographic measurements, bone mineral density, and the Singh Index in the proximal femur of white and black postmenopausal women	Barondess, Singh, Hendrix, Nelson	12	Gen	Dis Mon. 2002 Oct;48(10):637-46	
137	Recruitment of hispanic women to the Women's Health Initiative: The case of Embajadoras in Arizona	Larkey, Staten, Ritenbaugh, Hall, Buller, Bassford, Altimari	12	Gen	Control Clin Trials. 2002 Jun;23(3):289-98	
138	Baseline experience with Modified Mini Mental State Exam: The Women's Health Initiative Memory Study (WHIMS)	Rapp, Espeland, Hogan, Jones, Dugan, The WHIMS Investigators	12	WHIMS	Aging Ment Health. 2003 May;7(3):217-23	AS39
139	Cholesteryl ester transfer protein and lecithin:cholesterol acyltransferase activities in hispanic and anglo postmenopausal women: Associations with total and regional body fat	Greaves, Going, Fernandez, Milliken, Lohman, Bassford, McNamara	12	OS	Metabolism. 2003 Mar;52(3):282-9	
140	Usefulness of prior hysterectomy as an independent predictor of Framingham risk score (The Women's Health Initiative)	Hsia, Barad, Margolis, Rodabough, McGovern, Limacher, Oberman, Wassertheil-Smoller, Women's Health Initiative Research Group	12	Gen	Am J Cardiol. 2003 Aug 1;92(3):264-9	
142	Coronary artery calcification in black women and white women	Khurana, Rosenbaum, Howard, Adams-Campbell, Detrano, Klouj, Hsia	12	OS	Am Heart J. 2003 Apr;145(4):724-9	
144	Risk of cardiovascular disease by hysterectomy status, with and without oophorectomy: The Women's Health Initiative Observational Study	Howard, Kuller, Langer, Manson, Allen, Assaf, Cochrane, Larson, Lasser, Rainford, VanHorn, Stefanick, Trevisan	12	OS	Circulation. 2005 Mar 29;111(12):1462-70. Epub 2005 Mar 21	

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
145	Breast cancer and nonsteroidal anti-inflammatory drugs: Prospective results from the Women's Health Initiative	Harris, Chlebowski, Jackson, Frid, Ascensao, Anderson, Loar, Rodabough, White, McTiernan	12	OS	Cancer Res. 2003 Sep 15;63(18):6096-101	
148	Incidence of cervical cytological abnormalities with aging in the Women's Health Initiative: A randomized controlled trial	Yasmeen, Romano, Pettinger, Johnson, Hubbell, Lane, Hendrix	12	CT	Obstet Gynecol. 2006 Aug;108(2):410-9	
149	A community-based study of postmenopausal white women with back and leg pain: Health status and limitations in physical activity	Vogt, Lauerman, Chirumbole, Kuller	12	OS	J Gerontol A Biol Sci Med Sci. 2002 Aug;57(8):M544-50	
153	Cynicism: incident diabetes and worsening of metabolic syndrome in postmenopausal women	Wylie-Rosette, Aragaki, Cochrane, Perri, Rosal, Rapp	12	CT	Diabetes Metab Syndr: Clin Res & Rev. 2010 Oct-Dec;(4):187–189	
155	Changes in food sources of dietary fat in response to an intensive low-fat dietary intervention: Early results from the Women's Health Initiative	Patterson, Kristal, Rodabough, Caan, Lillington, Mossavar-Rahmani, Simon, Snetselaar, VanHorn	12	CT	J Am Diet Assoc. 2003 Apr;103(4):454-60	
163	Ethnicity and breast cancer: Factors influencing differences in incidence and outcome	Chlebowski, Chen, Anderson, Rohan, Aragaki, Lane, Dolan, Paskett, McTiernan, Hubbell, Adams-Campbell, Prentice	12	OS	J Natl Cancer Inst. 2005 Mar 16;97(6):439-48	
164	Leukocyte count as a predictor of cardiovascular events and mortality in postmenopausal women: The Women's Health Initiative Observational Study	Margolis, Manson, Greenland, Rodabough, Bray, Safford, Grimm, Howard, Assaf, Prentice, Women's Health Initiative Research Group	12	OS	Arch Intern Med. 2005 Mar 14;165(5):500-8	
166	Habitual tea consumption and risk of osteoporosis: A prospective study in the Women's Health Initiative observational cohort	Chen, Pettinger, Ritenbaugh, LaCroix, Robbins, Caan, Barad, Hakim	12	OS	Am J Epidemiol. 2003 Oct 15;158(8):772-81	
169	Reliability and validity of the Women's Health Initiative Insomnia Rating Scale	Levine, Kripke, Kaplan, Lewis, Naughton, Bowen, Shumaker	12	Gen	Psychol Assess. 2003 Jun;15(2):137-48	
171	Prevalence and correlates of panic attacks in postmenopausal women: Results from an ancillary study to the Women's Health Initiative	Smoller, Pollack, Wassertheil-Smoller, Barton, Hendrix, Jackson, Dicken, Oberman, Sheps, Women's Health Initiative Investigators	12	Gen	Arch Intern Med. 2003 Sep 22;163(17):2041-50	AS70

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
172	Association of glycemic load with cardiovascular disease risk factors: The Women's Health Initiative Observational Study	Shikany, Tinker, Neuhouser, Ma, Patterson, Phillips, Liu, Redden	12	Gen	Nutrition. 2010 Jun;26(6):641-7. Epub 2010 Jan 6	AS111
173	A prospective study of the effect of hypertension and baseline blood pressure on cognitive decline and dementia in postmenopausal women: The Women's Health Initiative Memory Study	Johnson, Margolis, Espeland, Colenda, Fillit, Manson, Masaki, Mouton, Prineas, Robinson, Wassertheil-Smoller, for the Women's Health Initiative Memory Study and Women's Health Initiative Investigators	12	WHIMS	J Am Geriatr Soc. 2008 Aug;56(8):1449-58. Epub 2008 Jul 15	AS39
174	Statin use and breast cancer: Prospective results from the Women’s Health Initiative	Cauley, McTiernan, Rodabough, LaCroix, Bauer, Margolis, Paskett, Vitolins, Furberg, Chlebowski, Women's Health Initiative Research Group	12	OS	J Natl Cancer Inst. 2006 May 17;98(10):700-7	
176	Predicting risk of breast cancer in postmenopausal women by hormone receptor status	Chlebowski, Anderson, Lane, Aragaki, Rohan, Yasmeen, Sarto, Rosenberg, Hubbell, Women's Health Initiative Investigators	12	Gen	J Natl Cancer Inst. 2007 Nov 21;99(22):1695-705. Epub 2007 Nov 13	
177	Validity of self-report for fractures among a multiethnic cohort of postmenopausal women: Results from the Women's Health Initiative observational study and clinical trials	Chen, Kooperberg, Pettinger, Bassford, Cauley, LaCroix, Lewis, Kipersztok, Borne, Jackson	12	Gen	Menopause. 2004 May-Jun;11(3):264-74	
179	Progression and remission of pelvic organ prolapse: A longitudinal study of menopausal women	Handa, Garret, Hendrix, Gold, Robbins	12	CT	Am J Obstet Gynecol. 2004 Jan;190(1):27-32	
181	Alcohol and folate intake and breast cancer risk in the WHI Observational Study	Duffy, Assaf, Cyr, Burkholder, Coccio, Rohan, McTiernan, Paskett, Lane, Chetty	12	OS	Breast Cancer Res Treat. 2009 Aug;116(3):551-62. Epub 2008 Sep 11	
183	Panic attacks, daily life ischemia, and chest pain in postmenopausal women	Smoller, Pollack, Wassertheil-Smoller, Brunner, Curb, Torner, Oberman, Hendrix, Hsia, Sheps	12	Gen	Psychosom Med. 2006 Nov-Dec;68(6):824-32. Epub 2006 Nov 13	AS70

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186	Physical activity and diabetes risk in postmenopausal women	Hsia, Wu, Allen, Oberman, Lawson, Torrens, Safford, Limacher, Howard, Women's Health Initiative Research Group	12	Gen	Am J Prev Med. 2005 Jan;28(1):19-25	
187	Postmenopausal hormone therapy and cardiovascular disease	Rossouw	12	OS	In: Yusuf S, ed. Evidence based cardiology. 2nd ed. London: BMJ Books,2002:244-58	
188	Electrocardiographic abnormalities that predict coronary heart disease events and mortality in postmenopausal women: The Women's Health Initiative	Rautaharju, Kooperberg, Larson, LaCroix	12	CT	Circulation. 2006 Jan 31;113(4):473-80	
189	Dietary adherence in the Women's Health Initiative Dietary Modification Trial	The Women's Health Initiative Study Group	12	CT	J Am Diet Assoc. 2004 Apr;104(4):654-8	
190	Prevalence and determinants of electrocardiographic left ventricular hypertrophy among a multiethnic population of postmenopausal women (The Women's Health Initiative)	Oberman, Prineas, Larson, LaCroix, Lasser	12	CT	Am J Cardiol. 2006 Feb 15;97(4):512-9. Epub 2006 Jan 4	
192	Bone mineral density of American Indian and Alaska Native women compared with non-Hispanic white women: Results from the Women's Health Initiative Study	Wampler, Chen, Jacobsen, Henderson, Howard, Rossouw	12	Gen	Menopause. 2005 Sep-Oct;12(5):536-44. Epub 2005 Sep 1	
195	Predictors of adherence in the Women's Health Initiative Calcium and Vitamin D Trial	Brunner, Dunbar-Jacob, LeBoff, Granek, Bowen, Snetselaar, Shumaker, Ockene, Rosal, Wactawski-Wende, Cauley, Cochrane, Tinker, Jackson, Wang, Wu, et al.	12	CT	Behav Med. 2009 Winter;34(4):145-55	
196	Predictors of dietary change and maintenance in the Women's Health Initiative Dietary Modification Trial	Tinker, Rosal, Young, Perri, Patterson, VanHorn, Assaf, Bowen, Ockene, Hays-Grudo, Wu	12	CT	J Am Diet Assoc. 2007 Jul;107(7):1155-65	

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
197	Predictors of angina pectoris versus myocardial infarction from the Women's Health Initiative Observational Study	Hsia, Aragaki, Bloch, LaCroix, Wallace, Women's Health Initiative Investigators	12	OS	Am J Cardiol. 2004 Mar 15;93(6):673-8	
198	The Women's Health Initiative: Aspects of the management and coordination	Cochrane, Lund, Anderson, Prentice	12	Gen	In: Hawkins JW, Haggerty LA, eds. Diversity in health care research: strategies for multisite, multidisciplinary, and multi-ethnic projects. New York: Springer,2003:181-207	
200	Expression and ambivalence over expression of negative emotion: Psychometric analysis in the Women's Health Initiative	Michael, Perrin, Bowen, Cochrane, Wisdom, Brzyski, Ritenbaugh	12	Gen	J Women Aging. 2005;17(1-2):5-18	
201	Normal standards for QT and QT subintervals derived from a large ethnically diverse population of women aged 50 to 79 years (the Women's Health Initiative [WHI])	Rautaharju, Prineas, Kadish, Larson, Hsia, Lund	12	Gen	Am J Cardiol. 2006 Mar 1;97(5):730-7. Epub 2006 Jan 11	
202	Depressive symptoms and heart rate variability in postmenopausal women	Kim, McGorray, Bartholomew, Marsh, Dicken, Wassertheil-Smoller, Curb, Oberman, Barton, McMahon, Hsia, Gardin, Wong, Barton, McMahon, et al.	12	Gen	Arch Intern Med. 2005 Jun 13;165(11):1239-44	
203	Influence of estrogen plus progestin on breast cancer and mammography in healthy postmenopausal women: The Women's Health Initiative Randomized Trial	Chlebowski, Hendrix, Langer, Stefanick, Gass, Lane, Rodabough, Gilligan, Cyr, Thomson, Khandekar, Petrovich, McTiernan, Women's Health Initiative Investigators	12	CT	JAMA. 2003 Jun 25;289(24):3243-53	
204	Effect of estrogen plus progestin on stroke in postmenopausal women: the Women's Health Initiative: A randomized trial	Wassertheil-Smoller, Hendrix, Limacher, Heiss, Kooperberg, Baird, Kotchen, Curb, Black, Rossouw, Aragaki, Safford, Stein, Laowattana, Mysiw, Women's Health Initiative Investigators, et al.	12	CT	JAMA. 2003 May 28;289(20):2673-84	W1, W6

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
206	Fracture risk among breast cancer survivors: Results from the Women's Health Initiative Observational Study	Chen, Maricic, Bassford, Pettinger, Ritenbaugh, Lopez, Barad, Gass, LeBoff	12	Gen	Arch Intern Med. 2005 Mar 14;165(5):552-8	
208	Effects of estrogen plus progestin on risk of fracture and bone mineral density: The Women's Health Initiative randomized trial	Cauley, Robbins, Chen, Cummings, Jackson, LaCroix, LeBoff, Lewis, McGowan, Neuner, Pettinger, Stefanick, Wactawski-Wende, Watts, Women's Health Initiative Investigators	12	CT	JAMA. 2003 Oct 1;290(13):1729-38	
209	Obesity, hormone therapy, estrogen metabolism and risk of postmenopausal breast cancer	Modugno, Kip, Cochrane, Kuller, Klug, Rohan, Chlebowski, Lasser, Stefanick	12	OS	Int J Cancer. 2006 Mar 1;118(5):1292-301	AS134
210	Estrogen plus progestin and the risk of coronary heart disease	Manson, Hsia, Johnson, Rossouw, Assaf, Lasser, Trevisan, Black, Heckbert, Detrano, Strickland, Wong, Crouse, Stein, Cushman, Women's Health Initiative Investigators, et al.	12	CT	N Engl J Med. 2003 Aug 7;349(6):523-34	W1, W6
211	Effects of estrogen plus progestin on health-related quality of life	Hays-Grudo, Ockene, Brunner, Kotchen, Manson, Patterson, Aragaki, Shumaker, Brzyski, LaCroix, Granek, Valanis, Women's Health Initiative Investigators	12	CT	N Engl J Med. 2003 May 8;348(19):1839-54. Epub 2003 Mar 17	
212	Effect of oestrogen plus progestin on the incidence of diabetes in postmenopausal women: Results from the Women's Health Initiative Hormone Trial	Margolis, Bonds, Rodabough, Tinker, Phillips, Allen, Bassford, Burke, Torrens, Howard, Women's Health Initiative Investigators	12	CT	Diabetologia. 2004 Jul;47(7):1175-87. Epub 2004 Jul 14	
215	Influence of stressors on breast cancer incidence in the Women’s Health Initiative	Michael, Carlson, Chlebowski, Aickin, Weihs, Ockene, Bowen, Ritenbaugh	12	OS	Health Psychol. 2009 Mar;28(2):137-146	
216	Effects of combination estrogen plus progestin hormone treatment on cognition and affect	Resnick, Maki, Rapp, Espeland, Brunner, Coker, Granek, Hogan, Ockene, Shumaker, Women's Health Initiative Study of Cognitive Aging Investigators	12	CT	J Clin Endocrinol Metab. 2006 May;91(5):1802-10. Epub 2006 Mar 7	AS103

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
218	Psychosocial effects of physical and verbal abuse in postmenopausal women	Mouton, Rodabough, Rovi, Brzyski, Katerndahl	12	OS	Ann Fam Med. 2010 May-Jun;8(3):206-13	
220	The Women's Health Initiative: Implications for practice	Furniss	12	CT	Adv Nurse Pract. 2002 Nov;10(11):53-5	
221	Effects of estrogen plus progestin on gynecologic cancers and associated diagnostic procedures: The Women's Health Initiative randomized trial	Anderson, Judd, Kaunitz, Barad, Beresford, Pettinger, Liu, McNeeley, Lopez, Women's Health Initiative Investigators	12	CT	JAMA. 2003 Oct 1;290(13):1739-48	
222	Estrogen plus progestin and risk of venous thrombosis	Cushman, Kuller, Prentice, Rodabough, Psaty, Stafford, Sidney, Rosendaal, Women's Health Initiative Investigators	12	CT	JAMA. 2004 Oct 6;292(13):1573-80	W1, W6
224	Estimation of dependence between paired correlated failure times in the presence of covariate measurement error	Gorfine, Hsu, Prentice	12	OS	J R Stat Soc [Ser B]. 2003;65(3):633-61	
225	Estrogen plus progestin and the incidence of dementia and mild cognitive impairment in postmenopausal women: the Women's Health Initiative Memory Study: A randomized controlled trial	Shumaker, Legault, Rapp, Thal, Wallace, Ockene, Hendrix, Jones, Assaf, Jackson, Kotchen, Wassertheil-Smoller, Wactawski-Wende, The WHIMS Investigators	12	CT	JAMA. 2003 May 28;289(20):2651-62	AS39
226	Effect of estrogen plus progestin on global cognitive function in postmenopausal women: the Women's Health Initiative Memory Study: A randomized controlled trial	Rapp, Espeland, Shumaker, Henderson, Brunner, Manson, Gass, Stefanick, Lane, Hays-Grudo, Johnson, Coker, Dailey, Bowen, The WHIMS Investigators	12	CT	JAMA. 2003 May 28;289(20):2663-72	AS39
229	Menopausal symptoms and treatment-related effects of estrogen and progestin in the Women's Health Initiative	Barnabei, Cochrane, Aragaki, Nygaard, Williams, McGovern, Young, Wells, O'Sullivan, Chen, Schenken, Johnson, Women's Health Initiative Investigators	12	CT	Obstet Gynecol. 2005 May;105(5 Pt 1):1063-73	
230	Use of electric blankets and association with prevalence of endometrial cancer	Abel, Hendrix, McNeeley, O'Leary, Mossavar-Rahmani, Johnson, Kruger	12	OS	Eur J Cancer Prev. 2007 Jun;16(3):243-50	

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232	Women's Health Initiative: Statistical aspects and selected early results	Prentice, Anderson	12	Gen	In: Armitage P, Colton T, eds. Encyclopedia of biostatistics. 2nd ed. Wiley,2005	
233	Estrogen plus progestin and colorectal cancer in postmenopausal women	Chlebowski, Wactawski-Wende, Ritenbaugh, Hubbell, Ascensao, Rodabough, Rosenberg, Taylor, Harris, Chen, Adams-Campbell, White, Women's Health Initiative Investigators	12	CT	N Engl J Med. 2004 Mar 4;350(10):991-1004	
234	Postmenopausal hormone therapy and body composition: A substudy of the estrogen plus progestin trial of the Women's Health Initiative	Chen, Bassford, Green, Cauley, Jackson, LaCroix, LeBoff, Stefanick, Margolis	12	CT	Am J Clin Nutr. 2005 Sep;82(3):651-6	
235	Hormone replacement therapy and risk of cardiovascular disease: Implications of the results of the Women's Health Initiative	Kuller	12	CT	Arterioscler Thromb Vasc Biol. 2003 Jan 1;23(1):11-6	
237	The Women's Health Initiative Study of Cognitive Aging (WHISCA): A randomized clinical trial of the effects of hormone therapy on age-associated cognitive decline	Resnick, Coker, Maki, Rapp, Espeland, Shumaker	12	CT	Clin Trials. 2004;1(5):440-50	AS103
240	Risks and benefits of estrogen plus progestin in healthy postmenopausal women: Principal results From the Women's Health Initiative randomized controlled trial	Rossouw, Anderson, Prentice, LaCroix, Kooperberg, Stefanick, Jackson, Beresford, Howard, Johnson, Kotchen, Ockene, The Writing Group for the Women's Health Initiative Investigators	12	CT	JAMA. 2002 Jul 17;288(3):321-33	W1
242	Estrogen deficiency symptom management in breast cancer survivors in the changing context of menopausal hormone therapy	Chlebowski, Kim, Col	12	CT	Semin Oncol. 2003 Dec;30(6):776-88	

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
243	Combined postmenopausal hormone therapy and cardiovascular disease: Toward resolving the discrepancy between observational studies and the Women's Health Initiative clinical trial	Prentice, Langer, Stefanick, Howard, Pettinger, Anderson, Barad, Curb, Kotchen, Kuller, Limacher, Wactawski-Wende, Women's Health Initiative Investigators	12	CT	Am J Epidemiol. 2005 Sep 1;162(5):404-14. Epub 2005 Jul 20	
245	Constipation and risk of cardiovascular disease among post-menopausal women	Salmoirago-Blotcher, Jackson, Crawford, Ockene, Ockene	12	OS	Am J Med. 2011 Jun 10. [Epub ahead of print]	
246	WHI response to Goodman, Goldzieher and Ayala's critique of the Women's Health Initiative report on the risks and benefits of estrogen plus progestin	Hendrix, Prentice	12	CT	Menopausal Medicine. 2003;11:1-4	
248	Progression of coronary calcification in healthy postmenopausal women	Hsia, Klouj, Prasad, Burt, Adams-Campbell, Howard	12	OS	BMC Cardiovasc Disord. 2004 Dec 1;4:21	
249	Effects of estrogen with and without progestin on urinary incontinence	Hendrix, Cochrane, Nygaard, Handa, Barnabei, Iglesia, Aragaki, Naughton, Wallace, McNeeley	12	CT	JAMA. 2005 Feb 23;293(8):935-48	
250	Hormone therapy and age-related macular degeneration: The Women's Health Initiative Sight Exam Study	Haan, Klein, Klein, Deng, Blythe, Seddon, Musch, Kuller, Hyman, Wallace	12	CT	Arch Ophthalmol. 2006 Jul;124(7):988-92	AS62
253	Cardiovascular disease, its risk factors and treatment, and age-related macular degeneration: Women's Health Initiative Sight Exam ancillary study	Klein, Deng, Klein, Hyman, Seddon, Frank, Wallace, Hendrix, Kuppermann, Langer, Kuller, Brunner, Johnson, Thomas, Haan	12	CT	Am J Ophthalmol. 2007 Mar;143(3):473-83. Epub 2007 Jan 10	AS62
265	Comparing SF-36 scores across three groups of women with different health profiles	Yost, Haan, Levine, Gold	12	Gen	Qual Life Res. 2005 Jun;14(5):1251-61	
271	Factors associated with treatment initiation after osteoporosis screening	Brennan, Wactawski-Wende, Crespo, Dmochowski	12	CT	Am J Epidemiol. 2004 Sep 1;160(5):475-83	AS98
272	Effect of estrogen therapy on gallbladder disease	Cirillo, Wallace, Rodabough, Greenland, LaCroix, Limacher, Larson	12	CT	JAMA. 2005 Jan 19;293(3):330-9	
273	Effects of conjugated equine estrogen in postmenopausal women with hysterectomy. The Women's Health Initiative randomized controlled trial	Anderson, Limacher, Assaf, Bassford, Beresford, Black, Bonds, Brunner, Brzyski, Caan, Chlebowski, Curb, Gass, Hays-Grudo, et al	12	CT	JAMA. 2004 Apr 14;291(14):1701-12	W1, W6

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
274	Association between reported alcohol intake and cognition: Results from the Women's Health Initiative Memory Study	Espeland, Gu, Masaki, Langer, Coker, Stefanick, Ockene, Rapp	12	CT	Am J Epidemiol. 2005 Feb 1;161(3):228-38	AS39
277	Estrogen plus progestin and the risk of peripheral arterial disease: The Women's Health Initiative	Hsia, Criqui, Rodabough, Langer, Resnick, Phillips, Allison, Bonds, Masaki, Caralis, Kotchen, Women's Health Initiative Investigators	12	CT	Circulation. 2004 Feb 10;109(5):620-6	
279	Symptom experience after discontinuing use of estrogen plus progestin	Ockene, Barad, Cochrane, Larson, Gass, Wassertheil-Smoller, Manson, Barnabei, Lane, Brzyski, Rosal, Wylie-Rosette, Hays-Grudo	12	CT	JAMA. 2005 Jul 13;294(2):183-93	
280	Relation of BMI and physical activity to sex hormones in postmenopausal women	McTiernan, Wu, Chen, Chlebowski, Mossavar-Rahmani, Modugno, Perri, Stanczyk, VanHorn, Wang, Women's Health Initiative Investigators	12	CT	Obesity (Silver Spring). 2006 Sep;14(9):1662-77	W5
282	Improving dietary self-monitoring and adherence with hand-held computers: A pilot study	Glanz, Murphy, Moylan, Evensen, Curb	12	CT	Am J Health Promot. 2006 Jan-Feb;20(3):165-70	
285	Estrogen-plus-progestin use and mammographic density in postmenopausal women: Women's Health Initiative randomized trial	McTiernan, Martin, Peck, Aragaki, Chlebowski, Pisano, Wang, Brunner, Johnson, Manson, Lewis, Kotchen, Hulka, Women's Health Initiative Mammogram Density Study Investigators	12	CT	J Natl Cancer Inst. 2005 Sep 21;97(18):1366-76	AS36
287	Prior hormone therapy and breast cancer risk in the Women’s Health Initiative randomized trial of estrogen plus progestin	Anderson, Chlebowski, Rossouw, Rodabough, McTiernan, Margolis, Aggerwal, Curb, Hendrix, Hubbell, Khandekar, Lane, Lasser, Lopez, Potter, Ritenbaugh, et al.	12	CT	Maturitas. 2006 Sep 20;55(2):103-15. Epub 2006 Jul 11	
288	Insulin, physical activity, and caloric intake in postmenopausal women: Breast cancer implications	Chlebowski, Pettinger, Stefanick, Howard, Mossavar-Rahmani, McTiernan	12	Gen	J Clin Oncol. 2004 Nov 15;22(22):4507-13	

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
289	Cutaneous melanoma in postmenopausal women following nonmelanoma skin carcinoma: The Women's Health Initiative Observational Study	Rosenberg, Khandekar, Greenland, Rodabough, McTiernan	12	OS	Cancer. 2006 Feb 1;106(3):654-63	
292	Menopausal hormone therapy informed consent	Hendrix	12	Gen	Am J Obstet Gynecol. 2003 Oct;189(4 Suppl):S31-2; discussion S32-6	
294	Weighted estimators for proportional hazards regression with missing covariates	Qi, Wang, Prentice	12	OS	J Am Stat Assoc. 2005;100:1250-1263	
298	The association between aspirin use and the incidence of colorectal cancer in women	Allison, Garland, Chlebowski, Criqui, Langer, Wu, Roy, McTiernan, Kuller, Women's Health Initiative Investigators	12	OS	Am J Epidemiol. 2006 Sep 15;164(6):567-75. Epub 2006 Jul 17	
301	Angiotensin-converting enzyme inhibitor use and incident frailty in women aged 65 and older: prospective findings from the Women's Health Initiative Observational Study	Gray, LaCroix, Aragaki, McDermott, Cochrane, Kooperberg, Murray, Rodriguez, Black, Woods	12	Gen	J Am Geriatr Soc. 2009 Feb;57(2):297-303	AS179
302	Frailty: Emergence and consequences in women aged 65 and older in the Women's Health Initiative Observational Study	Woods, LaCroix, Gray, Aragaki, Cochrane, Brunner, Masaki, Murray, Newman	12	Gen	J Am Geriatr Soc. 2005 Aug;53(8):1321-30	AS179
303	Statin use and incident frailty in women aged 65 years or older: Prospective findings from the Women's Health Initiative Observational Study	LaCroix, Gray, Aragaki, Cochrane, Newman, Kooperberg, Black, Curb, Greenland, Woods	12	Gen	J Gerontol A Biol Sci Med Sci. 2008 Apr;63(4):369-75	AS179
307	Predictors of optical density of lutein and zeaxanthin in retinas of older women in the Carotenoids in Age-Related Eye Disease Study, an ancillary study of the Women's Health Initiative	Mares-Perlman, LaRowe, Snodderly, Moeller, Gruber, Klein, Wooten, Johnson, Chappel, CAREDS Macular Pigment Study Group and Investigators	12	OS	Am J Clin Nutr. 2006 Nov;84(5):1107-22	AS105
308	Association between dietary fat intake and age-related macular degeneration in the Carotenoids in Age-Related Eye Disease Study (CAREDS): an ancillary study of the Women's Health Initiative	Parekh, Voland, Moeller, Blodi, Ritenbaugh, Chappel, Wallace, Mares, CAREDS Research Study Group	12	OS	Arch Ophthalmol. 2009;127(11):1483-1493	AS105

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
314	Aspirin use, dose, and clinical outcomes in postmenopausal women with stable cardiovascular disease: The Women's Health Initiative Observational Study	Berger, Brown, Burke, Oberman, Kostis, Langer, Wong, Wassertheil-Smoller	12	OS	Circ Cardiovasc Qual Outcomes. 2009 Mar;2(2):78-87. Epub 2009 Mar 5	
316	Daily coffee consumption and prevalence of nonmelanoma skin cancer in Caucasian women	Abel, Hendrix, McNeeley, Johnson, Rosenberg, Mossavar-Rahmani, Vitolins, Kruger	12	OS	Eur J Cancer Prev. 2007 Oct;16(5):446-452	
317	Pelvic organ prolapse in older women: Prevalence and risk factors	Nygaard, Bradley, Brandt, Women's Health Initiative	12	CT	Obstet Gynecol. 2004 Sep;104(3):489-97	AS135
318	Depressive symptoms, bone loss, and fractures in postmenopausal women	Spangler, Scholes, Brunner, Robbins, Reed, Newton, Melville, LaCroix	12	OS	J Gen Intern Med. 2008 May;23(5):567-74. Epub 2008 Feb 20	
319	The relationship between religion and cardiovascular outcomes and all-cause mortality in the Women's Health Initiative Observational Study	Schnall, Wassertheil-Smoller, Swencionis, Zemon, Tinker, O'Sullivan, VanHorn, Goodwin	12	OS	Psychol Health. 2010 Feb;25(2):249-63. Epub 2008 Nov 17	
322	Postmenopausal hormone therapy and risk of cardiovascular disease by age and years since menopause	Rossouw, Prentice, Manson, Wu, Barad, Barnabei, Ko, LaCroix, Margolis, Stefanick	12	CT	JAMA. 2007 Apr 4;297(13):1465-77	
323	Vaginal wall descensus and pelvic floor symptoms in older women	Bradley, Nygaard	12	OS	Obstet Gynecol. 2005 Oct;106(4):759-66	AS135
324	Mortality and cardiac and vascular outcomes in extremely obese women	McTigue, Larson, Valoski, Burke, Kotchen, Lewis, Stefanick, VanHorn, Kuller	12	OS	JAMA. 2006 Jul 5;296(1):79-86	
325	Association between alcohol intake and domain-specific cognitive function in older women	Espeland, Coker, Wallace, Rapp, Resnick, Limacher, Powell, Messina, Women's Health Initiative Study of Cognitive Aging	12	CT	Neuroepidemiology. 2006;27(1):1-12. Epub 2006 May 24	AS103
326	The association between osteoporosis and alveolar crestal height in postmenopausal women	Wactawski-Wende, Hausmann, Hovey, Trevisan, Grossi, Genco	12	CT	J Periodontol. 2005 Nov;76(11 Suppl):2116-24	AS98

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
327	Low-fat dietary pattern and weight change over 7 years: The Women's Health Initiative Dietary Modification Trial	Howard, Manson, Stefanick, Beresford, Frank, Jones, Rodabough, Snetselaar, Thomson, Tinker, Vitolins, Prentice	12	CT	JAMA. 2006 Jan 4;295(1):39-49	
328	Prospective study of leukocyte count as a predictor of incident breast, colorectal, endometrial, and lung cancer and mortality in postmenopausal women	Margolis, Rodabough, Thomson, Lopez, McTiernan, for the Women's Health Initiative Research Group	12	OS	Arch Intern Med. 2007 Sep 24;167(17):1837-44	
330	Effects of estrogen with and without progestin and obesity on symptomatic gastroesophageal reflux	Zheng, Margolis, Liu, Tinker, Ye, Women's Health Initiative Investigators	12	CT	Gastroenterology. 2008 Jul;135(1):72-81. Epub 2008 Mar 25	
331	Pelvic floor symptoms and lifestyle factors in older women	Bradley, Kennedy, Nygaard	12	CT	J Womens Health (Larchmt). 2005 Mar;14(2):128-36	AS135
332	Conjugated equine estrogens and global cognitive function in postmenopausal women: Women's Health Initiative Memory Study	Espeland, Rapp, Shumaker, Brunner, Manson, Sherwin, Hsia, Margolis, Hogan, Wallace, Dailey, Freeman, Hays-Grudo	12	WHIMS	JAMA. 2004 Jun 23;291(24):2959-68	AS39
334	Patterns and predictors of sexual activity among women in the Hormone Therapy trials of the Women’s Health Initiative	Gass, Cochrane, Barad, Barnabei, Brzyski, Lane, LaValleur, Manson, Mouton, Ockene	12	CT	Menopause. 2011 Oct 1. [Epub ahead of print]	
336	Conjugated equine estrogens and incidence of probable dementia and mild cognitive impairment in postmenopausal women: Women's Health Initiative Memory Study	Shumaker, Legault, Kuller, Rapp, Thal, Lane, Fillit, Stefanick, Hendrix, Lewis, Masaki, Coker	12	WHIMS	JAMA. 2004 Jun 23;291(24):2947-58	AS39
337	Estrogen plus progestin therapy and breast cancer in recently postmenopausal women	Prentice, Chlebowski, Stefanick, Manson, Pettinger, Hendrix, Kooperberg, Kuller, Lane, McTiernan, O'Sullivan, Rossouw, Anderson	12	Gen	Am J Epidemiol. 2008 May 15;167(10):1207-16. Epub 2008 Mar 27	
339	Validity of diabetes self-reports in the Women's Health Initiative: comparison with medication inventories and fasting glucose measurements	Margolis, Qi, Brzyski, Bonds, Howard, Kempainen, Liu, Robinson, Safford, Tinker, Phillips	12	Gen	Clin Trials. 2008;5(3):240-7	

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
340	Hormone therapy improves femur geometry among ethnically diverse postmenopausal participants in the Women's Health Initiative Hormone Intervention Trials	Chen, Beck, Cauley, Lewis, LaCroix, Bassford, Wu, Sherrill, Going	12	CT	J Bone Miner Res. 2008 Dec;23(12):1935-45. Epub 2008 Jul 29	AS153
341	Race/ethnicity, socioeconomic status, and lifetime morbidity burden in the Women's Health Initiative: A cross-sectional analysis	Gold, Michael, Whitlock, Hubbell, Mason, Rodriguez, Safford, Sarto	12	Gen	J Womens Health (Larchmt). 2006 Dec;15(10):1161-73	
342	Body mass index is not a good predictor of bone density: Results from WHI, CHS, and EPIDOS	Robbins, Schott, Azari, Kronmal	12	OS	J Clin Densitom. 2006 Jul-Sep;9(3):329-34	
343	Effects of conjugated equine estrogens on breast cancer and mammography screening in postmenopausal women with hysterectomy	Stefanick, Anderson, Margolis, Hendrix, Rodabough, Paskett, Lane, Hubbell, Assaf, Sarto, Schenken, Yasmeen, Lessin, Chlebowski, Women's Health Initiative Investigators	12	CT	JAMA. 2006 Apr 12;295(14):1647-57	
344	Elderly women diagnosed with nonspecific chest pain may be at increased cardiovascular risk	Robinson, Wallace, Limacher, Sato, Cochrane, Wassertheil-Smoller, Ockene, Blanchette, Ko	12	Gen	J Womens Health (Larchmt). 2006 Dec;15(10):1151-60	
345	Conjugated equine estrogens and coronary heart disease: The Women's Health Initiative	Hsia, Langer, Manson, Kuller, Johnson, Hendrix, Pettinger, Heckbert, Greep, Crawford, Eaton, Kostis, Caralis, Prentice, Women's Health Initiative Investigators	12	CT	Arch Intern Med. 2006 Feb 13;166(3):357-65	W1, W6
346	Estrogen plus progestin and breast cancer detection by means of mammography and breast biopsy	Chlebowski, Anderson, Pettinger, Lane, Langer, Gilligan, Walsh, Chen, McTiernan	12	CT	Arch Intern Med. 2008 Feb 25;168(4):370-377	
347	Effects of conjugated equine estrogen on stroke in the Women's Health Initiative	Hendrix, Wassertheil-Smoller, Johnson, Howard, Kooperberg, Rossouw, Trevisan, Aragaki, Baird, Bray, Buring, Criqui, Herrington, Lynch, Rapp, Torner, et al.	12	CT	Circulation. 2006 May 23;113(20):2425-34. Epub 2006 May 15	W1, W6

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
348	Effects of conjugated equine estrogen on health-related quality of life in postmenopausal women with hysterectomy: Results from the Women's Health Initiative randomized clinical trial	Brunner, Gass, Aragaki, Hays-Grudo, Granek, Woods, Mason, Brzyski, Ockene, Assaf, LaCroix, Matthews, Wallace, Women's Health Initiative Investigators	12	CT	Arch Intern Med. 2005 Sep 26;165(17):1976-86	
350	Venous thrombosis and conjugated equine estrogen in women without a uterus	Curb, Prentice, Bray, Langer, VanHorn, Barnabei, Bloch, Cyr, Gass, Lepine, Rodabough, Sidney, Uwaifo, Rosendaal	12	CT	Arch Intern Med. 2006 Apr 10;166(7):772-80	W1, W6
352	Body size, weight cycling, and risk of renal cell carcinoma among postmenopausal women: The Women's Health Initiative (United States)	Luo, Margolis, Adami, Lopez, Lessin, Ye, Women's Health Initiative Investigators	12	Gen	Am J Epidemiol. 2007 Oct 1;166(7):752-9. Epub 2007 Jul 5	
353	Conjugated equine estrogens and colorectal cancer incidence and survival: The Women's Health Initiative Randomized Clinical Trial	Ritenbaugh, Stanford, Ascensao, Chlebowski, Frank, Garland, Lane, Mason, McNeeley, Shikany, Stefanick, Taylor, Wu	12	CT	Cancer Epidemiol Biomarkers Prev. 2008 Oct;17(10):2609-2618. Epub 2008 Sep 30	
354	Effects of conjugated equine estrogen on risk of fractures and BMD in postmenopausal women with hysterectomy: Results from the women's health initiative randomized trial	Jackson, Wactawski-Wende, LaCroix, Pettinger, Yood, Watts, Robbins, Lewis, Beresford, Ko, Naughton, Satterfield, Bassford, Women's Health Initiative Investigators	12	CT	J Bone Miner Res. 2006 Jun;21(6):817-28	
356	The cross-sectional relationship between body mass index, waist-hip ratio, and cognitive performance in postmenopausal women enrolled in the Women's Health Initiative	Kerwin, Zhang, Kotchen, Espeland, VanHorn, McTigue, Robinson, Powell, Kooperberg, Coker, Hoffman	12	CT	J Am Geriatr Soc. 2010 Jul 14. [Epub ahead of print]	
357	The effect of conjugated equine oestrogen on diabetes incidence: The Women's Health Initiative randomised trial	Bonds, Lasser, Qi, Brzyski, Caan, Heiss, Limacher, Liu, Mason, Oberman, O'Sullivan, Phillips, Prineas, Tinker	12	CT	Diabetologia. 2006 Mar;49(3):459-68. Epub 2006 Jan 27	
358	Conjugated equine estrogen influence on mammographic density in postmenopausal women in a substudy of the Women's Health Initiative Randomized Trial	McTiernan, Chlebowski, Martin, Peck, Aragaki, Pisano, Wang, Johnson, Manson, Wallace, Vitolins, Heiss	12	CT	J Clin Oncol. 2009 Dec 20;27(36):6135-43. Epub 2009 Nov 9	AS36

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
359	Risk of fracture in women with type 2 diabetes: The Women's Health Initiative Observational Study	Bonds, Larson, Schwartz, Strotmeyer, Robbins, Rodriguez, Johnson, Margolis	12	OS	J Clin Endocrinol Metab. 2006 Sep;91(9):3404-10. Epub 2006 Jun 27	
360	Interaction between body mass index and central adiposity and risk of incident cognitive impairment and dementia: Results from the Women's Health Initiative Memory Study	Kerwin, (Jaramillo) Gaussoin, Chlebowski, Kuller, Vitolins, Coker, Kotchen, Nicklas, Wassertheil-Smoller, Hoffman, Espeland	12	WHIMS	J Am Geriatr Soc. 2011 Jan;59(1):107-112	AS39
361	Effect of hormone therapy on risk of hip and knee joint replacement in the Women's Health Initiative	Cirillo, Wallace, Wu, Yood	12	CT	Arthritis Rheum. 2006 Oct;54(10):3194-204	
362	Effects of postmenopausal hormone therapy on rheumatoid arthritis: The Women's Health Initiative randomized controlled trials	Walitt, Pettinger, Weinstein, Katz, Torner, Wasko, Howard, Women's Health Initiative Investigators	12	CT	Arthritis Rheum. 2008 Mar 15;59(3):302-10. Epub 2008 Feb 28	
363	Long-term exposure to air pollution and incidence of cardiovascular events in women	Miller, Siscovick, Sheppard, Shepherd, Sullivan, Anderson, Kaufman	12	CT	N Engl J Med. 2007 Feb 1;356(5):447-58	AS150
367	The Women’s Health Initiative: A potential resource for future studies of autoimmune diseases	Howard	12	Gen	Autoimmunity. 2004 Jun;37(4):265-8	
368	Postmenopausal hormone therapy in relation to cardiovascular disease and cognition	Prentice	12	CT	Proceedings of the Forty Seventh Study Group of the Royal College of Obstetricians and Gynecologists. 2004	
369	A prospective study of inflammatory cytokines and diabetes mellitus in a multiethnic cohort of postmenopausal women	Liu, Tinker, Song, Rifai, Bonds, Cook, Heiss, Howard, Hotamisligil, Hu, Kuller, Manson	12	OS	Arch Intern Med. 2007 Aug 13-27;167(15):1676-85	AS132
370	Benchmarks for designing two-stage studies using modified mini-mental state examinations: Experience from the Women’s Health Initiative Memory Study	Espeland, Rapp, Robertson, Granek, Murphy, Albert, Bassford	12	CT	Clin Trials. 2006;3(2):99-106	AS39

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
371	Associations between intermediate age-related macular degeneration and lutein and zeaxanthin in the Carotenoids in Age-related Eye Disease Study (CAREDS): Ancillary study of the Women's Health Initiative	Moeller, Parekh, Tinker, Ritenbaugh, Blodi, Wallace, Mares-Perlman	12	OS	Arch Ophthalmol. 2006 Aug;124(8):1151-62	AS105
372	Factors associated with 5-year risk of hip fracture in postmenopausal women	Robbins, Aragaki, Kooperberg, Watts, Wactawski-Wende, Jackson, LeBoff, Lewis, Chen, Stefanick, Cauley	12	OS	JAMA. 2007 Nov 28;298(20):2389-98	
373	Conjugated equine estrogens and peripheral arterial disease risk: The Women's Health Initiative	Hsia, Criqui, Herrington, Manson, Wu, Heckbert, Allison, McDermott, Robinson, Masaki, Women's Health Initiative Research Group	12	CT	Am Heart J. 2006 Jul;152(1):170-6	
375	Intentional weight loss and risk of lymphohematopoietic cancers	De Roos, Ulrich, Ray, Mossavar-Rahmani, Rosenberg, Caan, Thomson, McTiernan, LaCroix	12	OS	Cancer Causes Control. 2010 Feb;21(2):223-36. Epub 2009 Oct 23	
376	Circulating levels of endothelial adhesion molecules and risk of diabetes in an ethnically diverse cohort of women	Song, Manson, Tinker, Rifai, Cook, Hu, Hotamisligil, Ridker, Rodriguez, Margolis, Oberman, Liu	12	OS	Diabetes. 2007 Jul;56(7):1898-904. Epub 2007 Mar 27	AS132
377	Another treatment gap: Restarting secondary prevention medications: The Women's Health Initiative	Robinson, Wallace, Safford, Pettinger, Cochrane, Ko, O'Sullivan, Masaki, Petrovich	12	Gen	J Clin Lipidol. 2010 Jan;4(1):36-45	
378	Expression and ambivalence over expression of negative emotion: Cross-sectional associations with psychosocial factors and health-related quality of life in postmenopausal women	Michael, Wisdom, Perrin, Bowen, Cochrane, Brzyski, Ritenbaugh	12	Gen	J Women Aging. 2006;18(2):25-40	
385	Development of a glycemic index database for food frequency questionnaires used in epidemiologic studies	Neuhouser, Tinker, Thomson, Caan, VanHorn, Snetselaar, Parker, Patterson, Robinson, Beresford, Shikany	12	CT	J Nutr. 2006 Jun;136(6):1604-9	AS111
386	The role of antioxidants and vitamin A in ovarian cancer: Results from the Women's Health Initiative	Thomson, Neuhouser, Shikany, Caan, Monk, Mossavar-Rahmani, Sarto, Parker, Modugno, Anderson	12	Gen	Nutr Cancer. 2008;60(6):710-9	

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
387	Major and minor ECG abnormalities in asymptomatic women and risk of cardiovascular events and mortality	Denes, Larson, Lloyd-Jones, Prineas, Greenland	12	CT	JAMA. 2007 Mar 7;297(9):978-85	
388	Accuracy of commercial geocoding: Assessment and implications	Whitsel, Quibrera, Smith, Catellier, Liao, Henley, Heiss	12	CT	Epidemiol Perspect Innov. 2006 Jul 20;3:8	AS140
390	Identifying risk factors for cognitive change in the Women's Health Initiative Memory Study: a neural networks approach	Bandelow, Espeland, Henderson, Resnick, Wallace, Coker, Hogervorst	12	WHIMS	In: Hogervorst E, Henderson VW, Gibbs RB, Brinton RD, eds. Hormones, Cognition and Dementia. New York, NY: Cambridge University Press, 2009:11-24	AS39
392	Family history of myocardial infarction predicts incident coronary heart disease in postmenopausal women with diabetes: The Women's Health Initiative Observational Study	Li, O'Sullivan, Robinson, Safford, Curb, Johnson	12	OS	Diabetes Metab Res Rev. 2009 Nov;25(8):725-32. Epub 2009 Sep 24	
394	Association between cigarette smoking and colorectal cancer in the Women's Health Initiative	Paskett, Reeves, Rohan, Allison, Williams, Messina, Whitlock, Sato, Hunt	12	Gen	J Natl Cancer Inst. 2007 Nov 21;99(22):1729-35. Epub 2007 Nov 13	
395	Effect of hormone therapy on lean body mass, falls, and fractures: 6-year results from the Women's Health Initiative hormone trials	Bea, Zhao, Cauley, LaCroix, Bassford, Lewis, Jackson, Tylavsky, Chen	12	CT	Menopause. 2010 Aug 3. [Epub ahead of print]	
398	Osteoporosis and rate of bone loss among postmenopausal survivors of breast cancer	Chen, Maricic, Pettinger, Ritenbaugh, Lopez, Barad, Gass, LeBoff, Bassford	12	OS	Cancer. 2005 Oct 1;104(7):1520-30	
399	Subtypes of mild cognitive impairment in older postmenopausal women: The Women's Health Initiative Memory Study	Rapp, Legault, Henderson, Brunner, Masaki, Jones, Absher, Thal	12	WHIMS	Alzheimer Dis Assoc Disord. 2010 May 13. [Epub ahead of print]	AS39
401	Are depressive symptoms associated with cancer screening and cancer stage at diagnosis among postmenopausal women? The Women's Health Initiative Observational Cohort	Aggarwal, Freund, Sato, Adams-Campbell, Lopez, Lessin, Ockene, Wallace, Williams, Bonds	12	OS	J Womens Health (Larchmt). 2008 Oct;17(8):1353-61. Epub 2008 Sep 14	

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
404	Fracture risk increases after diagnosis of breast or other cancers in postmenopausal women: Results from the Women's Health Initiative	Chen, Maricic, Aragaki, Mouton, Arendell, Lopez, Bassford, Chlebowski	12	Gen	Osteoporos Int. 2009 Apr;20(4):527-36. Epub 2008 Sep 3	
409	Clinical risk factors for fractures in multi-ethnic women: The Women's Health Initiative	Cauley, Wu, Wampler, Barnhart, Allison, Chen, Jackson, Robbins	12	OS	J Bone Miner Res. 2007 Nov;22(11):1816-26	
414	Prehypertension and cardiovascular disease risk in the Women's Health Initiative	Hsia, Margolis, Eaton, Wenger, Allison, Wu, LaCroix, Black, Women's Health Initiative Investigators	12	CT	Circulation. 2007 Feb 20;115(7):855-60	
415	GIS approaches for the estimation of residential-level ambient PM concentrations	Liao, Peuquet, Duan, Whitsel, Dou, Smith, Lin, Chen, Heiss	12	CT	Environ Health Perspect. 2006 Sep;114(9):1374-80	AS140
416	Influence of estrogen plus testosterone supplementation on breast cancer	Ness, Albano, McTiernan, Cauley	12	OS	Arch Intern Med. 2009 Jan 12;169(1):41-6	
417	Impact of cyclooxygenase inhibitors in the Women's Health Initiative Hormone Trials: Secondary analysis of a randomized trial	Hsia, Manson, Kuller, Pettinger, Choe, Langer, Limacher, Oberman, Ockene, O'Sullivan, Robinson	12	CT	PLoS Clin Trials. 2006 Sep 29;1(5):e26	
418	Linear measurement error models with restricted sampling	Gorfine, Lipshtat, Freedman, Prentice	12	CT	Biometrics. 2007 Mar;63(1):137-42	
420	Postmenopausal hormone use and the risk of nephrolithiasis: Results from the Women’s Health Initiative hormone therapy trials	Maalouf, Sato, Welch, Howard, Cochrane, Sakhaee, Robbins	12	CT	Arch Intern Med. 2010;170(18):1678-1685	
421	Serum alpha-tocopherol, concurrent and past vitamin E intake, and mild cognitive impairment	Dunn, Weintraub, Stoddard, Banks	12	Gen	Neurology. 2007 Feb 27;68(9):670-6	AS84
423	Combined analysis of Women's Health Initiative observational and clinical trial data on postmenopausal hormone treatment and cardiovascular disease	Prentice, Langer, Stefanick, Howard, Pettinger, Anderson, Barad, Curb, Kotchen, Kuller, Limacher, Wactawski-Wende, Women's Health Initiative Investigators	12	Gen	Am J Epidemiol. 2006 Apr 1;163(7):589-99. Epub 2006 Feb 16	
426	Incident invasive breast cancer, geographic location of residence, and reported average time spent outside	Millen, Pettinger, Freudenheim, Langer, Rosenberg, Mossavar-Rahmani, Duffy, Lane, McTiernan, Kuller, Lopez, Wactawski-Wende	12	OS	Cancer Epidemiol Biomarkers Prev. 2009 Feb;18(2):495-507. Epub 2009 Feb 3	

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
428	Association of pelvic organ prolapse and fractures in postmenopausal women: Analysis of baseline data from the Women's Health Initiative Estrogen plus Progestin Trial	Pal, Hailpern, Santoro, Freeman, Barad, Kipersztok, Barnabei, Wassertheil-Smoller	12	Gen	Menopause. 2008 Jan-Feb;15(1):59-66; 2007 Aug 9 [Epub ahead of print]	
429	Can biomarkers identify women at increased stroke risk? The Women's Health Initiative Hormone Trials	Kooperberg, Cushman, Hsia, Robinson, Aragaki, Lynch, Baird, Johnson, Kuller, Beresford, Rodriguez	12	Gen	PLoS Clin Trials. 2007 Jun 15;2(6):e28	W6
430	Sleep duration and risk of ischemic stroke in postmenopausal women	Chen, Brunner, Ren, Wassertheil-Smoller, Larson, Levine, Allison, Naughton, Stefanick	12	Gen	Stroke. 2008 Dec;39(12):3185-92. Epub 2008 Jul 17	AS140
433	Baseline serum estradiol and fracture reduction during treatment with hormone therapy: The Women's Health Initiative randomized trial	Cauley, LaCroix, Robbins, Larson, Wallace, Wactawski-Wende, Chen, Bauer, Cummings, Jackson	12	CT	Osteoporos Int. 2010 Jan;21(1):167-77. Epub 2009 May 13	W9
436	Health characteristics of postmenopausal women with breast implants	Rubin, Song Landfair, Shestak, Lane, Valoski, Chang, Tindle, Kuller	12	Gen	Plast Reconstr Surg. 2010 Mar;125(3):799-810	
438	Walking speed and risk of incident ischemic stroke among postmenopausal women	McGinn, Kaplan, Verghese, Rosenbaum, Psaty, Baird, Lynch, Wolf, Kooperberg, Larson, Wassertheil-Smoller	12	Gen	Stroke. 2008 Apr;39(4):1233-9. Epub 2008 Feb 21	
440	Monitoring and reporting of the Women’s Health Initiative randomized hormone therapy trials	Anderson, Kooperberg, Gellar, Rossouw, Pettinger, Prentice	12	CT	Clin Trials. 2007;4(3):207-17	
441	Calcium plus vitamin D supplementation and the risk of postmenopausal weight gain	Caan, Neuhouser, Aragaki, Lewis, Jackson, LeBoff, Margolis, Powell, Uwaifo, Whitlock, Wylie-Rosette, LaCroix	12	CT	Arch Intern Med. 2007 May 14;167(9):893-902	
442	Test-retest reliability of the Women’s Health Initiative Physical Activity Questionnaire	Meyer, Evenson, Morimoto, Siscovick, White	12	OS	Med Sci Sports Exerc. 2009 Mar;41(3):530-8. Epub 2009 Feb 6	W2

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
444	Associations between age-related nuclear cataract and lutein and zeaxanthin in the diet and serum in the Carotenoids in the Age-Related Eye Disease Study, an Ancillary Study of the Women's Health Initiative	Moeller, Voland, Tinker, Blodi, Klein, Gehrs, Johnson, Snodderly, Wallace, Chappell, Parekh, Ritenbaugh, Mares	12	OS	Arch Ophthalmol. 2008 Mar;126(3):354-364	AS105
445	Usefulness of baseline lipids and C-reactive protein in women receiving menopausal hormone therapy as predictors of treatment-related coronary events	Bray, Larson, LaCroix, Manson, Limacher, Rossouw, Lasser, Lawson, Stefanick, Langer, Margolis	12	Gen	Am J Cardiol. 2008 Jun 1;101(11):1599-1605. Epub 2008 Apr 2	W6
447	Low-fat dietary pattern and risk of cardiovascular disease: The Women's Health Initiative Randomized Controlled Dietary Modification Trial	Howard, VanHorn, Hsia, Manson, Stefanick, Wassertheil-Smoller, Kuller, LaCroix, Langer, Lasser, Lewis, Limacher, Margolis, Mysiw, et al	12	CT	JAMA. 2006 Feb 8;295(6):655-66	W1
448	Low-fat dietary pattern and risk of invasive breast cancer: The Women's Health Initiative Randomized Controlled Dietary Modification Trial	Prentice, Caan, Chlebowski, Patterson, Kuller, Ockene, Margolis, Limacher, Manson, Parker, Paskett, Phillips, Robbins, Rossouw, et al	12	CT	JAMA. 2006 Feb 8;295(6):629-42	W1, W33
449	Low-fat dietary pattern and risk of colorectal cancer: The Women's Health Initiative Randomized Controlled Dietary Modification Trial	Beresford, Johnson, Ritenbaugh, Lasser, Snetselaar, Black, Anderson, Assaf, Bassford, Bowen, Brunner, Brzyski, Caan, Chlebowski, et al	12	CT	JAMA. 2006 Feb 8;295(6):643-54	W1
450	Calcium plus vitamin D supplementation and the risk for fractures	Jackson, LaCroix, Gass, Wallace, Robbins, Lewis, Bassford, Beresford, Black, Blanchette, Bonds, Brunner, Brzyski, Caan, et al	12	CT	N Engl J Med. 2006 Feb 16;354(7):669-83	W15
451	Calcium plus vitamin D supplementation and the risk of colorectal cancer	Wactawski-Wende, Kotchen, Anderson, Assaf, Brunner, O'Sullivan, Margolis, Ockene, Phillips, Pottern, Prentice, Robbins, Rohan, Sarto, et al	12	CT	N Engl J Med. 2006 Feb 16;354(7):684-96	W15
452	Macular pigment density and age-related maculopathy in the Carotenoids in Age-Related Eye Disease Study. An ancillary study of the Women's Health Initiative	LaRowe, Mares-Perlman, Snodderly, Klein, Wooten, Chappell, CAREDS Macular Pigment Study Group	12	CT	Ophthalmology. 2008 May;115(5):876-883.e1. Epub 2007 Sep 14	AS105

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
453	Excess weight and physical health-related quality of life in postmenopausal women of diverse racial/ethnic backgrounds	Lynch, McTigue, Bost, Tinker, Vitolins, Adams-Campbell, Sarto, Hays-Grudo, Manson, Kuller	12	Gen	J Womens Health (Larchmt). 2010 Jul 14. [Epub ahead of print]	
456	Dual-energy X-ray absorptiometry is a valid tool for assessing skeletal muscle mass in older women	Chen, Wang, Lohman, Heymsfield, Outwater, Nicholas, Bassford, LaCroix, Sherrill, Punyanitya, Wu, Going	12	Gen	J Nutr. 2007 Dec;137(12):2775-80	AS153
458	Obesity in relation to endometrial cancer risk and disease characteristics in the Women's Health Initiative	Reeves, Carter, Rodabough, Lane, McNeeley, Stefanick, Paskett	12	Gen	Gynecol Oncol. 2011 Feb 14. [Epub ahead of print]	
459	A prospective evaluation of insulin and insulin-like growth factor-I as risk factors for endometrial cancer	Gunter, Hoover, Yu, Wassertheil-Smoller, Manson, Li, Harris, Rohan, Xue, Ho, Einstein, Kaplan, Burk, Wylie-Rosette, Pollak, Anderson, et al.	12	OS	Cancer Epidemiol Biomarkers Prev. 2008 Apr;17(4):921-9	AS129
460	Insulin, insulin-like growth factor-I, endogenous estradiol, and risk of colorectal cancer in postmenopausal women	Gunter, Hoover, Yu, Wassertheil-Smoller, Rohan, Manson, Howard, Wylie-Rosette, Anderson, Ho, Kaplan, Li, Xue, Harris, Burk, Strickler, et al.	12	OS	Cancer Res. 2008 Jan 1;68(1):329-37	AS129
461	Insulin, insulin-like growth factor-I, and risk of breast cancer in postmenopausal women	Gunter, Hoover, Yu, Wassertheil-Smoller, Rohan, Manson, Li, Ho, Xue, Anderson, Kaplan, Harris, Howard, Wylie-Rosette, Burk, Strickler, et al.	12	OS	J Natl Cancer Inst. 2009 Jan 7;101(1):48-60. Epub 2008 Dec 30	AS129
462	Estrogen receptor polymorphisms and the vascular effects of hormone therapy	Rossouw, Bray, Liu, Kooperberg, Hsia, Lewis, Cushman, Bonds, Hendrix, Papanicolaou, Howard, Herrington	12	CT	Arterioscler Thromb Vasc Biol. 2010 Nov 24. [Epub ahead of print]	W11, W6
464	Use of recovery biomarkers to calibrate nutrient consumption self-reports in the Women's Health Initiative	Neuhouser, Tinker, Shaw, Schoeller, Bingham, VanHorn, Beresford, Caan, Thomson, Satterfield, Kuller, Heiss, Smit, Sarto, Ockene, Stefanick, et al.	12	CT	Am J Epidemiol. 2008 May 15;167(10):1247-59. Epub 2008 Mar 15	W8

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
467	Low-fat, increased fruit, vegetable, and grain dietary pattern, fractures, and bone mineral density: the Women's Health Initiative Dietary Modification Trial	McTiernan, Wactawski-Wende, Wu, Rodabough, Watts, Tylavsky, Freeman, Hendrix, Jackson	12	CT	Am J Clin Nutr. 2009 Jun;89(6):1864-76. Epub 2009 Apr 29	
468	Effect of calcium and vitamin D supplementation on blood pressure: The Women's Health Initiative Randomized Trial	Margolis, Ray, VanHorn, Manson, Allison, Black, Beresford, Connelly, Curb, Grimm, Kotchen, Kuller, Wassertheil-Smoller, Thomson, Torner	12	CT	Hypertension. 2008 Nov;52(5):847-55. Epub 2008 Sep 29	
469	Low-fat dietary pattern and cancer incidence in the Women's Health Initiative Dietary Modification Randomized Controlled Trial	Prentice, Thomson, Caan, Hubbell, Anderson, Beresford, Pettinger, Lane, Lessin, Yasmeen, Singh, Khandekar, Shikany, Satterfield, Chlebowski	12	CT	J Natl Cancer Inst. 2007 Oct 17;99(20):1534-43. Epub 2007 Oct 9	W31
470	25-Hydroxyvitamin D concentration, vitamin D intake and joint symptoms in postmenopausal women	Chlebowski, Johnson, Lane, Pettinger, Kooperberg, Wactawski-Wende, Rohan, O'Sullivan, Yasmeen, Hiatt, Shikany, Vitolins, Hubbell	12	CT	Maturitas. 2010 Nov 17. [Epub ahead of print]	W24
471	Calcium/vitamin D supplementation and cardiovascular events	Hsia, Heiss, Ren, Allison, Dolan, Greenland, Heckbert, Johnson, Manson, Sidney, Trevisan, Women's Health Initiative Investigators	12	CT	Circulation. 2007 Feb 20;115(7):846-54	
472	Calcium plus Vitamin D supplementation and mortality in postmenopausal women: The Women's Health Initiative Calcium–Vitamin D Randomized Controlled Trial	LaCroix, Kotchen, Anderson, Brzyski, Cauley, Cummings, Gass, Johnson, Ko, Larson, Manson, Stefanick, Wactawski-Wende	12	CT	J Gerontol A Biol Sci Med Sci. 2009 May;64(5):559-67. Epub 2009 Feb 16	
473	Urinary tract stone occurrence in the Women's Health Initiative randomized clinical trial of calcium and vitamin D supplements	Wallace, Wactawski-Wende, O'Sullivan, Wu, Cochrane, Gass, Masaki, Nelson, Whitlock	12	CT	Am J Clin Nutr. 2011 Apr 27. [Epub ahead of print]	
475	Calcium, vitamin D supplementation, and physical function in the Women's Health Initiative	Brunner, Cochrane, Jackson, Larson, Lewis, Limacher, Rosal, Shumaker, Wallace, Women's Health Initiative Investigators	12	CT	J Am Diet Assoc. 2008 Sep;108(9):1472-9	

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
479	Homocysteine levels and risk of hip fracture in postmenopausal women	LeBoff, Narweker, LaCroix, Wu, Jackson, Lee, Bauer, Cauley, Kooperberg, Lewis, Thomas, Cummings	12	OS	J Clin Endocrinol Metab. 2009 Apr;94(4):1207-13. Epub 2009 Jan 27	AS90
481	Associations of serum sex hormone-binding globulin and sex hormone concentrations with hip fracture risk in postmenopausal women	Lee, LaCroix, Wu, Cauley, Jackson, Kooperberg, LeBoff, Robbins, Lewis, Bauer, Cummings	12	OS	J Clin Endocrinol Metab. 2008 May;93(5):1796-803. Epub 2008 Mar 11	AS90
482	Plasma folate, vitamin B6, vitamin B12, and homocysteine and pancreatic cancer risk in four large cohorts	Schernhammer, Wolpin, Rifai, Cochrane, Manson, Ma, Giovannucci, Thomson, Stampfer, Fuchs	12	OS	Cancer Res. 2007 Jun 1;67(11):5553-60	AS146
483	Prediagnostic plasma C-peptide and pancreatic cancer risk in men and women	Michaud, Wolpin, Giovannucci, Liu, Cochrane, Manson, Pollak, Ma, Fuchs	12	OS	Cancer Epidemiol Biomarkers Prev. 2007 Oct;16(10):2101-9. Epub 2007 Sep 28	AS146
484	Circulating insulin-like growth factor axis and the risk of pancreatic cancer in four prospective cohorts	Wolpin, Michaud, Giovannucci, Schernhammer, Stampfer, Manson, Cochrane, Rohan, Ma, Pollak, Fuchs	12	OS	Br J Cancer. 2007 Jul 2;97(1):98-104. Epub 2007 May 29	AS146
486	Insulin sensitivity and insulin secretion determined by homeostasis model assessment and risk of diabetes in a multiethnic cohort of women: The Women's Health Initiative Observational Study	Song, Manson, Tinker, Howard, Kuller, Nathan, Rifai, Liu	12	OS	Diabetes Care. 2007 Jul;30(7):1747-52. Epub 2007 Apr 27	AS132
489	Does obesity really make the femur stronger? Bone Mineral Density, geometry and fracture incidence in the Women’s Health Initiative - Observational Study	Beck, Petit, Wu, LeBoff, Cauley, Chen	12	OS	J Bone Miner Res. 2009 Aug;24(8):1369-79. Epub 2009 Mar 17	AS153
492	Cardiovascular risk in women with non-specific chest pain (from the Women’s Health Initiative Hormone Trials)	Robinson, Wallace, Limacher, Ren, Cochrane, Wassertheil-Smoller, Ockene, Blanchette, Ko	12	CT	Am J Cardiol. 2008 Sep 15;102(6):693-9. Epub 2008 Jul 2	
493	Panic attacks and risk of Incident cardiovascular events among postmenopausal women in the Women’s Health Initiative observational study	Smoller, Pollack, Wassertheil-Smoller, Jackson, Oberman, Wong, Sheps	12	OS	Arch Gen Psychiatry. 2007 Oct;64(10):1153-60	
495	Natural history of pelvic organ prolapse in postmenopausal women	Bradley, Zimmerman, Qi, Nygaard	12	CT	Obstet Gynecol. 2007 Apr;109(4):848-54	AS135

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
496	Hip bone density predicts breast cancer risk independently of Gail score: Results from the Women's Health Initiative	Chen, Arendell, Aickin, Cauley, Lewis, Chlebowski	12	Gen	Cancer. 2008 Sep 1;113(5):907-15. Epub 2008 Jul 29	
501	Health risks and benefits 3 years after stopping randomized treatment with estrogen and progestin	Heiss, Wallace, Anderson, Aragaki, Beresford, Brzyski, Chlebowski, Gass, LaCroix, Manson, Prentice, Rossouw, Stefanick, Women's Health Initiative Investigators	12	CT	JAMA. 2008 Mar 5;299(9):1036-45	
503	Oophorectomy, hormone therapy, and subclinical coronary artery disease in women with hysterectomy: the Women's Health Initiative coronary artery calcium study	Allison, Manson, Langer, Carr, Rossouw, Pettinger, Phillips, Cochrane, Eaton, Greenland, Hendrix, Hsia, Hunt, Jackson, Johnson, Kuller, et al.	12	CT	Menopause. 2008 Jul-Aug;15(4 Pt 1):639-47. Epub 2008 May 2	W25
504	A comparison of two dietary instruments for evaluating the fat-breast cancer relationship	Freedman, Potischman, Kipnis, Midthune, Schatzkin, Thompson, Troiano, Prentice, Patterson, Carroll, Subar	12	CT	Int J Epidemiol. 2006 Aug;35(4):1011-21. Epub 2006 May 3	
506	Estrogen therapy and coronary-artery calcification	Manson, Allison, Rossouw, Carr, Langer, Hsia, Kuller, Cochrane, Hunt, Ludlam, Pettinger, Gass, Margolis, Nathan, et al, Ockene, et al.	12	CT	N Engl J Med. 2007 Jun 21;356(25):2591-602	W25
508	Alcohol and folate consumption and risk of benign proliferative epithelial disorders of the breast	Cui, Page, Chlebowski, Beresford, Hendrix, Lane, Rohan	12	CT	Int J Cancer. 2007 Sep 15;121(6):1346-51	AS130
509	Cigarette smoking and risk of benign proliferative epithelial disorders of the breast in the Women's Health Initiative	Cui, Page, Chlebowski, Hsia, Hubbell, Johnson, Rohan	12	CT	Cancer Causes Control. 2007 May;18(4):431-8. Epub 2007 Feb 24	AS130
510	Alcohol consumption and the risk of coronary heart disease in women with diabetes: Women’s Health Initiative Observational Study	Rajpathak, Freiberg, Wang, Wylie-Rosette, Wildman, Rohan, Robinson, Liu, Wassertheil-Smoller	12	OS	Eur J Nutr. 2010 Jun;49(4):211-8. Epub 2009 Oct 13	

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
514	Selected antioxidants and risk of hormone receptor–defined invasive breast cancers among postmenopausal women in the Women's Health Initiative Observational Study	Cui, Shikany, Liu, Yasmeen, Rohan	12	OS	Am J Clin Nutr. 2008 Apr;87(4):1009-18	
518	Baseline monograph - foreword	Rossouw, Anderson, Oberman	12	Gen	Ann Epidemiol. 2003 Oct;13:S1-S4	
519	Implementation of the Women's Health Initiative study design	Anderson, Manson, Wallace, Lund, Hall, Davis, Shumaker, Wang, Stein, Prentice	12	Gen	Ann Epidemiol. 2003 Oct;13(9 Suppl):S5-17	
520	The Women's Health Initiative recruitment methods and results	Hays-Grudo, Hunt, Hubbell, Anderson, Limacher, Allen, Rossouw	12	OS	Ann Epidemiol. 2003 Oct;13(9 Suppl):S18-77	W1
521	The Women's Health Initiative postmenopausal hormone trials: Overview and baseline characteristics of participants	Stefanick, Cochrane, Hsia, Barad, Liu, Johnson	12	Gen	Ann Epidemiol. 2003 Oct;13(9 Suppl):S78-86	W1
522	The Women's Health Initiative Dietary Modification trial: Overview and baseline characteristics of participants	Ritenbaugh, Patterson, Chlebowski, Caan, Tinker, Howard, Ockene	12	Gen	Ann Epidemiol. 2003 Oct;13(9 Suppl):S87-97	
523	The Women's Health Initiative calcium-vitamin D trial: Overview and baseline characteristics of participants	Jackson, LaCroix, Cauley, McGowan	12	Gen	Ann Epidemiol. 2003 Oct;13(9 Suppl):S98-106	
524	The Women's Health Initiative Observational Study: Baseline characteristics of participants and reliability of baseline measures	Langer, White, Lewis, Kotchen, Hendrix, Trevisan	12	OS	Ann Epidemiol. 2003 Oct;13(9 Suppl):S107-21	W1, W2
525	Outcomes ascertainment and adjudication methods in the Women's Health Initiative	Curb, McTiernan, Heckbert, Kooperberg, Stanford, Nevitt, Johnson, Proulx-Burns, Pastore, Criqui, Daugherty, WHI Morbidity and Mortality Committee	12	Gen	Ann Epidemiol. 2003 Oct;13(9 Suppl):S122-8	
526	Inflammatory, lipid, thrombotic, and genetic markers of coronary heart disease risk in the Women’s Health Initiative trials of hormone therapy	Rossouw, Cushman, Greenland, Lloyd-Jones, Bray, Kooperberg, Pettinger, Robinson, Hendrix, Hsia	12	CT	Arch Intern Med. 2008 Nov 10;168(20):2245-53	W6

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
527	Predictors of change in calcium intake in postmenopausal women after osteoporosis screening	McLeod, McCann, Horvath, Wactawski-Wende	12	OS	J Nutr. 2007 Aug;137(8):1968-73	AS98
529	Ambient fine particulate matter exposure and myocardial ischemia in the Environmental Epidemiology of Arrhythmogenesis in the Women's Health Initiative (EEAWHI)	Zhang, Whitsel, Quibrera, Smith, Liao, Anderson, Prineas	12	CT	Environ Health Perspect. 2009 May;117(5):751-6. Epub 2009 Jan 23	AS140
534	Menopausal symptom experience before and after stopping estrogen therapy in the Women's Health Initiative randomized placebo-controlled trial	Brunner, Aragaki, Barnabei, Cochrane, Gass, Hendrix, Lane, Ockene, Woods, Yasmeen, Stefanick	12	CT	Menopause. 2010 May 24. [Epub ahead of print]	
535	Lipoprotein particle concentrations may explain the absence of coronary protection in the Women's Health Initiative Hormone Trials	Hsia, Otvos, Rossouw, Wu, Wassertheil-Smoller, Hendrix, Robinson, Lund, Kuller, for the Women's Health Initiative Research Group	12	CT	Arterioscler Thromb Vasc Biol. 2008 Sep;28(9):1666-71. Epub 2008 Jul 3	
536	Sexual satisfaction and cardiovascular disease: The Women's Health Initiative	McCall-Hosenfeld, Freund, Legault, (Jaramillo) Gaussoin, Cochrane, Manson, Wenger, Eaton, McNeeley, Rodriguez, Bonds	12	OS	Am J Med. 2008 Apr;121(4):295-301	
538	Electrocardiographic predictors of incident congestive heart failure and all-cause mortality in postmenopausal women: The Women's Health Initiative	Rautaharju, Kooperberg, Larson, LaCroix	12	CT	Circulation. 2006 Jan 31;113(4):481-9	
541	Low-fat dietary pattern and risk of treated diabetes mellitus in postmenopausal women: the Women's Health Initiative randomized controlled dietary modification trial	Tinker, Bonds, Margolis, Manson, Howard, Larson, Perri, Beresford, Robinson, Rodriguez, Safford, Wenger, Stevens, Parker	12	CT	Arch Intern Med. 2008 Jul 28;168(14):1500-11	
542	Enrollment in a brain magnetic resonance study: Results from the Women's Health Initiative Memory Study Magnetic Resonance Imaging Study (WHIMS-MRI)	(Jaramillo) Gaussoin, Felton, Andrews, Desiderio, Hallarn, Jackson, Coker, Robinson, Ockene, Espeland, Women's Health Initiative Memory Study Research Group	12	WHIMS	Acad Radiol. 2007 May;14(5):603-12	AS183

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
544	Menstrual and reproductive history, postmenopausal hormone use, and risk of benign proliferative epithelial disorders of the breast: A cohort study	Cui, Page, Lane, Rohan	12	CT	Breast Cancer Res Treat. 2009 Mar;114(1):113-20. Epub 2008 Mar 22	AS130
547	Calcium plus vitamin D supplementation has limited effects on femoral geometric strength in older postmenopausal women: The Women's Health Initiative	Jackson, Wright, Beck, Sherrill, Cauley, Lewis, LaCroix, LeBoff, Going, Bassford, Chen	12	Gen	Calcif Tissue Int. 2011 Jan 21. [Epub ahead of print]	AS153
549	Semiparametric estimation exploiting covariate independence in two-phase randomized trials	Dai, LeBlanc, Kooperberg	12	Gen	Biometrics. 2009 Mar;65(1):178-87. Epub 2008 May 13	
550	Common genetic variation in calpain-10 gene (CAPN10) and diabetes risk in a multi-ethnic cohort of American postmenopausal women	Song, You, Hsu, Sul, Wang, Tinker, Eaton, Liu	12	OS	Hum Mol Genet. 2007 Dec 1;16(23):2960-71. Epub 2007 Sep 12	AS132
551	Antidepressant use and risk of incident cardiovascular morbidity and mortality among postmenopausal women in the Women's Health Initiative Study	Smoller, Allison, Cochrane, Curb, Perlis, Robinson, Rosal, Wang, Wassertheil-Smoller	12	OS	Arch Intern Med. 2009;169(22):2128-2139.	
554	Genetic variants in the UCP2-UCP3 gene cluster and risk of diabetes in the Women's Health Initiative Observational Study	Hsu, Niu, Song, Tinker, Kuller, Liu	12	OS	Diabetes. 2008 Apr;57(4):1101-7. Epub 2008 Jan 25	AS132
558	The relationship between cognitive function and physical performance in older women: Results from the Women's Health Initiative Memory Study	Atkinson, Rapp, Williamson, Lovato, Absher, Gass, Henderson, Johnson, Kostis, Sink, Mouton, Ockene, Stefanick, Lane, Espeland	12	WHIMS	J Gerontol A Biol Sci Med Sci. 2010 Mar;65(3):300-6. Epub 2009 Sep 29.	AS39
560	Loop diuretic use and fracture in postmenopausal women: Findings from the Women's Health Initiative	Carbone, Johnson, Bush, Robbins, Larson, Thomas, LaCroix	12	CT	Arch Intern Med. 2009 Jan 26;169(2):132-40	
562	The relationship between incidence of fractures and anemia in older multiethnic women	Chen, Thomson, Aickin, Nicholas, Van Wyck, Lewis, Cauley, Bassford, Short list of Women's Health Initiative Investigators	12	Gen	J Am Geriatr Soc. 2010 Dec;58(12):2337-2344	M2

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
563	Cystatin-C, renal function, and incidence of hip fracture in postmenopausal women	LaCroix, Lee, Wu, Cauley, Shlipak, Ott, Robbins, Curb, LeBoff, Bauer, Jackson, Kooperberg, Cummings	12	OS	J Am Geriatr Soc. 2008 Aug;56(8):1434-41. Epub 2008 Jul 24	AS90
564	Arthritis increases the risk for fractures - Results from the Women's Health Initiative	Wright, Lisse, Walitt, Eaton, Chen	12	OS	J Rheumatol. 2011 May 15. [Epub ahead of print]	
565	Self-reported osteoarthritis, ethnicity, body mass index, and other associated risk factors in postmenopausal women: Results from the Women's Health Initiative	Wright, Kershner Riggs, Lisse, Chen	12	Gen	J Am Geriatr Soc. 2008 Sep;56(9):1736-43. Epub 2008 Jul 17	
566	Ethnic differences in femur geometry in the Women's Health Initiative Observational Study	Nelson, Beck, Wu, Lewis, Bassford, Cauley, LeBoff, Going, Chen	12	Gen	Osteoporos Int. 2010 Aug 25. [Epub ahead of print]	AS153
567	New-onset breast tenderness after initiation of estrogen plus progestin therapy and breast cancer risk	Crandall, Aragaki, Chlebowski, McTiernan, Anderson, Hendrix, Cochrane, Kuller, Cauley	12	CT	Arch Intern Med. 2009 Oct 12;169(18):1684-91	
569	Hip structural geometry and incidence of hip fracture in postmenopausal women: What does it add to conventional bone mineral density?	LaCroix, Beck, Cauley, Lewis, Bassford, Jackson, Wu, Chen	12	CT	Osteoporos Int. 2010 Jun;21(6):919-29. Epub 2009 Sep 15	AS153
570	Calcium/vitamin D supplementation and coronary artery calcification in the Women's Health Initiative	Manson, Allison, Carr, Langer, Cochrane, Hendrix, Hsia, Hunt, Lewis, Margolis, Robinson, Rodabough, Thomas	12	CT	Menopause. 2010 Jul;17(4):683-91. Epub 2010 Jun 14	W25
572	Common genetic variants in Fatty Acid-Binding Protein-4 (FABP4) and clinical diabetes risk in the Women's Health Initiative Observational Study	Chan, Song, Hsu, You, Tinker, Liu	12	OS	Obesity (Silver Spring). 2010 Jan 28. [Epub ahead of print]	AS132
574	Dietary glycemic load, glycemic index, and carbohydrate and risk of breast cancer in the Women's Health Initiative	Shikany, Redden, Neuhouser, Chlebowski, Rohan, Simon, Liu, Lane, Tinker	12	OS	Nutr Cancer. 2011 Jun 29. [Epub ahead of print]	AS111
575	Hormone therapy and physical function change among older women in the Women's Health Initiative: a randomized controlled trial	Michael, Gold, Manson, Keast, Cochrane, Woods, Brzyski, McNeeley, Wallace	12	CT	Menopause. 2010 Mar;17(2):235-6. Epub 2009 Oct 23	

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
576	Circulating insulin-like growth factor binding protein-1 and the risk of pancreatic cancer	Wolpin, Michaud, Giovannucci, Schernhammer, Stampfer, Manson, Cochrane, Rohan, Ma, Pollak, Fuchs	12	OS	Cancer Res. 2007 Aug 15;67(16):7923-8	AS146
577	Women's Health Initiative Diet Intervention did not increase macular pigment optical density in an Ancillary Study of a subsample of the Women's Health Initiative	Moeller, Voland, Sarto, Gobel, Streicher, Mares-Perlman	12	CT	J Nutr. 2009 Sep;139(9):1692-9. Epub 2009 Jul 8	AS219
579	Relative effects of tamoxifen, raloxifene, and conjugated equine estrogens on cognition	Espeland, Shumaker, Limacher, Rapp, Bevers, Barad, Coker, Gaussoin, Stefanick, Lane, Maki, Resnick	12	WHIMS	J Womens Health (Larchmt). 2010 Mar;19(3):371-9. Epub 2010 Feb 7	AS103
581	Predictors of serum 25-hydroxyvitamin D concentrations among postmenopausal women: the Women's Health Initiative Calcium plus Vitamin D Clinical Trial	Millen, Wactawski-Wende, Pettinger, Melamed, Tylavsky, Liu, Robbins, LaCroix, LeBoff, Jackson	12	CT	Am J Clin Nutr. 2010 May;91(5):1324-35. Epub 2010 Mar 10	W15
582	The utility of circulating biomarkers of inflammation and endothelial dysfunction for risk prediction and stratification of clinical diabetes in postmenopausal women – The Women's Health Initiative Observational Study	Chao, Song, Cook, Tseng, Manson, Eaton, Margolis, Rodriguez, Phillips, Tinker, Liu	12	OS	Arch Intern Med. 2010 Sep 27;170(17):1557-65	AS132
583	Multivitamin use and risk of cancer and cardiovascular disease in the Women's Health Initiative cohorts	Neuhouser, Wassertheil-Smoller, Thomson, Aragaki, Anderson, Manson, Patterson, Rohan, VanHorn, Shikany, Thomas, LaCroix, Prentice	12	CT	Arch Intern Med. 2009 Feb 9;169(3):294-304	
584	A randomized controlled trial of calcium plus vitamin D supplementation and risk of benign proliferative breast disease	Rohan, Negassa, Chlebowski, Ceria-Ulep, Cochrane, Lane, Ginsberg, Wassertheil-Smoller, Page	12	CT	Breast Cancer Res Treat. 2009 Jul;116(2):339-50. Epub 2008 Oct 14	AS130
585	Low-fat dietary pattern and risk of benign proliferative breast disease: A randomized, controlled dietary modification trial	Rohan, Negassa, Caan, Chlebowski, Curb, Ginsberg, Lane, Neuhouser, Shikany, Wassertheil-Smoller, Page	12	CT	Cancer Prev Res (Phila Pa). 2008 Sep;1(4):275-84. Epub 2008 Jul 9	AS130
586	Conjugated equine estrogen and risk of benign proliferative breast disease: A randomized controlled trial	Rohan, Negassa, Chlebowski, Habel, McTiernan, Ginsberg, Wassertheil-Smoller, Page	12	CT	J Natl Cancer Inst. 2008 Apr 16;100(8):563-71. Epub 2008 Apr 8	AS130

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
587	Estrogen plus progestin and risk of benign proliferative breast disease	Rohan, Negassa, Chlebowski, Lasser, McTiernan, Schenken, Ginsberg, Wassertheil-Smoller, Page	12	CT	Cancer Epidemiol Biomarkers Prev. 2008 Sep;17(9):2337-43. Epub 2008 Aug 25	AS130
590	Duration of lactation and risk factors for maternal cardiovascular disease	Schwarz, Ray, Stuebe, Allison, Ness, Freiberg, Cauley	12	Gen	Obstet Gynecol. 2009 May;113(5):974-982	
591	Association between different measures of blood pressure and coronary artery calcium in postmenopausal women	Allison, Manson, Langer, Aragaki, Wassertheil-Smoller, Lewis, Thomas, Lawson, Cochrane, Hsia, Hunt, Robinson	12	CT	Hypertension. 2008 Nov;52(5):833-40. Epub 2008 Sep 15	W25
592	Vaginal descent and pelvic floor symptoms in postmenopausal women: A longitudinal study	Bradley, Zimmerman, Wang, Nygaard	12	CT	Obstet Gynecol. 2008 May;111(5):1148-53	AS135
594	Association between dietary fiber and markers of systemic inflammation in the Women's Health Initiative Observational Study	Ma, Hebert, Li, Bertone-Johnson, Olendzki, Pagoto, Tinker, Rosal, Ockene, Ockene, Griffith, Liu	12	OS	Nutrition. 2008 Oct;24(10):941-9. Epub 2008 Jun 18	AS132
596	Family history of later-onset breast cancer, breast healthy behavior and invasive breast cancer among postmenopausal women: a cohort study	Gramling, Lash, Rothman, Cabral, Silliman, Roberts, Stefanick, Harrigan, Bertoia, Eaton	12	OS	Breast Cancer Res. 2010 Oct 12;12(5):R82. [Epub ahead of print]	
598	Effects of conjugated equine estrogens on cognition and affect in postmenopausal women with prior hysterectomy	Resnick, Espeland, An, Maki, Coker, Jackson, Stefanick, Wallace, Rapp, Women's Health Initiative Study of Cognitive Aging Investigators	12	CT	J Clin Endocrinol Metab. 2009 Nov;94(11):4152-61. Epub 2009 Oct 22	AS103
602	Inflammation and hemostasis biomarkers for predicting stroke in postmenopausal women: the Women's Health Initiative Observational Study	Kaplan, McGinn, Baird, Hendrix, Kooperberg, Lynch, Rosenbaum, Johnson, Strickler, Wassertheil-Smoller	12	OS	J Stroke Cerebrovasc Dis. 2008 Nov-Dec;17(6):344-55	AS126
603	Lipoprotein-associated phospholipase A2, hormone use, and the risk of ischemic stroke in postmenopausal women	Wassertheil-Smoller, Kooperberg, McGinn, Kaplan, Hsia, Hendrix, Manson, Berger, Kuller, Allison, Baird	12	OS	Hypertension. 2008 Apr;51(4):1115-22. Epub 2008 Feb 7	AS126
605	Glycemic index, glycemic load, and the risk of pancreatic cancer among postmenopausal women in the women's health initiative observational study and clinical trial	Simon, Shikany, Neuhouser, Rohan, Nirmal, Cui, Abrams	12	Gen	Cancer Causes Control. 2010 Aug 15. [Epub ahead of print]	

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
609	Ambient particulate air pollution and ectopy: The environmental epidemiology of arrhythmogenesis in Women's Health Initiative Study, 1999-2004	Liao, Whitsel, Duan, Lin, Quibrera, Smith, Peuquet, Prineas, Zhang, Anderson	12	CT	J Toxicol Environ Health A. 2009;72(1):30-8	AS140
613	Obesity and risk of pancreatic cancer among postmenopausal women: the Women's Health Initiative (United States)	Luo, Margolis, Adami, LaCroix, Ye, Women's Health Initiative Investigators	12	Gen	Br J Cancer. 2008 Aug 5;99(3):527-31. Epub 2008 Jul 15	
614	Incidence of fractures compared to cardiovascular disease and breast cancer: The Women's Health Initiative Observational Study	Cauley, Wampler, Barnhart, Wu, Allison, Chen, Hendrix, Robbins, Jackson	12	OS	Osteoporos Int. 2008 Dec;19(12):1717-23. Epub 2008 Jul 16	
618	Dietary carbohydrate, glycemic index, and glycemic load in relation to colorectal cancer risk in the Women's Health Initiative	Kabat, Shikany, Beresford, Caan, Neuhouser, Tinker, Rohan	12	CT	Cancer Causes Control. 2008 Dec;19(10):1291-8. Epub 2008 Jul 10	
619	Dietary fish intake and incident atrial fibrillation (from the Women's Health Initiative)	Berry, Prineas, VanHorn, Passman, Larson, Goldberger, Snetselaar, Tinker, Liu, Lloyd-Jones	12	CT	Am J Cardiol. 2010 Feb 8. [Epub ahead of print]	
620	Calcium plus vitamin D supplementation and the risk of incident diabetes in the Women's Health Initiative	de Boer, Tinker, Connelly, Curb, Howard, Kestenbaum, Larson, Manson, Margolis, Siscovick, Weiss, Women's Health Initiative Investigators	12	CT	Diabetes Care. 2008 Apr;31(4):701-7. Epub 2008 Jan 30	
622	Sex hormone levels and risks of estrogen receptor-negative and estrogen receptor-positive breast cancers	Farhat, Cummings, Chlebowski, Parimi, Cauley, Rohan, Huang, Vitolins, Hubbell, Manson, Cochrane, Lane, Lee	12	OS	J Natl Cancer Inst. 2011 Feb 17. [Epub ahead of print]	AS167
624	Biomarker-calibrated energy and protein consumption and increased cancer risk among postmenopausal women	Prentice, Shaw, Bingham, Beresford, Caan, Neuhouser, Patterson, Stefanick, Satterfield, Thomas, Snetselaar, Thomson, Tinker	12	Gen	Am J Epidemiol. 2009 Apr 15;169(8):977-89. Epub 2009 Mar 3	W8
625	Postmenopausal hormone therapy and subclinical cerebrovascular disease: The WHIMS-MRI Study	Coker, Hogan, Bryan, Kuller, Margolis, Betterman, Wallace, Lao, Freeman, Stefanick, Shumaker	12	WHIMS	Neurology. 2009 Jan 13;72(2):125-34	AS183

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
626	Postmenopausal hormone therapy and regional brain volumes: The WHIMS-MRI Study	Resnick, Espeland, (Jaramillo) Gaussoin, Hirsch, Stefanick, Murray, Ockene, Davatzikos	12	WHIMS	Neurology. 2009 Jan 13;72(2):135-42	AS183
628	Benefits and risks of postmenopausal hormone therapy when it is initiated soon after menopause	Prentice, Manson, Langer, Anderson, Pettinger, Jackson, Johnson, Kuller, Lane, Wactawski-Wende, Brzyski, Allison, Ockene, Sarto, Rossouw	12	Gen	Am J Epidemiol. 2009 Jul 1;170(1):12-23. Epub 2009 May 25	
630	Colorectal cancer in relation to postmenopausal estrogen and estrogen plus progestin in the Women's Health Initiative Clinical Trial and Observational Study	Prentice, Pettinger, Beresford, Wactawski-Wende, Hubbell, Stefanick, Chlebowski	12	Gen	Cancer Epidemiol Biomarkers Prev. 2009 May;18(5):1531-7	
631	Body mass index and waist circumference in relation to lung cancer risk in the Women's Health Initiative	Kabat, Kim, Hunt, Chlebowski, Rohan	12	Gen	Am J Epidemiol. 2008 Jul 15;168(2):158-69. Epub 2008 May 15	
632	Clinical attachment loss, systemic bone density, and subgingival calculus in postmenopausal women	Brennan, Genco, Hovey, Trevisan, Wactawski-Wende	12	OS	J Periodontol. 2007 Nov;78(11):2104-11	AS98
633	Vitamin A and retinol intakes and the risk of fractures among participants of the Women's Health Initiative Observational Study	Caire-Juvera, Ritenbaugh, Wactawski-Wende, Snetselaar, Chen	12	OS	Am J Clin Nutr. 2009 Jan;89(1):323-30. Epub 2008 Dec 3	AS153
634	Serum 25 hydroxyvitamin D concentrations and the risk of hip fractures: The Women's Health Initiative	Cauley, LaCroix, Wu, Horwitz, Danielson, Bauer, Lee, Jackson, Robbins, Stanczyk, LeBoff, Wactawski-Wende, Sarto, Ockene, Cummings	12	OS	Ann Intern Med. 2008 Aug 19;149(4):242-50	AS181
635	Validation of self-report of rheumatoid arthritis and systemic lupus erythematosus: The Women's Health Initiative	Walitt, Constantinescu, Katz, Weinstein, Wang, Hernandez, Hsia, Howard	12	OS	J Rheumatol. 2008 May;35(5):811-8. Epub 2008 Apr 1	AS217
636	Effect of weight change on natural history of pelvic organ prolapse	Kudish, Iglesia, Sokol, Cochrane, Richter, Larson, Hendrix, Howard	12	CT	Obstet Gynecol. 2009 Jan;113(1):81-88	
639	Psychiatric disorders and cognitive dysfunction among older, postmenopausal women: Results from the Women's Health Initiative Memory Study	Colenda, Legault, Rapp, DeBon, Hogan, Wallace, Hershey, Ockene, Whitmer, Phillips, Sarto	12	WHIMS	Am J Geriatr Psychiatry. 2010 Feb;18(2):177-186	AS39

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
641	Resting heart rate as a low tech predictor of coronary events in women: prospective cohort study	Hsia, Larson, Ockene, Sarto, Allison, Hendrix, Robinson, LaCroix, Manson, Women's Health Initiative Research Group	12	Gen	BMJ. 2009 Feb 3;338:b219. doi: 10.1136/bmj.b219	
645	Abdominal aortic aneurysm events in the Women's Health Initiative: cohort study	Lederle, Larson, Margolis, Allison, Freiberg, Cochrane, Graettinger, Curb	12	Gen	BMJ. 2008 Oct 14;337:a1724	
646	Biomarker-calibrated energy and protein consumption and cardiovascular disease risk among postmenopausal women	Prentice, Huang, Kuller, Tinker, VanHorn, Stefanick, Sarto, Ockene, Johnson	12	OS	Epidemiology. 2011 Jan 4. [Epub ahead of print]	W8
647	Evaluation of the American Heart Association cardiovascular disease prevention guideline for women	Hsia, Rodabough, Manson, Liu, Freiberg, Graettinger, Rosal, Cochrane, Lloyd-Jones, Robinson, Howard, for the Women's Health Initiative Research Group	12	Gen	Circ Cardiovasc Qual Outcomes. 2010 Mar;3(2):128-34. Epub 2010 Feb 16.	
649	A diet high in low-fat dairy products lowers diabetes risk in postmenopausal women	Margolis, Wei, de Boer, Howard, Liu, Manson, Mossavar-Rahmani, Phillips, Shikany, Tinker	12	OS	J Nutr. 2011 Sep 21. [Epub ahead of print]	
650	Proton pump inhibitor use, hip fracture, and change in bone mineral density in postmenopausal women: Results from the Women's Health Initiative	Gray, LaCroix, Larson, Cauley, Robbins, Manson, Chen	12	Gen	Arch Intern Med. 2010;170(9):765-771	
651	Alcohol consumption, hypertension, and total mortality among women	Freiberg, Chang, Kraemer, Robinson, Adams-Campbell, Kuller	12	OS	Am J Hypertens. 2009 Nov;22(11):1212-8. Epub 2009 Sep 3	
652	Osteoporosis and oral infection: Independent risk factors for oral bone loss	Brennan-Calanan, Genco, Wilding, Hovey, Trevisan, Wactawski-Wende	12	OS	J Dent Res. 2008 Apr;87(4):323-7	AS98
655	Circulating inflammatory and endothelial markers and risk of hypertension in white and black postmenopausal women	Wang, Manson, Gaziano, Liu, Cochrane, Cook, Ridker, Rifai, Sesso	12	OS	Clin chem. 2011 Mar 11. [Epub ahead of print]	AS133
656	Multimarker prediction of coronary heart disease risk: The Women's Health Initiative	Kim, Greenland, Rossouw, Manson, Cochrane, Lasser, Limacher, Lloyd-Jones, Margolis, Robinson	12	OS	J Am Coll Cardiol. 2010 May 11;55(19):2080–91	

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657	Correlates of sexual satisfaction among sexually active postmenopausal women in the Women's Health Initiative-Observational Study	McCall-Hosenfeld, (Jaramillo) Gaussoin, Legault, Freund, Cochrane, Manson, Wenger, Eaton, Rodriguez, McNeeley, Bonds	12	OS	J Gen Intern Med. 2008 Dec;23(12):2000-9. Epub 2008 Oct 7	
658	Rheumatoid arthritis is associated with less optimal hip structural geometry	Wright, Lisse, Beck, Sherrill, Mohler, Bassford, Cauley, LaCroix, Lewis, Chen	12	Gen	J Clin Densitom. 2011 Aug 16. [Epub ahead of print]	AS153
660	Relation of genetic variation in the gene coding for c-reactive protein with its plasma protein levels: Findings from the Women's Health Initiative observational cohort	Lee, You, Song, Hsu, Manson, Nathan, Tinker, Liu	12	OS	Clin Chem. 2009 Feb;55(2):351-60. Epub 2008 Dec 18	AS132
662	Inflammation and thrombosis biomarkers and incident frailty in postmenopausal women	Reiner, Aragaki, Gray, Wactawski-Wende, Cauley, Cochrane, Kooperberg, Woods, LaCroix	12	OS	Am J Med. 2009 Oct;122(10):947-54. Epub 2009 Aug 13	AS179
664	FTO polymorphisms are associated with obesity but not diabetes risk in postmenopausal women	Song, You, Hsu, Howard, Langer, Manson, Nathan, Niu, Tinker, Liu	12	OS	Obesity (Silver Spring). 2008 Nov;16(11):2472-80. Epub 2008 Sep 11	AS132
665	Ascertaining dementia-related outcomes for deceased or proxy-dependent participants: an overview of the Women's Health Initiative Memory Study supplemental case ascertainment protocol	(Jaramillo) Gaussoin, Espeland, Absher, Howard, Jones, Rapp	12	WHIMS	Int J Geriatr Psychiatry. 2011 Mar 18. [Epub ahead of print]	AS39
667	Vasomotor symptoms and cardiovascular events in postmenopausal women	Szmuilowicz, Manson, Rossouw, Howard, Margolis, Greep, Brzyski, Stefanick, O'Sullivan, Allison, Grobbee, Johnson, Ockene, Rodriguez, Sarto, Vitolins, et al.	12	OS	Menopause. 2011 Feb 19. [Epub ahead of print]	
669	Depressive symptoms and smoking in middle-aged and older women	Holahan, Holahan, Powers, Hayes, Marti, Ockene	12	OS	Nicotine Tob Res. 2011 Apr 19. [Epub ahead of print]	
672	Body size phenotypes and inflammation in the Women's Health Initiative Observational Study	Wildman, Kaplan, Manson, Rajkovic, Connelly, Mackey, Tinker, Curb, Eaton, Wassertheil-Smoller	12	OS	Obesity. 2011 Jan 13. [Epub ahead of print]	AS126

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673	Mortality risk associated with physical and verbal abuse in women aged 50 to 79	Baker, LaCroix, Wu, Cochrane, Wallace, Woods	12	Gen	J Am Geriatr Soc. 2009 Oct;57(10):1799-809. Epub 2009 Aug 13	
676	Vasomotor symptoms, adoption of a low-fat dietary pattern, and risk of invasive breast cancer: A secondary analysis of the Women's Health Initiative Randomized Controlled Dietary Modification Trial	Caan, Aragaki, Thomson, Stefanick, Chlebowski, Hubbell, Tinker, Vitolins, Rajkovic, Bueche, Ockene	12	CT	J Clin Oncol. 2009 Sep 20;27(27):4500-7. Epub 2009 Aug 17	
677	Calcium plus vitamin D supplementation and the risk of breast cancer	Chlebowski, Johnson, Kooperberg, Pettinger, Wactawski-Wende, Rohan, Lane, O'Sullivan, Yasmeen, Hiatt, Shikany, Vitolins, Khandekar, Hubbell, Rossouw	12	CT	J Natl Cancer Inst. 2008 Nov 19;100(22):1581-1591. Epub 2008 Nov 11	
680	A uniform approach to modeling risk factors relationships for ischemic lesion prevalence and extent: The Women’s Health Initiative Magnetic Resonance Imaging Study (WHIMS-MRI)	Tooze, Gaussoin, Resnick, Fischbein, Robinson, Bryan, An, Espeland	12	WHIMS	Neuroepidemiology. 2010;34:55-62. Epub 2009 Nov 21.	AS183
685	Diet quality and the risk of cardiovascular disease: the Women's Health Initiative (WHI)	Belin, Greenland, Allison, Martin, Shikany, Larson, Tinker, Howard, Lloyd-Jones, VanHorn	12	OS	Am J Clin Nutr. 2011 May 25. [Epub ahead of print]	
686	Fish intake and the risk of incident heart failure: the Women's Health Initiative	Belin, Greenland, Martin, Oberman, Tinker, Robinson, Larson, VanHorn, Lloyd-Jones	12	OS	Circ Heart Fail. 2011 May 24. [Epub ahead of print]	
688	Relations of dietary magnesium intake to biomarkers of inflammation and endothelial dysfunction in an ethnically diverse cohort of postmenopausal women	Chacko, Song, Nathan, Tinker, de Boer, Tylavsky, Wallace, Liu	12	OS	Diabetes Care. 2010 Feb;33(2):304-10. Epub 2009 Nov 10	AS132
689	A partial least-square approach for modeling gene-gene and gene-environment interactions when multiple markers are genotyped	Wang, Ho, Ye, Strickler, Elston	12	OS	Genet Epidemiol. 2008 Jul 9;33(1):6-15	AS152

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
694	Dietary vitamin D and calcium intake and mammographic density in postmenopausal women	Bertone-Johnson, Chlebowski, Manson, Wactawski-Wende, Aragaki, Tamimi, Rexrode, Thomson, Rohan, Peck, Pisano, Martin, Sarto, McTiernan	12	CT	Menopause. 2010 Jul 7. [Epub ahead of print]	AS36
696	Relationship of hypertension, blood pressure, and blood pressure control with white matter abnormalities in the Women's Health Initiative Memory Study (WHIMS)—MRI Trial	Kuller, Margolis, Gaussoin, Bryan, Kerwin, Limacher, Wassertheil-Smoller, Williamson, Robinson, for the Women's Health Initiative Memory Study	12	CT	J Clin Hypertens (Greenwich). 2010 Mar;12(3):203-12. Epub 2009 Dec 16.	AS183
697	Optimism, cynical hostility, and incident coronary heart disease and mortality in the Women's Health Initiative	Tindle, Chang, Kuller, Manson, Robinson, Rosal, Siegle, Matthews	12	Gen	Circulation. 2009 Aug 25;120(8):656-62. Epub 2009 Aug 10	
700	Women's Health Initiative dietary modification randomized controlled trial	Mossavar-Rahmani, Tinker	12	CT	In: D'Agostino RB et al, eds. Wiley encyclopedia of clinical trials. New York: Wiley-Interscience, 2008	
701	Statistical issues arising in the Women's Health Initiative	Prentice, Pettinger, Anderson	12	Gen	Biometrics. 2005 Dec;61(4):899-911; discussion 911-41	
702	Cost-effectiveness analysis of a low-fat diet in the prevention of breast and ovarian cancer	Bos, Howard, Beresford, Urban, Tinker, Waters, Bos, Chlebowski, Ennis	12	CT	In press, J Am Diet Assoc	
715	Projecting individualized absolute invasive breast cancer risk in African American women	Gail, Costantino, Pee, Bondy, Newman, Selvan, Anderson, Malone, Marchbanks, McCaskill-Stevens, Norman, Simon, Spirtas, Ursin, Bernstein	12	Gen	J Natl Cancer Inst. 2007 Dec 5;99(23):1782-92. Epub 2007 Nov 27	
717	Fatty acid consumption and risk of fracture in the Women's Health Initiative	Orchard, Cauley, Frank, Neuhouser, Robinson, Snetselaar, Tylavsky, Wactawski-Wende, Young, Lu, Jackson	12	Gen	Am J Clin Nutr. 2010 Oct 27. [Epub ahead of print]	

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718	Antiepileptic drug use, falls, fractures and BMD in postmenopausal women: Findings from the Women's Health Initiative (WHI)	Carbone, Johnson, Robbins, Larson, Curb, Watson, Gass, LaCroix	12	Gen	J Bone Miner Res. 2010. 25(4):873-881. Epub 2009 Oct 19	
719	Elevated depressive symptoms, antidepressant use, and diabetes in a large multiethnic national sample of postmenopausal women	Ma, Balasubramanian, Schneider, Culver, Olendzki, Safford, Sepavich, Hebert, Rosal, Ockene, Tinker, Carnethon, Liu, Zorn, Pagoto	12	OS	Diabetes Care. 2011 Sep 12. [Epub ahead of print]	AS132
722	Oral bisphosphonate use and breast cancer incidence in postmenopausal women	Chlebowski, Chen, Cauley, Anderson, Rodabough, McTiernan, Lane, Manson, Snetselaar, Yasmeen, O'Sullivan, Safford, Hendrix, Wallace	12	Gen	J Clin Oncol. 2010 Jun 21. [Epub ahead of print]	
723	Breast cancer after use of estrogen plus progestin in postmenopausal women	Chlebowski, Kuller, Prentice, Stefanick, Manson, Gass, Aragaki, Ockene, Lane, Sarto, Rajkovic, Schenken, Hendrix, Ravdin, Rohan, Yasmeen, et al.	12	CT	N Engl J Med. 2009 Feb 5;360(6):573-87	
724	Low-fat dietary pattern and lipoprotein risk factors: the Women's Health Initiative Randomized Controlled Dietary Modification Trial	Howard, Curb, Eaton, Kooperberg, Ockene, Kostis, Pettinger, Rajkovic, Robinson, Rossouw, Sarto, Shikany, VanHorn	12	CT	Am J Clin Nutr. 2010 Apr;91(4):860-74. Epub 2010 Feb 17.	
726	The Women's Health Initiative: the food environment, neighborhood socioeconomic status, BMI, and blood pressure	Dubowitz, Ghosh-Datsidar, Eibner, Slaughter, Fernandes, Whitsel, Bird, Jewell, Margolis, Li, Michael, Shih, Manson, Escarce	12	CT	Obesity (Silver Spring). 2011 Jun 9. [Epub ahead of print]	AS220
727	Women’s Health Initiative Memory Study (WHIMS) Program: Emerging findings	Espeland, Shumaker, Hogan, Resnick	12	CT	In: Hogervorst E, Henderson VW, Gibbs RB, Brinton RD, eds. Hormones, Cognition and Dementia. New York, NY: Cambridge University Press, 2009:1-10	AS183, AS39

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728	Estrogen alone in postmenopausal women and breast cancer detection by means of mammography and breast biopsy	Chlebowski, Anderson, Manson, Pettinger, Yasmeen, Lane, Langer, Hubbell, McTiernan, Hendrix, Schenken, Stefanick	12	CT	J Clin Oncol. 2010 Jun 1;28(16):2690-7. Epub 2010 May 3	
731	Postmenopausal hormone therapy for disease prevention: Have we learned any lessons from the past?	Rossouw	12	Gen	Clin Pharmacol Ther. 2008 Jan;83(1):14-6	
732	The Women's Health Initiative: Be part of the answer!	Tinker	12	Gen	J Am Diet Assoc. 1995 Dec;95(12):1375	
733	The Women's Health Initiative Clinical Trial and Observational Study: history and overview	Assaf, Carleton	12	Gen	R I Med. 1994 Dec;77(12):424-7	
734	Barriers to black women's participation in cancer clinical trials	Mouton, Harris, Rovi, Solorzano, Johnson	12	Gen	J Natl Med Assoc. 1997 Nov;89(11):721-7.	
735	Evaluation of a simplified vitamin supplement inventory developed for the Women's Health Initiative	Patterson, Levy, Tinker, Kristal	12	Gen	Public Health Nutr. 1999 Sep;2(3):273-6	
736	Meeting the challenges of recruiting and retaining participants in clinical trials	Vozenilek	12	CT	J Am Diet Assoc. 1999 Oct;99(10):1190, 1192	
737	Commentary on the Women's Health Initiative	McGowan, Pottern	12	Gen	Maturitas. 2000 Feb 15;34(2):109-12	
738	Individually randomized intervention trials for disease prevention and control	Anderson, Prentice	12	CT	Stat Methods Med Res. 1999 Dec;8(4):287-309	
739	Effect of postmenopausal hormone therapy on cardiovascular risk	Rossouw	12	CT	J Hypertens Suppl. 2002 May;20(2):S62-5	
740	Hormone replacement therapy: Applying the results of the Women's Health Initiative	Johnson	12	CT	Cleve Clin J Med. 2002 Sep;69(9):682, 685	
741	Participant characteristics associated with errors in self-reported energy intake from the Women's Health Initiative food-frequency questionnaire	Horner, Patterson, Neuhouser, Lampe, Beresford, Prentice	12	Gen	Am J Clin Nutr. 2002 Oct;76(4):766-73	

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
742	Risks, fears and choices: Unexpected lessons from the Women's Health Initiative	Jeffcoat	12	Gen	J Am Dent Assoc. 2002 Oct;133(10):1314, 1316, 1318	
743	The Women's Health Initiative estrogen plus progestin trial: The study and how it changes our practice	Hendrix	12	CT	J Am Osteopath Assoc. 2003 Feb;103(2 Suppl 2):S3-5	
744	Treatment of menopause: Recommendations for hormonal and non-hormonal therapy	Johnson	12	Gen	J Okla State Med Assoc. 2003 Mar;96(3):140-2	
745	Hormone therapy: Evolving concepts	Hendrix	12	CT	Curr Opin Rheumatol. 2003 Jul;15(4):464-8	
746	Impact of WHI conclusions and ACOG guidelines on clinical practice	Gass	12	Gen	Int J Fertil Womens Med. 2003 May-Jun;48(3):106-10; discussion 137-8	
747	HT and breast cancer risk	Geller, Chlebowski	12	Gen	Fertil Steril. 2003 Oct;80 Suppl 4:5-9; quiz 54-5	
748	Estrogen with and without progestin: Benefits and risks of short-term use	LaCroix	12	Gen	Am J Med. 2005 Dec 19;118 Suppl 12B:79-87	
749	Ethnicity, sleep, mood, and illumination in postmenopausal women	Kripke, Jean-Louis, Elliott, Klauber, Rex, Tuunainen, Langer	12	CT	BMC Psychiatry. 2004 Apr 7;4:8	AS11
750	Women's cognitive health: Postmenopausal dementia and the Women's Health Initiative Memory Study	Klein, Rapp	12	CT	Womens Health Issues. 2004 May-Jun;14(3):71-4	AS39
751	Concerns about published data from the estrogen-progestin (HT) arm of the WHI	Gass, Anderson, Barad	12	CT	Am J Obstet Gynecol. 2005 Jan;192(1):333; author reply 334	
752	Validation of the Women's Health Initiative Insomnia Rating Scale in a multicenter controlled clinical trial	Levine, Dailey, Rockhill, Tipping, Naughton, Shumaker	12	CT	Psychosom Med. 2005 Jan-Feb;67(1):98-104	
753	Menopausal hormone therapy: Currently no evidence for cardiac protection	Wenger	12	Gen	Pediatr Blood Cancer. 2005 Jun 15;44(7):625-9	

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754	Postmenopausal hormone therapy: Critical reappraisal and a unified hypothesis	Phillips, Langer	12	CT	Fertil Steril. 2005 Mar;83(3):558-66	
755	Reanalysis of the Women's Health Initiative oral contraceptive data reveals no evidence of delayed cardiovascular benefit	Stefanick, Prentice, Anderson, Gass, Manson, Hendrix, Vista-Deck, McNeeley, Women's Health Initiative Steering Committee	12	Gen	Fertil Steril. 2005 Apr;83(4):853-4	
756	Abnormal mammographic findings with short-interval follow-up recommendation	Chlebowski, Khalkhali	12	Gen	Clin Breast Cancer. 2005 Aug;6(3):235-9	
757	Estrogens and progestins: Background and history, trends in use, and guidelines and regimens approved by the US Food and Drug Administration	Stefanick	12	Gen	Am J Med. 2005 Dec 19;118 Suppl 12B:64-73	
758	Aspects of the design and analysis of high-dimensional SNP studies for disease risk estimation	Prentice, Qi	12	Gen	Biostatistics. 2006 Jul;7(3):339-54. Epub 2006 Jan 27	
759	Observational studies and clinical trials of menopausal hormone therapy: Can they both be right?	Allison, Manson	12	Gen	Menopause. 2006 Jan-Feb;13(1):1-3	
760	Postmenopausal hormone therapy: New questions and the case for new clinical trials	Manson, Bassuk, Harman, Brinton, Cedars, Lobo, Merriam, Miller, Naftolin, Santoro	12	Gen	Menopause. 2006 Jan-Feb;13(1):139-47	
761	Re: "combined postmenopausal hormone therapy and cardiovascular disease: toward resolving the discrepancy between observational studies and the women's health initiative clinical trial"	Willett, Manson, Grodstein, Stampfer, Colditz	12	Gen	Am J Epidemiol. 2006 Jun 1;163(11):1067-8; author reply 1068-9. Epub 2006 Apr 26	
762	Is estrogen for you?	Manson, Bassuk	12	Gen	Newsweek. 2006 Apr 24;147(17):72-3	
763	The Women's Health Initiative	Nabel	12	Gen	Science. 2006 Sep 22;313(5794):1703	
764	Hot flashes and hormones	Manson, Bassuk	12	Gen	Newsweek. 2007 Jan 15;149(3):56-7	

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
765	Implications of recent clinical trials of postmenopausal hormone therapy for management of cardiovascular disease	Rossouw	12	CT	Ann N Y Acad Sci. 2006 Nov;1089:444-53	
766	Prevalence, clinical significance, and management of peripheral arterial disease in women: Is there a role for postmenopausal hormone therapy?	Mazhari, Hsia	12	Gen	Vasc Health Risk Manag. 2005;1(2):111-7	
767	Dietary fat and cardiovascular disease: Putting the Women's Health Initiative in perspective	Howard	12	Gen	Nutr Metab Cardiovasc Dis. 2007 Mar;17(3):171-4. Epub 2007 Feb 21	
768	The decrease in breast-cancer incidence in 2003 in the United States	Ravdin, Cronin, Howlader, Berg, Chlebowski, Feuer, Edwards, Berry	12	Gen	N Engl J Med. 2007 Apr 19;356(16):1670-4	
769	How the Women's Health Initiative (WHI) influenced physicians' practice and attitudes	Bush, Bonomi, Nekhlyudov, Ludlam, Reed, Connelly, Grothaus, LaCroix, Newton	12	Gen	J Gen Intern Med. 2007 Sep;22(9):1311-6. Epub 2007 Jul 18	
770	Invited commentary: Hormone therapy and risk of coronary heart disease - why renew the focus on the early years of menopause?	Manson, Bassuk	12	Gen	Am J Epidemiol. 2007 Sep 1;166(5):511-7. Epub 2007 Jul 23	
771	The Women's Health Initiative and hormone therapy, 5 years later	Johnson	12	Gen	Cleve Clin J Med. 2007 Oct;74(10):755-6	
772	Observational studies, clinical trials, and the Women's Health Initiative	Prentice	12	Gen	Lifetime Data Anal. 2007 Dec;13(4):449-62. Epub 2007 Oct 18	
773	Do diet, folic acid, and vitamins matter? What did we learn from the Women's Health Initiative, the Women's Health Study, the Women's Antioxidant and Folic Acid Cardiovascular Study, and other clinical trials?	Wenger	12	Gen	Cardiol Rev. 2007 Nov-Dec;15(6):288-90	
774	BMI and headache among women: Results from 11 epidemiologic datasets	Keith, Wang, Fontaine, Cowan, Allison	12	Gen	Obesity (Silver Spring). 2008 Feb;16(2):377-83	

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775	Risks and benefits of therapy with menopausal hormones versus selective estrogen-receptor modulators in peri- and postmenopausal women at increased breast cancer risk	Col, Chlebowski	12	CT	Menopause. 2008 Jul-Aug;15(4 Suppl):804-9	
777	Coronary heart disease and stroke with aromatase inhibitor, tamoxifen and menopausal hormone therapy use	Chlebowski, Anderson, Geller, Col	12	CT	Clin Breast Cancer. 2006;6(suppl 2):S58-64	
778	Menopausal hormone therapy and breast cancer: Where we are after the WHI	Chlebowski	12	Gen	ASBD Advisor. 2003;2:7-10	
779	The Women's Health Initiative: Implications for clinicians	VanHorn, Manson	12	Gen	Cleve Clin J Med. 2008 May;75(5):385-90	
780	Risks and benefits of estrogen plus progestin in healthy postmenopausal women: The Women's Health Initiative	Manson, Bassuk	12	Gen	In: Braunwald E et al, eds. Harrison's principles of internal medicine online: Clinical trial update. McGraw-Hill,2002	
781	Clinical practice. Postmenopausal hormone-replacement therapy	Manson, Martin	12	Gen	N Engl J Med. 2001 Jul 5;345(1):34-40	
782	Understanding the divergent data on postmenopausal hormone therapy	Grodstein, Clarkson, Manson	12	Gen	N Engl J Med. 2003 Feb 13;348(7):645-50	
783	Postmenopausal hormone therapy. A reversal of fortune	Michels, Manson	12	Gen	Circulation. 2003 Apr 15;107(14):1830-3	
784	The menopause transition and postmenopausal hormone therapy	Manson, Bassuk	12	Gen	In: Kasper DL et al, eds. Harrison's principles of internal medicine. 16th ed. New York: McGraw-Hill,2004:2209-13	
785	Is age at initiation of hormone therapy a key determinant of coronary heart disease outcomes?	Allison, Manson	12	Gen	Johns Hopkins Adv Stud in Med. 2006;6(7):329-30	

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
786	Postmenopausal hormone therapy: Observational studies to clinical trials	Bassuk, Manson	12	Gen	In: Liu JH, Gass MLS, eds. Management of the perimenopause (Practical pathways in obstetrics and gynecology). New York: McGraw Hill,2006:377-408	
787	Menopausal hormone therapy and the risk of coronary heart disease. Does the relation vary by age or time since menopause? The investigator's perspective	Manson, Bassuk	12	Gen	The Monitor. 2007 Oct:17-22	
788	Hormone replacement therapy	Allison, Manson	12	Gen	In: Encyclopedia of Epidemiology. Thousand Oaks, CA: Sage Publications,2007:503-10	
792	Evaluation and comparison of the Minnesota code and novacode for electrocardiographic Q-ST wave abnormalities for the independent prediction of incident coronary heart disease and total mortality (from the Women's Health Initiative)	Zhang, Prineas, Eaton	12	CT	Am J Cardiol. 2010;106(1):18-25	
793	Patient level pooled analysis of 68,500 patients from seven major vitamin D fracture trials in US and Europe	Abrahamsen, Masud, Avenell, Anderson, Meyer, Cooper, Smith, LaCroix, Torgerson, Johansen, Jackson, Rejnmark, Wactawski-Wende, Brixen, Mosekilde, Robbins, et al.	12	CT	BMJ. 2010 Jan 12;340:b5463. doi: 10.1136/bmj.b5463	
794	Brain volumes, cognitive impairment, and conjugated equine estrogens	Espeland, Tindle, Bushnell, (Jaramillo) Gaussoin, Kuller, Margolis, Mysiw, Maldjian, Melman, Resnick, for the Women's Health Initiative Memory Study	12	CT	J Gerontol A Biol Sci Med Sci. 2009 Dec;64(12):1243-50. Epub 2009 Sep 3	AS183

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
795	The effects of postmenopausal hormone therapy on serum estrogen, progesterone, and sex hormone-binding globulin levels in healthy postmenopausal women	Edlefsen, Jackson, Prentice, Janssen, Rajkovic, O'Sullivan, Anderson	12	CT	Menopause. 2010 May-Jun;17(3):622-9. Epub 2010 Mar 3	W18
799	Women's Ischemic Syndrome Evaluation: current status and future research directions: Report of the National Heart, Lung and Blood Institute workshop: October 2-4, 2002 : Section 4: lessons from hormone replacement trials	Waters, Gordon, Rossouw, Cannon, Collins, Herrington, Hsia, Langer, Mosca, Ouyang, Sopko, Stefanick	12	Gen	Circulation. 2004 Feb 17;109(6):e53-5	
800	The rise and fall of menopausal hormone therapy	Barrett-Connor, Grady, Stefanick	12	Gen	Annu Rev Public Health. 2005;26:115-40	
801	Estrogen therapy: Prevention and treatment of osteoporosis	McGowan, Stefanick	12	Gen	In: Marcus R et al, eds. Osteoporosis. 3rd ed. San Diego, CA: Elsevier Academic Press,2008:1687-704	
802	Reply: Reanalysis of the data--science at its best and always informative	Barad, Stefanick, Manson, Gass, Anderson	12	CT	Fertil Steril. 2006 June;85(6): author reply e14. Epub 2006 May 4	
803	Risk-benefit profiles of raloxifene for women	Stefanick	12	CT	N Engl J Med. 2006 Jul 13;355(2):190-2	
807	Repeated measures of serum glucose and insulin in relation to postmenopausal breast cancer	Kabat, Kim, Caan, Chlebowski, Gunter, Ho, Rodriguez, Shikany, Strickler, Vitolins, Rohan	12	CT	Int J Cancer. 2009 Dec 1;125(11):2704-10. Epub 2009 Jun 2	
808	Longitudinal study of serum carotenoid, retinol, and tocopherol concentrations in relation to breast cancer risk among postmenopausal women	Kabat, Kim, Adams-Campbell, Caan, Chlebowski, Neuhouser, Shikany, Rohan	12	CT	Am J Clin Nutr. 2009 Jul;90(1):162-9. Epub 2009 May 27	
809	Physical activity and survival in postmenopausal women with breast cancer: Results from the Women’s Health Initiative	Irwin, McTiernan, Manson, Thomson, Sternfeld, Stefanick, Wactawski-Wende, Craft, Lane, Martin, Chlebowski	12	Gen	Cancer Prev Res (Phila). 2011 Apr;4(4):522-9.	

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810	The Women's Health Initiative: Lessons learned	Prentice, Anderson	12	Gen	Annu Rev Public Health. 2008;29:131-50	
811	The effect of calcium plus vitamin D on risk for invasive cancer: Results of the Women's Health Initiative (WHI) calcium plus vitamin D randomized clinical trial	Brunner, Wactawski-Wende, Caan, Cochrane, Chlebowski, Gass, Jacobs, LaCroix, Lane, Larson, Margolis, Millen, Sarto, Vitolins, Wallace	12	CT	Nutr Cancer. 2011 Jul 20. [Epub ahead of print]	
813	Bacterial species in subgingival plaque and oral bone loss in postmenopausal women	Brennan, Genco, Wilding, Hovey, Trevisan, Wactawski-Wende	12	OS	J Periodontol. 2007 Jun;78(6):1051-61	AS98
816	Vasomotor symptoms and coronary artery calcium in postmenopausal women	Allison, Manson, Aragaki, Langer, Rossouw, Curb, Martin, Phillips, Stefanick, Cochrane, Sarto, Barnhart, O'Sullivan, Johnson, Gass, Trevisan, et al.	12	CT	Menopause. 2010 Nov-Dec;17(6):1136-45. Epub 2010 Jul 21	W25
821	Insecticide use and risk of rheumatoid arthritis and systemic lupus erythematosus in the Women's Health Initiative observational study	Parks, Walitt, Pettinger, Chen, De Roos, Hunt, Sarto, Howard	12	OS	Arthritis Care Res (Hoboken). 2010 Aug 25. [Epub ahead of print]	
825	Conjugated equine estrogens and breast cancer risk in the Women's Health Initiative clinical trial and observational study	Prentice, Chlebowski, Stefanick, Manson, Langer, Pettinger, Hendrix, Hubbell, Kooperberg, Kuller, Lane, McTiernan, O'Sullivan, Rossouw, Anderson	12	Gen	Am J Epidemiol. 2008 Jun 15;167(12):1407-15. Epub 2008 Apr 29	
826	The role of hormone therapy and calcium plus vitamin D for reduction of bone loss and risk for fractures: Lessons learned from the Women's Health Initiative	Jackson, Shidham	12	Gen	Curr Osteoporos Rep. 2007 Dec;5(4):153-9	
828	Serum selenium, genetic variation in selenoenzymes, and risk of colorectal cancer: Primary analysis from the Women's Health Initiative Observational Study and meta-analysis	Takata, Kristal, King, Song, Diamond, Foster, Hutter, Hsu, Duggan, Langer, Petrovich, Shikany, Vaughan, Lampe, Prentice, Peters, et al.	12	OS	Cancer Epidemiol Biomarkers Prev. 2011 Jul 15. [Epub ahead of print]	AS206
831	Protein intake and incident frailty in the Women's Health Initiative Observational Study	Beasley, LaCroix, Neuhouser, Huang, Tinker, Woods, Michael, Curb, Prentice	12	OS	J Am Geriatr Soc. 2010 May 7 [Epub ahead of print]	AS179, W8

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
832	Effect of 5 y of calcium plus vitamin D supplementation on change in circulating lipids: results from the Women's Health Initiative	Rajpathak, Xue, Wassertheil-Smoller, VanHorn, Robinson, Liu, Allison, Martin, Ho, Rohan	12	CT	Am J Clin Nutr. 2010 Apr;91(4):894-9. Epub 2010 Feb 24.	
833	Effect of long term low-fat dietary intervention on change in hemostatic factors: Results from the Women's Health Initiative	Rajpathak, Xue, Wassertheil-Smoller, VanHorn, Snetselaar, Martin, Rohan	12	CT	Nutr Metab Cardiovasc Dis. 2010 Sep 28. [Epub ahead of print]	
835	Duration of physical activity and serum 25-hydroxyvitamin D status of postmenopausal women	Kluczynski, LaMonte, Mares, Wactawski-Wende, Smith, Engelman, Andrews, Snetselaar, Sarto, Millen	12	OS	Ann Epidemiol. 2011 Mar 16. [Epub ahead of print]	AS105
836	Nutrient intake and anemia risk in the Women's Health Initiative Observational Study	Thomson, Stanaway, Neuhouser, Snetselaar, Stefanick, Arendell, Chen	12	OS	J Am Diet Assoc. 2011 Apr;111(4):532-41	M2
837	Women's Health Iinitiative studies of postmenopausal breast cancer	Prentice	12	Gen	Adv Exp Med Biol. 2008;617:151-60	
840	Migraine history and breast cancer risk among postmenopausal women	Li, Mathes, Bluhm, Caan, Cavanagh, Chlebowski, Michael, O'Sullivan, Stefanick, Prentice	12	OS	J Clin Oncol. 2010 Jan 25. [Epub ahead of print]	
841	Serum 25 hydroxyvitamin (OH)D and clinical fracture risk in a multiethnic cohort of women: The Women's Health Initiative (WHI)	Cauley, Danielson, Boudreau, Barbour, Horwitz, Bauer, Ensrud, Manson, Wactawski-Wende, Shikany, Jackson	12	OS	J Bone Miner Res. 2011 Jun 27. doi: 10.1002/jbmr.449. [Epub ahead of print]	BAA9
843	Application of serum proteomics to the Women's Health Initiative conjugated equine estrogens trial reveals a multitude of effects relevant to clinical findings	Katayama, Paczesny, Prentice, Aragaki, Faca, Pitteri, Zhang, Wang, Silva, Kennedy, Rossouw, Jackson, Hsia, Chlebowski, Manson, Hanash, et al.	12	OS	Genome Med. 2009 Apr 29;1(4):47	W19, W40
845	Colorectal cancer in women after stopping postmenopausal hormone therapy—reply	Chlebowski	12	CT	JAMA. 2008; 299(23):2744-5	
846	Variation in the FGFR2 gene and the effects of postmenopausal hormone therapy on invasive breast cancer	Prentice, Huang, Hinds, Peters, Pettinger, Cox, Beilarz, Chlebowski, Rossouw, Caan, Ballinger	12	CT	Cancer Epidemiol Biomarkers Prev. 2009 Nov;18(11):3079-85. Epub 2009 Oct 27	BAA2

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
848	Oestrogen plus progestin and lung cancer in postmenopausal women (Women's Health Initiative trial): a post-hoc analysis of a randomised controlled trial	Chlebowski, Schwartz, Wakelee, Anderson, Stefanick, Manson, Rodabough, Chien, Wactawski-Wende, Gass, Kotchen, Johnson, O'Sullivan, Ockene, Chen, Hubbell, et al.	12	CT	Lancet. 2009 Oct 10;374(9697):1243-51. Epub 2009 Sep 18	
849	Effects of a low-fat dietary intervention on glucose, insulin, and insulin resistance in the Women's Health Initiative (WHI) Dietary Modification trial	Shikany, Margolis, Pettinger, Tinker, Jackson, Limacher, Liu, Phillips	12	CT	Am J Clin Nutr. 2011 May 11. [Epub ahead of print]	
850	Heart rate variability, ambient particulate matter air pollution, and glucose homeostasis: The Environmental Epidemiology of Arrhythmogenesis in the Women's Health Initiative	Whitsel, Quibrera, Christ, Liao, Anderson, Prineas, Heiss	12	CT	Am J Epidemiol. 2009 Mar 15;169(6):693-703. Epub 2009 Feb 10	AS140
851	Association of active and passive smoking with risk of breast cancer among postmenopausal women: a prospective cohort study	Luo, Margolis, Wactawski-Wende, Horn, Messina, Stefanick, Tindle, Tong, Rohan	12	OS	BMJ. 2011 Mar 1. [Epub ahead of print]	
854	Ambient particulate matter air pollution and venous thromboembolism in the Women’s Health Initiative Hormone Therapy Trials	Shih, Griffin, Salkowski, Jewell, Eibner, Bird, Liao, Cushman, Margolis, Eaton, Whitsel	12	CT	Environ Health Perspect. 29 Oct 2010. [Epub ahead of print]	AS140, AS220, W6
857	Religion and healthy lifestyle behaviors among postmenopausal women: the Women's Health Initiative	Salmoirago-Blotcher, Fitchett, Ockene, Schnall, Crawford, Granek, Manson, Ockene, O'Sullivan, Powell, Rapp	12	OS	J Behav Med. 2011 Feb 8. [Epub ahead of print]	
858	Risk factors for prolapse development in White, Black, and Hispanic women	Kudish, Iglesia, Gutman, Sokol, Rodgers, Gass, O'Sullivan, Larson, Abu-Sitta, Howard	12	CT	Female Pelvic Med Reconstr Surg. 2011 Mar-Apr 17;2:80-90	
860	Hormonal factors and risks of esophageal squamous cell carcinoma and adenocarcinoma in postmenopausal women	Bodelon, Anderson, Rossing, Chlebowski, Ochs-Balcom, Vaughan	12	Gen	Cancer Prev Res (Phila). 2011 Apr 19. [Epub ahead of print]	
862	Use of hundreds of electrocardiographic biomarkers for prediction of mortality in postmenopausal women: The Women's Health Initiative	Gorodeski, Ishwaran, Kogalur, Blackstone, Hsich, Zhang, Vitolins, Manson, Curb, Martin, Prineas, Lauer	12	CT	Circ Cardiovasc Qual Outcomes. 2011 Aug 23 [Epub ahead of print]	

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863	Renal function and nonvertebral fracture risk in multiethnic women: the Women's Health Initiative (WHI)	Ensrud, Barbour, Canales, Danielson, Boudreau, Bauer, LaCroix, Ishani, Jackson, Robbins, Cauley	12	OS	Osteoporos Int. 2011 May 28. [Epub ahead of print]	BAA9
865	Menopausal hormone therapy in BRCA1 mutation carriers: Uncertainty and caution	Chlebowski, Prentice	12	Gen	J Natl Cancer Inst. 2008 Oct 1;100(19):1341-3. Epub 2008 Sep 23	
866	Serum 25-hydroxyvitamin D concentrations in relation to cardiometabolic risk factors and metabolic syndrome in postmenopausal women	Chacko, Song, Manson, VanHorn, Eaton, Martin, McTiernan, Curb, Wylie-Rosette, Phillips, Plodkowski, Liu	12	CT	Am J Clin Nutr. 2011 May 25. [Epub ahead of print]	W1, W14, W6
869	High-molecular-weight adiponectin and incident ischemic stroke in postmenopausal women. A Women's Health Initiative Study	Ogorodnikova, Wildman, Mancuso, Sowers, Rajpathak, Allison, Baird, Rodriguez, Wassertheil-Smoller	12	OS	Stroke. 2010 May 27. [Epub ahead of print]	AS126
871	Data analysis methods and the reliability of analytic epidemiologic research	Prentice	12	Gen	Epidemiology. 2008 Nov;19(6):785-8; discussion 789-93	
874	A multistage genome-wide association study in breast cancer identifies two new risk alleles at 1p11.2 and 14q24.1 (RAD51L1)	Thomas, Jacobs, Kraft, Yeager, Wacholder, Cox, Hankinson, Hutchinson, Wang, Yu, Chatterjee, Garcia-Closas, Gonzalez-Bosquet, Prokunina-Olsson, Orr	12	Gen	Nat Genet. 2009 May;41(5):579-84. Epub 2009 Mar 29	M3
875	Cigarette smoking and pancreatic cancer: A pooled analysis from the Pancreatic Cancer Cohort Consortium (PanScan)	Lynch, Vrieling, Lubin, Kraft, Mendelsohn, Hartge, Canzian, Steplowski, Arslan, Gross, Helzlsouer, Jacobs, LaCroix, Petersen, Zheng	12	Gen	Am J Epidemiol. 2009 Aug 15;170(4):403-13. Epub 2009 Jun 26	M4
878	Prospective association of vitamin D concentrations with mortality in postmenopausal women: results from the Women's Health Initiative (WHI)	Eaton, Young, Allison, Robinson, Martin, Kuller, Johnson, Curb, VanHorn, McTiernan, Liu, Manson	12	Gen	Am J Clin Nutr. 2011 Oct 26. [Epub ahead of print]	AS181, W15, W24
879	Epidemiology of fracture risk in the Women's Health Initiative	Jackson, Donepudi, Mysiw	12	Gen	Curr Osteoporos Rep. 2008 Dec;6(4):155-61	

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882	A longitudinal study of the metabolic syndrome and risk of postmenopausal breast cancer	Kabat, Kim, Chlebowski, Khandekar, Ko, McTiernan, Neuhouser, Parker, Shikany, Stefanick, Thomson, Rohan	12	CT	Cancer Epidemiol Biomarkers Prev. 2009 Jul;18(7):2046-53. Epub 2009 Jun 30	
883	Postmenopausal hormone therapy and cognitive outcomes: the Women's Health Initiative Memory Study	Coker, Espeland, Rapp, Legault, Resnick, Hogan, Gaussoin, Dailey, Shumaker	12	CT	J Steroid Biochem Mol Biol. 2010 Feb 28;118(4-5):304-310. Epub 2009 Nov 22	AS183, AS39
886	Oophorectomy vs ovarian conservation with hysterectomy: cardiovascular disease, hip fracture, and cancer in the Women's Health Initiative Observational Study	Jacoby, Grady, Wactawski-Wende, Manson, Allison, Kuppermann, Sarto, Robbins, Phillips, Martin, O'Sullivan, Jackson, Rodabough, Stefanick	12	Gen	Arch Intern Med. 2011 Apr 25;171(8):760-8	
888	Confounders in the association between exercise and femur bone in postmenopausal women	Beck, Kohlmeier-Nisco, Petit, Wu, LeBoff, Cauley, Nicholas, Chen	12	OS	Med Sci Sports Exerc. 2010 May 13. [Epub ahead of print]	AS153
893	Resistin, but not adiponectin and leptin, is associated with the risk of ischemic stroke among postmenopausal women	Rajpathak, Kaplan, Wassertheil-Smoller, Cushman, Rohan, McGinn, Wang, Strickler, Scherer, Mackey, Curb, Ho	12	OS	Stroke. 2011 May 5. [Epub ahead of print]	BAA10
894	Hepatocyte growth factor and the risk of ischemic stroke developing among postmenopausal women. Results from the Women's Health Initiative	Rajpathak, Wang, Wassertheil-Smoller, Strickler, Kaplan, McGinn, Wildman, Rosenbaum, Rohan, Scherer, Cushman, Ho	12	OS	Stroke. 2010 May;41(5):857-62. Epub 2010 Mar 4	BAA10
898	Coronary heart disease in postmenopausal recipients of estrogen plus progestin therapy: does the increased risk ever disappear?	Toh, Hernandez-Diaz, Logan, Rossouw, Hernan	12	CT	Ann Intern Med. 2010 Feb 16;152(4):211-7	
899	Long-term effects of conjugated equine estrogen therapies on domain-specific cognitive function: results from the Women's Health Initiative Study of Cognitive Aging Extension	Espeland, Brunner, Hogan, Rapp, Coker, Legault, Granek, Resnick, for the Women's Health Initiative Study of Cognitive Aging	12	CT	J Am Geriatr Soc. 2010 Jul;58(7):1263-1271. Epub 2010 Jul 2	AS103
903	Vitamin D status and early age-related macular degeneration in postmenopausal women	Millen, Voland, Sondel, Parekh, Horst, Wallace, Hageman, Chapell, Blodi, Klein, Gehrs, Sarto, Mares	12	OS	Arch Ophthalmol. 2011;129(4):481-489	AS105

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904	Healthy lifestyles related to subsequent prevalence of age-related macular degeneration	Mares, Voland, Sondel, Millen, LaRowe, Moeller, Klein, Blodi, Chappell, Tinker, Ritenbaugh, Gehrs, Sarto, Johnson, Snodderly, Wallace, et al.	12	OS	Arch Ophthalmol. 2010 Dec 13. [Epub ahead of print]	AS105
905	Estrogen plus progestin and breast cancer incidence and mortality in postmenopausal women	Chlebowski, Anderson, Gass, Lane, Aragaki, Kuller, Manson, Stefanick, Ockene, Sarto, Johnson, Wactawski-Wende, Ravdin, Schenken, Rajkovic	12	CT	JAMA. 2010 Oct 20;304(15):1684-92	
906	Performance of common genetic variants in breast-cancer risk models	Wacholder, Hartge, Prentice, Garcia-Closas, Feigelson, Diver, Thun, Cox, Hankinson, Kraft, Rosner, Berg, Brinton, Lissowska, Sherman, Chlebowski, et al.	12	OS	N Engl J Med. 2010 Mar 18;362(11):986-993	M3
907	Newly discovered breast cancer susceptibility loci on 3p24 and 17q23.2	Ahmed, Thomas, Ghoussaini, Healey, Humphreys, Platte, Morrison, Maranian, Pooley, Luben, Eccles, Evans, Fletcher, Johnson, Silva	12	Gen	Nat Genet. 2009 May;41(5):585-90. Epub 2009 Mar 29	M3
910	Lack of association between 25(OH)D levels and incident type 2 diabetes in older women	Robinson, Manson, Larson, Liu, Song, Howard, Phillips, Shikany, Allison, Curb, Johnson, VanHorn, Stefanick, Watts	12	Gen	Diabetes Care. 2011 Feb 2. [Epub ahead of print]	AS181, W15, W24
914	Weight change and cognitive function: Findings from the Women's Health Initiative Study of Cognitive Aging	Driscoll, Espeland, Wassertheil-Smoller, Gaussoin, Ding, Granek, Ockene, Phillips, Yaffe, Resnick	12	CT	Obesity (Silver Spring). 2011 Mar 10. [Epub ahead of print]	AS103
915	Healthy diets and the subsequent prevalence of nuclear cataract in women	Mares, Voland, Adler, Tinker, Millen, Moeller, Blodi, Gehrs, Wallace, Chappell, Neuhouser, Sarto, CAREDS Research Study Group	12	OS	Arch Ophthalmol. 2010;128(6):738-749	AS105
919	Depressive symptoms and incidence of mild cognitive impairment and probable dementia in elderly women: The Women's Health Initiative Memory Study	Goveas, Espeland, Woods, Wassertheil-Smoller, Kotchen	12	CT	J Am Geriatr Soc. 2011 Jan;59(1):57-66	AS39

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921	Postmenopausal estrogen and progestin effects on the serum proteome	Pitteri, Hanash, Aragaki, Amon, Chen, Buson, Paczesny, Katayama, Wang, Johnson, Zhang, McIntosh, Wang, Kooperberg, Rossouw, Jackson, et al.	12	CT	Genome Med. 2009 Dec 24;1(12):121. [Epub ahead of print]	W19, W44
924	Placebo adherence, clinical outcomes, and mortality in the Women's Health Initiative Randomized Hormone Therapy Trials	Curtis, Larson, Delzell, Brookhart, Cadarette, Chlebowski, Judd, Safford, Solomon, LaCroix	12	CT	Med Care. 2011 Mar 18. [Epub ahead of print]	
927	The Women's Health Initiative: Lessons for preventive nutrition	Thomson, Beresford, Ritenbaugh	12	CT	In: Bendich A, Deckelbaum RJ, eds. Preventive nutrition: The comprehensive guide for health professionals. 4th ed. New York: Humana Press,2009:337-70	
928	Clinical and community risk models of incident tooth loss in postmenopausal women from the Buffalo Osteo Perio Study	Bole, Wactawski-Wende, Hovey, Genco, Hausmann	12	OS	Community Dent Oral Epidemiol. 2010 Jul 15. [Epub ahead of print]	AS98
929	Reassessing benefits and risks of hormone therapy	Gass, Bassuk, Manson	12	CT	Am J Lifestyle Med. 2009 Jan;3(1):29-43	
930	Pancreatic cancer risk and ABO blood group alleles: Results from the Pancreatic Cancer Cohort Consortium	Wolpin, Kraft, Gross, Helzlsouer, Bueno-de-Mesquita, Steplowski, Stolzenberg-Solomon, Arslan, Jacobs, LaCroix, Petersen, Zheng, Albanes, Allen, Amundadottir, Anderson, et al.	12	Gen	Cancer Res. 2010 Feb 1;70(3):1015-23. Epub 2010 Jan 26	AS214, M4
931	Alcohol intake and pancreatic cancer: a pooled analysis from the pancreatic cancer cohort consortium (PanScan)	Michaud, Vrieling, Jiao, Mendelsohn, Steplowski, Lynch, Wactawski-Wende, Arslan, Bueno-de-Mesquita, Fuchs, Gross, Helzlsouer, Jacobs, LaCroix, Petersen	12	Gen	Cancer Causes Control. 2010 Apr 7. [Epub ahead of print]	M4
932	Anthropometric measures, body mass index and pancreatic cancer: A pooled analysis from the Pancreatic Cancer Cohort Consortium (PanScan)	Arslan, Helzlsouer, Kooperberg, Shu, Steplowski, Bueno-de-Mesquita, Fuchs, Gross, Jacobs, LaCroix, Petersen, Stolzenberg-Solomon, Zheng, Albanes, Amundadottir	12	Gen	Arch Intern Med. 2010;170(9):791-802	M4

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
933	Family history of cancer and risk of pancreatic cancer: A pooled analysis from the pancreatic cancer cohort consortium (PANSCAN)	Jacobs, Chanock, Fuchs, LaCroix, McWilliams, Steplowski, Stolzenberg-Solomon, Arslan, Bueno-de-Mesquita, Gross, Helzlsouer, Petersen, Zheng, Agalliu, Allen	12	Gen	Int J Cancer. 2010 Jan 4. [Epub ahead of print]	M4
935	Education, income, and incident heart failure in post-menopausal women: the Women's Health Initiative Hormone Therapy Trials	Shah, Winkleby, VanHorn, Phillips, Eaton, Martin, Rosal, Manson, Ning, Lloyd-Jones, Klein	12	CT	J Am Coll Cardiol. 2011; 58:1457-1464	AS196
936	Genome-wide association study identifies variants in the ABO locus associated with susceptibility to pancreatic cancer	Amundadottir, Kraft, Stolzenberg-Solomon, Fuchs, Petersen, Arslan, Bueno-de-Mesquita, Gross, Helzlsouer, Jacobs, LaCroix, Zheng, Albanes, Bamlet, Berg	12	Gen	Nat Genet. 2009 Sep;41(9):986-90. Epub 2009 Aug 2	AS214, M4
940	Monounsaturated, trans, and saturated fatty acids and cognitive decline in women	Naqvi, Harty, Mukamal, Stoddard, Vitolins, Dunn	12	Gen	J Am Geriatr Soc. 2011 May;59(5):837-43	AS84
942	Physical activity and body mass: Changes in younger vs older postmenopausal women	Sims, Larson, LaMonte, Martin, Johnson, Sarto, Stefanick	12	CT	Med Sci Sports Exerc. 2011 Jun 8. [Epub ahead of print]	
945	Higher biomarker-calibrated protein intake is not associated with impaired renal function in postmenopausal women	Beasley, Aragaki, LaCroix, Neuhouser, Tinker, Cauley, Ensrud, Jackson, Prentice	12	OS	J Nutr. 2011 Jun 8. [Epub ahead of print]	BAA9, W8
948	The cross-sectional relationship of hemoglobin levels and functional outcomes in women with self-reported osteoarthritis: Results from the Women's Health Initiative	Eaton, Hochberg, Assaf, Cryer, Lu, Sands, Rodriguez, LaCroix, Lessin, Limacher, Woods, Connelly, Chen	12	Gen	Semin Arthritis Rheum. 2011 Jun 30. [Epub ahead of print]	
950	Gains in statistical power from using a dietary biomarker in combination with self-reported intake to strengthen the analysis of a diet-disease relationship: an example from CAREDS	Freedman, Tasevska, Kipnis, Schatzkin, Mares, Tinker, Potischman	12	OS	Am J Epidemiol. 2010 Aug 17. [Epub ahead of print]	AS105
951	Alcohol consumption and risk of postmenopausal breast cancer by subtype: the Women's Health Initiative Observational Study	Li, Chlebowski, Freiberg, Johnson, Kuller, Lane, Lessin, O'Sullivan, Wactawski-Wende, Yasmeen, Prentice	12	OS	J Natl Cancer Inst. 2010 Aug 23. [Epub ahead of print]	

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
955	Resting heart rate and coronary artery calcium in postmenopausal women	Allison, Manson, Aragaki, Eaton, Hsia, Phillips, Kuller, Trevisan	12	CT	J Womens Health (Larchmt). 2011 Mar 25. [Epub ahead of print]	W25
962	Insights into colon cancer etiology via a regularized approach to gene set analysis of GWAS data	Chen, Hutter, Potter, Liu, Prentice, Peters, Hsu	12	OS	Am J Hum Genet. 2010 Jun 11;86(6):860-71	AS224
963	Racial differences in colorectal cancer incidence and mortality in the Women's Health Initiative	Simon, Thomson, Pettijohn, Kato, Rodabough, Lane, Hubbell, O'Sullivan, Adams-Campbell, Mouton, Abrams, Chlebowski	12	Gen	Cancer Epidemiol Biomarkers Prev. 2011 May 20. [Epub ahead of print]	
964	Stronger bone correlates with African admixture in African American women	Chen, Qi, Beck, Robbins, Wu, Lewis, Cauley, Wright, Seldin	12	OS	J Bone Miner Res. 2011 May 16. doi: 10.1002/jbmr.430. [Epub ahead of print]	AS153, BAA1
971	Statistical aspects of the use of biomarkers in nutritional epidemiology research	Prentice, Huang, Tinker, Beresford, Lampe, Neuhouser	12	OS	Stat Biosci. 2009 May 1;1(1):112-123. Epub 2009 Apr 29	
979	Depressive symptoms, brain volumes and subclinical cerebrovascular disease in postmenopausal women: the Women's Health Initiative MRI Study	Goveas, Espeland, Hogan, Dotson, Tarima, Coker, Ockene, Brunner, Woods, Wassertheil-Smoller, Kotchen, Resnick	12	WHIMS	J Affect Disord. 2011 Feb 23. [Epub ahead of print]	AS183
1000	Reproductive history and oral contraceptive use in relation to risk of triple-negative breast cancer	Phipps, Chlebowski, Prentice, McTiernan, Wactawski-Wende, Kuller, Adams-Campbell, Lane, Stefanick, Vitolins, Kabat, Rohan, Li	12	OS	J Natl Cancer Inst. 2011 Feb 23. [Epub ahead of print]	
1015	Genome-wide association study of body height in African-Americans: the Women's Health Initiative SNP Health Association Resource (SHARe)	Carty, Johnson, Hutter, Reiner, Peters, Tang, Kooperberg	12	Gen	Hum Mol Genet. 2011 Oct 21. [Epub ahead of print]	M5
1018	Replication of breast cancer GWAS susceptibility loci in the Women's Health Initiative African American SHARe study	Hutter, Young, Ochs-Balcom, Carty, Wang, Chen, Rohan, Kooperberg, Peters	12	Gen	Cancer Epidemiol Biomarkers Prev. 2011 Sep;20(9):1950-9. Epub 2011 Jul 27	M5

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1021	Serum hydroxyvitamin D and physical performance in postmenopausal women	Michael, Smit, Seguin, Curb, Phillips, Manson	12	CT	J Womens Health (Larchmt). 2011 Sep 16. [Epub ahead of print]	
1023	Vitamin D intake from foods and supplements and depressive symptoms in a diverse population of older women	Bertone-Johnson, Powers, Spangler, Brunner, Michael, Larson, Millen, Bueche, Salmoirago-Blotcher, Liu, Wassertheil-Smoller, Ockene, Ockene, Manson	12	OS	Am J Clin Nutr. 2011 Aug 24. [Epub ahead of print]	
1026	Characterization of 9p24 risk locus and colorectal adenoma and cancer: gene-environment interaction and meta-analysis	Kocarnik, Hutter, Slattery, Berndt, Hsu, Duggan, Muehling, Caan, Beresford, Rajkovic, Sarto, Marshall, Hammad, Wallace, Makar, Prentice, et al.	12	OS	Cancer Epidemiol Biomarkers Prev. 2010 Oct 26. [Epub ahead of print]	AS206
1027	Health utilities associated with hemoglobin levels and blood loss in postmenopausal women: The Women's Health Initiative	Harrow, Eaton, Roberts, Assaf, Luo, Chen	12	Gen	Value Health. 2011 Jun;14(4):555-63. Epub 2011 Apr 30.	
1029	A prospective study of inflammation markers and endometrial cancer risk in postmenopausal hormone non-users	Wang, Rohan, Gunter, Xue, Wactawski-Wende, Rajpathak, Cushman, Strickler, Kaplan, Wassertheil-Smoller, Scherer, Ho	12	OS	Cancer Epidemiol Biomarkers Prev. 2011 Mar 17. [Epub ahead of print]	BAA10
1035	Reproductive and menstrual factors and risk of ductal carcinoma in situ of the breast in a cohort of postmenopausal women	Kabat, Kim, Woods, Habel, Messina, Wactawski-Wende, Stefanick, Chlebowski, Wassertheil-Smoller, Rohan	12	Gen	Cancer Causes Control. 2011 Jul 13. [Epub ahead of print]	
1036	Recreational physical activity, anthropometric factors, and risk of ductal carcinoma in situ of the breast in a cohort of postmenopausal women	Kabat, Kim, Wactawski-Wende, Lane, Adams-Campbell, Gaudet, Stefanick, Vitolins, Chlebowski, Wassertheil-Smoller, Rohan	12	Gen	Cancer Causes Control. 2010 Sep 4. [Epub ahead of print]	
1037	Cigarette smoking in relation to risk of ductal carcinoma in situ of the breast in a cohort of postmenopausal women	Kabat, Kim, Kakani, Tindle, Wactawski-Wende, Ockene, Luo, Wassertheil-Smoller, Rohan	12	Gen	Am J Epidemiol. 2010 Aug 1. [Epub ahead of print]	

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1039	Combined impact of geriatric syndromes and cardiometabolic diseases on measures of functional impairment	Rosso, Eaton, Wallace, Gold, Curb, Stefanick, Ockene, Michael	12	CT	J Gerontol A Biol Sci Med Sci. 2011 Feb 11. [Epub ahead of print]	
1041	Interaction between smoking and obesity and the risk of developing breast cancer among postmenopausal women: the Women's Health Initiative Observational Study	Luo, Horn, Ockene, Simon, Stefanick, Tong, Margolis	12	Gen	Am J Epidemiol. 2011 Aug 29. [Epub ahead of print]	
1044	Benefit/risk assessment for breast cancer chemoprevention with raloxifene or tamoxifen for women age 50 years or older	Freedman, Yu, Gail, Costantino, Graubard, Vogel, Anderson, McCaskill-Stevens	12	Gen	J Clin Oncol. 2011 May 2. [Epub ahead of print]	
1045	Variation in the FGFR2 gene and the effect of a low-fat dietary pattern on invasive breast cancer	Prentice, Huang, Hinds, Peters, Cox, Beilarz, Chlebowski, Rossouw, Caan, Ballinger	12	CT	Cancer Epidemiol Biomarkers Prev. 2010 Jan;19(1):74-9.	BAA2
1047	Application of machine learning methods to describe the effects of conjugated equine estrogens therapy on region-specific brain volumes	Casanova, Espeland, Goveas, Davatzikos, Gaussoin, Maldjian, Brunner, Kuller, Johnson, Mysiw, Wagner, Resnick, for the Women's Health Initiative Memory Study	12	WHIMS	Magn Reson Imaging. 2011 Feb 1. [Epub ahead of print]	AS183
1052	Subthreshold depression and successful aging in older women	Vahia, Meeks, Thompson, Depp, Zisook, Allison, Judd, Jeste	12	CT	Am J Geriatr Psychiatry. 2010 Mar;18(3):212-220	
1055	Assessment of clinical validity of a breast cancer risk model combining genetic and clinical information	Mealiffe, Stokowski, Rhees, Prentice, Pettinger, Hinds	12	CT	J Natl Cancer Inst. 2010 Oct 18. [Epub ahead of print]	BAA2
1057	Low-fat dietary pattern and change in body-composition traits in the Women's Health Initiative Dietary Modification Trial	Carty, Kooperberg, Neuhouser, Tinker, Howard, Wactawski-Wende, Beresford, Snetselaar, Vitolins, Allison, Budrys, Prentice, Peters	12	CT	Am J Clin Nutr. 2010 Dec 22. [Epub ahead of print]	
1065	Novel proteins associated with risk for coronary heart disease or stroke among postmenopausal women identified by in-depth plasma proteome profiling	Prentice, Paczesny, Aragaki, Amon, Chen, Pitteri, McIntosh, Wang, Buson, Hsia, Jackson, Rossouw, Manson, Johnson, Eaton, Hanash, et al.	12	OS	Genome Med. 2010 Jul 28;2(7):48. [Epub ahead of print]	BAA4, W57

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1066	Lung cancer among postmenopausal women treated with estrogen alone in the Women's Health Initiative Randomized Trial	Chlebowski, Anderson, Manson, Schwartz, Wakelee, Gass, Rodabough, Johnson, Wactawski-Wende, Kotchen, Ockene, O'Sullivan, Hubbell, Chien, Chen, Stefanick, et al.	12	CT	J Natl Cancer I. 2010 Aug 13. [Epub ahead of print]	
1070	Genetic variants in the MRPS30 region and postmenopausal breast cancer risk	Huang, Ballinger, Dai, Peters, Hinds, Cox, Beilarz, Chlebowski, Rossouw, McTiernan, Rohan, Prentice	12	CT	Genome Med. 2011 Jun 24;3(6):42. [Epub ahead of print]	BAA2
1071	WHI hormone trials: A window to the future, a view from the past	Stefanick	12	N/A	Sex Repr Menopause. 2009 Aug;7(3):9-14	
1075	A genome-wide association study identifies pancreatic cancer susceptibility loci on chromosomes 13q22.1, 1q32.1 and 5p15.33	Petersen, Amundadottir, Fuchs, Kraft, Stolzenberg-Solomon, Jacobs, Arslan, Bueno-de-Mesquita, Gallinger, Gross, Helzlsouer, Holly, Jacobs, Klein, LaCroix	12	Gen	Nat Genet. 2010 Mar;42(3):224-8. Epub 2010 Jan 24.	AS214, M4
1076	Attitude toward own aging and mental health in post-menopausal women	Kavirajan, Vahia, Thompson, Depp, Allison, Jeste	12	OS	Asian J Psychiatr. 2011 Mar 1;4(1):26-30.	
1077	Alcohol consumption and risk of ductal carcinoma in situ of the breast in a cohort of postmenopausal women	Kabat, Kim, Shikany, Rodgers, Wactawski-Wende, Lane, Powell, Stefanick, Freiberg, Kazlauskaite, Chlebowski, Wassertheil-Smoller, Rohan	12	Gen	Cancer Epidemiol Biomarkers Prev. 2010 Aug;19(8):2066-72. Epub 2010 Jul 20	
1083	Hepatocyte growth factor and clinical diabetes in postmenopausal women	Rajpathak, Wassertheil-Smoller, Crandall, Liu, Ho	12	OS	Diabetes Care. 2010 June 2. [Epub ahead of print]	BAA10
1090	Prospective evaluation of two recruitment strategies for a randomized controlled cancer prevention trial	Chlebowski, Menon, Chaisanguanthum, Jackson	12	N/A	Clin Trials. 2010 Sep 10. [Epub ahead of print]	
1104	Pooled versus individual genotyping in a breast cancer genome-wide association study	Huang, Hinds, Qi, Prentice	12	Gen	Genet Epidemiol. 2010 Sep;34(6):603-12	BAA2, M3, W7
1111	Calcium plus vitamin D supplementation and the risk of nonmelanoma and melanoma skin cancer: post hoc analyses of the Women's Health Initiative Randomized Controlled Trial	Tang, Fu, LeBlanc, Manson, Feldman, Linos, Vitolins, Zeitouni, Larson, Stefanick	12	CT	J Clin Oncol. 2011 Jun 27. [Epub ahead of print]	

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1113	Mortality related to actigraphic long and short sleep	Kripke, Langer, Elliott, Klauber, Rex	12	OS	Sleep Med. 2010 Sep 24. [Epub ahead of print]	AS11
1120	Health outcomes after stopping conjugated equine estrogens among postmenopausal women with prior hysterectomy: a randomized controlled trial	LaCroix, Chlebowski, Manson, Aragaki, Johnson, Martin, Margolis, Stefanick, Brzyski, Curb, Howard, Lewis, Wactawski-Wende	12	CT	JAMA. 2011 Apr 6;305(13):1305-14	
1124	Prescribing postmenopausal hormone therapy to women in their 50s in the post-Women's Health Initiative era	Rossouw	12	Gen	Maturitas. 2010 Mar;65(3):179-80. Epub 2009 Dec 9	
1126	Estrogen and progesterone-related gene variants and colorectal cancer risk in women	Lin, Manson, Kraft, Cochrane, Gunter, Chlebowski, Zhang	12	OS	BMC Med Genet. 2011 May 31;12(1):78. [Epub ahead of print]	AS192
1127	Detection of elevated plasma levels of epidermal growth factor receptor before breast cancer diagnosis among hormone therapy users	Pitteri, Amon, Buson, Zhang, Johnson, Chin, Kennedy, Wong, Zhang, Wang, Lampe, Prentice, McIntosh, Hanash, Li	12	OS	Cancer Res. 2010 Nov 1;70(21):8598-606. Epub 2010 Oct 19.	BAA5
1128	Menopausal hormone therapy, hormone receptor status, and lung cancer in women	Chlebowski	12	Gen	Semin Oncol. 2009 Dec;36(6):566-71	
1142	Correlates of spirituality in older women	Vahia, Depp, Palmer, Capuano, Golshan, Thompson, Allison, Jeste	12	OS	Aging Ment Health. 2010 Oct 4:1-6. [Epub ahead of print]	
1148	Common variations in the genes encoding c-reactive protein, tumor necrosis factor, and interleukin-6, and the risk of clinical diabetes in the Women's Health Initiative Observational Study	Chan, Brennan, You, Lu, Song, Hsu, Chaudhuri, Nathan, Tinker, Liu	12	OS	Clin Chem. 2010 Dec 13. [Epub ahead of print]	AS132
1149	Neighborhood socioeconomic status and cognitive function in women	Shih, Ghosh-Datsidar, Margolis, Slaughter, Jewell, Bird, Eibner, Denburg, Ockene, Messina, Espeland	12	CT	Am J Public Health. 2011 Jul 21. [Epub ahead of print]	AS220
1161	Postmenopausal hormone therapy and cardiovascular disease in women	Stefanick	12	Gen	Nutr Metab Cardiovasc Dis. 2010 May 27. [Epub ahead of print]	
1162	Salivary biomarkers associated with alveolar bone loss	Scannapieco, Ng, Hovey, Hausmann, Hutson, Wactawski-Wende	12	OS	Ann N Y Acad Sci. 2007 Mar;1098:496-7	AS98

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1163	Shorter telomeres associate with a reduced risk of melanoma development	Nan, Du, De Vivo, Manson, Liu, McTiernan, Curb, Lessin, Bonner, Guo, Qureshi, Hunter, Han	12	OS	Cancer Res. 2011 Oct 25. [Epub ahead of print]	AS242
1167	Genome-wide association study of white blood cell count in 16,388 African Americans: the Continental Origins and Genetic Epidemiology Network (COGENT)	Reiner, Lettre, Ganesh, Nalls, Mathias, Deane, Austin, Chen, Curb, LaCroix, Eaton, Folsom, Fornage, Keating, Lange, Liu, et al.	12	Gen	PLoS Genet. 2011 Jun 30. [Epub ahead of print]	M5
1168	Smoking and alcohol consumption in relation to risk of triple-negative breast cancer in a cohort of postmenopausal women	Kabat, Kim, Phipps, Li, Messina, Wactawski-Wende, Kuller, Simon, Yasmeen, Wassertheil-Smoller, Rohan	12	Gen	Cancer Causes Control. 2011 Mar 1. [Epub ahead of print]	
1178	Evaluation and comparison of food records, recalls, and frequencies for energy and protein assessment by using recovery biomarkers	Prentice, Mossavar-Rahmani, Huang, VanHorn, Beresford, Caan, Tinker, Schoeller, Schoeller, Eaton, Thomson, Johnson, Ockene, Sarto, Heiss, Neuhouser, et al.	12	Gen	Am J Epidemiol. 2011 Jul 15. [Epub ahead of print]	AS218, W27
1185	Relationship between adiposity and admixture in African-American and Hispanic-American women	Nassir, Qi, Kosoy, Garcia, Allison, Ochs-Balcom, Tylavsky, Manson, Shigeta, Robbins, Seldin	12	Gen	Int J Obes (Lond). 2011 Apr 12. [Epub ahead of print]	BAA1
1187	Menopausal hormone therapy and risks of melanoma and nonmelanoma skin cancers: Women's Health Initiative Randomized Trials	Tang, Spaunhurst, Chlebowski, Wactawski-Wende, Keiser, Thomas, Anderson, Zeitouni, Larson, Stefanick	12	CT	J Natl Cancer Inst. 2011 Aug 30. [Epub ahead of print]	
1191	Depression and cardiovascular disease	Wassertheil-Smoller	12	N/A	Menopause Manag. 2010 Mar;19(2):9-14.	
1196	Body size, physical activity, and risk of triple-negative and estrogen receptor-positive breast cancer	Phipps, Chlebowski, Prentice, McTiernan, Stefanick, Wactawski-Wende, Kuller, Adams-Campbell, Lane, Vitolins, Kabat, Rohan, Li	12	OS	Cancer Epidemiol Biomarkers Prev. 2011 Mar 1. [Epub ahead of print]	
1201	Variant ABO blood group alleles, secretor status and risk of pancreatic cancer: Results from the Pancreatic Cancer Cohort Consortium	Wolpin, Kraft, Xu, Steplowski, Olsson, Arslan, Bueno-de-Mesquita, Gross, Helzlsouer, Jacobs, LaCroix, Petersen, Stolzenberg-Solomon, Zheng, Albanes	12	Gen	Cancer Epidemiol Biomarkers Prev. 2010 Oct 22. [Epub ahead of print]	M4

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1205	Relationships among dietary nutrients and subjective sleep, objective sleep, and napping in women	Grandner, Kripke, Naidoo, Langer	12	CT	Sleep Med. 2010 Feb;11(2):180-4. Epub 2009 Dec 14	AS11
1206	Light exposure is related to social and emotional functioning and to quality of life in older women	Grandner, Kripke, Langer	12	CT	Psychiatry Res. 2006 Jun 30;143(1):35-42. Epub 2006 May 24	AS11
1207	Circadian sleep, illumination, and activity patterns in women: influences of aging and time reference	Jean-Louis, Kripke, Ancoli–Israel, Klauber, Sepulveda, Mowen, Assmus, Langer	12	CT	Physiol Behav. 2000 Jan;68(3):347-52	AS11
1208	Short version of the CES-D (Burnam screen) for depression in reference to the structured psychiatric interview	Tuunainen, Langer, Klauber, Kripke	12	CT	Psychiatry Res. 2001 Sep 20;103(2-3):261-70	AS11
1209	Evening light exposure: implications for sleep and depression	Wallace-Guy, Kripke, Jean-Louis, Langer, Elliott, Tuunainen	12	CT	J Am Geriatr Soc. 2002 Apr;50(4):738-9	AS11
1210	Association of morning illumination and window covering with mood and sleep among postmenopausal women	Youngstedt, Leung, Kripke, Langer	12	CT	Sleep and Biological Rhythms. 2004;2:174–183	AS11
1221	The next PAGE in understanding complex traits: Design for the analysis of population architecture using genetics and epidemiology (PAGE) study	Matise, Ambite, Buyske, Carlson, Cole, Crawford, Haiman, Heiss, Kooperberg, LeMarchand, Manolio, North, Peters, Ritchie, Hindorff, Haines, et al.	12	Gen	Am J Epidemiol. 2011 Aug 11. [Epub ahead of print]	M6
1229	Domain-specific cognitive function and fine motor speed over time in women 65 years and older with type 2 diabetes mellitus: Results from the Women's Health Initiative Study of Cognitive Aging	Espeland, Miller, Goveas, Hogan, Coker, Williamson, Naughton, Resnick	12	CT	J Womens Health (Larchmt). 2011 Aug 5. [Epub ahead of print]	AS103
1238	Genetic determinants of lipid traits in diverse populations from the Population Architecture using Genomics and Epidemiology (PAGE) Study	Dumitrescu, Carty, Taylor, Schumacher, Ambite, Anderson, Best, Brown-Gentry, Buzkova, Carlson, Cochrane, Cole, Devereux, Duggan, Eaton, Fornage, et al.	12	Gen	PLoS Genet. 2011 Jun;7(6):e1002138. Epub 2011 Jun 30	M6

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1253	Relationship between hypertension and admixture in post-menopausal African American and Hispanic American Women	Kosoy, Qi, Nassir, Garcia, Allison, Shigeta, Robbins, Seldin	12	Gen	J Hum Hypertens. 2011 May 26. [Epub ahead of print]	BAA1
1257	Increased incident hip fractures in postmenopausal women with moderate to severe pelvic organ prolapse	Pal, Hailpern, Santoro, Freeman, Barad, Kipersztok, Barnabei, Wassertheil-Smoller	12	Gen	Menopause. 2011 Jul 1. [Epub ahead of print]	
1265	Association between higher levels of sexual function, activity, and satisfaction and self-rated successful aging in older postmenopausal women	Thompson, Charo, Vahia, Depp, Allison, Jeste	12	OS	J Am Geriatr Soc. 2011 Jul 28. [Epub ahead of print]	
1268	Combined admixture mapping and association analysis identifies a novel blood pressure genetic locus on 5p13: Contributions from the CARe consortium	Zhu, Young, Fox, Keating, Franceschini, Kang, Tayo, Adeyemo, Sun, Li, Morrison, Newton-Cheh, Liu, Ganesh, Kutlar	12	Gen	Hum Mol Genet. 2011 Mar 21. [Epub ahead of print]	M5
1278	Anthropometric factors, physical activity, and risk of Non-Hodgkin's lymphoma in the Women's Health Initiative	Kabat, Kim, Wactawski-Wende, Bea, Edlefsen, Adams-Campbell, De Roos, Rohan	12	Gen	Cancer Epidemiol. 2011 Aug 2. [Epub ahead of print]	
1286	Association of genetic variation with systolic and diastolic blood pressure among African Americans: the Candidate Gene Association Resource (CARe) Study	Fox, Young, Li, Dreisbach, Keating, Musani, Liu, Morrison, Ganesh, Kutlar, Ramachandran, Polak, Fabsitz, Dries, Farlow	12	CT	Hum Mol Genet. 2011 Apr 1. [Epub ahead of print]	M5
1324	Preventing breast cancer in postmenopausal women by achievable diet modification: A missed opportunity in public health policy	Prentice, Chlebowski	12	N/A	Breast. 2010 Nov 25. [Epub ahead of print]	
1334	Phenome-Wide Association Study (PheWAS) for Exploration of Novel Genotype-Phenotype Relationships and Pleiotropy Discovery within the PAGE network	Pendergrass, Brown-Gentry, Dudek, Torstenson, Ambite, Avery, Buyske, Cai, Fesinmeyer, Heiss, Hindorff, Hsu, Jackson, Kooperberg, Le Marchand	12	Gen	Genet Epidemiol. 2011 Jul;35(5):410-22. Epub 2011 May 18	
1335	Vitamin D and breast cancer: interpreting current evidence	Chlebowski	12	N/A	Breast Cancer Research. 2011;13(4):217	

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1370	A gene-centric association scan for Coagulation Factor VII levels in European and African Americans: the Candidate Gene Association Resource (CARe) Consortium	Taylor, Reiner, Zabaneh, Lange, Keating, Tang, Smith, Delaney, Kumari, Hingorani, North, Kivimaki, Tracy, O'Donnell, Folsom, Green, et al.	12	Gen	Hum Mol Genet. 2011 Jun 15. [Epub ahead of print]	M5
1375	Measurement error modeling and nutritional epidemiology association analyses	Prentice, Huang	12	OS	Can J Stat. 2011 Sep;39(3):498-509. Epub 2011 Jul 27	
1381	Using regression calibration equations that combine self-reported intake and biomarker measures to obtain unbiased estimates and more powerful tests of dietary associations	Freedman, Midthune, Carroll, Tasevska, Schatzkin, Mares, Tinker, Potischman, Kipnis	12	OS	Am J Epidemiol. 2011 Nov 1. [Epub ahead of print]	AS105
1390	The influence of time from menopause and mammography on hormone therapy–related breast cancer risk assessment	Chlebowski, Anderson	12	CT	J Natl Cancer Inst. 2011 Feb 16;103(4):284-5. Epub 2011 Jan 28	
1401	Genome-wide association analysis of incident coronary heart disease (CHD) in African-Americans: A short report	Barbalic, Reiner, Wu, Hixson, Franceschini, Eaton, Heiss, Couper, Mosley, Boerwinkle	12	Gen	PLoS Genet. 2011 Aug;7(8):e1002199. Epub 2011 Aug 4	M5
1403	Breast cancer in postmenopausal women after hormone therapy	Chlebowski, Stefanick, Anderson	12	N/A	JAMA. 2011 Feb 2;305(5):466-67	
1437	Self-reported sleep latency in postmenopausal women	Park, Kripke, Jean-Louis, Elliott, Klauber, Rex, Tuunainen, Langer	12	OS	J Korean Med Sci 2007;22:1007-14	AS11
1445	The Women's Health Initiative Calcium/Vitamin D Trial	Margolis, Ray, Kerby	12	N/A	Hypertension. 2011 Apr;57(4):e14. Epub 2011 Feb 28.	
1446	Estimation of the 2-sample hazard ratio function using a semiparametric model	Yang, Prentice	12	N/A	2011 Apr;12(2):354-68. Epub 2010 Sep 21.	
1447	Breast tenderness after initiation of conjugated equine estrogens and mammographic density change	Crandall, Aragaki, Cauley, McTiernan, Manson, Anderson, Wactawski-Wende, Chlebowski	12	CT	Breast Cancer Res Treat. 2011 Oct 7. [Epub ahead of print]	AS36
1468	A longitudinal study of the metabolic syndrome and risk of colorectal cancer in postmenopausal women	Kabat, Kim, Peters, Stefanick, Hou, Wactawski-Wende, Messina, Shikany, Rohan	12	Gen	Eur J Cancer Prev. 2011 Oct 31. [Epub ahead of print]	

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1476	Social influences on smoking in middle-aged and older women	Holahan, Holahan, Powers, North, Hayes, Ockene	12	OS	Psychol Addict Behav. 2011 Oct 17. [Epub ahead of print]	
1516	Biomarkers and the risk of stroke in the Women's Health Initiative	Prentice	12	N/A	Women's Health. 2011;7(3):269-273	
499	Prospective analysis of association between use of statins or other lipid lowering agents and colorectal cancer risk	Simon, Rosenberg, Rodabough, Greenland, Ockene, Roy, Lane, Cauley, Khandekar	11	Gen	In press, Ann Epidemiol	
829	Lipid and lipoprotein biomarkers and the risk of ischemic stroke in postmenopausal women	Berger, McGinn, Howard, Kuller, Manson, Otvos, Curb, Eaton, Kaplan, Lynch, Rosenbaum, Wassertheil-Smoller	11	OS	In press, Stroke	AS126
873	Understanding the effects of menopausal hormone therapy: Using the Women's Health Initiative randomized trials and observational study to improve inference	Anderson, Prentice	11	Gen	In press, Proceedings of American Psychopathological Association	
876	A prospective study of serum 25-hydroxyvitamin D levels, blood pressure, and incident hypertension in postmenopausal women	Margolis, Martin, Ray, Kerby, Allison, Curb, Kotchen, Liu, Wassertheil-Smoller, Manson	11	CT	In press, Am J Epidemiol	W15, W24
885	Predictors of change in pain severity, interference and functioning among post-menopausal women with persistent or recurrent pain conditions in the Women's Health Initiative Observational Cohort	Brennan Braden, Young, Sullivan, Walitt, LaCroix, Martin	11	OS	In press, J Pain	
941	Biomarker-calibrated dietary energy and protein intake associations with diabetes risk among postmenopausal women	Tinker, Sarto, Howard, Huang, Neuhouser, Mossavar-Rahmani, Beasley, Margolis, Eaton, Phillips, Prentice	11	Gen	In press, Am J Clin Nutr	W8
946	Impact of nutritional factors on incident kidney stone formation: A report from the Women's Health Initiative Observational Study (WHI OS)	Sorensen, Kahn, Reiner, Tseng, Shikany, Wallace, Chi, Wactawski-Wende, Jackson, O'Sullivan, Sadetsky, LaCroix, Stoller	11	Gen	In press, J Urol	

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
992	Psychological and social characteristics associated with religiosity in Women's Health Initiative participants	Schnall, Kalkstein, Fitchett, Salmoirago-Blotcher, Ockene, Thomas, Tindle, Hunt, Wassertheil-Smoller	11	OS	In press, J Relig Health	
1051	Vitamin D and risk of depression in the Women's Health Initiative Calcium and Vitamin D Trial	Bertone-Johnson, Manson, Spangler, Brunner, Ockene, Ockene, Wassertheil-Smoller, Michael, Liu, Millen, Bueche, Salmoirago-Blotcher, Powers	11	CT	In press, Am J Clin Nutr	
1060	Meta-analysis of new genome-wide association studies of colorectal cancer risk	Peters, Hsu, Hutter, Prentice, Jackson, Kooperberg, LaCroix	11	OS	In press, Human Genetics	AS224
1117	Breast tenderness and breast cancer risk in the estrogen plus progestin and estrogen-alone Women's Health Initiative Clinical Trials	Crandall, Aragaki, Cauley, McTiernan, Manson, Anderson, Chlebowski	11	CT	In press, Breast Cancer Res Treat	
1129	Calcium and vitamin D supplementation and incident rheumatoid arthritis: the Women's Health Initiative Calcium plus Vitamin D Trial	Racovan, Walitt, Collins, Pettinger, Parks, Shikany, Wactawski-Wende, Manson, Moreland, Wright, Jackson, Howard	11	CT	In press, Rheumatol Int	
1135	Serum 25(OH)D and risk of colorectal and breast cancer in postmenopausal women: the Women's Health Initiative Calcium Plus Vitamin D Clinical Trial	Neuhouser, Manson, Millen, Pettinger, Margolis, Jacobs, Shikany, Vitolins, Adams-Campbell, Liu, LeBlanc, Johnson, Wactawski-Wende	11	CT	In press, Am J Epidemiol	
1285	Bisphosphonates for Breast Cancer Therapy and Prevention?	Chlebowski	11		In press, IBMS BoneKEy	
1400	A prospective study of serum insulin and glucose levels in relation to colorectal cancer risk among postmenopausal women	Kabat, Kim, Strickler, Shikany, Lane, Luo, Ning, Gunter, Rohan	11	CT	In press, Br J Cancer	
312	Accuracy of food portion estimation among postmenopausal women	Coy, Frank, Lee, Meyskens	10	CT	Submitted, Am J Clin Nutr	AS118
389	Hierarchical models for the effect of spatial interpolation error on the inferred relationship between ambient particulate matter exposure and cardiovascular health	Crooks, Whitsel, Catellier, Liao, Quibrera, Smith	10	CT	Submitted, Biostatistics	AS140

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
507	Hematopoietic prostaglandin D synthase variant (Val187Ile) in African Americans: enzyme characterization, urine PGD2 metabolites, and case-control analyses of colorectal neoplasia in four studies	Tippin, Levine, Materi, Park, Song, Keku, Dai, Huang, Zhou, Frankl, Hardy, Patterson, Chlebowski, Henderson, Kolonel, Lin, et al.	10	OS	Submitted, J Biol Chem	AS108
670	Sleep duration, cognitive function, and neurocognitive impairment in older women	Chen, Espeland, Brunner, Lovato, Wallace, Phillips, Robinson, Kotchen, Johnson, Manson, Stefanick, Sarto, Mysiw	10	WHIMS	Submitted, Arch Gen Psychiatry	AS39
683	Education, neuropathology, and cognitive performance in older, postmenopausal women	Rapp, Espeland, Manson, Resnick, Wassertheil-Smoller, Coker, Phillips, Stefanick, Sarto, Bryan, Women's Health Initiative Memory Study Research Group	10	WHIMS	Submitted, J Am Geriatrics As	AS183, AS39
710	Longitudinal profile of insomnia and risk of major vascular disease in postmenopausal women	Chen, Brunner, Levine, Larson, Wassertheil-Smoller, Naughton, Allison, Ren, Stefanick, Kotchen, Sarto, Mellman	10	Gen	Submitted	AS140
815	Genetic variation at chromosome 8q24 and risk of colon cancer	Hutter, Slattery, Duggan, Muehling, Curtin, Hsu, Beresford, Rajkovic, Sarto, Marshall, Hammad, Wallace, Makar, Prentice, Caan, Potter, et al.	10	OS	Submitted, Cancer Epidemiol Biomarkers Prev	AS206
822	A low-fat dietary pattern and risk of metabolic syndrome: The Women’s Health Initiative	Neuhouser, Howard, Liu, Tinker, VanHorn, Caan, Rohan, Stefanick, Thomson	10	CT	Submitted, Am J Clin Nutr	
965	Lifetime risks for fatal and non-fatal cardiovascular events in different race/ethnic groups: Cardiovascular Lifetime Risk Pooling Project	Lloyd-Jones, Berry, Thomas, Garside, Cai, VanHorn, Tracy, Dyer	10	OS	Submitted, Circulation	
966	Remaining lifetime risks for cardiovascular disease by risk factor burden in middle-aged and older black and white adults: The Cardiovascular Lifetime Risk Pooling Project	Berry, Cai, Garside, Greenland, Thomas, Tracy, Dyer, Lloyd-Jones	10	OS	Submitted, N Engl J Med	

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
980	The utility of variability in domain-specific cognitive function in predicting incident dementia: Evidence from the Women's Health Initiative Study of Cognitive Aging	Espeland, Dagenbach, Jennings, Brunner, Resnick, Beavers, Simpson, Coker, Gaussoin, Sink, Rapp, for the Women's Health Initiative Study of Cognitive Aging	10	WHIMS	Submitted, Am J Epidemiol	AS103
1054	A regularized Hotelling's T2 test for pathway analysis in proteomics studies	Chen, Prentice, Wang	10	CT		
1091	Hazard ratio estimation for biomarker calibrated dietary intake exposures	Shaw, Prentice	10	CT		
1118	The major impact of smoking on risk of cardiovascular disease and mortality in postmenopausal women	Tindle, Chang, Kuller, Shiffman, Schmidhofer, Liu, Howard, Womack, Curb, Johnson, Martin, Eaton, Safford, Li, Freiberg	10	Gen	Submitted, Ann Intern Med	
1136	Estrogen alone and invasive breast cancer incidence and mortality among postmenopausal women with hysterectomy: the Women's Health Initiative randomized trial	Anderson, Kuller, Hubbell, Lane, Bluhm, Wactawski-Wende, Manson, Ockene, Martin, Gass, Schenken, Chlebowski, Connelly, Rohan	10	CT	Submitted	
1143	Association between sedentary behavior and physical function in older women	Seguin, LaMonte, Tinker, Liu, Woods, Michael, Bushnell, LaCroix	10	OS	Submitted, J Am Geriatr Soc	
1169	Priorities and challenges for cohort studies and consortia in cancer research	Boffetta, Colditz, Potter, Kolonel, Robson, Malekzadeh, Seminara, Goode, Yoo, Demers, Gallagher, Prentice, Yasui, O'Doherty, Petersen	10	N/A	Submitted, Cancer Epidemiol Biomarkers Prev	
1183	Timed walking speed, self-reported physical activity and breast cancer incidence in postmenopausal women	Kwan, Chlebowski, McTiernan, Rodabough, LaMonte, Martin, Bell, Lane, Kaplan, Irwin	10	Gen	Submitted, Cancer Epidemiol Biomarkers Prev	
1316	Replication of loci influencing reproductive traits in Hispanic women: the Women's Health Initiative SHARe study	Chen, Franceschini, Kooperberg, Heiss, North, Carlson, Rajkovic, Woods, Chen, Rhodes, Brzyski	10		Submitted, Hum Mol Genet	M5

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1356	A genome-wide association study of platelet count and mean platelet volume in African Americans: the Continental Origins and Genetic Epidemiology Network (COGENT)	Qayyum, Snively, Ziv, Nalls, Liu, Tang, Yanek, Lange, Evans, Ganesh, Austin, Lettre, Becker, Becker, Wilson	10	Gen	Submitted, PLoS Genetics	M5
1379	Menopausal hormone therapy and incidence and mortality of common cancers	Chlebowski, Anderson	10	CT	Submitted, Nat Rev Cancer	
127	Homocysteine and incident coronary heart disease: Prospective analysis from the Women's Health Initiative observational study	Siscovick, Manson, Trevisan, Wallace, Howard, Burke, Ridker	9	OS		AS83
152	The impact of magnesium intake on fractures: Results from the Women's Health Initiative Observational Study (WHI-OS)	Orchard, Larson, Algothani, Cauley, Chen, LaCroix, Wactawski-Wende, Jackson	9	OS		
410	Psychosocial factors and late-stage breast, colorectal, and endometrial cancer: the Women's Health Initiative Observational Cohort	Yasmeen, Romano, Ray, Chlebowski, Paskett, Hunt, Woods, Eaton, Moshesh	9	OS		
432	The role of extreme obesity in heart disease and death in diverse older women	McTigue, Chang, Eaton, Garcia, Johnson, Lewis, Liu, Mackey, Robinson, Rosal, Snetselaar, Valoski, Kuller	9	Gen		
439	The effect of intentional and unintentional weight loss on stroke risk in the Women's Health Initiative observational study	Ostfeld, Bobra, Kaplan, Kooperberg, Lo, Myrskyla, Herold, Rosenbaum, Wassertheil-Smoller	9	OS		
466	Low-fat dietary pattern and health-related quality of life: The WHI randomized controlled DM trial	Assaf, Beresford, Risica, Aragaki, Brunner, Bowen, Naughton, Rosal, Snetselaar, Wenger	9	CT		
476	Associations between dietary fat intake and Age Related Macular Degeneration (ARM) for the Women's Health Initiative-Sight Exam (WHI-SE) Study participants	Kannan, Haan, Blythe, Moore, Hazzouri, Deng, Tong	9	CT		AS62
532	Incidence of urinary incontinence in postmenopausal women with diabetes: The Women's Health Initiative Observational Study	Bonds, Hogan, Cochrane, Hendrix, Masaki, Sarto	9	OS		

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
553	Association of dopamine genotypes with physical activity and body habitus in post-menopausal women	Leddy, Hovey, Salis, Brennan, Epstein, Wactawski-Wende	9	OS		AS15
600	Reading ability influences race-ethnic differences in cognitive testing: The Cognitive Change in Women ancillary study to the Women's Health Initiative	Dunn, Harty, Stoddard, Gavett, Weintraub	9	OS		AS84
616	The cognitive change in Women Study (CCW): informant ratings of cognitive change predict neuropsychological performance over three years	Gavett, Dunn, Stoddard, Harty, Weintraub	9	OS		AS84
654	The relation of plasma adiponectin with the risk of developing hypertension in White and Black postmenopausal women	Wang, Manson, Gaziano, Liu, Cochrane, Cook, Ridker, Rifai, Sesso	9	OS		AS133
703	The relationship between urban sprawl and CHD in women	Eibner, Griffin, Bird, Jewell, Margolis, Shih, Slaughter, Whitsel, Allison, Escarce	9	Gen		AS220
704	A longitudinal analysis of the impact of neighborhood SES on coronary heart disease among women	Bird, Shih, Eibner, Griffin, Slaughter, Whitsel, Margolis, Escarce, Jewell, Mouton, Lurie	9	OS		AS220
708	Comparison of methods used to correct reported dietary intake using biologic measures	Schoeller, Neuhouser, Bingham, Tylavsky, Tinker, Parker, Snetselaar, Vitolins, Beresford, Liu, LaRowe, Alvig	9	Gen		W8
714	Inflammatory markers and risk of hip fracture: The Women's Health Initiative	Barbour, Boudreau, Danielson, Youk, Wactawski-Wende, LaCroix, Jackson, Bauer, Cauley	9	OS		AS181
716	Migraines, ST depression and risk for cardiac events: Results from the MIMS Study	York-Ward, Li, Hassan, Ephross, Brunner, Limacher, Wassertheil-Smoller, Sheps	9	OS		AS70
804	Recreational physical activity in postmenopausal women is stable over 8-years of follow-up	Nguyen, Herting, Kohen, Perry, LaCroix, Adams-Campbell, Beresford, Eaton, Tinker	9	Gen		

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
824	Neighborhood racial composition and risk of coronary heart disease: artifact of neighborhood socioeconomic status?	Shih, Eibner, Griffin, Bird, Slaughter, Lurie, Dubowitz, Allison, Gold, Manson, Masaki, Michael, Rosal, Safford, Sarto, Escarce, et al.	9	Gen		AS220
853	Determinants of racial/ethnic disparities in incidence of clinical diabetes in postmenopausal women in the United States: The Women's Health Initiative 1993- 2009	Ma, Hebert, Manson, Balasubramanian, Liu, LaMonte, Ockene, Qiao, Olendzki, Schneider, Bird, Rosal, Wactawski-Wende, Stefanick, Phillips, Sepavich, et al.	9	Gen		
872	Stroke risk reclassification with lipoprotein-associated phospholipase a2 and c-reactive protein in the Women's Health Initiative	Wassertheil-Smoller, McGinn, Allison, Cai, Curb, Eaton, Hendrix, Kaplan, Ko, Martin, Xue	9	OS		AS126
877	Diabetes, Metformin and breast cancer in postmenopausal women	Chlebowski, McTiernan, Wactawski-Wende, Manson, Aragaki, Rohan, Ipp, Kaklamani, Vitolins, Wallace, Liu, Gunter, Phillips, Strickler, Euhus	9	Gen		
887	Racial and ethnic differences in the incidence and risk factors of hospitalized heart failure in post menopausal women: the Women's Health Initiative	Eaton, Abdulbaki, Margolis, Manson, Limacher, Klein, Allison, Robinson, Curb, Martin, Liu, Howard	9	Gen		
895	Physical activity and inflammation in a multi-ethnic cohort of women	Lee, Sesso, Ridker, Mouton, Stefanick, Manson	9	OS		BAA11
922	Adipokines linking obesity with colorectal cancer risk in postmenopausal women	Ho, Gunter, Kaplan, Rajpathak, Rohan, Wassertheil-Smoller, Strickler, Xue, Wang, Cushman, Scherer, Vitolins, Chlebowski	9	OS		BAA10
944	Trans fat intake and incidence of ischemic stroke among postmenopausal women: The Women's Health Initiative Observational Study	Yaemsiri, Sen, Tinker, Rosamond, Wassertheil-Smoller, He, Robinson, Evans	9	OS		AS126, AS187
957	Antidepressant use, depressive symptoms, and incident frailty in women aged 65 and older from the Women's Health Initiative Observational Study	Lakey, LaCroix, Gray, Borson, Williams, Calhoun, Goveas, Smoller, Ockene, Masaki, Coday, Rosal, Woods	9	OS		

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
972	CHD events in the WHI Hormone Therapy Trials: Was metabolic syndrome an effect modifier?	Wild, Curb, Martin, Phillips, Stefanick, Trevisan, Yasmeen, Manson	9	CT		W14, W6
975	Absolute risk reduction by bisphosphonates on hip fracture in participants of the Women's Health Initiative Observational Study and the Fracture Intervention Trial: The impact of the competing risk of death	Boyd, Varadhan, Weiss, Wallace, Wu, Ensrud, Lopez, Segal	9	Gen		
1063	Vitamin D and calcium supplementation and one-year change in mammographic density in the Women's Health Initiative Calcium and Vitamin D Trial	Johnson, Jackson, Lane, Wactawski-Wende, Vitolins, Millen, Chlebowski, Thomson, Rexrode, Rohan, McTiernan, Sarto, Peck, Tamimi, Manson	9	CT		
1073	Associations between ischemic stroke and stroke and cardiovascular disease-related GWAS SNPs in the Population Architecture using Genomics and Epidemiology (PAGE) Study	Carty, Buzkova, Fornage, Franceschini, Cole, Heiss, Hindorff, Howard, Mann, Martin, Matise, Prentice, Reiner, Kooperberg	9	Gen		M6
1074	Do social desirability concerns confound self-reports in aging health research?: A study of older women	Dawes, Palmer, Allison, Ganiats, Jeste	9	OS		
1079	Toward a positive aging phenotype for older women: Observations from the Women's Health Initiative	Woods, Cochrane, LaCroix, Seguin, Zaslavsky, Liu, Beasley, Brunner, Espeland, Lane, Mouton, Robinson, Tinker, Goveas	9	Gen		
1081	A pooled analysis of vitamin D supplementation to define dose requirements for fracture prevention in seniors	Bischoff-Ferrari, Willett, Orav, Lips, Meunier, Lyons, Flicker, Wark, Jackson, Cauley, Meyer, Pfeifer, Avenell, Sanders, Staehelin, Theiler, et al.	9	CT		
1086	Evaluating and comparing breast cancer risk projections for Hispanic and non-Hispanic white women	Banegas, Gail, LaCroix, Thompson, Martinez, Wactawski-Wende, John, Hubbell, Yasmeen, Katki	9	Gen		

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1096	A longitudinal analysis of the relationships between neighborhood SES, neighborhood residential stability, and mortality among women in the U.S.	Eibner, Griffin, Shih, Escarce, Slaughter, Margolis, Whitsel, LaCroix, Howard, Mouton, Bird	9	Gen		AS220
1100	Validity of diabetes self-reports in the Women's Health Initiative	Jackson, Defor, Crain, Kerby, Strayer, Lewis, Whitlock, Williams, Bonds, Vitolins, Rodabough, Margolis	9	CT		AS197
1109	A genome-wide association scan for breast cancer markers that interact with FGFR2	Yen, Jacobs, Chatterjee, Spencer Feigelson, Garcia-Closas, Hankinson, Hartge, Rajkovic, Lissowska, Prentice, Thun, Thomas, Hoover, Chanock, Hunter, Kraft, et al.	9	OS		M3
1110	The relation between atrial fibrillation and risk of incident breast and colorectal cancer	Wassertheil-Smoller, McGinn, Xu, Shen, Kakani, Martin, Stefanick, Perez, Rodriguez	9	Gen		
1114	Tissue factor pathway inhibitor, activated protein C resistance, and risk of ischemic stroke: The Women's Health Initiative trials of postmenopausal hormone therapy	Rossouw, Johnson, Pettinger, Cushman, Sandset, Kuller, Rosendaal, Rosing, Wassertheil-Smoller, Martin, Manson, Lakshminarayan, Merino, Lynch	9	CT		W11, W14
1116	Exercise and healthy aging in older women: Does the "dose" of physical activity matter?	Lanouette, Depp, Rosenberg, Kerr, Fellows, Thompson, Golshan, Allison, Jeste	9	OS		
1121	Calcium plus vitamin D supplementation and cognitive impairment in the WHI	Rossom, Espeland, Manson, Dysken, Johnson, Lane, LeBlanc, Lederle, Masaki, Margolis	9	CT		AS103, AS39, W15, W24
1150	Influence of retinopathy on cognitive function, ischemic brain lesions and brain volumes	Haan, Espeland, Klein, Casanova, Gaussoin, Jackson, Millen, Resnick, Rossouw, Shumaker, Wallace, Yaffe	9	CT		AS183, AS39, AS62

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1151	Dietary patterns and coronary heart disease in postmenopausal women: a case-control analysis of The Women's Health Initiative Observational Study Cohort	VanHorn, Tian, Matthan, Neuhouser, Howard, Eaton, Snetselaar, Lichtenstein	9			BAA8
1156	Depressive symptoms, antidepressant use and future cognitive health in postmenopausal women: the Women's Health Initiative Memory Study	Goveas, Hogan, Kotchen, Smoller, Denburg, Manson, Tummala, Mysiw, Ockene, Woods, Espeland, Wassertheil-Smoller	9	WHIMS		AS39
1157	The impact of ancestry and common genetic variants on QT interval in African Americans	Smith, Avery, Evans, Nalls, Meng, Smith, Palmer, Tanaka, Mehra, Butler, Young, Buxbaum, Kerr, Berenson, Schnabel	9	Gen		AS264, M5
1170	Association of genetic variants and incident coronary heart disease in multi-ethnic cohorts. The PAGE Study	Franceschini, Carty, Buzkova, Reiner, Garrett, Hindorff, Cole, Boerwinkle, Lin, Bookman, Best, Bella, Eaton, Greenland, Jenny, Lin, et al.	9	Gen		M6
1181	C-reactive protein predicts colorectal cancer risk in women but does not appear suitable as an early detection marker	Toriola, Cheng, Neuhouser, Wener, Zheng, Miller, Song, Beresford, Gunter, Caudill, Ulrich	9	OS		AS195
1182	Plasma 25-Hydroxyvitamin D and risk of pancreatic cancer	Wolpin, Ng, Bao, Kraft, Stampfer, Michaud, Ma, Buring, Sesso, Lee, Rifai, Cochrane, Wactawski-Wende, Chlebowski, Willett, Manson, et al.	9	OS		AS214
1186	Meta-analysis of gene-centric association studies identifies new genes for adult height	Lanktree, Guo, Murtaza, Lettre, Bailey, Kumari, Glessner, Ongen, Johnson, Rajagopalan, Shen, Baumert, Taylor, Nelson, Barnard	9	Gen		BAA14
1189	Statin use and risk of diabetes among postmenopausal women	Culver, Ockene, Sepavich, Wactawski-Wende, Balasubramanian, Olendzki, Manson, Rahilly-Tierny, Liu, Qiao, Merriam, Thomas, Berger, Ockene, Curb, Ma, et al.	9	Gen		

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1197	Risk factors for sudden cardiac death in post-menopausal women	Bertoia, Allison, Manson, Freiberg, Kuller, Solomon, Limacher, Johnson, Curb, Wassertheil-Smoller, Eaton	9	Gen		
1198	On two-stage hypothesis testing procedures via asymptotically independent statistics	Dai, LeBlanc, Kooperberg	9	CT		
1199	Novel loci associated with PR interval in a genome-wide association study of ten African American cohorts	Butler, Yin, Evans, Nalls, Smith, Tanaka, Li, Buxbaum, Whitsel, Albert, Alonso, Arking, Benjamin, Berenson, Bis	9			AS264, M5
1211	Diabetes mellitus as a risk factor for gastrointestinal cancers	Luo, Chlebowski, Liu, McGlynn, Parekh, White, Margolis	9	Gen		
1223	The adipokine profile of metabolically benign obese and at-risk normal weight postmenopausal women: The Women's Health Initiative Observational Study	Ogorodnikova, Xu, Wassertheil-Smoller, Ho, Sowers, Rajpathak, Allison, Mackey, Vitolins, Wildman, Manson	9	OS		AS126
1224	A prospective study of leukocyte telomere length and risk of diabetes mellitus in postmenopausal women	You, Chen, Song, Lu, Chen, Manson, Kang, Howard, Margolis, Curb, Phillips, Stefanick, Tinker, Liu	9	OS		AS254
1225	Emotional and cognitive health correlates of leisure activities in older Latino and Caucasian women	Herrera, Meeks, Dawes, Hernandez, Thompson, Sommerfeld, Allison, Jeste	9	OS		
1239	Evaluation of the metabochip genotyping array in African Americans and implications for fine mapping of GWAS-identified loci: The PAGE Study	Buyske, Wu, Carty, Cheng, Assimes, Dumitrescu, Hindorff, Mitchell, Ambite, Boerwinkle, Buzkova, Carlson, Cochrane, Duggan, Eaton, Fesinmeyer, et al.	9	Gen		M6
1240	Association between genetic variants in the 16q12.2/FTO region and BMI in African Americans: a fine-mapping approach in the Population Architecture using Genomics and Epidemiology (PAGE) Study	Peters, North, Buyske, Fesinmeyer, Jackson, Kuller, Haessler, Rajkovic, Lim, Cheng, Schumacher, Wilkens, Li, Monda, Houston, Buzkova, et al.	9	Gen		M6

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1242	The risk associated with established common genetic variants for type 2 diabetes in multiple populations: The Population Architecture using Genomics and Epidemiology (PAGE) Consortium	Haiman, Fesinmeyer, Spencer, Buzkova, Voruganti, Wan, Haessler, Franceschini, Monroe, Howard, Jackson, Florez, Kolonel, Buyske, Goodloe, Liu, et al.	9	Gen		M6
1262	Anthropometric factors, physical activity, and risk of thyroid carcinoma in the Women's Health Initiative	Kabat, Kim, Thomson, Luo, Wactawski-Wende, Rohan	9	Gen		
1272	Comparison of the Framingham and Reynolds Risk Scores for global cardiovascular risk prediction in the multiethnic Women's Health Initiative	Cook, Paynter, Eaton, Manson, Martin, Robinson, Rossouw, Wassertheil-Smoller, Ridker	9	OS		BAA22
1277	Vitamin D with calcium reduces mortality: patient level pooled analysis of 70,528 patients from eight major vitamin D trials	Rejnmark, Avenell, Masud, Anderson, Meyer, Sanders, Salovaara, Cooper, Smith, Jacobs, Torgerson, Jackson, Manson, Brixen, Mosekilde, Robbins, et al.	9	CT		
1279	Intake of antioxidant nutrients and risk of Non-Hodgkin's lymphoma in the Women's Health Initiative	Kabat, Kim, Wactawski-Wende, Shikany, Vitolins, Rohan	9	Gen		
1280	The impact of blood pressure change during middle age on the remaining lifetime risk for stroke by gender and race: the Cardiovascular Lifetime Risk Pooling Project	Allen, Berry, Ning, VanHorn, Dyer, Lloyd-Jones	9	OS		
1287	Alcohol consumption and body weight change in postmenopausal women	Thomson, Wang, Hingle, Wertheim, Neuhouser, Gong, Garcia, Stefanick, Manson	9	Gen		
1294	Estimation of the dietary intake of choline and betaine intake in the Women's Health Initiative	Caños, Siega-Riz, Neuhouser, Schroeder, Chambless, He, Beresford, Heiss	9	Gen		AS236
1315	Relationship between diabetes risk and admixture in post-menopausal African American and Hispanic American women	Qi, Nassir, Kosoy, Garcia, Curb, Tinker, Howard, Robbins, Seldin	9	Gen		BAA1

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1322	Diabetes mellitus as a risk factor for lung cancer among post-menopausal women	Luo, Margolis, Wactawski-Wende, Schlecht, Tinker	9	Gen		
1337	Geriatric syndromes and incident disability in older women	Michael, Rosso	9	CT		
1344	Smoking cessation and risk of type 2 diabetes mellitus among post-menopausal women	Luo, Rossouw, Tong, Giovino, Lee, Chen, Ockene, Qi, Margolis	9	Gen		
1349	Pleiotropic effects of cancer risk variants on endometrial cancer risk	Setiawan, Haessler, Schumacher, Hindorff, Spencer, Fesinmeyer, Henderson, Jackson, Vöckler, Wilkens, Yasmeen, Peters, Le Marchand, Kooperberg	9	Gen		M6
1353	Boosting for detection of gene-environment interactions	Pashova, LeBlanc, Kooperberg	9	Gen		M6
1354	Demographic and health factors associated with enrollment in post-trial studies: the Women's Health Initiative Hormone Therapy Trial	Espeland, Pettinger, Falkner, Shumaker, Limacher, Thomas, Weaver, Stefanick, McQuellon, Hunt, Johnson	9	CT		
1355	Assessment of the clinical exchangeability of a trial with a target sample using multivariate methods	Weiss, Segal, Boyd, Ensrud, Wallace, Varadhan	9	Gen		
1358	Intra-individual variation in plasma 25-hydroxyvitamin D measures 5 years apart among postmenopausal women	Meng, Hovey, Wactawski-Wende, Andrews, LaMonte, Horst, Genco, Millen	9	OS		AS15
1368	Dietary quality and risk of diabetes in postmenopausal women	Qiao, Ma, Olendzki, Hebert, Balasubramanian, Rosal, Schneider, Liu, Sims, Hingle, Song, Sepavich, Shikany, Persuitte, Ockene, Tinker, et al.	9	Gen		
1380	Genetic risk factors for body mass index and obesity in an ethnically diverse population: results from the Population Architecture using Genomics and Epidemiology (PAGE) Study	Fesinmeyer, North, Ritchie, Lim, Franceschini, Wilkens, Gross, Buzkova, Glenn, Quibrera, Fernández-Rhodes, Li, Fowke, Li, Carlson, Prentice, et al.	9	Gen		M6

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1387	Social networks, social support and burden in relationships, and mortality after breast cancer diagnosis	Kroenke, Michael, Tindle, Gage, Chlebowski, Garcia, Messina, Manson, Caan	9	CT		
1402	Repeat measurements of serum carotenoids, retinol, and tocopherol levels in relation to colorectal cancer risk among postmenopausal women	Kabat, Kim, Sarto, Shikany, Rohan	9	Gen		
1423	Genotype imputation of metabochip SNPs using study specific reference panel of ~4,000 haplotypes in African Americans	Liu, Buyske, Aragaki, Peters, Boerwinkle, Carlson, Carty, Crawford, Haessler, Hindorff, Le Marchand, Manolio, Matise, Wang, Kooperberg, North, et al.	9	Gen		M5, M6
1433	Detection of p53 antibodies prior to ovarian cancer diagnosis	McIntosh, Bergan, Fitzgibbon, Anderson, Anderson	9	N/A		BAA15
1452	Sex hormone-binding globulin and risk of clinical diabetes in American Black, Hispanic, and Asian/Pacific Islander postmenopausal women	Chen, Brennan, Goto, Song, Aziz, You, Wellons, Manson, White, Butch, Liu	9	OS		AS238
1453	Smoking and genetic risk variation across populations of European, Asian, and African Ancestry - a meta-analysis of chromosome 15q25	Chen, Saccone, Culverhouse, Bracci, Chen, Dueker, Han, Huang, Jin, Kohno, Ma, Przybeck, Sanders, Smith, Sung	9	Gen		M5
1457	Weight change among participants in the dietary modification trial and hot flash symptoms	Kroenke, Stefanick, Wallace, LaCroix, LeBlanc, Park, Anderson, Brzyski, Johnson, Sims, Lee, Vitolins, Caan	9	CT		
1459	Identification, replication, and fine-mapping of loci associated with adult height in individuals of African ancestry		9	Gen		M5
1466	Developing a dimensional model for successful cognitive and emotional aging	Vahia, Thompson, Depp, Allison, Jeste	9	CT		
1470	Recreational physical activity, body mass index and survival in women with colorectal cancer	Kuiper, Phipps, Neuhouser, Chlebowski, Thomson, Irwin, Lane, Wactawski-Wende, Hou, Jackson, Kampman, Newcomb	9	Gen		

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1485	Fine mapping of 14q24.1 breast cancer susceptibility locus	Lee, Fu, Figueroa, Prokunina-Olsson, Gonzalez-Bosquet, Kraft, Wang, Jacobs, Yeager, Horner, Hankinson, Hutchinson, Chatterjee, Garcia-Closas, Ziegler	9	Gen		
1500	Relationship between gallbladder surgery and ethnic admixture in African American and Hispanic American women	Nassir, Qi, Kosoy, Garcia, Robbins, Seldin	9	Gen		BAA1
1503	On the use of biomarkers to elucidate clinical trial results: examples from the Women's Health Initiative	Prentice, Zhao	9	CT		
1507	The aromatase gene (CYP19A1) variants and circulating hepatocyte growth factor in postmenopausal women	Lin, Gunter, Manson, Rexrode, Cook, Kraft, Cochrane, Chlebowski, Ho, Zhang	9			AS152, AS192, BAA10
1508	Validation of the interleukin 6 receptor as a therapeutic target for coronary heart disease prevention using Mendelian randomisation	Swerdlow, Keating, Wilson, Robinson, Bielinski, Tang, Hoogeveen, Pankow, Gross, Jacobs, Green, Lange, Tracy, Durda, Smith	9			BAA14
1529	Remaining lifetime risk for cancer death at selected ages by sex and smoking status: The Lifetime Risk Pooling Project	Gawron, Hou, Ning, Berry, VanHorn, Lloyd-Jones	9	OS		
1530	Pathway analysis of genome-wide association study data highlights pancreatic development genes as susceptibility factors for pancreatic cancer	Kooperberg, LaCroix, Chang, Agalliu	9	Gen		M4
1533	Gene-centric meta-analysis of up to 92,308 individuals confirms numerous known body mass index loci and reveals novel signals	Guo, Lanktree, Taylor, Duggan, Ochs-Balcom, Reiner, Beresford, Thomas, North, Monda	9	Gen		BAA14
1576	Simultaneous testing for marginal genetic association and gene-environment interaction in genome-wide association studies	Dai, Logsdon, Huang, Reiner, Prentice, Kooperberg	9	N/A		
1588	The aging genome: genetic mosaicism and its relationship to cancer	Jacobs, Yeager, Zhou, Wacholder, Wang	9	Gen		M4

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
380	Hemostasis factors, postmenopausal hormone therapy and the risk of venous thrombosis: the WHI clinical trials of postmenopausal hormone therapy	Cushman, Larson, Rosendaal, Heckbert, Curb, Phillips, Baird, Eaton, Stafford	8	CT		W6
494	Prospective analysis of association between use of statins or other lipid lowering agents and melanoma risk in the Women's Health Initiative	Jagtap, Rosenberg, Martin, Pettinger, Khandekar, Lane, Ockene, Simon	8	Gen		
692	Diet intervention increases physical activity. The Women's Health Initiative Dietary Modification Trial.	Russell, Beresford, Bowen, Snetselaar, Parker, Curb, Shikany, Limacher	8	CT		
868	Co-occurrence of anemia with other morbidities in the Women's Health Initiative Cohort at baseline and 3-year follow-up	Aickin, Arendell, Cauley, Eaton, Lessin, Lewis, Rodriguez, Thomson, Woods, Chen	8	Gen		M2
889	Effects of postmenopausal hormone therapy on incident atrial fibrillation: The Women's Health Initiative Randomized Controlled Trials	Perez, Wang, Cochrane, Curb, Klein, Larson, Manson, Martin, Robinson, Wassertheil-Smoller, Stefanick	8	CT		W35
897	Hip geometry in type 2 diabetic patients in the Women's Health Initiative Observational Study Cohort	Garg, Chen, Beck, Cauley, Wu, Nelson, Lewis, LaCroix, LeBoff	8	OS		AS153
923	Clinical factors leading to weight loss in older women after hospitalization: an analysis of the Women's Health Initiative Study	Yukawa, Larson, VanHorn, Woods, Vitolins, Wassertheil-Smoller, LaCroix	8	CT		
961	P wave indices contribution towards mortality and cardiovascular risk in healthy post-menopausal women: The Women's Health Initiative	Gorodeski, Magnani, Prineas, Vitolins, O'Sullivan, Soliman, Martin, Limacher, Curb, Cochrane, Blackstone, Lauer	8	CT	Submitted, Am Heart J	
984	Genome-wide association study of smoking behaviors African Americans	David, Chen, Hamidovic, Wessel, Kasberger, Brown, Petruzella, Thacker, Kim, Nalls, Tranah, Sung, McNight, Psaty, Taylor	8	Gen		M5
1138	Oestrogen plus progestin and colorectal cancer incidence and mortality	Simon, Chlebowski, Wactawski-Wende, Johnson, Muscovitz, Kato, Young, Hubbell, Prentice	8	Gen		

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1261	Smoking and alcohol consumption in relation to risk of thyroid carcinoma in the Women's Health Initiative	Kabat, Kim, Wactawski-Wende, Rohan	8	Gen		
1296	The association between NSAID use and colorectal cancer mortality: Results from the Women's Health Initiative	Coghill, Phipps, Bavry, Wactawski-Wende, Lane, LaCroix, Newcomb	8	Gen		
1305	Statins, angiotensin-converting enzyme inhibitors and physical performance in older women	Gray, Aragaki, LaMonte, Cochrane, Kooperberg, Robinson, Woods, LaCroix	8	CT		
1336	Interaction of conjugated equine estrogen and calcium/vitamin D on fracture outcomes	Robbins, Wactawski-Wende, Stefanick, Sarto, Manson, Lewis, Johnson, Johnson, Crandall, Carbone	8	CT		
1366	Neighborhood environment and physical activity among older women: Findings from the San Diego cohort of the Women's Health Initiative	Kerr, Norman, Millstein, Adams, Morgan, Langer, Allison	8	Gen		
1374	Markers of b-cell activation in relation to non-Hodgkin lymphoma	De Roos, Mirick, Edlefsen, LaCroix, Kopecky, Madeleine, Magpantay, Martinez-Maza	8	OS		BAA13
1486	A novel variational Bayes multiple locus z-statistic for genome-wide association studies with Bayesian model averaging	Logsdon, Carty, Reiner, Dai, Kooperberg	8	Gen		M5
1567	Known colorectal cancer susceptibility loci and survival after colorectal cancer diagnosis	Phipps, Newcomb, Garcia-de-Albeniz, Hutter, White, Fuchs, Hazra, Ogino, Nan, Ma, Campbell, Figueiredo, Peters, Chan	8	Gen		AS224
1641	Five year changes in periodontal disease measures among postmenopausal women. The Buffalo Osteo-Perio Study	LaMonte, Hovey, Genco, Millen, Trevisan, Wactawski-Wende	8	OS		AS98
159	Endogenous sex steroid hormone and risk of coronary heart disease in postmenopausal women	Rexrode, Manson, Kuller, McTiernan, Stefanick, Heckbert, White	7	OS		AS110

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
194	Predictors of adherence to the hormone replacement therapy clinical trial in the Women's Health Initiative	Cochrane, Stefanick, Wallace, Granek, Lillington, Anderson, Woods, Naughton	7	CT		
205	Risk factors for sarcopenia among a multiethnic cohort of postmenopausal women	Chen, Cauley, Lewis, Phillips, VanHorn, Wallace	7	Gen		
223	Physical activity and fracture in the Women's Health Initiative observational study	Wactawski-Wende, Cauley, Jackson, LeBoff, Chen, Robbins, Ockene, Rodriguez, LaCroix, LaMonte	7	OS		
251	Reproductive history and age-related maculopathy in the Women's Health Initiative Sight Exam Study	Haan, Wallace, Hendrix, Seddon, Klein, Klein, Musch, Langer, Brunner, Wactawski-Wende	7	CT		AS62
276	Social support and cognitive functioning in post-menopausal women	Messina, Espeland, (Jaramillo) Gaussoin, Coker, Lane, Masaki, Phillips, Powell, Rosal, Shumaker	7	WHIMS		AS39
374	Tamoxifen and coronary heart disease (CHD) risk	Chlebowski, Allison, Brzyski, Greep, Kooperberg, O'Sullivan, Robinson	7	Gen		
406	Effect of estrogen and estrogen plus progestin replacement therapy on the incidence of stroke in older women with atrial fibrillation	Perez, Robinson, Wallace, Black, Frishman, Oberman, Sarto, Williams, Wassertheil-Smoller	7	CT		
478	Correlates of medication utilization for the secondary prevention of coronary heart disease in older women	Robinson, Wallace, Cochrane, Johnson, Safford	7	CT		
528	Ambient air pollution and ventricular repolarization: Environmental epidemiology of arrhythmogenesis in WHI,1999-2001	Whitsel, Anderson, Catellier, Chen, Crooks, Liao, Peuquet, Prineas, Quibrera, Smith	7	CT		AS140
530	One-carbon nutrients and risk of incident colorectal cancer in the Women's Health Initiative observational cohort	Ulrich, Beresford, Neuhouser, Lane, Shikany, Song, Zheng	7	OS		
543	Insulin-like growth hormone-1, risk factors, and risk for hip fracture in postmenopausal women	Jackson, Lee, Cummings	7	OS		AS90

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
546	Predictors of incident dementia in postmenopausal women enrolled in a trial of hormone therapy: The Women's Health Initiative Memory Study	Coker, Legault, Colenda, Greep, Limacher, Murray, Rainford, Vitolins, Wallace	7	WHIMS		AS39
595	Quality assurance and training in a low event long-term clinical trial	Dailey, Felton, Summerville, Coker, Nance, Kidd	7	WHIMS		AS39
597	Prevalence of anticholinergic drug use and impact on cognition and function in older women	Sink, Espeland, Gass, Goff, Rapp, Sherwin, Thomas	7	WHIMS		AS39
720	Association between non-melanoma skin cancer and subsequent hematolymphoid malignancy by WHO diagnostic subtype, implications for subclinical immunosuppression and relationship to disease-specific and all-cause mortality	Edlefsen, De Roos, LaCroix, Cherian, Rosenberg, Kotchen	7	Gen		
730	Changes in dietary intake associated with the WHI dietary modification intervention and colorectal cancer incidence	Beresford, Vitolins, Caan, Shikany, Kotchen, Hunt, Parker, Adams-Campbell, Perri	7	CT		
870	Body image dissatisfaction in postmenopausal women	Ginsberg, Margolis, Hunt, Mossavar-Rahmani, Messina, Kudish, Kotchen, Adams-Campbell, Stefanick, Lynch, Manson, Gass, Gray	7	OS		
890	Risk factors for atrial fibrillation in postmenopausal women: The Women's Health Initiative Observational Study	Perez, Wang, Stefanick, Wassertheil-Smoller, Soliman, Manson, Martin, Klein, Limacher, Rodriguez, Prineas, Connelly	7	OS		
891	Self-rated health and medical outcomes in the Women's Health Initiative: The aging continuum, health, morbidity, mortality	Brunner, Hubbell, LaCroix, Lane, Stefanick, Safford, Woods, Watts, Beresford, Rapp	7	Gen		
934	Diabetes and risk of pancreatic cancer: A pooled analysis from the Pancreatic Cancer Cohort Consortium	Gross, Howard, Phillips, Simon, LaCroix, Kooperberg	7	Gen		M4
938	Insomnia, snoring and sleepiness, and risk of cognitive impairments in older women	Chen, Espeland	7	WHIMS		AS39

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
976	Prevalence and incidence of hypertension by socioeconomic status (SES) among African American and Latino women	Zambrana, Dinwiddie, Gaskin, Wassertheil-Smoller, Trevisan, Phillips, Pokras	7	Gen		
1146	Low fat diet and skin cancer risk in post-menopausal women in the Women's Health Initiative Study	Tang, Linos, Stefanick, VanHorn, Marshall, Zeitouni, Boussard-Hernandez, Sims	7	CT		
1217	Concordance of diabetes self-reports with CMS data in the Women's Health Initiative	Margolis, Hunt, Manson, Curb, Larson, Habermann, Safford, Daviglus	7	Gen		AS197, W35
1281	Validating the CHADS2 score for stroke prediction: results from the Women's Health Initiative	Abraham, Stefanick, Wassertheil-Smoller, Wilcoff, Newman, Chung, Torner, Solomon, Shara, Rexrode, Lakshminarayan, Curtis, Curb	7	Gen		
45	Socio-demographic determinants of folic acid intake	Beresford, Kritchevsky, Vitolins, Wodarski	6	Gen		
266	Correlation of endogenous sex steroid hormones with fasting glucose and insulin levels, HOMA indices, and incident diabetes mellitus in postmenopausal women	Weinstein, Rexrode, Ridker, Manson, Kuller, Hankinson, Cochrane	6	OS		AS110
305	Serum sex hormone levels and risk of hypertension in postmenopausal women	Joffe, Rexrode, Cochrane, Allison, Kotchen, O'Sullivan, Safford	6	OS		AS110
412	Validation of WHO model for absolute risk of fracture	Cauley, Watts, Chen, Cummings, Jackson, LeBoff, McGowan, O'Sullivan, Robbins, Wactawski-Wende	6	Gen		
608	Ambient air pollution, atrioventricular / ventricular conduction and their abnormalities: The environmental epidemiology of arrhythmogenesis in WHI, 1999-2003	Liao, Anderson, Duan, Lin, Peuquet, Prineas, Quibrera, Smith, Whitsel	6	CT		AS140

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
611	Blood pressure response to dietary modification in postmenopausal women: Results from the Women's Health Initiative Clinical Trial	VanHorn, Margolis, Thomson, Kotchen, Allison, Beresford, Black, Cantey, Curb, Frank, Grimm, Kuller, O'Sullivan, Wassertheil-Smoller, Torner	6	CT		
621	Factors associated with 3-year change in cognitive function in older women	Dunn, Gavett, Harty, Stoddard, Weintraub	6	OS		AS84
623	Factors associated with life satisfaction and health in postmenopausal women	Ceballos, Beresford, Tinker, O'Sullivan, Brunner, Hunt, Manson	6	OS		
640	Mammographic density in invasive breast cancer	Pisano, Wactawski-Wende, Manson, Yasmeen, Heiss, Peck, Ursin, Yaffe, Martin, Boyd, Cole, Byrne, McTiernan	6	OS		AS178
668	Dietary antioxidants, inflammation and diabetes mellitus in a multi-ethnic cohort of postmenopausal women	Rodriguez, Manson, Song, Nathan, Phillips, Mouton, Li, Shikany, Curb, Yasmeen, Bonds, Tinker, Rosal	6	OS		AS132
713	World Health Organization (WHO) absolute fracture risk score: How well does it predict fractures in minority women	Cauley, Robbins, LaCroix, Lewis, Wactawski-Wende, Masaki, Johnson, O'Sullivan, Jackson, Hendrix	6	Gen		
861	25(OH)Vitamin D levels and incident cardiovascular events in the WHI	Manson, Margolis, VanHorn, Rossouw, O'Sullivan, Martin, Eaton, Allison, Chlebowski, Robinson, Stefanick, Curb, Howard, Ockene, Shikany, Lewis, et al.	6	Gen		AS181, W15, W24
902	Reproductive life characteristics and risk of venous thromboembolism among postmenopausal women	Canonico, Scarabin, Carcaillon, Manson, O'Sullivan, Curb, Stefanick, Cochrane	6	CT		
920	Coffee and tea consumption in relation to risk of autoimmune rheumatic disease in the Women's Health Initiative (WHI)	Collins, Walitt, Pettinger, Parks, Howard, Hunt	6	OS		
939	Association between lactation history and breast cancer risk in WHI	Stendall-Hollis, Thompson, Thomson, O'Sullivan, Chlebowski, Yasmeen	6	Gen		

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
943	Effects of body composition and metabolic syndrome on weight change over time in postmenopausal women	Greco, Stefanick, Eaton, Phillips, Vitolins, Allison, Michael, Sims	6	Gen		
991	Genome-wide association analysis of coronary heart disease in WHI minorities	Reiner, Franceschini, Hutter, Carlson, Eaton, Istrail, McCaffery, Taylor, Wilson, Assimes, Curb, Howard, Kuller, Manson, Rossouw, Liu, et al.	6	Gen		M5
995	Impact of genetic variants across the genome on Carotenoids, Tocopherol, and Retinol in the WHI minorities	Neuhouser, Peters, Hutter	6	Gen		M5
1130	WHI observational study of postmenopausal hormone therapy and CVD outcomes: dose, formulation, and route of delivery	Manson, Shufelt, Merz, Aroda, Prentice, Martin, Phillips, Rossouw, Lakshminarayan, Kaunitz	6	OS		
1137	E+P and E-alone mortality, including follow-up	Manson, Kooperberg, Chlebowski, Curb, Gass, Howard, Lane, Lewis, Kuller, Martin, Schenken, Wassertheil-Smoller	6	CT		
1311	Hormone therapy, visit-to-visit blood pressure variability and the risk of incident stroke	Shimbo, Newman, Wassertheil-Smoller, Bavry, LaMonte, Allison, Manson	6	Gen		
1554	Serum OPG levels and incident hip fracture in the Women’s Health Initiative	LaCroix, Aragaki, Kooperberg, Duggan	6	OS		BAA18
90	Passive smoke exposure in childhood and adulthood and prevalent coronary heart disease in women enrolled in the WHI	Frishman, Wagenknecht, Wong, Ockene	5	OS		
141	The association of food and nutrient intake with the incidence of stroke in the WHI observational study	Beresford, Shikany, St. Jeor, Torrens, Mossavar-Rahmani, Heiss, Patterson, VanHorn	5	Gen		
297	Racial/ethnic differences in menopausal symptoms in minority vs. White women in the observational study cohort of WHI at baseline	Potter, Cochrane, Brzyski, Schenken, Murphy, O'Sullivan, Mossavar-Rahmani, Kempainen	5	OS		

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
304	The effect of E+P discontinuation on risk for fracture: The WHI	Jackson, Watts, Lewis, Chen, Neuner, Cauley, Mouton, Robbins, Greep, LaCroix, Stefanick, Caralis, O'Sullivan	5	Gen		
381	Estimating ovarian cancer risk	Anderson, Chlebowski, Johnson, Kaunitz, Sato, Monk	5	Gen		AS97
384	Frailty in WHI clinical trials participants: Comparison of self-report and physical performance measures	Woods, LaCroix, Brunner, Cochrane, O'Sullivan, Wallace	5	CT		
422	The occurrence of postmenopausal breast cancer following nonmelanoma skin cancer – A prospective observational study from the Women's Health Initiative	Simon, Greenland, Khandekar, McTiernan, Rodabough, Sharma, Rosenberg	5	OS		
427	Statin use and cognition in postmenopausal women: The Women's Health Initiative Memory Study	Legault, Fillit, Hsia, Limacher, Manson, Ockene, Robinson, Sherwin, Sink	5	CT		AS39
463	Glycemic load and risk of coronary heart disease in the Women's Health Initiative observational study	Shikany, Tinker, Liu, Allison, Hsia, Ma, Neuhouser, Uwaifo, VanHorn	5	OS		AS111
480	Thyroid disease and risk for hip fracture in postmenopausal women	Cummings, Bauer, Cauley, Jackson, Kooperberg, LaCroix, LeBoff, Lee, Lewis, Thomas, Wu	5	OS		AS90
487	Body composition and physical function in a cohort of multiethnic older women: The WHI observational study and clinical trials	Chen, Bassford, Lohman, Nicholas, Wu, Wright, Wang, Going, LaCroix, Sherrill, Heymsfield	5	OS		AS153
491	Cause of death in women who die after hip fracture: WHI experience	Robbins, Pastore	5	OS		
502	Menopausal hormone therapy and risk of ovarian cancer	Anderson, Barnabei, Brzyski, Chlebowski, Hendrix, Lane, Monk, Ockene, Rodriguez, Sarto	5	CT		
578	Depression and the risk of peripheral arterial disease: Results from the Women's Health Initiative observational study	Cherr, Wassertheil-Smoller, Trevisan, Wactawski-Wende, Allison, Johnson, Hsia, Hunt	5	OS		

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
681	Bone turnover and the risk of hip fracture: The Women's Health Initiative	Bauer, Cauley, LeBoff, LaCroix, Robbins, Jackson, Greep	5	OS		AS181
693	The association of dietary fructose intake in older women with the risk of obesity and type 2 diabetes mellitus	Margolis, Tinker, Shikany, Manson, Howard, Ritenbaugh, Wei, Johnson, Snetselaar, VanHorn, Rosal, Liu, Plodkowski, Kratz, Suazo, et al.	5	OS		
706	Vasomotor symptoms and cardiovascular risk markers in postmenopausal women	Szmuilowicz, Seely, Manson, Vaidean, Rossouw, Vitolins, Stefanick, O'Sullivan, Greep	5	OS		
806	The effect of treatment with conjugated equine estrogen on the presence and extent of subclinical atherosclerosis in the thoracic aorta of women 50 – 59 years of age at enrollment in the Women's Health Initiative	Carr, Allison, Manson, Lewis, Curb, Johnson, Kuller, Martin, Trevisan, Woods, O'Sullivan, Langer, Wallace, Terry, Cochrane	5	CT		W25
834	Reproductive history, menopausal hormone use and lung cancer risk in the Women's Health Initiative Clinical Trial and Observational Study	Schwartz, Simon, Hubbell, Kooperberg, Chen, Wakelee, Wactawski-Wende, Manson, Abrams, Stefanick, O'Sullivan, Cote, Sokol, Chlebowski, Hendrix, Rohan, et al.	5	Gen		
847	Evaluation of dietary fiber, whole grains, and dietary fat in relation to colorectal cancer using different dietary assessment methods: Food Frequency Questionnaire vs. 4-day food record	Park, Schatzkin, Prentice, Neuhouser, Tinker, Caan, Subar, Kipnis, Thompson	5	OS		
912	Coronary artery calcium and body morphology in postmenopausal women	Langer, Manson, Allison, Cochrane, Hunt, Johnson, Phillips, Martin, Liu	5	CT		W25
925	Dietary intake and survival in women diagnosed with breast cancer: Results from the Women's Health Initiative	Snetselaar, Wallace, Tinker, Caan, Chlebowski, Lane, Lasser, Ockene, Prentice, VanHorn, Simon, Yasmeen, Vitolins, Thomson, Millen, Kato, et al.	5	Gen		
977	Hypertension treatment and control among African American and Latino women	Dinwiddie, Zambrana, Gaskin, Wassertheil-Smoller, Phillips, Eaton, Pokras	5	Gen		

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
993	Genetic variants associated with habitual physical activity	Nguyen, Kohen, Lange, LaCroix, Jackson	5	Gen		M5
1024	Genome-wide association study of multiple intermediate phenotypes for vascular disease in Black and Hispanic women: Utilizing an integrated approach with gene-set enrichment analysis	Chan, Zhou, Horvath, Liu, Kooperberg, Reiner, Kuller, Manson, Eaton, Curb, Papanicolaou	5	Gen		AS132, M5
1034	Physical activity as a moderator of sleep duration in postmenopausal women: The Women's Health Initiative Study	Hale, Stefanick, Thomson, Phillips, Isasi, Sims	5	OS		
1046	Predictors of consent to extended follow-up in randomized prevention trials	Hunt, McNabb, Anderson, Granek	5	Gen		
1099	The effect of hysterectomy, with and without BSO, on urinary incontinence (UI)	Kudish, Shveiky, Gutman, Iglesia, Sokol, Howard, Blanchette, Jacoby	5	CT		
1132	Effects of menopausal hormone therapy on ductal carcinoma in situ breast cancer	Luo, Cochrane, Margolis, Wactawski-Wende, Hunt, Ockene	5	Gen		
1134	The relationship of a composite measure of functional status to mortality, CVD, stoke and other outcomes in the WHI CT	Curb, Michael, Cochrane, Parker, Rosal, Woods, LaCroix	5	CT		
1159	Air pollution and cancer incidence among women	Bhatti, Anderson, De Roos, Kaufman, Whitsel, Bird, Bonner, Mirabelli, Margolis, Lane	5	OS		AS140, AS150, AS220
1215	Candidate gene analysis of blood pressure in WHI using the IBC genotyping platform: an inter-study collaboration	Franceschini, Curb, Martin, Eaton, Reiner, Keating, Duggan	5	Gen		BAA14
1216	Meta-analysis of IBC array studies for type-2 diabetes related phenotypes	Keating, Saxena, Reiner, Liu	5	Gen		BAA14
1228	Relationship between time spent in sedentary activities and mortality in older women: the Women's Health Initiative (WHI) Observational Study	Seguin, LaCroix, Buchner, Patel, Beresford, Allison, Stefanick, Moreland, Manson, Messina	5	OS		

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1251	Candidate gene analysis of gall bladder disease in WHI using the IBC genotyping platform	Keating, Reiner, Duggan, Pettinger	5	Gen		BAA14
1252	C-reactive protein and coronary heart disease: test of causality by Mendelian randomization analysis		5	Gen		BAA14
1256	Genome-wide association of diabetes-related quantitative traits in post-menopausal women of varying ethnicities	Meigs, Chan, Reiner, Liu, Sarto, Rajpathak, Manson	5	Gen		M5
1275	Laxative use and incidence of falls, fractures and change in bone mineral density in postmenopausal women	Haring, Wassertheil-Smoller, Wallace, Wactawski-Wende, Ockene, Bea, Carnahan, Wyler von Ballmoos	5	Gen		
1282	Insecticide exposure and farm history in relation to lymphohematopoietic cancer risks in the Women's Health Initiative (WHI)	De Roos, Parks, LaCroix	5	OS		
1302	Calcium and vitamin D supplementation randomized clinical trial: 12 year follow-up of health risks and benefits	Cauley, Robbins, Manson, Wactawski-Wende, Johnson, Stefanick, O'Sullivan, Chen	5	CT		
1306	Anticholinergic medication use, falls and hip fracture in postmenopausal women: Results from the Women's Health Initiative	Gray, LaCroix, Wirtz, Carnahan, Bea, Cauley	5	Gen		
1327	25(OH) Vitamin D levels and incident CHF in the WHI	Martin, Allison, Eaton, Foraker, Johnson, LaMonte, Liu, Manson, Robinson, Shikany, Sarto, Meyers	5	Gen		
1359	The association between vitamin d intake and sunlight exposure on the risk of rheumatoid arthritis	Wright, Walitt, Curtis, Wactawski-Wende, Parks, Melamed, Mackey, Jackson, De Roos	5	Gen		
1362	Genome-wide association study and interactions between genetic variants and hormone therapy on type 2 diabetes risk in the Women's Health Initiative Hormone Therapy Trial	Liu, Reiner, Song, Sarto, Robinson, Qi, Phillips, Ockene, Margolis, Manson, Liu, LaMonte, Johnson, Howard, Dai, Chen, et al.	5	Gen		M13
1409	Identifying rheumatoid arthritis and systemic lupus erythematosus using medicare claims within the WHI	Wright, Walitt, Curtis, Delzell, Howard, De Roos	5	Gen		W35

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1410	Estrogen plus progestin and breast cancer in the Women's Health Initiative Observational Study	Chlebowski, Cauley, Chen, Johnson, Lane, Manson, Prentice, Qi, Stefanick, Wactawski-Wende, Yasmeen, Anderson, Newcomb, Martin	5	OS		
267	Adherence to dietary modification: A theoretical framework	Rosal, Ockene, Fletcher, Lasser, Tinker	4	CT		AS75
434	The effect of physical activity frequency, duration, and intensity on cardiovascular outcomes in WHI observational study	Meyer, Evenson, Heiss, Manson	4	OS		
446	Hormone exposure and risk of Parkinson's disease among women with natural menopause	Saunders-Pullman, Bressman, Chiu, Derby, Lipton, Santoro, Wassertheil-Smoller	4	OS		
513	Alcohol consumption and the risk of cardiovascular disease among black and white women: The effects of current and lifetime patterns of alcohol consumption among participants from the Women's Health Initiative	Freiberg, Adams-Campbell, Allison, Beresford, Curb, Hunt, Kraemer, Kuller, Safford, Trevisan, Robinson	4	OS		
593	Effect of genetic polymorphisms on coronary cardiac events among women in the Women's Health Initiative (WHI) study	Bray, Afshar-Kharghan, Hays-Grudo, Hendrix, Herrington, Howard, Johnson, Kuller, LaCroix, Langer, Leal	4	OS		AS137
644	Association between reproductive history, adult weight stability and postmenopausal BMI and body composition	Rosal, Crawford, Bodenlos, Brzyski, Hardy, Hays-Grudo, Hunt, Liu, Masaki, McNeeley, Moore-Simas, Phillips, Thomson, VanHorn	4	Gen		
157	Type 2 diabetes and change in cognitive functioning in WHIMS: The effects of diabetic risk factors and treatment for diabetes and hypertension	Coker, Hogan, Hall, Mount, Ockene, Wallace	3	WHIMS		AS39
364	Hormone replacement therapy and chronic heart failure incidence and outcomes in post-menopausal women	Greenland, Klein, Lloyd-Jones, LaCroix, Limacher, Robinson, Wong, Howard, Chae, Gulati, Sueta, Margolis, Kang, Ning	3	CT		AS196

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
397	Is there an association between baseline macronutrient intake and changes in cognition? Results from the Women's Health Initiative Memory Study	Vitolins, Espeland, Thomson, Mossavar-Rahmani, Lovato, Wassertheil-Smoller, Wallace, Masaki, Shikany	3	WHIMS		AS39
402	Subclinical thyroid dysfunction and risk of MI	Lorenz, Hartmann, Heiss, LeGrys, Garrett, Cooper, Schectman, Manson, Jackson	3	OS		AS165
403	Sub-clinical thyroid dysfunction and risk of stroke	Lorenz, Hartmann, Heiss, LeGrys, Garrett, Cooper, Schectman	3	OS		AS165
443	Statin use and lung cancer risk in non-smoking postmenopausal women	Schlecht, Wassertheil-Smoller, Johnson, Kamensky	3	OS		
457	Elevated blood pressure and kidney cancer	Kuller, Chang, Curb, Fried, Liu, Tevisan	3	OS		
485	Caffeine and risk of Parkinson's disease in women	Saunders-Pullman, Wassertheil-Smoller, Lipton, Santoro, Derby, Bressman, Chiu, Ravina	3	OS		
497	Extreme obesity and incident hypertension and diabetes: Racial and ethnic patterns in the WHI study	McTigue, Kuller, Valoski, Safford	3	Gen		
500	Results from the long term stability, standardization and quality control for the core analytes at the central laboratory for the WHI program	Stein, Chen, LaCroix, Lund, Rossouw, Miller	3	Gen		
505	Body image satisfaction in postmenopausal women	Ginsberg, Margolis, Gray, Tinker, Rosal, Manson, Sangi-Haghpeykar	3	OS		
540	Interaction between family history of cardiovascular disease and diabetes for the risk of coronary heart disease and stroke in postmenopausal women without diabetes at baseline: The WHI observational study	Li, Johnson, Curb, Robinson, Snetselaar, Allison, Safford, Liu	3	OS		
555	Genetic variation in the peroxisome proliferator-activated receptor y is associated with type 2 diabetes mellitus in the Women's Health Initiative observational study	Chan, Manson, Tinker, Howard, Kuller, Nathan, Rifai, Liu, Song, Balasubramanian, Sepavich, Magner, Qiao, Niu, Ma	3	OS		AS132

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
557	Characteristics of the built environment in Seattle and weight change over time	Littman, Beresford	3	CT		
559	Tagging SNPs and haplotypes in 9 genes involved in insulin and IGF-I signaling and their associations with breast cancer risk	Ho	3	OS		AS152
571	Cause of death in women who die after hip fracture: WHI	Robbins, Pastore, Masaki, Stefanick, Gass, Carbone, LaCroix	3	Gen		
573	Common genetic variation in the endothelial nitric oxide synthase (NOS3) gene and type 2 diabetes in an ethnically diverse cohort of women	Liu, Hsu, Papps, Tinker	3	OS		AS132
599	Estrogen and progesterone and the risk of Parkinson's disease in the clincial trial	Saunders-Pullman, Lipton, Wassertheil-Smoller, Tanner, Derby, Santoro	3	CT		
601	Relationship between aspirin use, dose and inflammatory markers in postmenopausal women	Berger, Wassertheil-Smoller, Baird, Kaplan, Lynch, McGinn, Rosenbaum, Phillips, Wactawski-Wende, Johnson	3	OS		AS126
604	Metabolic syndrome and incident stroke	McGinn, Wassertheil-Smoller, Wolf, Allison, Baird, Berger, Hsia, Kaplan, Kooperberg, Kuller, Rexrode, Rosenbaum	3	OS		AS126
607	Race, psychosocial stress, and mammography: Prospective analysis in the Women's Health Initiative	Michael, Bowen, Carson, Chlebowski, Hubbell, Lane, Yasmeen, Ritenbaugh	3	OS		
612	Impact of prehypertension on cognitive function	Robinson, Espeland	3	WHIMS		AS39
627	Neighborhood environment and the risk of coronary heart disease in WHI participants	Li, Crawford, Ma, Ockene	3	Gen		
629	Dietary potassium intake and the risk of incident stroke and mortality	Rajpathak, Wassertheil-Smoller	3	OS		
642	Thiazolidinedione (TZD) use and fracture risk in postmenopausal women with diabetes	Schwartz, Bonds, Cummings, Liu, Margolis, Palermo, Phillips, Vittinghoff	3	Gen		

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
659	Coronary heart disease (CHD) risk perception and its relation to health behaviors in the Women's Health Initiative	Barnhart, Walker, Wassertheil-Smoller	3	OS		AS127
661	Racial differences in Vitamin D levels: Results from the WHI	Melamed, Cauley, Chlebowski, Jacobs, LaCroix, LeBoff, Liu, Millen, Robbins, Tylavsky, Wactawski-Wende, Wassertheil-Smoller, Wylie-Rosette	3	CT		
679	Physical activity, incident ischemic stroke and cardiovascular biomarkers	McGinn, Wassertheil-Smoller, Kaplan, Johnson, Phillips, Robinson, Lee, Beresford, Kooperberg, Stefanick	3	OS		AS126
682	Effect of migraine on stroke risk associated with hormone therapy in post-menopausal women in the Women's Health Initiative	Schumacher, Wassertheil-Smoller, Gass, Mysiw, Rossouw, O'Sullivan, Oberman, Manson	3	CT		
687	Associations between body composition and hip geometry in postmenopausal women in the Women’s Health Initiative	Going, Chen	3	Gen		AS153
690	Hip geometric structure is weaker in anemic women: Results from the Women’s Health Initiative Observational Study	Wu, Chen	3	OS		AS153
691	Changes in hip geometric structures with aging---Longitudinal data analysis from the Women's Health Initiative Observational Study	Chen	3	OS		AS153
695	Application of hidden Markov models to longitudinal measures of cognition collected by the Women’s Health Initiative Study of Cognitive Aging	Ip, Rapp, Zhang, Legault, Snow-Jones	3	CT		AS103
698	Distribution and correlates of adiponectin, leptin, ghrelin and lipoprotein subclasses among black and white postmenopausal women across a range of BMI	Mackey, Kuller, Evans, Tinker, Howard, Barinas-Mitchell, Robinson, Manson, McTigue, Phillips, Stefanick, Allison, Rosal, Beresford, Liu	3	OS		AS189

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
699	Metabolically healthy obese phenotype among black and white postmenopausal women: Definition and risk of incident CHD	Mackey, Kuller, Evans, Tinker, Kulick, Howard, Lewis, Wildman, Phillips, Liu, Curb, Stefanick, Barinas-Mitchell, McTigue, Manson	3	OS		AS189
705	Clustering of mortality in the Women's Health Initiative observational study and clinical trials	Griffin, Whitsel, Escarce, Eibner, Bird, Hunt	3	Gen		AS220
707	Animal fat intake and ovarian cancer incidence	Freedman, Prentice, Lessin, VanHorn, Rajkovic, O'Sullivan, Chlebowski, Manson, Thomson, Smith, Tinker, Lubin, Chetrit, Oberman	3	CT		
712	Evidence that women with a history of fracture have reduced mechanosensitivity compared to those who have never fractured	Beck, Jackson, Going, Chen, LeBoff, Cauley, Wu, LaCroix, Khaled	3	OS		AS153
725	Air pollution components and cardiovascular disease in women	Miller, Vedal, Larson, Sheppard, Siscovick, Eaton, Manson, Kuller, Anderson, Kaufman	3	OS		AS150
776	Insulin-resistance associated TCF7L2 polymorphisms and risk of insulin-related cancers	Ho, Chen, Anderson, Chlebowski, Rajkovic	3	OS		AS152
789	Tagging SNPs and haplotypes in genes involved in insulin and IGF-I signaling and their associations with colorectal cancer risk	Ho, Adams-Campbell, Chlebowski, Peters	3	OS		AS152
790	Tagging SNPs and haplotypes in genes involved in insulin and IGF-I signaling and their associations with endometrial cancer risk	Ho, Chen, Rajkovic	3	OS		AS152
791	Polymorphisms of genes involved in insulin and IGF-I signaling and serum biomarkers in the IGF/insulin axis	Ho, Chen, Tinker	3	OS		AS152
805	B adrenergic inhibitors (ß Blockers) and risk for melanoma, multiple myeloma and nasopharyngeal cancer	Glaser, Jackson, Saltz, Lemeshow, Benson, Hofmeister, Yang, Rajkovic, Simon	3	Gen		

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
814	Variation in the selenoenzyme genes and risk of colorectal cancer	Peters, Hutter, Hsu, Prentice, Rajkovic, Marshall, Beresford, Caan, Potter, Duggan, Slattery, Ulrich, Foster, Diamond, Davis	3	OS		AS206
819	Genetic and epidemiologic factors associated with AMD among women in the WHI-SE study	Seddon, Haan, Peter, Wactawski-Wende, Johnson, Hyman	3	Gen		AS62
830	The association of consumption of whole grains and fiber with incident diabetes	Parker, Margolis, Tinker, Eaton, VanHorn, Rodriguez, Shikany, Liu, Wei	3	OS		
838	Biomarker-calibrated protein intake and bone health in the Women's Health Initiative Clinical Trial (WHI-CT) and Observational Study (WHI-OS)	Beasley, LaCroix, Neuhouser, Snetselaar, Tinker, Johnson, Eaton, Jackson, Bingham, Prentice, Huang	3	Gen		
844	Environmental determinants of sleep disturbance in postmenopausal women	Chen, Levine, Cai, Kaufmann, Rudra, Rosal, Hunt, Brunner, Michael, O'Sullivan, Wassertheil-Smoller, Kravitz, Serre	3	CT		AS226
852	Reproductive factors, dietary phytoestrogens, and lung cancer risk among never smoking women	Chien, Prentice, Chlebowski, Tran	3	Gen		
859	Assessing the predictive value of the driver risk score for colorectal cancer among women participating in the Women's Health Initiative	Ling, Kuller, Beresford, Freiberg, Lane	3	Gen		
864	Does neighborhood walkability moderate the effects of intrapersonal characteristics on amount of walking in post-menopause women?	Perry, Berke, Beresford, Ockene, Manson, Nguyen, Moudon, LaCroix	3	Gen		
867	Anemia and mortality in postmenopausal women	Chen, Thomson, Arendell, Beasley, Connelly, Kabat, Manson, Michael, Rohan, Stefanick, Verma, Limacher	3	Gen		M2
880	Defining the relationship between obesity and disability in postmenopausal women	Fowler-Brown, LaCroix, Mouton, Kotchen, Blanchette, Stefanick, Dugan, Leveille, Wee	3	CT		

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
881	Change in cognitive function in cancer patients among WHIMS participants	Resnick, Driscoll, Longo, Rapp, (Jaramillo) Gaussoin, Chlebowski, Masaki, Espeland, Stefanick, Lane	3	CT		AS39
884	Effects on dementia and cognitive functioning 3 years after stopping estrogen with and without progestin: the Women's Health Initiative Memory Study	Legault, Shumaker, Curb, Manson, Johnson, Stefanick	3	CT		AS39
892	Racial differences in the efficacy of estrogen for menopausal vasomotor symptom relief: Results from the WHI	Lasser, Goldsmith, Harrigan, Safford, Gass, Ko, Iglesia, Kim	3	CT		
896	Hemostatic and inflammatory markers as risk factors for hemorrhagic stroke	Greenland, Kim, Eaton, Curb, Manson, Martin, Allison, Li, Wassertheil-Smoller	3	CT		
908	C-GEMS paper	Chanock, Kooperberg, Wactawski-Wende, Caan, Prentice	3	Gen		M3
909	Spatial distribution of ischemic lesions in WHIMS-MRI and effects of postmenopausal hormone therapy	Davatzikos, Resnick, Bryan, Casanova, Espeland	3	CT		AS183
911	Impact of potential drug interactions on health outcomes in post menopausal women: Results from the Women's Health Initiative study	Suda, Johnson, Wan, Self, Phillips, O'Sullivan, Mouton	3	CT		
916	Hormone therapy, estrogen metabolism and risk of breast cancer in the WHI HT Trial	Mackey, Kuller, Modugno, Chlebowski, Manson, Curb, Cauley, Klug	3	CT		BAA12
917	Hormone therapy, estrogen metabolism and risk of hip fracture in the WHI HT Trial	Mackey, Kuller, Modugno, Curb, Cauley, Klug	3	CT		BAA12
937	Psychological attitudes and neuroanatomy: the women's health initiative magnetic resonance imaging study	Tindle, Resnick, Espeland, Kuller, Brunner	3	CT		AS183
947	Weight cycling and cancer risk in post menopausal women: The Women's Health Initiative (United States)	Sangi-Haghpeykar, Rajkovic, Aagaard-Tillery, Vitolins, Snetselaar, Johnson, Luo, Ockene, Lane, Anderson	3	Gen		

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
952	Psychological attitudes and incidence of cancer	Tindle, Kuller, Matthews, Scheier, Ockene, Rosal, Messina, Manson, Thomson, Woods, Taylor, Hunt	3	Gen		
953	Combined impact of healthy lifestyle factors on mortality among post-menopausal women: a WHI Study	Waring, Eaton, Brunner, Parker, Manson, Ockene, VanHorn, Powell, Vitolins, Stefanick, Hingle, Mossavar-Rahmani	3	Gen		
956	Psychological attitudes and important health outcomes in “healthy” vs. “unhealthy” populations	Tindle, Kuller, Matthews, Connelly, Brunner, Tinker, Wylie-Rosette, Rosal, Messina, Woods, White, Hunt	3	Gen		
958	Psychological attitudes and important health outcomes: is it more important to be optimistic, or to not be pessimistic?	Tindle, Kuller, Matthews, Tinker, Coday, Rosal, Messina, Manson, Woods, Hunt	3	Gen		
959	Evaluation of differences in the association of insulin/IGF axis components with breast cancer risk by estrogen receptor status in a case-cohort investigation: a formal analysis	Cai, Kang, Gunter, Strickler, Xue, Wassertheil-Smoller, Vitolins, Chlebowski	3	OS		AS129
960	Body mass index, waist circumference and mortality in a large multiethnic cohort—Results from the Women’s Health Initiative	Chen, Thomson, Jackson	3	Gen		AS153
968	Calcium/ Vitamin D supplementation and the risk of peripheral artery disease: the Women's Health Initiative	Berger, Mohler, Wassertheil-Smoller, Manson, Allison, Connelly, Hiatt	3	CT		
973	Hormone exposure and risk of Parkinson’s disease among women with surgical menopause	Saunders-Pullman, Derby, Santoro, Wassertheil-Smoller, Petrovich, Cochrane	3	OS		
974	Obesity, metabolic syndrome, insulin resistance, and risk of type 2 diabetes or cardiovascular disease in postmenopausal women	Greco, Stefanick, Howard, Phillips, Allison, Liu, Thomas, Rajpathak, Wildman, LaMonte	3	Gen		
978	The associations between hypertension status, access/use indicators and geographic location among African American and Latino women	Gaskin, Dinwiddie, Zambrana, Wassertheil-Smoller, Phillips, Li, Pokras	3	Gen		

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
981	Genomewide association study of clinical diabetes in Black and Hispanic women: with special emphasis on gene-gene and gene-environment interactions	Liu, You, Chen, Chan, Sobel, Carlson, Kooperberg, Reiner, Tinker, Howard, Kuller, Jackson, Manson, Curb, Phillips, Eaton, et al.	3	Gen		M5
982	Type 2 diabetes risk prediction methods using Genome-wide association study of Black and Hispanic postmenopausal women	Liu, Chen, You, Zhou, Horvath, Carlson, Kooperberg, Reiner, Tinker, Howard, Kuller, Jackson, Manson, Curb, Johnson, Papanicolaou, et al.	3	Gen		M5
983	Genome wide association study of alcohol consumption among African American and Hispanic women in the Women's Health Initiative	Kuller, Freiberg, Edenberg, Foroud, Kraemer, Ibrahim, Reiner	3	Gen		M5
985	Genome-wide association of weight change among minority women: The WHI Study	Monda, North, Carlson, Wassertheil-Smoller, Neuhouser, Rampersaud, Kooperberg, Reiner, Liu, Howard, Manson, Kuller, Bradshaw, Papanicolaou	3	Gen		M5
986	Genome-wide association of adiposity traits among minority women: The WHI Study	Monda, North, Carlson, Wassertheil-Smoller, Neuhouser, Rampersaud, Kooperberg, Reiner, Liu, Howard, Manson, Kuller, Ochs-Balcom, Johnson, Sucheston, Vitolins, et al.	3	Gen		M5
987	Genome-wide association of age of menarche among minority women: the WHI study	Franceschini, Kooperberg, Heiss, North, Chen, Carlson, Rajkovic, Woods, Chen, Rhodes	3	Gen		M5
988	Genome-wide association of urinary incontinence in post-menopausal women	Franceschini, Loehr, Rajkovic, Quibrera, Heiss, Kooperberg, Hendrix	3	Gen		M5
989	Genome-wide association of blood pressure and hypertension: the WHI study	Franceschini, Eaton, Reiner, Carty, Quibrera, Heiss, North, Curb, Margolis, Martin, Papanicolaou	3	Gen		M5
990	Genome-wide association study of optimism and cynical hostility among minorities in the Women's Health Initiative (WHI)	Tindle, Kuller, Matthews, Feingold, Lin, Adams-Campbell, Rodriguez	3	Gen		M5

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MS ID	Title	Authors	Stage	Data Focus		Reference	Study #
994	Associations of genetic variation with dietary intake in WHI Minorities	Neuhouser, Carlson, Peters, Hutter, Chen, Ambrosone, North, Kooperberg, Mossavar-Rahmani	3	Gen			M5
996	Association between vitamin D-associated genes, cancer incidence, and intermediate cancer phenotypes in African Americans	Lin, Manson, Liu, Zhang, Liu, Jackson, Millen, Ockene, Vitolins, Wallace, Taylor, Papanicolaou	3	Gen			M5
998	The role of adiponectin pathway polymorphisms in breast cancer risk	Kaklamani, Mantzoros, Hayes, VanHorn, Chlebowski, Curb, Rademaker	3	Gen			M5
999	Does genetic variance explain differences in anemia rates in minority women enrolled in WHI? Findings from the Genome Wide Association Study	Chen, Reiner, Thomson, Lewis, LaCroix, Wright, Carlson, Chen, Kooperberg, Robbins, Rodriguez	3	Gen	1		M5
1001	Examining gene-gene and gene-environment interactions in obesity risk factors among minority women: The Women's Health Initiative	Edwards, Velez, Naj, Rampersaud, North, Neuhouser, Monda, O'Sullivan, Manson, Vitolins, Magvanjav, Kusimo	3	Gen			M5
1002	Physical activity and the role of common obesity gene variants in FTO with body mass index and obesity in postmenopausal women: The Women's Health Initiative Study	Naj, Velez, Edwards, Monda, North, Carlson, Wassertheil-Smoller, Neuhouser, Crawford, O'Sullivan, Rampersaud, Liu	3	Gen			M5
1003	Ancestry and admixture in African American women from the Women's Health Initiative	Chen, Kooperberg, Hoffman, Zakharia, Risch, Tang, Burchard, Thornton, Carlson, Reiner, Hutter, Robbins, Liu, Kaplan, Curb	3	Gen			M5
1004	Genome-wide association of age at menopause and reproductive lifespan among minority women: the WHI study	Chen, Franceschini, Kooperberg, Heiss, North, Carlson, Rajkovic, Brzyski, Woods, Rhodes	3	Gen			M5
1005	Development and evaluation of prediction rules for stroke in postmenopausal women	Cai, Lee-Jen, Smoller, Wassertheil-Smoller, Manson, Zhou	3	OS			
1006	Genetic determinants of fracture in minority women	Taylor, North, Franceschini, Jackson, LaCroix, Robbins, Lewis, Stefanick, Cauley, Johnson, Wactawski-Wende, LeBlanc	3	Gen			M5

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1007	Admixture mapping of BMI in Hispanic and African American women: the WHI SHARe study	Hutter, Carlson, Tang, Liu, Monda, North, Howard, Kuller, Manson, Reiner, Carty, Chen, Kooperberg, Risch, Villasenor, Coronado, et al.	3	Gen		M5
1008	Genome-wide association of venous thromboembolism in African American populations	Avery, Reiner, Whitsel, Curb, Lessin, Eaton	3	Gen		M5
1010	GWAS analysis for genetic predictors of sarcopenia among WHI women enrolled in the DXA cohort	Chen, Carty, Thompson, Guerra, Lewis, LaCroix, Thomson, Wright, Sucheston, Wactawski-Wende, Curb, Liu, Hu, Ochs-Balcom	3	Gen		M5
1013	Sex hormone-related gene variants and cardiovascular disease in African American women	Wang, Lin, Liu, Rexrode, Sesso, Manson, Martin, Rossouw, Eaton	3	Gen		M5
1014	Genetic variants associated with body composition traits in Hispanic and African-American women	Carty, Peters, Neuhouser, Kooperberg, Kratz, Sucheston, Ochs-Balcom, Wactawski-Wende, Jackson, Kaplan, Manson, Chen	3	Gen		M5
1016	Genetic variants associated with stroke in Hispanic and African-American women of the Women's Health Initiative Study	Carty, Reiner, Hutter, Curb, Wassertheil-Smoller, Rexrode	3	Gen		M5
1019	Admixture mapping of DXA-derived fat mass in the WHI SHARe population	Ochs-Balcom, Sucheston, Thompson, Liu, Ambrosone, Carty, Peters, Neuhouser, Kooperberg, Hutter, Carlson, Chen, Wactawski-Wende, Kaplan, Preus, Johnson, et al.	3	Gen		M5
1020	Genome-wide association study of obesity and insulin resistance-related traits in postmenopausal African-American and Hispanic women	Greco, Raiesdana, Assimes, Quertermous, Stefanick, Curb, Manson, Phillips, Liu, Howard	3	Gen		M5
1022	ESR1 copy number variation and breast cancer risk in African Americans	Ochs-Balcom, Wactawski-Wende, Sucheston, LaFramboise, Thompson, Chlebowski, Li	3	Gen		M5
1025	Serum levels of hepatocyte growth factor and risk of endometrial cancer in postmenopausal women	Wang, Ho	3	OS		BAA10

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1028	Sleep characteristics and risk of mortality among older women: evidence from the Women's Health Initiative	Tom, LaCroix, Landis, Brunner, Ockene, Stefanick, Wactawski-Wende, Wassertheil-Smoller, Woods	3	Gen		
1030	Sarcopenia and falls and hip fractures	Cawthon, Chen, Thomson, Stefanick, Thomas	3	OS		
1032	Vitamin C supplementation and osteoporosis	Womack, Johnson, Carbone, Jackson, Snetselaar, O'Sullivan, Neuhouser	3	Gen		
1033	Effect of endogenous estradiol on the association of hormone therapy with breast cancer risk, the Women's Health Initiative Clinical Trials	Cummings, Farhat, Parimi, Vittinghoff, Lee, Huang, Grady, Jackson, Cauley, LaCroix, Lane, Phillips, Manson, Simon, Chlebowski, Anderson, et al.	3	CT		BAA7, W10
1038	The relation of folate intake and cognitive decline and dementia in the Women's Health Initiative Memory Study	Agnew-Blais, Smoller, Wassertheil-Smoller, Snetselaar, Hogan, Coker, Mysiw	3	WHIMS		AS103, AS39
1042	Relationships that cognitive function and changes in cognitive function have with incident cardiovascular disease: The Women's Health Initiative Memory Study (WHIMS)	Shumaker, Espeland, Curb, Lasser, Limacher, Manson, Ockene, Stefanick, Wallace, Wassertheil-Smoller, Phillips, Lovato	3	WHIMS		AS39
1043	VTE meta-analysis paper	Cushman	3	CT		
1048	Vitamin D and risk of atrial fibrillation in the WHI	Soliman, Vitolins, Case, Shalash, Prineas, Goff, Curb, Limacher, Manson, Snetselaar, Wassertheil-Smoller, Allison, Martin	3	CT		
1049	Fish consumption, n-3 PUFA intake, and stroke	Yaemsiri, He, Heiss, Eaton, Kuller, Howard, Curb, Beresford, Tinker, Rosamond, Wassertheil-Smoller, Sen	3	OS		
1050	Common genetic variation in the ion channel transient receptor potential membrane melastatin 6 (TRPM6) in relation to type 2 diabetes, and systemic inflammation among postmenopausal women	Chacko, Liu, Song, Curb, Eaton	3	OS		AS132, M5

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1053	Do social resources predict cognition in older women?	Denburg, Wallace, Zimmerman, Carnahan, Chrischilles, Capuano	3	CT		AS39
1058	Omega-3 fatty acid biomarkers and brain volumes	Pottala, Espeland, Wallace, Harris, Robinson, Shumaker, Jackson, Snetselaar	3	CT		AS183, BAA19
1059	Pathway analysis of genome-wide SNP data in relation to risk of colon cancer	Peters, Chen, Hutter, Prentice	3	OS		AS224
1061	A prospective evaluation of circulating adipokine levels and postmenopausal breast cancer risk	Gunter, Wassertheil-Smoller, Chlebowski, Manson, McTiernan, Snetselaar, Kakani	3	OS		AS126, AS129, BAA10
1062	Bone mineral density and risk of cardiovascular disease	Kim, Rhee, Greenland, Curb, Allison, Greep, Carbone, Martin, Womack	3	Gen		
1064	Proteomics and the health effects of postmenopausal hormone therapy: breast cancer	Hanash, Prentice, Pitteri, Chlebowski, Ockene, Wallace, Lopez, Rodgers	3	OS		BAA4
1067	Physical activity as a moderator of cardiovascular risk factors associated with sleep duration in postmenopausal women: The Women's Health Initiative Study	Sims, Stefanick, Ockene, Phillips, McGinn, Martin, Seguin, Hale	3	OS		
1068	Genetic variants in inflammatory genes influence the risk to multiple cancers	Kim, Vitolins, Xu, Chang, Kim, Li, Smith, Sun, Tooze, Turner, Zhang, Zheng, Zhu, Wallace	3	OS		BAA6
1069	Confirmation of cancer risk variants in African American women	Kim, Vitolins, Xu, Adams, Chang, Cheng, Kim, Li, Smith, Sun, Tooze, Turner, Zhang, Zheng, Zhu, Ochs-Balcom, et al.	3	OS		BAA6
1072	Genetic variants associated with obesity and anthropometry; The PAGE study	Chen, Peters, Kuller, Prentice, Kooperberg, Li, North, Carlson, Buyske, Ritchie, Unhee, Manson, Mackey	3	Gen		M6
1078	Prevalence of anti-CCP(+) antibodies among postmenopausal women who self-report RA within the WHI Observational Study and Hormone Trial	Moreland, Mackey, Kuller, Holers, Deane, Walitt, Eaton, Grillo, Bertoia	3	Gen		BAA20

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1080	Ethnic and racial variation in colorectal cancer survival in the Women's Health Initiative	Simon, Chlebowski, Pettijohn, Hubbell, O'Sullivan, Mouton, Lane, Thomson, Adams-Campbell, Abrams, Kato	3	Gen		
1082	Admixture mapping of DXA measured bone mineral density (BMD) in the WHI SHARe population	Sucheston, Ochs-Balcom, Thomson, Liu, Ambrosone, Carty, Peters, Neuhouser, Kooperberg, Hutter, Carlson, Chen, Wactawski-Wende, Jackson, Seldin, Robbins, et al.	3	Gen		M5
1084	Meta-analysis of APOE SNPs	Seddon, McKay, Haan, Peter	3	Gen		
1085	PanScan sonic hedgehog polymorphisms and survival	LaCroix, Kooperberg, Jackson, Agalliu, Rohan	3	Gen		M4
1087	Application of novel statistical methods to evaluate markers for electing treatment	Janes, Pepe, Anderson	3	CT		
1088	Neighborhood SES, diet, physical activity, smoking and alcohol consumption in women	Dubowitz, Bird, Ghosh-Datsidar, Jewell, Margolis, Beresford, Michael, Seguin	3	Gen		AS220
1089	Genetic variants associated with height in Hispanic women in the Women's Health Initiative Study	Zakharia, Risch, Kooperberg, Tang, Kaplan	3	Gen		M5
1092	Replication of association of bone mineral density measures with UGT2B17 and VPS13B copy number variation in the WHI SHARe population	Sucheston, Ochs-Balcom, Thompson, Jackson, Carty, Peters, Neuhouser, Kooperberg, Hutter, Carlson, Chen, Seldin, Wactawski-Wende, Preus	3	Gen		M5
1095	Joint models for global cognitive function and the incidence of probable dementia and mild cognitive impairment	Morgan, Espeland, Curb, Manson, Shumaker, Mouton, Casanova, Leng	3	WHIMS		AS39
1097	The association between anemia and cardiovascular disease (CVD) in postmenopausal women: Results from the Women's Health Initiative Study	Wu, Chen, Howard, Thomson, Allison, Manson, Eaton, Rodriguez, Reiner, Shahar	3	Gen		

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1098	The association of dietary fructose intake in older women with the risk of cardiovascular disease	Kratz, Prentice, Neuhouser, Tinker, Suazo, Margolis, Howard, Ritenbaugh, Wei, Shikany, Manson, Johnson, Snetselaar, VanHorn, Rosal, Plodkowski, et al.	3	OS		
1101	Dietary fat and antioxidant intake and risk of sudden coronary death in post-menopausal women	Bertoia, Eaton, Limacher, Shikany, Tinker, VanHorn, Neuhouser, Li, Martin, Najafi, Baylin, Triche	3	Gen		
1102	Beverage intake and risk of sudden coronary death in post-menopausal women	Bertoia, Eaton, Mossavar-Rahmani, Safford, Rosal, Neuhouser, Freiberg, Li, Baylin, Triche	3	Gen		
1103	Dietary pattern and risk of sudden coronary death in post-menopausal women	Bertoia, Eaton, Shikany, Tinker, VanHorn, Neuhouser, Li, Waring, Baylin, Triche	3	Gen		
1105	Genome-wide association and admixture analysis of age-related macular degeneration in the Women's Health Initiative	Risch, Thornton, Hoffman, Caan, Irribarren, Burchard, Ziv, Kvale, Tang, Hyman, Millen	3	Gen		M5
1107	The effect of hysterectomy, with and without bilateral oophorectomy (BSO), on pelvic organ prolapse (POP)	Shveiky, Kudish, Iglesia, Sokol, Shara, Park, Howard	3	CT		
1108	Ancestry and admixture in Latino American women from the Women's Health Initiative	Thornton, Tang, Chen, Hoffman, Zakharia, Risch, Burchard, Carlson, Reiner, Hutter, Kooperberg, Kaplan, Liu, Papanicolaou	3	Gen		M5
1112	Genome-wide association, admixture mapping and gene-environment interaction analysis of atrial fibrillation in the Women's Health Initiative	Risch, Perez, Stefanick, Kooperberg, Reiner, Caan, Irribarren, Hoffman, Thornton, Tang, Curb, Liu, Bock	3	Gen		M5
1115	Obesity and brain volume in post-menopausal women: The Women's Health Initiative Magnetic Resonance Imaging Study (WHIMS-MRI)	Driscoll, Wassertheil-Smoller, Espeland, Limacher, Gaussoin, Resnick, Yaffe, Casanova	3	WHIMS		AS183

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1119	Variation in vitamin D-associated genes, cardiovascular disease, and intermediate cardiovascular phenotypes in African Americans	Lin, Liu, Zhang, Liu, Jackson, Manson, Taylor, Limacher, Martin, Moreland, Johnson, Robinson, Rossouw, Curb	3	Gen		M5
1122	Pharmacogenetics of the hot flash response to hormone therapy	Skaar, Anderson, Carpenter	3	CT		M13, M5
1123	Effect of endogenous estradiol on the association of hormone therapy with dementia and mild cognitive impairment, stroke, and venous thromboembolism	Yaffe, Cummings, Farhat, LaCroix, Grady, Lee, Parimi, Vittinghoff	3	CT		BAA7
1131	Can mechanistic effects of low-risk, high-prevalence loci be gleaned from large-scale GWAS?	Jeon, Peters, Hsu, Luebeck	3	OS		AS224
1133	Low fat diet and risk of ductal carcinoma in situ (DCIS) of the breast: Results from the Women's Health Initiative Diet Modification Trial	Thomson, Tinker, VanHorn, Vitolins, Liu, Kaklamani	3	CT		
1139	The relationship between mammography screening recommendations and breast cancer outcomes	Simon, Hubbell, Thomson, Lane, Lessin, Kuller, Wassertheil-Smoller, Vankayala	3			
1141	Effect of endogenous estradiol on the association of hormone therapy with venous thromboembolism	Lee, Cummings, Farhat, Bauer, Grady, Huang, Parimi, Vittinghoff, Manson, Allison	3	CT		BAA7
1152	DASH and Mediterranean diet patterns and mortality in women with a history of heart failure	Levitan, Shikany, Lewis, Ahmed, Trevisan, Martin, Snetselaar, Manson, Curb, Eaton, Howard	3	OS		
1153	Calcium, magnesium, and potassium intake and mortality in women with a history of heart failure	Levitan, Shikany, Lewis, Ahmed, Martin, Curb, Snetselaar	3	OS		
1155	The relationship between alcohol consumption and risk of mortality among breast cancer survivors	Li, Chlebowski, Yasmeen, Simon, Freudenheim, Snetselaar, Bluhm, Lane	3	Gen		
1158	Vitamin D levels and ethnicity	Robbins, Seldin, Qi, Cauley, Liu, Johnson, Wright, Manson, Wactawski-Wende, Curb, LeBlanc, Womack, Millen	3	Gen		BAA1, BAA9

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1160	Genome-wide association study of heart rate variability measures among minority women in the WHI clinical trials	Quibrera, Whitsel, Avery, Heiss, North, Smith, Wilhelmsen, Liao, Tinker, Limacher, Lin, Zhang, Trevisan, Robinson, Curb	3	Gen		AS264, M5
1164	Plasma markers of interleukin (IL)-6 dysregulation and risk of multiple myeloma: a pooled study in the Multiple Myeloma Cohort Consortium	Birmann, Neuhouser, Manson, Colditz, Wallace, Albanes, Buring, Giles, Lan, Landgren, Lee, Purdue, Rosner, Rothman, Severi, Virtamo, et al.	3	Gen		AS207
1165	Plasma markers of insulin-like growth factor (IGF)-1 dysregulation and risk of multiple myeloma: a pooled study in the Multiple Myeloma Cohort Consortium	Birmann, Neuhouser, Manson, Colditz, Lessin, Albanes, Buring, Giles, Lan, Landgren, Lee, Purdue, Rosner, Rothman, Severi, Virtamo, et al.	3	Gen		AS207
1166	Metformin and colon cancer outcome	Cossor, Martell, Paulus, Wallace, Simon, Rohan, McTiernan, Johnson, Gunter, Chlebowski, Adams-Campbell	3	Gen		
1171	Mature genetic variants and subclinical atherosclerosis in multi-ethnic cohorts of the PAGE Consortium	North, Boerwinkle, Franceschini, Li	3	Gen		M6
1172	On the generalization of GWAS findings to minority populations	Carlson, Crawford, North, Haiman, Ritchie, Stram, Matise, Thomas, Eaton, Carty, Kooperberg, Young, Peters	3	Gen		M6
1173	Lifestyle risk factors of breast cancer – quantification of the mediating effect of endogenous estrogen levels	Hvidtfeldt, Gunter, Wassertheil-Smoller, Lee, Farhat, Hulvej Rod, Lange, Keiding, Tjønneland, Chlebowski, Vitolins, Lane, Freiberg, Prentice	3	OS		AS129, AS167, BAA21
1175	Germline telomere length and the risk of pancreatic cancer in five prospective cohorts	Wolpin, Manson, Fuchs, Rohan, Cochrane	3	OS		AS214
1176	Genome-wide association study meta-analysis of fibrinogen in minority women in WHI and CARe	Eaton, Liu, Wallace, Curb, Reiner	3	Gen		M5

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1179	Depression, antidepressant use and diabetes risk in postmenopausal women	Ma, Ockene, Pagoto, Schneider, Hebert, Balasubramanian, Beck, Culver, Olendzki, Sepavich, Phillips, Smoller, Calhoun, Rodriguez, Goveas, Liu, et al.	3	Gen		
1180	Genome-wide association of kidney stones in post-menopausal women of varying ethnicity	Stoller, Kahn, Chi, Franceschini, Reiner, Carty, Jackson	3	Gen		M5
1188	The influence of excess body weight in post-menopausal women on the risk of skin cancer: The Women's Health Initiative Study	Boussard-Hernandez, Tang, Stefanick, Sims, McTiernan, Aroda, Sangi-Haghpeykar, Thomas, Morton	3	Gen		
1192	Genetic association of ventricular repolarization and heart rate in the multi-ethnic cohorts of the PAGE Consortium	Avery, Whitsel, Deelman, Hindorff, Buzkova, Heckbert, Psaty, Jeff, Perez, Martin	3	Gen		M6
1193	Genetic association of atrioventricular conduction and atrial fibrillation in the multi-ethnic cohorts of the PAGE Consortium	Whitsel, Avery, Deelman, Hindorff, Buzkova, Heckbert, Psaty, Jeff, Albert, Perez, Martin	3	Gen		M6
1194	Association of genetic variants and inflammation in the PAGE study	Kocarnik, Peters, Pendergrass, Pankow, Cheng, Schumacher, Matise	3	Gen		M6
1200	CHARGE meta-analysis of RBC traits	Chen, Snively	3	Gen		
1202	Racial/ethnic differences in the use of adjuvant hormonal therapies among women with ER+ breast cancer	Livaudais, LaCroix, Coronado, Yasmeen, Chlebowski, Simon, Erwin, Hubbell, Li, Thompson, Yanez, Habel	3	Gen		
1203	Vitamin D intake and potential interaction with vitamin A/retinol in relation to lung cancer risk in the Women's Health Initiative	Cheng, Neuhouser, LaCroix, Chlebowski, Ho, Zheng	3	Gen		
1212	Association of hot flashes with breast cancer risk	Cummings, Farhat, LaCroix, Grady, Yasmeen, Chlebowski, Vitolins, Manson, LeBlanc, Messina	3	CT		
1214	Application of imbalanced learning methods to study associations of region-specific brain volumes with cognitive function using WHIMS study data	Casanova, Resnick, Rapp, Gaussoin, Espeland, Maldjian, Petrovich	3	WHIMS		AS183, AS39

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1218	Dietary determinants of plasma levels of sex hormone binding globulin among postmenopausal women	Goto, Liu, Song, VanHorn, Rexrode, Lee, Jackson, Howard, Gunter, Farhat, Cummings, Chen, Cauley	3	Gen		AS110, AS167, AS90, BAA21, BAA7, BAA9, W10, W18, W5, W9
1219	Polymorphisms in sex hormones pathway in relation to type 2 diabetes risk among African-American and Hispanic postmenopausal women	Goto, Liu, Song, Curb	3	Gen		M5
1222	Reproductive history and risk of colorectal cancer in the Women's Health Initiative Observational Study	Gunter, Strickler, Howard, O'Sullivan, Thomson, Messina	3	OS		
1226	Relationship between homocysteine and cysteine and risk of incident colorectal cancer in the Women's Health Initiative Observational Cohort	Miller, Ulrich, Beresford, Zheng, Neuhouser, Cheng, Rodriguez, Green	3	OS		AS195
1227	Relationship between red blood cell folate and plasma folate and risk of incident colorectal cancer in the Women's Health Initiative	Neuhouser, Beresford, Song, Ulrich, Miller, Cheng, Brown, Zheng, Rohan, Connelly, Vitolins, Thomson, Shikany	3	OS		AS195
1231	Spirituality, spiritual practices and survival among post-menopausal women	Salmoirago-Blotcher, Ockene, Fitchett, Crawford, Post, Chlebowski, Schnall, Thomson, O'Sullivan	3	OS		
1233	Social support and physical activity as moderators of life stress in predicting change in depression over time in the Women's Health Initiative study	Uebelacker, Eaton, Weisberg, Williams, Taylor, Sands, Manson, Denburg, Calhoun	3	OS		
1234	Validating cancer risk models: a pilot study to evaluate cost-efficient methods	Whittemore, McGuire, Stefanick, Anderson, Makambi, Lessin, Lane	3	Gen		
1235	MYH9 polymorphisms and chronic kidney disease progression in CARDIA		3	Gen		M6
1236	Phenome-wide study of complex traits	Avery, Wallace, Reiner, Jackson, Wu, Lin, Fesinmeyer, Kooperberg	3	Gen		M6

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1237	Phenotype-wide association study for exploration of novel SNP and phenotype relationships within PAGE	Ritchie, Wallace, Moreland, Reiner, Jackson, Kooperberg, Lin, Fesinmeyer	3	Gen		M6
1241	PAGE metabochip project - lipids	Crawford, Robinson, Eaton, Assimes, Carty, Lin, Duggan, Young	3	Gen		M6
1243	PAGE metabochip project - blood pressure/hypertension	Franceschini, Bluhm, Martin, Fesinmeyer, Wu, Anderson, Mann, Carty	3	Gen		M6
1244	PAGE metabochip project - CHD	Heiss, Franceschini, Boerwinkle, Manson, Greenland, Johnson, Martin, Lin, Carty, Howard	3	Gen		M6
1245	PAGE metabochip project - QT interval and related ECG traits	Avery, Whitsel, Klein, Perez, Anderson, Fesinmeyer, Duggan, Young, Kooperberg	3	Gen		M6
1246	PAGE metabochip project - inflammation/clotting	Reiner, Liu, Haessler, Peters, LaCroix, Kocarnik, Assimes	3	Gen		M6
1247	PAGE metabochip project - subclinical atherosclerosis measures	Franceschini, Heiss, Manson, Allison, Robinson, Assimes, Martin	3	Gen		M6
1248	PAGE metabochip project - reproductive SNPs	Spencer, Brennan, Carty, Rajkovic, Young, Wu, Park, Carlson	3	Gen		M6
1249	PAGE metabochip project - metabolic syndrome	Carty, Liu, Aroda, Haessler, Peters, Jackson, Carlson	3	Gen		M6
1250	PAGE metabochip project - admixture and chronic disease	Buyske, Wallace, Lee, Kooperberg, Haessler, Carlson, Peters, Duggan	3	Gen		M6
1258	Genetic variants associated with self-reports of happiness	Kohen, Nguyen, Lange, LaCroix, Woods, Tindle, Ockene, Mouton, Manson	3			M5
1259	Omega-3 fatty acid biomarkers and domains of cognitive function, affect, and mood	Robinson, Denburg, Pottala, Harris, Espeland, Carnahan, Wallace, Shumaker, Limacher	3	CT		AS103, BAA19

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1260	Omega-3 fatty acid biomarkers, global cognitive function, and cognitive impairment	Robinson, Denburg, Pottala, Harris, Espeland, Carnahan, Wallace, Shumaker, Jackson, Manson, Mysiw	3	CT		AS39, BAA19
1263	The influence of physical activity and age on changes in body composition of postmenopausal women: The Women's Health Initiative Study	Sims, Stefanick, Chen, Allison, Bea, Beasley, Beresford, Manson, Seguin, Sullivan, Wylie-Rosette, Michael	3	Gen		
1264	Prospective analysis of sleep and coronary heart disease among post-menopausal women participating in the Women's Health Initiative	Sands, Loucks, Linkletter, Eaton, Carskadon, Hairston, Hale, Limacher, Ockene, Robinson, Shah, Stefanick, Sharkey	3	Gen		
1266	Pathway based association analysis of melanoma genes in PanScan	LaCroix, Amundadottir	3			M4
1269	Long-term association between reproductive loss and depressive symptoms	Weisberg, Eaton, Uebelacker, Bertoia, Rudra, Johnson	3	Gen		
1270	Associations of lifetime tobacco smoke exposure estimates with airflow obstructive diseases in post-menopausal women	Hyland, Piazza, Wactawski-Wende, DeBon	3	Gen		
1271	Associations of lifetime active and passive smoking with risks of spontaneous abortion, stillbirth, and ectopic pregnancy: historical data from the Women's Health Initiative	Hyland, Piazza, Wactawski-Wende, Rudra, Messina, Ockene	3	Gen		
1273	Use of the urinary sugars biomarker to assess measurement error structure of self-reported intake in the Nutrition and Physical Activity Assessment Study (NPAAS)	Tasevska, Schatzkin, Tinker, Beasley, VanHorn, Prentice, Potischman, Neuhouser, Midthune, Lampe, Kipnis	3	OS		AS218, M12
1276	Score based pathway approach of one-carbon related genes and pancreatic cancer in PanScan		3			M4
1283	Epstein-Barr Virus in Relation to Non-Hodgkin Lymphoma	De Roos, Madeleine, LaCroix, Edlefsen, Martinez-Maza, Jerome, Mirick, Magpantay	3	OS		BAA13

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1284	Effect of hormone therapy on symptoms of sleep disordered breathing: Results of the Women's Health Initiative – Hormone Therapy Trials	Shah, Wassertheil-Smoller, Margolis, Appel, Mohsenin, Stefanick, Rafalson, Masaki, Manson, Hale	3	CT		
1288	Trajectories of subjective wellbeing among aging women: Observations from the Women's Health Initiative Study	Woods, Cochrane, Kohen, LaCroix, Dobra, Zaslavsky, Stefanick	3	Gen		
1289	Outcomes of subjective wellbeing among women as they age: The Women's Health Initiative Study	Woods, Cochrane, Kohen, LaCroix, Dobra, Zaslavsky	3	Gen		
1290	Health, aging, and well-being: Comparing and integrating multiple measures	Woods, Cochrane, Kohen, LaCroix, Dobra, Zaslavsky	3	Gen		
1292	Red blood cell n-3 and n-6 fatty acids as a biomarker of hip fracture risk	Jackson, Ing, Orchard, Wactawski-Wende, Johnson	3	Gen		AS271
1293	Red blood cell n-3 and n-6 fatty acid concentrations as predictors of inflammatory and bone markers in The Women's Health Initiative	Jackson, Ing, Orchard, Cauley, Robinson, LaMonte	3	Gen		AS271
1295	Coronary heart disease and the risk for mild cognitive impairment and dementia in postmenopausal women	Haring, Wassertheil-Smoller, Beyth, Goveas, Robinson, Wactawski-Wende, Kuller, Johnson, Jackson, Leng	3	CT		AS39
1299	Genome-wide association study of ventricular depolarization among minority women in the WHI clinical trials	Butler, Avery, Heiss, Lin, North, Whitsel, Tinker, Limacher, Wilhelmsen, Smith, Liao, Zhang, Eaton	3	Gen		AS264, M5
1300	Relationship of 27-hydroxycholesterol to CHD risk and its interaction with menopausal hormone therapy on CHD risk	Rossouw, Prentice, Kuller, Hsia, Jackson, Allison, Johnson, Martin, Trevisan, Eaton, Kuller, Manson	3	CT		W39
1301	Health risks and benefits post-stopping the diet modification arm of the Women's Health Initiative Clinical Trial	VanHorn, Thomson, Howard, Curb, Beresford, Robinson, Snetselaar, Chlebowski, Belin	3	CT		
1303	Predictors of positive aging	Woods, Cochrane, LaCroix, Herting, Zaslavsky, Wactawski-Wende, Tinker, Stefanick, Robinson, Martin, Kuller, Johnson, Goveas, Curb	3	Gen		

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1304	Exogenous hormone use, reproductive factors and risk of glioma and meningioma	Bristow, De Roos, Beresford, Rohan, Wactawski-Wende	3	Gen		
1310	Occupational exposures throughout life course and late life lower-body bone health	Michael, Burstyn, Lee, Wallace	3	OS		
1312	Serum 25-hydroxyvitamin D levels and risk of developing nonmelanoma and melanoma skin cancers: The Women's Health Initiative Study	Tang, Stefanick, Shikany, Millen, Messina, Manson, Chlebowski, Swetter	3	CT		
1313	Genome-wide association and admixture analysis of glaucoma in the Women's Health Initiative	Risch, Thornton, Hoffman, Caan, Irribarren, Burchard, Ziv, Kvale, Tang, Thomas, Millen	3	CT		M5
1314	Estimating kinship in admixed populations: application to the WHI Data	Risch, Thornton, Hoffman, Caan, Irribarren, Burchard, Ziv, Kvale, Tang, Papanicolaou, Thomas, Ochs-Balcom, Curb	3	CT		M5
1317	Prognostic significance of bundle branch block for predicting incident fatal and nonfatal cardiac events and total mortality in the Women's Health Initiative (WHI)	Zhang, Soliman, Vitolins, Prineas, Mehta, Martin, Manson, Curb, Cain, Bavry, Rautaharju	3	CT		
1318	Comparison of predictors for CHD versus stroke in a multiethnic cohort of women	Paynter, Cook, Ridker, Manson, Robinson, Leira, LaMonte, Lakshminarayan, Curb	3	OS		BAA22
1319	Comparison of lifestyle based to biomarker based CVD prediction in a multiethnic cohort of women	Paynter, Cook, Ridker, Manson, Robinson, Phillips, Martin, LaMonte	3	OS		BAA22
1320	Development of a survival analysis methodology with high dimensional covariates and error-prone outcomes, with application to the Women's Health Initiative	Balasubramanian, Ma, Sepavich, Ockene	3	Gen		
1321	Influence of network designs on health effect estimation from predicted exposures	Kim, Sheppard, Vedal, Anderson, Rudra	3	OS		AS150
1323	Increased plasma levels of MAPRE1 preceding a diagnosis of colorectal cancer	Ladd, Hanash	3	OS		

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1325	Hormone replacement therapy associated suppression of autoimmune response to breast cancer antigens	Ladd, Hanash	3	OS		
1326	Diabetes mellitus as a risk factor for thyroid cancer	Luo, Margolis, Liu, Phillips, Wactawski-Wende	3	Gen		
1329	Effect of endogenous estradiol on the association of hormone therapy with Coronary Heart Disease	Bauer, Cauley, Cummings, Farhat, Grady, Huang, Lee, Parimi, Vittinghoff, Manson	3	CT		BAA7
1330	Transitions in socioeconomic positioning and physical and mental health outcomes	Lapane, Parsons, Eaton, Seguin, Michael, Messina, Bell	3	OS		
1332	Postdiagnosis diet quality, the combination of diet quality and physical activity, and survival among postmenopausal women with breast cancer: Results from the Women's Health Initiative	George, Neuhouser, Beresford, Caan, Ballard-Barbash, Freudenheim, Kroenke, Shikany, Vitolins	3	Gen		
1333	Factors associated with functional trajectory after stroke	Bell, Curb, Masaki, LaCroix, Mysiw, Wassertheil-Smoller, Manini	3	Gen		
1338	Endogenous circulating sex hormone levels and colorectal cancer risk in postmenopausal women	Gunter, Strickler, Wassertheil-Smoller, White, Wactawski-Wende, Ho, Chlebowski	3	CT		BAA21
1339	Oxidative balance score and risk of breast cancer: results from the Women's Health Initiative Observational Study	Agalliu, Kabat, Rohan, Wassertheil-Smoller, Browne, Hou, Kroenke, Shikany, Vitolins	3	OS		
1341	Cutaneous melanoma and nonsteroidal anti-inflammatory drugs: Prospective results from the Women's Health Initiative	Swetter, Spaunhurst, Stefanick, Tang, Gamba, Desai, Kubo, Sinha, Asgari	3	OS		
1342	Genome-wide association analysis of hormone therapy-gene interaction on coronary heart disease, stroke, and venous thrombosis outcomes in WHI	Reiner, Martin, Lawson, Eaton, Manson, Wang, Rexrode, Phillips, Rossouw, Kooperberg, Jackson, Robinson, Wactawski-Wende, Qi, Prentice, Liu, et al.	3	CT		M13

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1343	Physical activity and survival in women treated for endometrial cancer: Results from the Women's Health Initiative	Arem, Irwin, Chlebowski, Stefanick, Wactawski-Wende, Sims, Gunter, Anderson	3	Gen		
1345	Pleiotropic effects of cancer risk variants on prostate cancer risk	Schumacher, Haiman, Hindorff, Fowke, Butler, Biggs	3			M6
1346	Pleiotropic effects of cancer risk variants on breast cancer risk	Carty, Haiman, Hindorff, Biggs, Quibrera, Freudenheim, Yasmeen, Manson, Chlebowski	3	Gen		M6
1347	Pleiotropic effects of cancer risk variants on colorectal cancer risk	Peters, Le Marchand, Hindorff, Cheng, Caberto, Buzkova, Butler	3	Gen		M6
1348	Pleiotropic effects of cancer risk variants on lung cancer risk	Fesinmeyer, Le Marchand, Cheng, Bookman, Hindorff, Caberto, Spencer, Biggs, Quibrera, Giovino, Cote	3	Gen		M6
1350	Pleiotropic effects of cancer risk variants on ovarian cancer risk	Setiawan, Kooperberg, Bookman, Moysich, Manson	3	Gen		M6
1351	Pleiotropic effects of cancer risk variants on non-hodgkin lymphoma risk	Lim, Caberto, Peters, Spencer	3	Gen		M6
1352	Pleiotropic effects of cancer risk variants on melanoma risk	Kocarnik, Peters, Park, Le Marchand, Spencer	3	Gen		M6
1360	Plasma 25-hydroxyvitamin D (25(OH)D) concentrations and periodontal disease in postmenopausal women	Millen, Meng, Hovey, LaMonte, Andrews, Genco, Wactawski-Wende	3	OS		AS15
1361	Physical activity and sedentary activity change after a diabetes diagnosis	Schneider, Ma, Pagoto, Ockene, Waring, Stefanick, Sims, Seguin, Ning, Margolis, Manini, LaMonte	3	OS		
1363	Burden of depressive symptoms and hostility among metabolically benign obese women	Wildman, Wylie-Rosette, Xu, Wassertheil-Smoller, Rajpathak, Tindle, Kroenke, McGinn, Khan	3	Gen		
1365	Menstrual and reproductive factors and exogenous hormone use and risk of thyroid carcinoma in the Women's Health Initiative	Kabat, Kim, Rohan, Wassertheil-Smoller, Wactawski-Wende, Lane	3	Gen		

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1367	Glaucoma and osteoporosis	Watsky, Thomas, Johnson, Carbone, Wactawski-Wende, Chen	3	Gen		
1376	Effect of age of menopause on fracture rates and bone mineral density in the WHI Observational Cohort: The Women's Health Initiative Observational Study	Sullivan, Howard, Pehlivanova, Wactawski-Wende, Thomas, Lacey, Ko, Johnson, Jackson, Curb, Chen	3	OS		
1377	Relationship between plasma vitamin B6 and risk of incident colorectal cancer in the Women's Health Initiative Observational Cohort	Miller, Ulrich, Zheng, Neuhouser, Green, Rohan, Platek, Cheng, Brown	3	OS		AS195
1382	Oral bisphosphonate use and colorectal cancer risk	Newcomb, LaCroix, Coghill, Passarelli, Lane, Ho, Chlebowski	3	Gen		
1383	Effects of beer, wine and liquor consumption on bone mineral density and the incidence of hip fracture in postmenopausal women	Kubo, Stefanick, Desai, Wactawski-Wende, Robbins, Freiberg, Cullen	3	CT		
1384	Risk of Alzheimer's disease amongst cancer patients	White, Hall, Wassertheil-Smoller, Lipton, Steinerman, Masaki, Gong	3	WHIMS		AS39
1385	Physical activity assessment: biomarkers and self-report in the WHI OS	Neuhouser, Di, Sternfeld, Tinker, Prentice, Thomson, Stefanick, Sims, Seguin, Mossavar-Rahmani, LaMonte, Johnson, Curb	3	OS		AS218, W27
1386	Health behaviors and ovarian cancer risk in the Women's Health Initiative Cohort	Fan, Messina, Thengampallil, Lane, Thomson, Randall, Moysich, Manson, Chlebowski, Caan, Bristow, Anderson	3	Gen		
1388	Associations between type 2 diabetes risk and body composition measured clinically and by dual-energy x-ray absorptiometry	Roberts, Chen, Liu, Wactawski-Wende, LaMonte, Allison, Miljkovic, Lewis, Going, Carty, Manson, Lee	3	Gen		
1389	Biomarker-calibrated protein intake and physical function measures in the WHI	Beasley, LaCroix, Prentice, Eaton, LaMonte, Seguin, Shikany, Kritchevsky, Chen, Aragaki	3	Gen		

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1391	Aging without disease and disability in women: the role of body size and distribution	Rillamas-Sun, LaCroix, Curb, Masaki, Bell, Waring, Wallace, Vitolins, Seguin, Manini, LaMonte, Kroenke, Gass	3	Gen		
1392	Poor physical and mental health predicts cardiovascular disease incidence and mortality: Findings from the Women's Health Initiative (WHI)	Saquib, Kubo, Brunner, Stefanick, Desai	3	CT		
1393	Physical and mental health decline predicts cardiovascular disease incidence and mortality: Findings from the Women's Health Initiative (WHI)	Saquib, Brunner, Kubo, Stefanick, Desai	3	CT		
1395	The proportions of women aged 50-64 years selected for bone density testing using 3 osteoporosis screening strategies	Crandall, Cauley, LaCroix, Ensrud, Watts, Wactawski-Wende, Robbins, Gass, Donaldson	3	Gen		
1396	Race/ethnicity, colorectal cancer screening, and incidence of colorectal cancer in post-menopausal women	Diaz, Eaton, Bertoia, Simmons, Simon, Sarto, Messina, Kroenke	3	Gen		
1397	Utilization of chronic medications with metabolic effects as a predictor of incident diabetes in postmenopausal women	Cooper-DeHoff, Delaney, Winterstein, Howard, Limacher, Wen, Song, Phillips, Manson, Chen, Brennan, Bavry	3	Gen		
1399	Survival analysis in the presence of outcome misclassification and high dimensional covariates from Genome-wide Association Studies, with application to the Women's Health Initiative	Balasubramanian, Ma, Sepavich	3	Gen		
1404	Associations of menopausal vasomotor symptoms with bone mineral density and fracture incidence	Crandall, Cauley, LaCroix, Watts, LeBlanc, Manson, O'Sullivan, Vitolins, Wactawski-Wende, Wallace	3	OS		
1405	Helicobacter pylori serology and pancreatic cancer risk in five prospective cohorts	Wolpin, Bao, Manson, Fuchs, Cochrane, Anderson, Wallace	3	OS		AS214
1406	Insulin, proinsulin, C-peptide, hemoglobin A1c and pancreatic cancer risk in five prospective cohorts	Bao, Wolpin, Manson, Fuchs, Cochrane, McTiernan, Phillips	3	OS		AS214

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1407	Plasma leptin and pancreatic cancer risk in five prospective cohorts	Bao, Wolpin, Manson, Fuchs, Cochrane, Luo, Anderson	3	OS		AS214
1408	Plasma adiponectin and pancreatic cancer risk in five prospective cohorts	Bao, Wolpin, Manson, Fuchs, Cochrane, Kaklamani, Lin	3	OS		AS214
1412	Dietary cadmium exposure and breast cancer risk	Adams, Newcomb, Neuhouser, Passarelli, Mu, Meliker, Luo, Chlebowski	3	Gen		
1413	Dietary cadmium and endometrial cancer risk	Adams, Newcomb, Neuhouser, Passarelli, Mu, Meliker	3	Gen		
1414	Rates of changes in brain volumes and ischemic lesion volumes following exposure to conjugated equine estrogen therapies: Results from the Women's Health Initiative Magnetic Resonance Imaging Study	Coker, Espeland, Bryan, Davatzikos, Goveas, Hogan, Kuller, Resnick, Robinson, Shumaker, Williamson	3	CT		AS183
1415	Vascular factors as the moderator of the relationship between depressive symptoms and incident cognitive impairment in post-menopausal women: WHISCA	Goveas, Espeland, Kotchen, Resnick, Hogan, Shih, Robinson, Barnes	3	CT		AS103
1417	The association between body mass index and fracture among postmenopausal women	Wright, Levis-Dusseau, Wactawski-Wende, Chen, Watts, LaCroix, Jackson, Curtis, Crandall, Cauley, Carbone, Bea, Stefanick, Robbins	3	Gen		
1418	Aspirin and other non-steroidal anti-inflammatory drug (NSAID) use and lung cancer risk in the Women's Health Initiative	Baik, Prentice, Wactawski-Wende, Luo, Gong, Brasky	3	Gen		
1421	Dietary inflammatory index and markers of inflammation	Steck, Hebert, Ma, Ockene, Zhang, Shikany, Park, Millen, Martin, Jiao, Hou, Agalliu, Hingle, Rosal, Liu, Shivappa, et al.	3	OS		
1422	Association between cytokines, sex steroid hormones and bone turnover and fracture risk in multi-ethnic women: the Women's Health Initiative	Cauley, Danielson, Boudreau, Prasad, Jackson, Bauer, Ensrud, Wactawski-Wende, Chlebowski	3	OS		BAA9

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1424	Sitting time and development of diabetes in the Women's Health Initiative	Manini, Limacher, Anton, Shorr, Swami, Stefanick, Song, Sims, Rodriguez, Manson, LaMonte, Hingle, Garcia	3	OS		
1425	Protein intake patterns and gallbladder disease in postmenopausal women	Koch, Chen, Thomson, Hsu	3	Gen		
1427	Perceived social support, mortality, and cardiovascular risk in the Women's Health Initiative Observational Study Cohort	Freeborne, Howard, Simmens, Martin, Wiley Cene, Messina, Manson, Denburg, Corbie-Smith, Bell, Allison	3	OS		
1430	Longitudinal relationships between short-sleep duration, weight and adiposity in older women	Tom, Landis, Berenson, Markides, Woods, Newton, Seguin, Manson, Hale	3	Gen		
1431	Nitrates, hip fracture and change in bone density In postmenopausal women: Results from the Women's Health Initiative	Gray, Wirtz, LaCroix, Wactawski-Wende	3	Gen		
1435	Moderate alcohol consumption and total mortality in the Women's Health Initiative: a comparison of sub-groups by age and breast cancer risk	Rahilly-Tierny, Lawler, Manson, Curb, Freiberg, Freudenheim, Kaunitz, Messina, Li, Jacobson	3	OS		
1436	Caregiving stress, stressful life events, endogenous sex steroid hormones, and breast cancer risk	Kroenke, Michael, Rexrode, Caan, Chlebowski, Brown	3	Gen		AS110
1438	Statins and breast cancer risk: A follow-up analysis of the Women's Health Initiative Cohort	Simon, Rosenberg, Abdul-Hussein, Cote, Bock, Petrucelli, Cauley, Martin, Jay, Wactawski-Wende, Thomas, Peters, Park, Manson, Luo, Lane, et al.	3	Gen		
1439	PheWAS of metabolic and cancer risk variants with lifestyle factors	Le Marchand, Lim, Cheng, Monroe, Kolonel, Wilkens	3			M6
1440	Genetic determinants of age at menarche and natural menopause in diverse populations from the Population Architecture using Genomics and Epidemiology (PAGE) Study	Spencer, Crawford, Franceschini, Rhodes, Haiman, Schumacher, Peters, Carty, Matise, Buyske, Hindorff, Wactawski-Wende, Park, Parikh, Krushkal	3	Gen		M6

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1441	The association of anthropometry-related SNPs with age at menarche in the multi-ethnic cohorts of the Population Architecture using Genomics and Epidemiology (PAGE) Consortium	Fernández-Rhodes, Demerath, Franceschini, Heiss, North, Dreyfus, Spencer, Crawford, Carty, Peters, Ramos, Iglesia	3	Gen		M6
1443	Urinary levels of melatonin, sleep duration and risk of breast cancer	Sturgeon, Reeves, Bigelow, Stanczyk, Ockene, Neuhouser, Manson, Liu	3	Gen		AS275
1448	Confirmation of promising breast cancer early detection biomarkers	Li, Hanash, Lampe, McIntosh, Prentice, Rohan, Pitteri, Manson, Anton-Culver	3	OS		AS316, BAA5
1450	Migraine history, nonsteroidal anti-inflammatory drug use, and risk of postmenopausal endometrial cancer	Phipps, Newcomb, Anderson, Cochrane, Li, Wactawski-Wende, O'Sullivan, Ho	3	Gen		
1451	Statin use and risk of hemorrhagic stroke in postmenopausal women	Salmoirago-Blotcher, Crawford, Ockene, Ockene, Wassertheil-Smoller, Robinson, Qi, Martin, Manson, Johnson, Curb	3	OS		
1454	Postmenopausal weight change and subsequent fracture risk in the Women's Health Initiative Observational Study	Crandall, Cauley, Chen, Wright, Wactawski-Wende, Johnson, Going	3	Gen		
1455	Breast cancer characteristics by race/ethnicity in the WHI Clinical Trials	Reding, Woods, Cochrane, LaCroix, Ornelas, Yasmeen, Chlebowski, Stefanick, Sarto, Lane, Freudenheim, Banegas	3	CT		
1456	Association of non-steroidal anti-inflammatory drugs with adverse cardiovascular outcomes: results from the Women's Health Initiative	Bavry, Thomas, Limacher, Manson, Johnson, Howard, Hlatky, Curb, Allison	3	CT		
1458	Likelihood based tests for significance of rare variants in exome sequencing studies	Zhong, Carlson, Auer, Guinney, Kooperberg	3	Gen		M24
1460	Pregnancy loss and risk of cardiovascular disease among postmenopausal women: The Women's Health Initiative	Parker, Eaton, Lu, Sands, Schenken, Park, Parikh, O'Sullivan, Lee, Kroenke, Brzyski	3	OS		

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1461	Oral bisphosphonate use and endometrial cancer risk	Newcomb, LaCroix, Budrys, Passarelli, Phipps, Chlebowski, Randall, Schenken, Wactawski-Wende	3	Gen		
1462	Association between sleep and breast cancer incidence among women participating in the Women's Health Initiative	Vogtmann, Shikany, Waterbor, Lewis, Manson, Hale, Chlebowski, Endeshaw, Shah, Levitan	3	Gen		
1467	Plasma 25(OH) vitamin D concentrations and serum cholesterol profiles in the Women's Health Initiative	Schnatz, Vila-Wright, O'Sullivan, Jackson, Manson, Jiang, Womack, Vitolins, Song, Shikany, Robinson, Neuhouser, Martin, LeBlanc, Kritchevsky	3	CT		
1469	Genotype imputation in Hispanic-Americans in WHI SHARe	Divers, Brown, Yang, Vitolins, Snively, Perez, Kaplan, Hou	3	Gen		M5
1471	Health behavior clusters as predictors of adiposity and changes in weight trajectory in post-menopausal women	Hingle, Going, Kubo, Desai, Thomson, Stefanick, Ockene, Kroenke, Johnson, Waring	3	OS		
1473	Predictors of 5-year change in plasma 25-hydroxyvitamin D (25(OH)D) concentrations in postmenopausal women	Kluczynski, Millen, Wactawski-Wende	3	OS		AS304
1474	Vitamin D supplementation and mortality	Cauley, Jackson	3	OS		
1475	Weight cycling and risk of breast cancer by subtype in post menopausal women: the Women's Health Initiative	Mason, Sangi-Haghpeykar, Chlebowski, Wang, McTiernan, Vitolins, Stefanick, Luo, LeBlanc, Lane, Caan, Anderson, Waring	3	Gen		
1477	Sleep pattern and incidence of colorectal cancer in post-menopausal women	Jiao, El-Serag, Duan, Sangi-Haghpeykar, Hale, White	3	OS		
1478	GWAS of coffee consumption	Neuhouser, North, Cornelis, Monda	3	Gen		

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1479	Using hierarchical cluster analysis to examine differences and similarities in women's psychosocial wellbeing and health and health behaviors over time	Jabson, Bowen, Weinberg, Tindle, Messina, Luo, Kroenke	3	Gen		
1480	Serum Vitamin D level and wellbeing of postmenopausal women in the Women's Health Initiative Study	LeBlanc, Perrin, Wactawski-Wende, Woods, Womack, Tang, O'Sullivan, Michael, Manson, Johnson, Hageman, Cauley, Stefanick, Desai, Kubo, et al.	3	CT		
1481	The effect of Vitamin D and calcium supplementation on wellbeing of postmenopausal women: Results of the Women's Health Initiative Calcium Plus Vitamin D Clinical Trial	LeBlanc, Perrin, Wactawski-Wende, Tylavsky, Masaki, Manson, Johnson	3	CT		
1483	Karyotypic lesions detected with SNP-chips may predict future diagnosis of malignant neoplasms of hematopoeitic and lymphatic tissues	Carlson, Reiner, Jackson, Peters, Wallace, Schick, McDavid, Wang	3	Gen		M13
1484	Use of oral bisphosphonate and risk of esophageal cancer	Bodelon, Vaughan, Anderson, Wactawski-Wende, Manson, Chlebowski, Abnet	3	Gen		
1488	Physical activity and risk of falling in the Women's Health Initiative Observational Study	Bea, Thomson, Wactawski-Wende, Wallace, Seguin, Ockene, Mysiw, LaMonte, LaCroix, Jackson, Eaton, Going	3	OS		
1489	Bisphosphonate therapy and fracture rates in postmenopausal women: Findings from the Women's Health Initiative	Drieling, LaCroix, Beresford, Wactawski-Wende, Ko, Chlebowski, Chen	3	Gen		
1490	Psychological attitudes, depressive symptoms, and smoking behavior	Progovac, Tindle, Kuller, Goveas, Weaver, Wallace, Smith, Scheier, Saquib, Messina, Kaplan, Hyland, Chapman, Calhoun	3	Gen		
1491	Signals of selection and population differentiation in metabolic trait-related genes	Bush, North, Crawford, Franceschini, Martin, Jackson, Curb	3	Gen		M6

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1492	Lifetime mainstream and secondhand tobacco smoke exposure and women's health issues: Historical data from the Women's Health Initiative	Hyland, Piazza, Wactawski-Wende, Tindle, Messina, Manson	3	Gen		
1493	Serum biomarkers of fatty acid intake	Yaemsiri, Evans, Heiss, Tinker, Wassertheil-Smoller, He, Robinson, Rosamond, Sen, Wallace, Orchard, Jackson, Beasley	3	OS		AS187
1496	Association of Lp-PLA2 with cardiovascular disease in a multiethnic cohort of women	Cook, Paynter, Ridker, Manson, Wassertheil-Smoller, Robinson, Martin	3	OS		BAA22
1497	Normal standards for computer-ECG programs for prognostically and diagnostically important ECG variables derived from a large ethnically diverse female cohort: The Women's Health Initiative (WHI)	Rautaharju, Soliman, Gregg, Vitolins, Haisty, Curtis, Warren, Zhang, Horaceck, Zhou	3	OS		
1501	Whole exome sequencing and analysis of rare genetic variants associated with risk and predictors of type 2 diabetes: The NHLBI Exome Sequencing Project	Auer, Kabagambe, Liu, Luis, Manson	3	Gen		M24
1502	Association of diet with periodontal (gum) disease in the Women's Health Initiative Observational Study	Tinker, Millen, Wactawski-Wende, Pettinger, Wallace, Vitolins, Sarto, LaMonte, Genco, Freudenheim	3	OS		
1504	Identifying women at elevated risk for epithelial ovarian cancer	Urban, Anderson, Hawley, Drescher, Scholler, Li, Wactawski-Wende, Robinson, O'Sullivan, Manson, Lane	3	OS		AS282, AS97
1505	Admixture mapping for blood pressure related phenotype in WHI SHARe individuals	Tang, Franceschini, Reiner, Eaton, Curb, Martin, Margolis, Assimes	3	Gen		M5
1509	Are sedentary behavior and physical inactivity the same in prediction of coronary heart disease? Results from Women Health Initiative	Chomistek, Eaton, Sands, Lu, Stefanick, Sims, Manson, LaMonte, Johnson, Going, Garcia, Allison	3	OS		

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1511	Use of acetaminophen, aspirin, and other nonsteroidal anti-inflammatory drugs and risk of hematologic malignancies in the Women's Health Initiative (WHI)	Walter, De Roos, LaCroix, White, O'Sullivan, Brasky	3	Gen		
1512	BMI and weight gain on all cause and breast cancer-specific mortality in women diagnosed with breast cancer: Results from the Women's Health Initiative	Irwin, Chlebowski, Ligibel, Caan, Wactawski-Wende, Vitolins, Strickler, Stefanick, Sims, O'Sullivan, Manson, Kroenke, Cauley, Bea	3	Gen		
1513	Weight and weight change among participants in the dietary modification trial and non-vasomotor menopausal complaints/ symptoms	Caan, Kroenke, Anderson, LaCroix, Waring, Sims, O'Sullivan, LeBlanc, Hingle	3	CT		
1514	Projecting population risk with time-to-event data	Hsu, Liu, Prentice, Zheng	3	OS		
1515	Changes in health state and comorbidities as a mediator of the beneficial effect of placebo adherence in the WHI	Curtis, Larson, Wright, LaCroix, Chlebowski, Brunner	3	CT		
1518	Influence of type 2 diabetes mellitus on brain atrophy and increases in ischemic lesion volumes: results from the Women's Health Initiative Magnetic Resonance Imaging Studies	Espeland, Hogan, Yaffe, Rossom, Robinson, Masaki, Liu, Goveas, Casanova	3	Gen		AS183
1519	Do fibrinogen and factor VII mediate the relationship between sleep duration and coronary heart disease?	Hale, Parente, Dowd, Song, Sands, Martin, Curb, Allison, Berger	3	OS		
1522	The relationship between body composition and mortality in postmenopausal women—Women's Health Initiative Sub-study	Bea, Thomson, Chen	3	Gen		AS153
1524	Dietary fat in relation to breast and ovary cancer: Clinical Trial and Observational Study findings from the Women's Health Initiative	Prentice, Huang, Pettinger, Anderson, Beasley, Chlebowski, Johnson, Manson, Neuhouser, Shikany, Thomson, Tinker	3	Gen		

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1525	Antidepressant exposure and cross-sectional and longitudinal changes in brain volumes and ischemic lesion load in women: The WHIMS-MRI2 Study	Goveas, Espeland, Hogan, Rapp, Resnick, Casanova, Woods, Wassertheil-Smoller	3	WHIMS		AS183
1526	Depression and longitudinal MRI changes in subclinical cerebrovascular disease and regional brain volumes: The WHIMS-MRI2 study	Goveas, Espeland, Hogan, Rapp, Resnick, Casanova, Woods, Shih, Robinson, Mysiw	3	WHIMS		AS183
1531	Blood circulated catabolic and anabolic biomarkers associated with absolute and relative skeletal muscle mass in Hispanic and Non-Hispanic postmenopausal women---an ancillary study of the Women's Health Initiative	Chen, Bea, Klimecki, Hu, Thompson, Wright, Wactawski-Wende, Qi, Masaki, Allison	3	OS		AS191, AS199
1532	Participant characteristics in dietary assessment: biomarkers & self-report in WHI OS participants	Mossavar-Rahmani, Tinker, Huang, Neuhouser, Prentice, Vitolins, Seguin, McCann, Curb	3	OS		AS218, W27
1534	Electrocardiographic left ventricular hypertrophy indices and hormone therapy: the Women‟s Health Initiative Hormone Therapy Trials	Gorodeski, Hsich, Magnani, Manson, Curtis, Curb	3	CT		
1535	Risk factors for persistent, transient and incident anemia in different race/ ethnicity and age groups of postmenopausal women	Ernst, Thomson, Chen, Rodriguez, Manson	3	OS		
1540	Use of non-steroidal anti-inflammatory drugs and cancer risk in the Women's Health Initiative (WHI)	Brasky, Wactawski-Wende, White, Peters, Walter, Vitolins, Manson, Lane, Allison	3	Gen		
1542	The ability of FRAX to predict fractures at the start and end of a period of hormone therapy; based on data from the WHI hormone trials	Robbins, Watts, Cauley, Wactawski-Wende, Sarto, LeBoff, LeBlanc, Kaunitz, Curtis	3	CT		
1543	Whole exome sequencing identifies novel genetic variants associated with LDL Cholesterol level: The NHLBI Exome Sequencing Project	Curb, Robinson, Martin, Assimes	3	Gen		M24
1544	Association of rare genetic variants with risk for early-onset myocardial infarction	Assimes	3	Gen		M24

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1545	Whole exome sequencing and quantitative analysis of genetic variants associated with blood cell traits: The NHLBI Exome Sequencing Project	Liu, Wallace, Chen	3	Gen		M24
1546	Whole exome sequencing and quantitative analysis of genetic variants associated with hemostatic traits: The NHLBI Exome Sequencing Project		3	Gen		M24
1547	Whole exome sequencing and quantitative analysis of genetic variants associated with HDL cholesterol and triglycerides levels: The NHLBI Exome Sequencing Project	Howard, Robinson, Martin, David	3	Gen		M24
1548	Whole exome sequencing and quantitative analysis of genetic variants associated with EKG measurements: The NHLBI Exome Sequencing Project	Perez	3	Gen		M24
1549	Exome sequencing in atrial fibrillation: Results from the ESP GO Project	Albert, Perez	3	Gen		M24
1550	Whole exome sequencing and quantitative analysis of genetic variants associated with blood pressure: The NHLBI Exome Sequencing Project	Thomas, Johnson	3	Gen		M24
1551	Comparison of rare variant association methods in samples with population structure		3	Gen		M24
1552	Genome-wide and admixture mapping of quantitative trait loci for blood lipids in WHI SHARe African American Individuals	Tang, Risch, Zhu, Reiner, Kooperberg, Martin, Robinson, Ochs-Balcom, Eaton, Donlon	3	Gen		M5
1555	B-type natriuretic peptides and incident cardiovascular disease in a multiethnic cohort of women	Everett, Cook, Ridker, Manson	3	OS		BAA22
1557	Association between genetic variation and circulating selenium concentrations	Peters, Gong, Hutter, Eaton, Marshall	3	Gen		AS206, AS224
1558	The effects of storage conditions on the fatty acid composition of erythrocytes from the Women's Health Initiative Study	Pottala, Espeland, Robinson, Harris	3	CT		AS39, BAA19

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MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1560	Sleep disturbance and incidence of thyroid cancer in post-menopausal women	Luo, Margolis, Wactawski-Wende, Song, Sands	3			
1562	ACS guidelines and risk of cancer in post-menopausal women	Thomson, Neuhouser, Martinez, McCullough, Chlebowski, Dash, Lane, Manson, Messina, Ockene, Rodriguez, Rohan, Sarto, Stefanick, Tindle, Vitolins, et al.	3	Gen		
1563	Differences in all-cause and cardiovascular disease mortality in Whites, Blacks, Hispanics, and Asians among postmenopausal women with diabetes	Ma, Liu, Balasubramanian, Bird, Garcia, Hebert, Howard, Johnson, LaMonte, Mackey, Manson, Merriam, Ockene, Ockene, Olendzki, Qiao, et al.	3			
1564	Biomarker-calibrated dietary energy and protein intake and physical activity associations with diabetes risk among postmenopausal women from the Women's Health Initiative	Tinker, Di, Sarto, Prentice, Heiss, Agha, Beasley, Calhoun, Chen, Eaton, Johnson, LaMonte, Neuhouser, Rodriguez, Seguin, Wylie-Rosette, et al.	3	Gen		AS218
1568	Modification of menopausal hormone therapy associated colorectal cancer risk by polymorphisms in candidate genes related to hormone metabolism, signaling and transport within the GECCO consortium		3	Gen		AS224
1569	Polymorphisms in innate immunity genes and the risk of colorectal adenoma and cancer within the GECCO consortium		3	Gen		AS224
1570	Investigation of a specific gene-gene interaction previously found in prostate cancer in colorectal cancer within the GECCO consortium		3	Gen		AS224
1571	Genetic risk modeling for colorectal cancer within the GECCO consortium		3	Gen		AS224
1572	Association between ulcerative colitis and Crohn's disease susceptibility loci and risk of CRC within the GECCO consortium		3	Gen		AS224

Table 12.2
Manuscripts - Stages 3 through 12

MS ID	Title	Authors	Stage	Data Focus	Reference	Study #
1582	Gene-environment interaction for previously identified CRC susceptibility loci	Hutter, Figueiredo, Frank, Slattery, Chan, Peters, Kooperberg, LaCroix, Prentice, Jackson	3	Gen		AS224
1609	Validating absolute risk prediction models for breast, endometrial and ovarian cancer in women age 50 years or older in a large population based cohort	Pfeiffer, Park, Pee, Anderson, Gail	3	OS		
1633	Genetic modification of PM-associated QT prolongation in populations		3	Gen		AS264, M5
1642	Discovery and fine mapping of blood pressure loci to African American and Hispanic individuals using the MetaboChip array: The PAGE Study	Franceschini, Boerwinkle, Fesinmeyer, Wu, Anderson, Mann, Martin, Carlson, Bluhm	3	Gen		M6

Table of Contents

Section 1.

Introduction

Introduction

This report has been prepared to support the Observational Study Monitoring Board in its review of the Women's Health Initiative Memory Program (WHIMS). The current major initiatives in this Program are listed below. Those with an asterisk are closed in terms of data collection – however, analyses and papers continue to be generated.

- Women's Health Initiative Memory Study (WHIMS) ECHO
- WHIMS Supplemental Case Ascertainment Protocol (SCAP)
- Women's Health Initiative Memory Study of Cerebral Magnetic Resonance Imaging (WHIMS-MRI 1 & 2)*
- Women's Health Initiative Memory Study of Younger Women (WHIMS-Y)
- Women's Health Initiative Study of Cognitive Aging (WHISCA) Extension*

These studies include cohorts of women, all of whom were participants in the Women's Health Initiative Hormone Trials (WHI-HT), and intersecting subsets of WHI clinical sites. The WHIMS Coordinating Center is located in the Division of Public Health Sciences at Wake Forest School of Medicine.

Materials are drawn from study databases and records in October 2011 to provide an up-to-date accounting. Live study databases were accessed at time points spanning several weeks so that minor discrepancies may exist across exhibits.

We organized this report into sections to describe each of the initiatives listed above. The WHIMS ECHO is continuing surveillance of the original WHIMS cohort to identify incident cases of probable dementia (PD), mild cognitive impairment (MCI), and global cognitive functioning. We describe the cohort and provide data on the post-trial incidence of study endpoints according to women's original treatment assignments. The SCAP is reaching out to proxies of deceased women and women with a WHI status of proxy follow-up to assess the participant's status at time of death or follow-up cessation. The WHISCA Extension has completed analyses of candidate genes from DNA samples in WHISCA participants. The WHIMS-MRI study has ended its second phase.

WHIMS Coordinating Center
October 31, 2011

Section 2.

Overview of Suite of Studies

The Women's Health Initiative Memory Study (WHIMS)

The Women's Health Initiative Memory Study (WHIMS) Extension

The Women's Health Initiative Memory Study - Epidemiology of Cognitive Health Outcomes (WHIMS-ECHO)

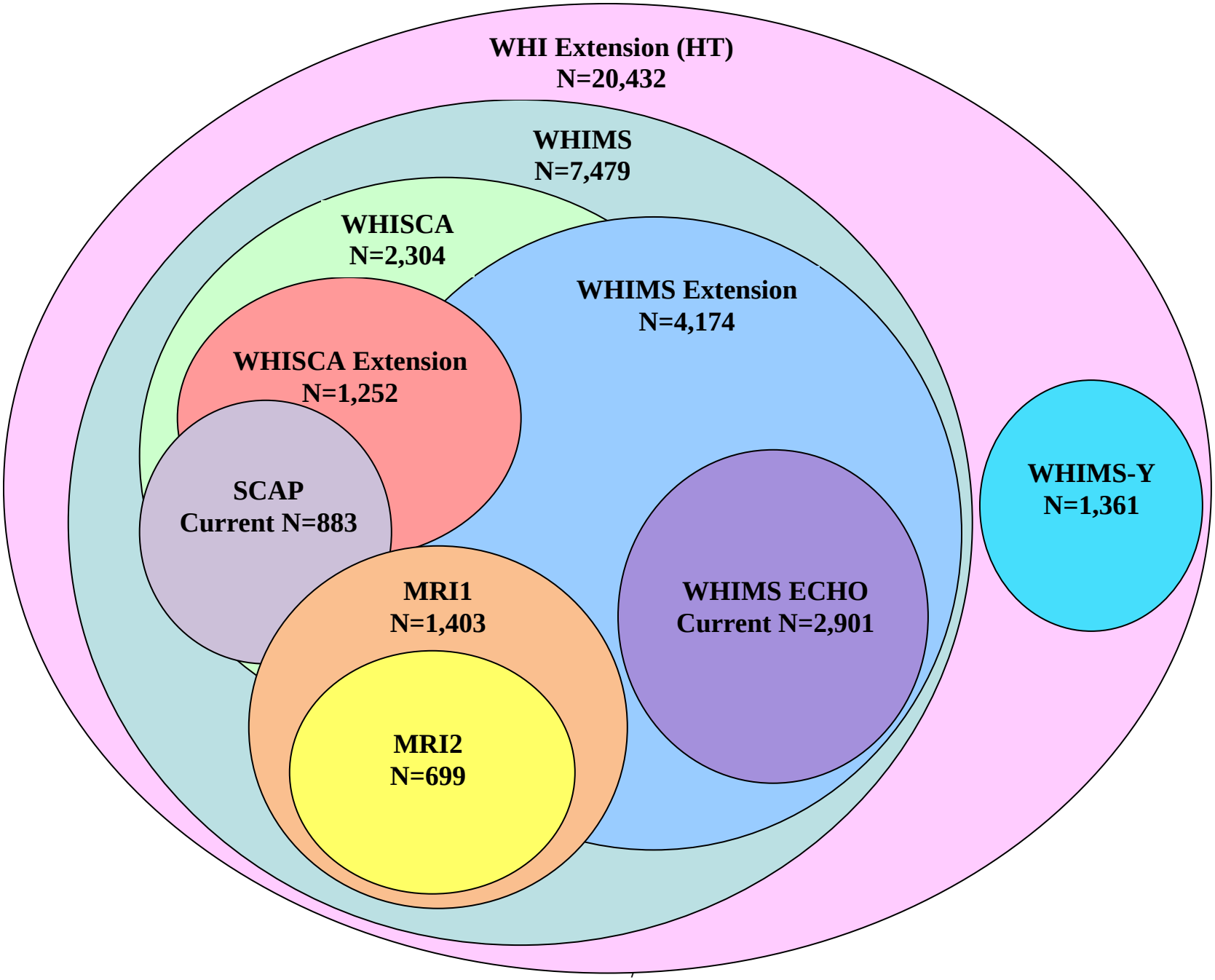
The Women's Health Initiative Memory Study of Younger Women (WHIMS-Y)

The Women's Health Initiative Study of Cognitive Aging (WHISCA)

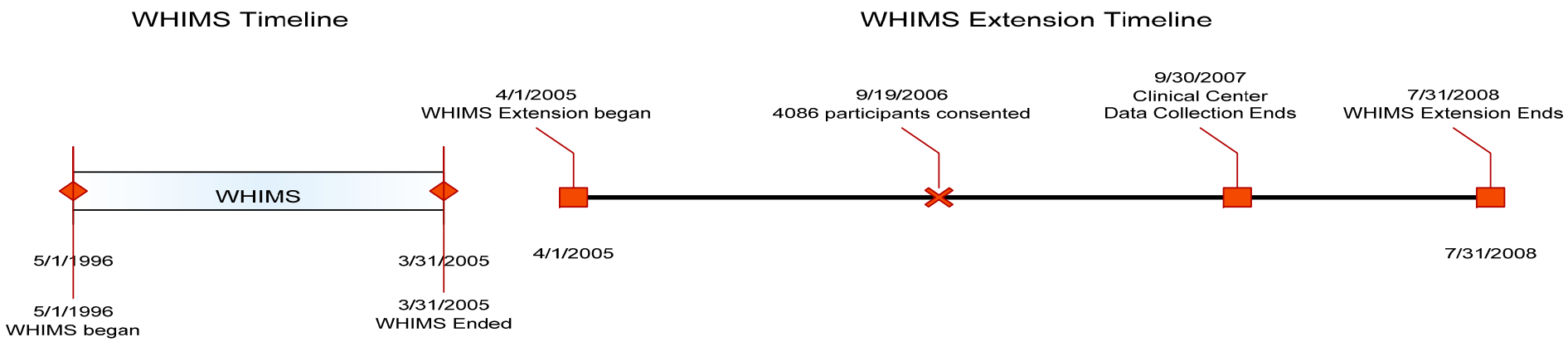
The Women's Health Initiative Study of Cognitive Aging (WHISCA) Extension

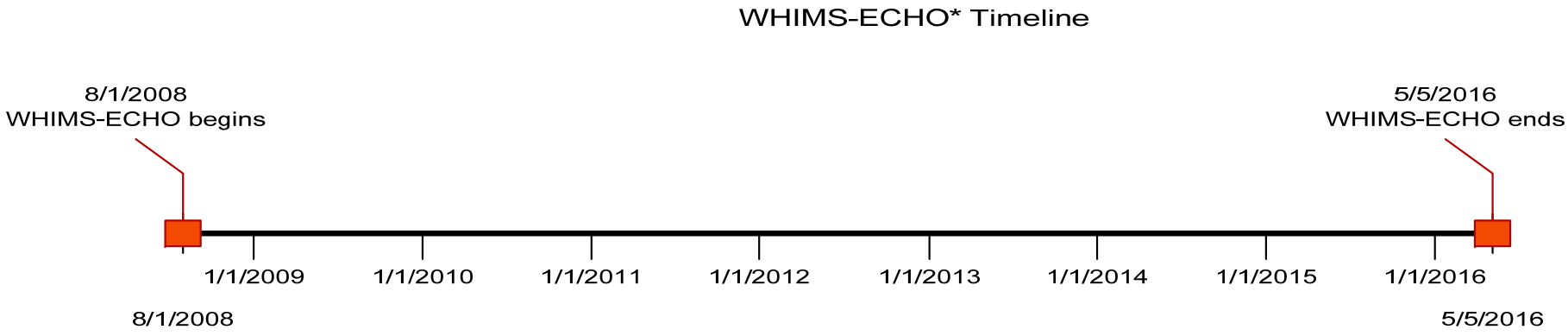
The Women's Health Initiative Memory Study of Cerebral Magnetic Resonance Imaging (WHIMS-MRI-1+2)

2.1 Relationships Among Study Cohorts



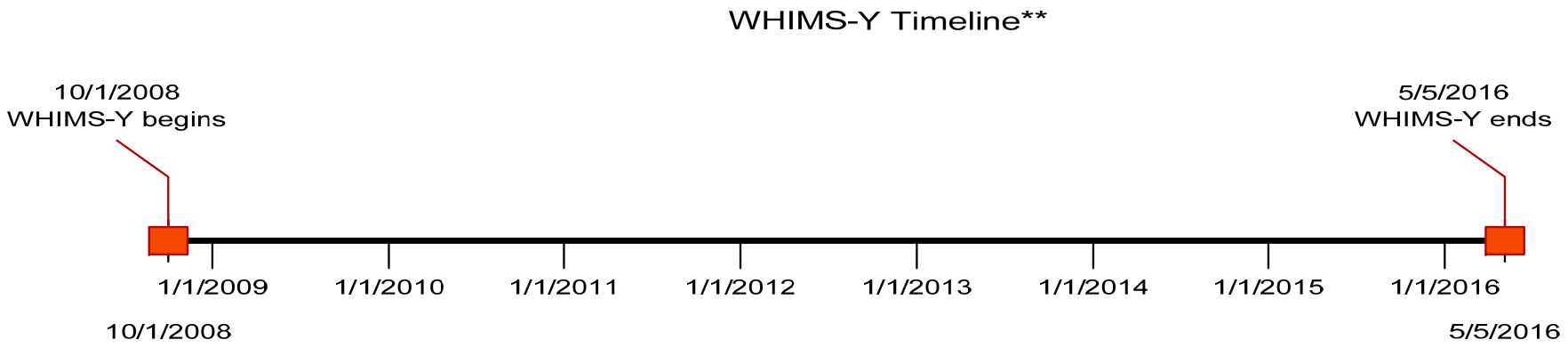
2.2 Timelines for the WHIMS, WHIMS Extension, WHIMS-ECHO, WHIMS-MRI, WHIMS-MRI2, WHISCA, WHISCA Extension, and WHIMS-Y Studies



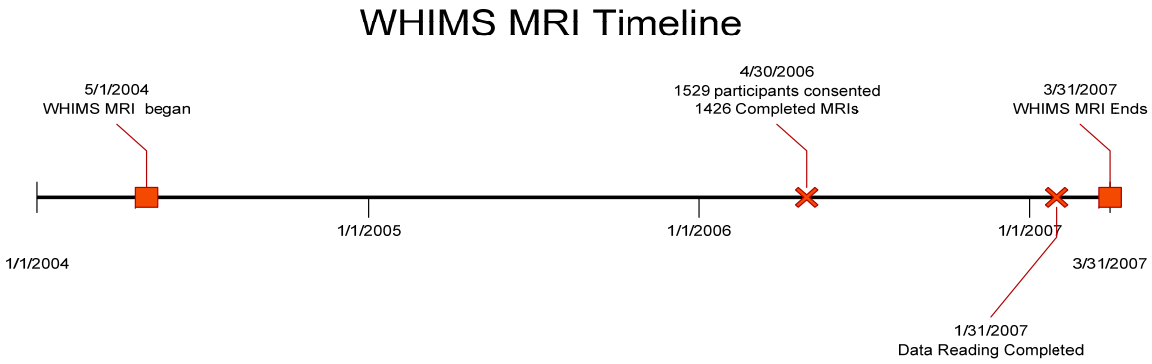


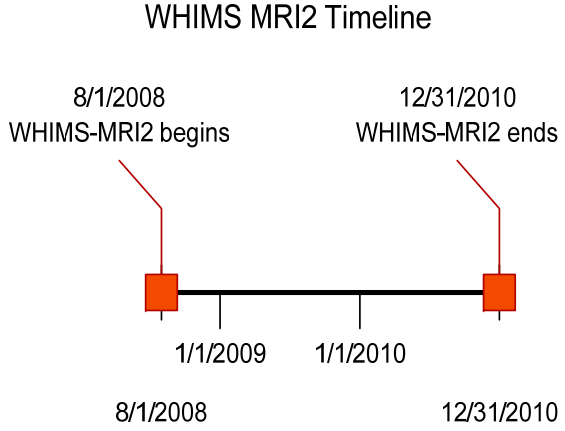
**Funding for WHIMS-ECHO: 8/1/2008-5/5/2011 – NHLBI
5/5/2011-5/6/2016 – NIA

2.2 Timelines for the WHIMS, WHIMS Extension, WHIMS-ECHO, WHIMS-MRI, WHIMS-MRI2, WHISCA, WHISCA Extension, and WHIMS-Y Studies

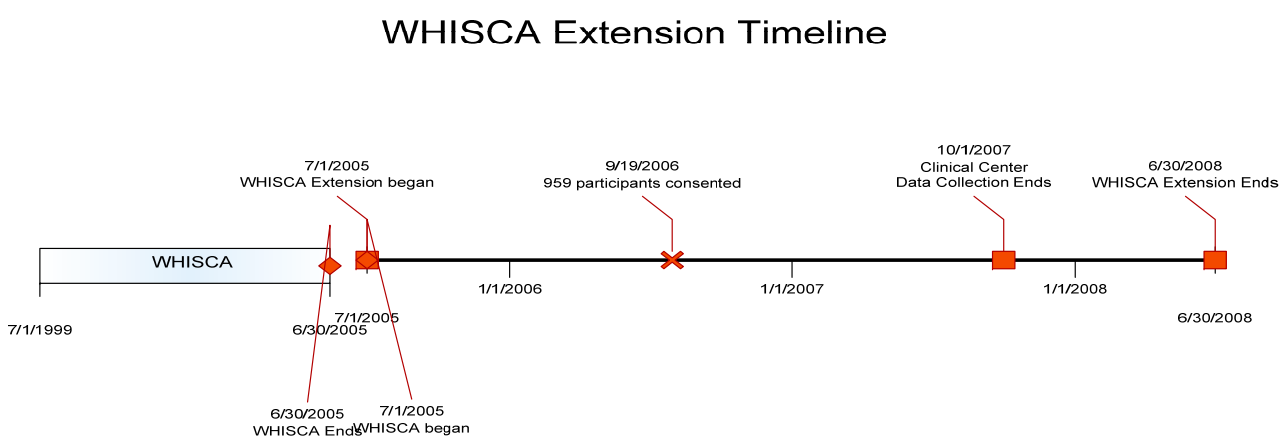


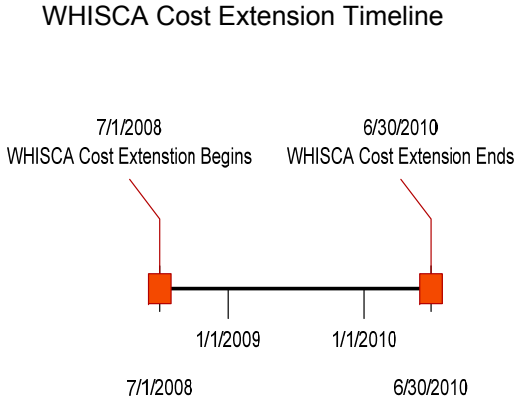
**Funding for WHIMS-Y: 10/1/2008-5/5/2011 – NHLBI
5/6/2011-5/6/2016 – NIA





2.2 Timelines for the WHIMS, WHIMS Extension, WHIMS-ECHO, WHIMS-MRI, WHIMS-MRI2, WHISCA, WHISCA Extension, and WHIMS-Y Studies





2.3 Studies Objectives

2.3.1 Women's Health Initiative Memory Study (WHIMS)

The overall objective of the Women's Health Initiative Memory study was to determine the incidence of dementia syndromes, through cognitive functioning screening, neuropsychiatric and neuropsychological evaluations, in approximately 7,479 women who were 65 years of age and older at baseline, and participants in the HT trials of the WHI. Annual assessments of cognitive function allowed for tracking the rate of progression of cognitive decline. Collected data were sent to an adjudication panel comprised of clinicians with expertise in dementia for final classification: No dementia, mild cognitive impairment (MCI) or probable dementia. On July 9, 2002, the National Heart, Lung, Blood Institute (NHLBI) of the National Institutes of Health (NIH) stopped early the Women's Health Initiative (WHI) combined estrogen and progesterone versus placebo HT trial and the estrogen-alone (E-alone) WHI hormone trial was stopped early on February 29, 2004. Analyses have been ongoing, with a number of papers published from trial and follow-up data. (See publications list at the end of the report.)

2.3.2 Women's Health Initiative Memory Study (WHIMS) Extension

Corresponding to an extension for WHI, a concomitant extension for safety monitoring in the WHIMS E-alone and the E+P trials (WHIMS Extension) was funded in March 2004 by the NHLBI. The goal of the WHIMS Extension was to provide post-trial follow-up and surveillance of participants from the completed E+P and E-alone trials to determine whether an increased risk of dementia was sustained following study drug termination. By continuing the ascertainment of PD, MCI, and global cognitive functioning, we increased the power in the surveillance component. The WHIMS Epidemiology of Cognitive Health Outcomes (WHIMS-ECHO) continues the follow-up of this cohort with telephone-based assessments rather than the previous face-to face assessments (see Section 3). In May, 2011 the WHIMS-ECHO Extension was funded by NIA for an additional five years.

2.3.3 Women's Health Initiative Study of Cognitive Aging (WHISCA) and its extension

WHISCA was an ancillary study to the WHI Memory Study and enrolled 2,304 women from 14 of the WHIMS clinical sites, aged 66 to 84 years, who did not meet criteria for dementia at enrollment into WHISCA. WHISCA investigated the effects of hormone therapy on rates of change over time in memory, other aspects of cognition (language, attention, spatial ability, motor function, and mood). Extensions to WHISCA provided follow-up cognitive testing off-study medication on 1,252 women until June 2010. The mean age at the end of the extension was 79.9 years and the oldest participant was 93 years old. The WHISCA extension has completed analyses of candidate genes from DNA samples in WHISCA participants.

2.3.4 The WHIMS Cerebral Magnetic Resonance Imaging (WHIMS-MRI-1 & 2)

WHIMS-MRI-1 was a cross-sectional sub-study of 1,403 women who were enrolled in the WHIMS E+P and E-Alone studies. Thirteen of the 14 participating MRI sites were also

WHISCA sites. The primary goal was to assess the impact of hormone therapy on subclinical neuropathological changes (regional and total ischemic lesion volumes and brain volumes) to further our understanding of the processes by which hormone therapy may increase participants' risk for stroke and adverse cognitive findings. WHIMS-MRI2 continued collecting a second scan on women who had been enrolled in WHIMS-MRI-1, an average of 3-5 years after their initial scan through June 30, 2011 (see Section 6).

Section 3.

WHIMS ECHO

3.1 WHIMS ECHO Protocol Summary

The Women's Health Initiative Memory Study - Epidemiology of Cognitive Health Outcomes (WHIMS-ECHO) Extension was funded by NIA in May 2011 and will continue annual telephone-based cognitive assessments in the WHIMS Extension cohort through May 2016. This extended follow-up will increase the total cases of probable dementia and cognitive impairment, thereby enhancing the epidemiologic value of the program by providing statistical power necessary to:

- characterize the trajectories of cognitive functioning,
- identify subtypes of cognitive deficit/impairment and cognitive resilience,
- identify predictors related to cognitive health and decline, and
- identify the longitudinal relationship between changes in cognition and other health outcomes (e.g., CVD, cancer, functional status and disability)

To increase efficiency, lower participant burden, and reduce costs, centralized, validated annual telephone assessments are administered to all participants. If a woman scores below a predetermined cut-point on the modified Telephone Interview for Cognitive Status (TICSm), a standardized cognitive screening test, her friend or family member is also interviewed using the Dementia Questionnaire (DQ), a validated structured interview to determine the level of cognitive and behavioral impairment required for a diagnosis of MCI or dementia. Together, all assessments are used to centrally adjudicate participants as ND, MCI and PD. The WHIMS-ECHO Coordinating Center (CoC) includes expert clinicians, investigators and experienced and certified cognitive examiners from the WHIMS program. A national Steering Committee of WHIMS investigators and topic area experts guides the conduct of the study.

> The WHIMS-ECHO telephone-based cognitive battery (TICSm, East Boston Memory Test, Oral Trail Making Test, Category Fluency-Animals, Digit Span Test, CVLT) and questionnaires (Geriatric Depression Scale-Short Form, WHI Insomnia Scale) were validated in a separate study. One hundred and ten women were recruited from the Piedmont region of North Carolina and randomly assigned, with equal probabilities, to receive two administrations of a the same neurocognitive battery and questionnaires spaced six months apart in one of the four following orders: telephone/telephone; telephone/face-to-face; face-to-face/telephone; or face-to-face/face-to-face. All tests were administered by a trained and certified cognitive examiner. There were no statistically significant differences in scores on any of the cognitive tests or questionnaires between randomly assigned modes of administration at baseline indicating equivalence across modes.

3.2 WHIMS ECHO Progress Report

Data collection for Year 1 began 09/11/2009 and continues at approximately one year intervals. Currently, 10 cognitive interviewers are certified to administer the cognitive telephone assessment. There are a total of 3,687 women drawn from 38 of the former WHI Field Centers who were eligible to participate in WHIMS ECHO. To date, 3,205 (87%) women have agreed to CoC contact, and 907 declined to release contact information.

3.3 Enrollment: Overall and by Clinical Site

There were 4,175 eligible WHI Extension participants across all sites and 3,205 agreed to be contacted by the WHIMS CoC (Table 3.1). Of those, 2,901 participants enrolled in the WHIMS ECHO.

Table 3-1 WHIMS-ECHO Recruitment Process

	Targeted for enrollment	Agreed to initial contact by WHIMS CoC		Deceased before contacted		Pending		Declined to participate		Agreed to participate	
Field Center	Number	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All Field Centers	***4175***	***3205***	***76.8***	***66***	***1.6***	***86***	***2.7***	***152***	***4.8***	***2901***	***92.4***
11=Davenport	24	20	83.3	0	0.0	1	5.0	1	5.0	18	90.0
12=Birmingham	96	68	70.8	0	0.0	5	7.4	1	1.5	62	91.2
13=Greensboro	21	18	85.7	0	0.0	0	0.0	2	11.1	16	88.9
14=Boston	101	92	91.1	0	0.0	1	1.1	0	0.0	91	98.9
15=Buffalo	117	91	77.8	3	2.6	0	0.0	7	8.0	81	92.0
16=Chicago	5	3	60.0	0	0.0	0	0.0	0	0.0	3	100.0
19=Atlanta	70	58	82.9	3	4.3	1	1.8	5	9.1	49	89.1
20=Chicago-Evanston	13	6	46.2	0	0.0	0	0.0	0	0.0	6	100.0
21=Iowa City	21	18	85.7	1	4.8	0	0.0	1	5.9	16	94.1
23=Pawtucket	109	89	81.7	5	4.6	4	4.8	6	7.1	74	88.1
24=Memphis	45	34	75.6	0	0.0	1	2.9	0	0.0	33	97.1
25=Minneapolis	126	96	76.2	2	1.6	1	1.1	3	3.2	90	95.7
26=Newark	74	57	77.0	1	1.4	2	3.6	3	5.4	51	91.1
27=Phoenix	49	39	79.6	2	4.1	2	5.4	1	2.7	34	91.9
28=Pittsburgh	108	93	86.1	4	3.7	2	2.2	2	2.2	85	95.5
29=Tucson	57	44	77.2	2	3.5	0	0.0	3	7.1	39	92.9
30=Davis	120	83	69.2	0	0.0	4	4.8	5	6.0	74	89.2
42=Stanford	193	146	75.6	3	1.6	1	0.7	6	4.2	136	95.1
43=Milwaukee	148	98	66.2	0	0.0	2	2.0	2	2.0	94	95.9
44=George Wash.	116	94	81.0	2	1.7	2	2.2	4	4.3	86	93.5
45=Honolulu	58	40	69.0	1	1.7	4	10.3	5	12.8	30	76.9
46=Gainesville	101	68	67.3	2	2.0	4	6.1	2	3.0	60	90.9
47=Houston	59	53	89.8	0	0.0	1	1.9	4	7.5	48	90.6
48=Worcester	197	144	73.1	6	3.0	2	1.4	6	4.3	130	94.2
49=New York	165	114	69.1	2	1.2	5	4.5	9	8.0	98	87.5
50=Columbus	139	111	79.9	1	0.7	1	0.9	2	1.8	107	97.3

51=Medlantic	114	89	78.1	1	0.9	4	4.5	5	5.7	79	89.8
53=Oakland	116	92	79.3	4	3.4	3	3.4	2	2.3	83	94.3
54=Jacksonville	62	46	74.2	1	1.6	2	4.4	2	4.4	41	91.1
55=Torrance	24	20	83.3	0	0.0	1	5.0	1	5.0	18	90.0
56=Madison	98	87	88.8	1	1.0	1	1.2	2	2.3	83	96.5
57=Stony Brook	153	118	77.1	1	0.7	0	0.0	5	4.3	112	95.7
58=Chapel Hill	147	126	85.7	2	1.4	1	0.8	14	11.3	109	87.9
59/60=Chicago-Rush	71	49	69.0	0	0.0	1	2.0	0	0.0	48	98.0
61=Cincinnati	118	94	79.7	4	3.4	5	5.6	7	7.8	78	86.7
62=Detroit	63	57	90.5	2	3.2	2	3.6	2	3.6	51	92.7
63=Irvine	87	61	70.1	1	1.1	2	3.3	1	1.7	57	95.0
65=Nevada	112	97	86.6	2	1.8	4	4.2	5	5.3	86	90.5
66=Portland	130	83	63.8	0	0.0	4	4.8	2	2.4	77	92.8
67=San Antonio	38	30	78.9	1	2.6	2	6.9	1	3.4	26	89.7
68=Los Angeles	102	62	60.8	0	0.0	3	4.8	1	1.6	58	93.5
69=Fall River	96	76	79.2	3	3.1	2	2.7	2	2.7	69	94.5
70=Pauline	28	15	53.6	0	0.0	1	6.7	1	6.7	13	86.7
71=Bowman Gray	13	10	76.9	0	0.0	0	0.0	0	0.0	10	100.0
72=New Brunswick	126	101	80.2	2	1.6	1	1.0	8	8.1	90	90.9
73=Des Moines	145	115	79.3	1	0.7	1	0.9	11	9.6	102	89.5

3.4 Overall Status of Last Call Attempts by Year

Table 3-2 reflects the overall status of last call attempts by study year.

Table 3-2

	Year 1		Year 2		Year 3		Year 4	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Agreed to participate	2663		236		2		0	
---- Cumulative number	2663	100.0	2899	100.0	2901	100.0	2901	100.0
Lost to follow-up								
---- Deceased	0		57		59		4	
---- Withdrew	0		7		87		110	
---- Attempts to locate exhausted	0		0		0		0	
Due for telephone contact	2663	100.0	2835	97.8	2691	92.8	2577	88.8
Completed test battery	2615	98.2	2457	86.7	1745	64.9	6	0.2
Failed after 8 attempts	2	0.1	101	3.6	90	3.3	1	0.0
Declined	2	0.1	78	2.8	108	4.0	0	0.0
Phone disconnected	0	0.0	66	2.3	45	1.7	1	0.0
Unable to locate	0	0.0	10	0.4	10	0.4	0	0.0

Recontact	**2**	**0.1**	**29**	**1.0**	**0**	**0.0**	**0**	**0.0**
Hearing impaired	**26**	**1.0**	**30**	**1.1**	**15**	**0.6**	**0**	**0.0**
Discontinued	**15**	**0.6**	**21**	**0.7**	**9**	**0.3**	**1**	**0.0**
No answer	**1**	**0.0**	**0**	**0.0**	**14**	**0.5**	**0**	**0.0**
Left message	**0**	**0.0**	**1**	**0.0**	**59**	**2.2**	**1**	**0.0**
Scheduled	**0**	**0.0**	**2**	**0.1**	**40**	**1.5**	**0**	**0.0**
Busy	**0**	**0.0**	**1**	**0.0**	**1**	**0.0**	**0**	**0.0**
No message	**0**	**0.0**	**0**	**0.0**	**34**	**1.3**	**0**	**0.0**
Other	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**
Not attempted	**0**	**0.0**	**39**	**1.4**	**520**	**19.3**	**2564**	**99.6**

3.5 Characteristics of Enrollees

Table 3-3 WHIMS-ECHO Characteristics of Enrollees (N=2857)

Characteristic	N (%)
WHI Treatment Assignment	
E-Alone Placebo	523 (18)
E-Alone	518 (18)
E+P	874 (31)
E+P Placebo	942 (33)
Age at WHI Enrollment	
64-69	1506 (53)
70-74	1006 (35)
75-80	345 (12)
Age as of September 11, 2008	
74-78	858 (30)
79-83	1338 (47)
84-88	577 (20)
89+	84 (3)
Baseline WHIMS 3MS	
Less than 90	94 (3)
90-94	418 (15)
95-100	2289 (81)
Race/Ethnicity	
American Indian/Alaskan native	6 (0)
Asian/Pacific Islander	39 (1)
Black/African American	182 (6)
Hispanic/Latino	44 (2)
White	2542 (89)
Other	43 (2)

3.6 WHIMS ECHO Adjudication

The WHIMS-ECHO adjudication process provides quality assurance measures in determining the final study classification of ND, MCI or PD for study participants who score below the cut-point (≤30) on the (TICSm) and who complete the WHIMS-ECHO neurocognitive test battery. In a supplemental telephone interview the (Dementia Questionnaire) is administered to the proxies of those participants who score below the cut-point. The DQ is used initially to make a pre-classification (ND, MCI or PD) and subsequently by the Adjudication Committee to inform final study classification. The DQ assesses cognitive and behavioral changes specific to dementia observed by a person who is knowledgeable about the participant's cognitive health. By comparing DQ results with cognitive test scores, adjudicators are able to make classifications required by the study. In rare instances where the DQ is not available, cases proceed through the adjudication process. Should adjudicators be unable to clinically classify a case due to the absence of the DQ data, they are permitted to designate the case as 'unable to classify'.

Pre-classification is used to control the number of cases sent to adjudication. It is based on an algorithm designed to maximize sensitivity and specificity by using responses on items from two sections of the DQ: (a) observed cognitive impairment and (b) impairment of daily functions by cognitive impairment. If (a) and (b) are present, the case is pre-classified as possible dementia; whereas if (a) is present but not (b), then the case is pre-classified as possible MCI; and, if neither (a) nor (b) is present then the case is pre-classified as possible ND. Note when DQ data are not available, these women automatically go forward to adjudication with all other data (listed below) provided to the adjudicators; PD or MCI cases derived from these women are tracked separately in the analyses.

The adjudicators are clinical experts with experience diagnosing MCI and dementia who conduct a thorough review of the following data for each participant who scores below the TICSm cut-point:

- WHIMS-ECHO cognitive battery (TICS-m, East Boston Memory Test, Digit Span Test, Oral Trail Making Test, Category Fluency-Animals, Geriatric Depression Scale-Short Form, WHI Insomnia Rating Scale);
- Dementia Questionnaire;
- All previously collected WHIMS data.

Selection of participant files for adjudication is based on the pre-adjudication algorithmic classification. Adjudicators review the following:

- 100% of PD pre-classifications. This includes participants who return for yearly follow-up testing after receiving an adjudication classification of PD;
- 100% of MCI pre-classifications;
- Participants pre-classified as ND are not be adjudicated and will return the next year for testing.

From WHIMS ECHO currently, 1,213 women received the neurocognitive battery and questionnaires based on their TICSm scores which were below the study cut-points. Of these, 1,153 progressed to administration of the DQ (TICS score ≤30, no prior diagnosis of PD and proxy data provided).

Table 3-4 Dementia Questionnaire Progressions in WHIMS ECHO				
	Visit 1	Visit 2	Visit 3	TOTAL
DQ Progressions	447	466	300	1213
Withdrawals	17 (3.8%)	17 (3.6%)	1 (0.3%)	35 (2.9%)
Missing Proxy information	7 (1.6%)	12 (2.6%)	6 (2.0%)	25 (2.1%)
Total Eligible DQ Progressions	423 (94.6%)	437 (93.8%)	293 (97.7%)	1153 (95.1%)

Table 3-5 Dementia Questionnaire Administration in WHIMS ECHO				
Outcome	Visit 1	Visit 2	Visit 3	TOTAL
DQ's ready and completed for adjudication	241 (57.0%)	197 (45.1%)	95 (32.4%)	533 (46.2%)
DQ's in process	13 (3.1%)	103 (23.6%)	146 (49.8%)	262 (22.7%)
Phone Disconnected/Unable to locate/Hearing Impaired	23 (5.4%)	25 (5.7%)	7 (2.4%)	55 (4.8%)
Proxy Refused DQ	44 (10.4%)	41 (9.4%)	19 (6.5%)	104 (9.0%)
PD	1 (0.2%)	1 (0.2%)	1 (0.3%)	3 (0.3%)
4th attempt	101 (23.9%)	70 (16.0%)	25 (8.5%)	196 (17.0%)
TOTAL	423	437	293	1153

There are 186 (35%) eligible adjudication cases in process. 192 (36.1%) adjudication complete and 154 (28.9%) were not selected to further adjudication based on algorithm.

Table 3-6 Cases Eligible to be Reviewed by Adjudication Committee				
	N (%)			
	Year 1	Year 2	Year 3	Total
Adjudication in process	10 (4.1%)	96 (48.7%)	80 (85.1%)	186 (35.0%)
Adjudication complete	150 (62.2%)	40 (20.3%)	2 (2.1%)	192 (36.1%)
- - - - ND	27 (18.0%)	12 (30.0%)	1 (50.0%)	40 (20.8%)
- - - - MCI	70 (46.7%)	15 (37.5%)	0 (0.0%)	85 (44.3%)
- - - - PD	53 (35.3%)	13 (32.5%)	1 (50.0%)	67 (34.9%)
Not Adjudicated (ND)	81 (33.6%)	61 (31.0%)	12 (12.8%)	154 (28.9%)
TOTAL	241	197	94	532

Section 4.

Supplemental Case Ascertainment Protocol (SCAP)

4.1. SCAP Protocol Summary

In WHIMS, a classification of PD (the primary endpoint) is reached by decision of an Adjudication Committee. As the study has progressed, some participants have died and others have ceased full follow-up participation without a study classification of cognitive status at the time of death or separation from the study. WHIMS investigators are concerned that among these participants are women who would have been classified as PD had they completed the scheduled assessments. In order to capture these possible cases, WHIMS, with the approval of WHI, implemented a supplemental telephone survey to be conducted by trained staff at the WHIMS Central Coordinating Center (CoC). Staff members from the WHIMS CoC are responsible for contacting the WHIMS ECHO and WHIMS-Y participants' proxy/family members prior to the WHIMS CoC interview to obtain verbal consent and contact information. Participants that were previously classified as PD or who had the WHI status of 'absolutely no follow-up' prior to becoming eligible are excluded.

Interviewers at the WHIMS CoC have undergone specific training for administration of the Supplemental Case Ascertainment Protocol (SCAP). Upon receiving a completed Follow-Up Form, a trained interviewer telephones the designated contact (either the proxy or the friend/family member listed on the form) and conducts the SCAP survey. The completed survey is then sent through data entry and adjudication.

The SCAP consists of the Dementia Questionnaire, a standardized, validated instrument used to reliably diagnose dementia in deceased persons (Ellis et al, 1998) and demographic questions. It has demonstrated sensitivity and specificity. The DQ includes 48 items assessing memory and other cognitive functions, language, daily functioning, insight, and other medical and psychiatric difficulties. Education and demographic data are also collected. The DQ is a semi-structured interview that can be administered by telephone to informants who are knowledgeable about the participant's medical history and ante-mortem functional status.

4.2 SCAP Field Center Report

Overall, the WHIMS field centers have 883 participants who have either the status of proxy or deceased, who are SCAP-eligible. Of the 883 SCAP-eligible, 818 of the identified proxies or friend/family members have been contacted by the field center staff with 568 proxies agreeing to be contacted by the WHIMS CoC.

Table 4-1 shows the current progress as outlined.

		Clinical Center Contacts				WHIMS CoC Contacts						
		Eligible	Contacted	Call Outcome		Attempts					Total Contacts	
Clinic	Participants more than 5 years since SCAP eligible and Proxy not yet contacted	N	N	Agreed	Refused	Not Yet Attempted	1	2	3	4	Participant	Phone
ALL CLINICS	92	883	818	568	250	7	181	89	54	240	564	1481

4.3 SCAP Adjudication

With SCAP adjudication,

- Each participant is classified as either "ND", "MCI" or "PD" based on evaluation and scoring of the telephone administered DQ and all prior data collected by WHIMS, the WHIMS extensions and WHIMS ECHO.
- A computerized scoring algorithm based on the DQ is used to make a pre-adjudication classification of. Final adjudication based on the pre-classification is completed as follows:
    - 100% of "PD" pre-classifications,
    - 100% of "MCI" pre-classifications
    - 10% of "ND" pre-classifications which are systematically sampled by selecting every 10^{th} case for adjudication.

SCAP adjudication follows the same process as that outlined for WHIMS participants who progress through the system.

These activities have yielded 233 cases of SCAP protocols for adjudication. Of those, 62 (26.6%) have been adjudicated and 15 (6.4%) are under review. There are 156 (66.9%) protocols that were not adjudicated (ND or MCI).

The overall classification of SCAP protocols (Adjudicated + Not Adjudicated) includes 218 cases. Of those, 165 (75.7%) were classified as ND, 15 (6.9%) were MCI and 38 (17.4%) were PD.

Table 4-2 SCAP Protocols		
	Subtotal	
	N	%
SCAP Phase 2 Protocols	233	
- - - - Adjudicated Protocols	62	26.61
- - - - Protocols Under Review by Adjudicators	15	6.44
- - - - Protocols Not Adjudicated (ND or MCI)	156	66.95

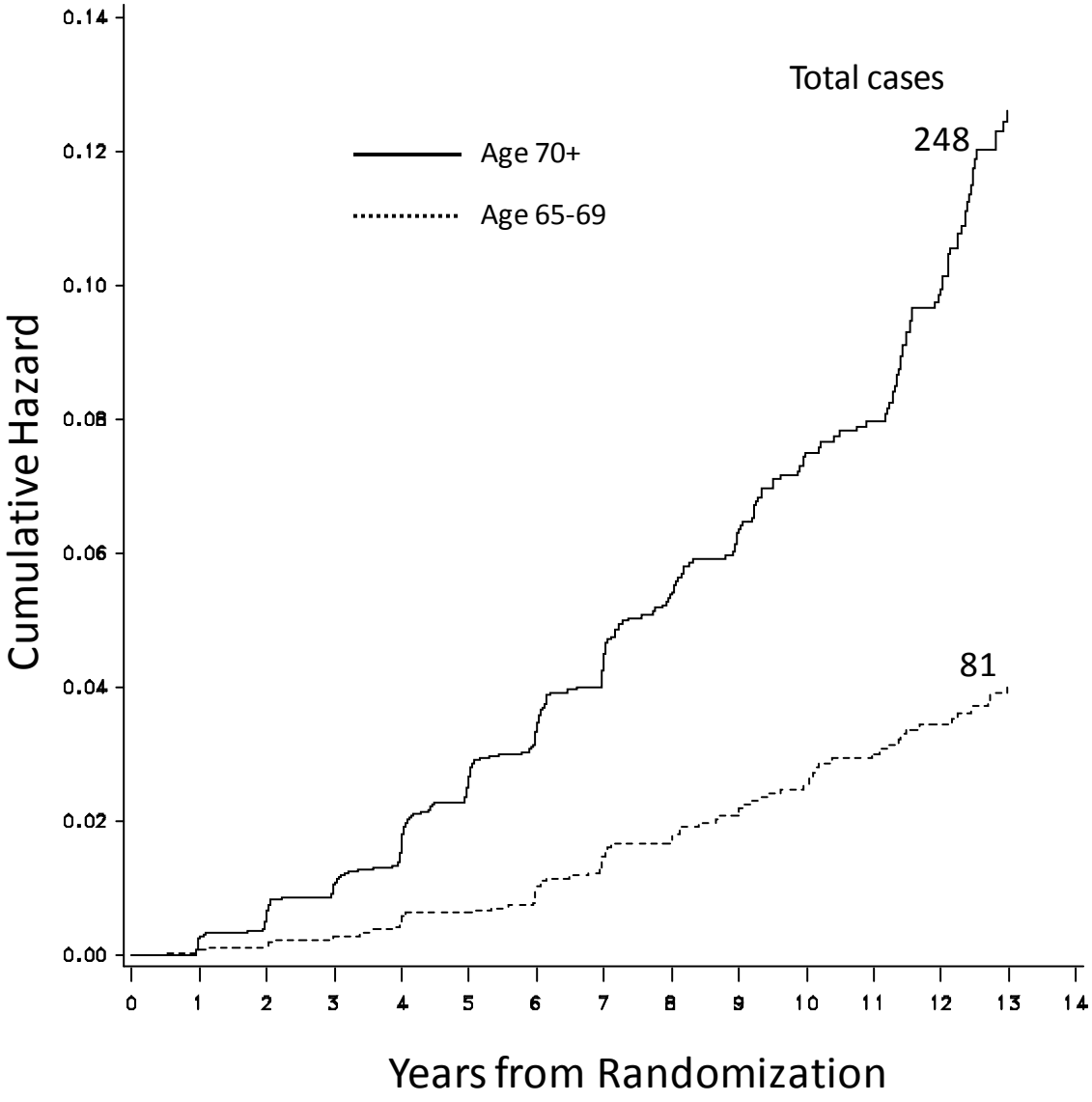
Table 4-3 Overall Classification of SCAP Protocols		
	Subtotal	
	N	%
Overall Classification of Protocols	218	
----ND	165	75.69
----MCI	15	6.88
----PD	38	17.43

Section 5.

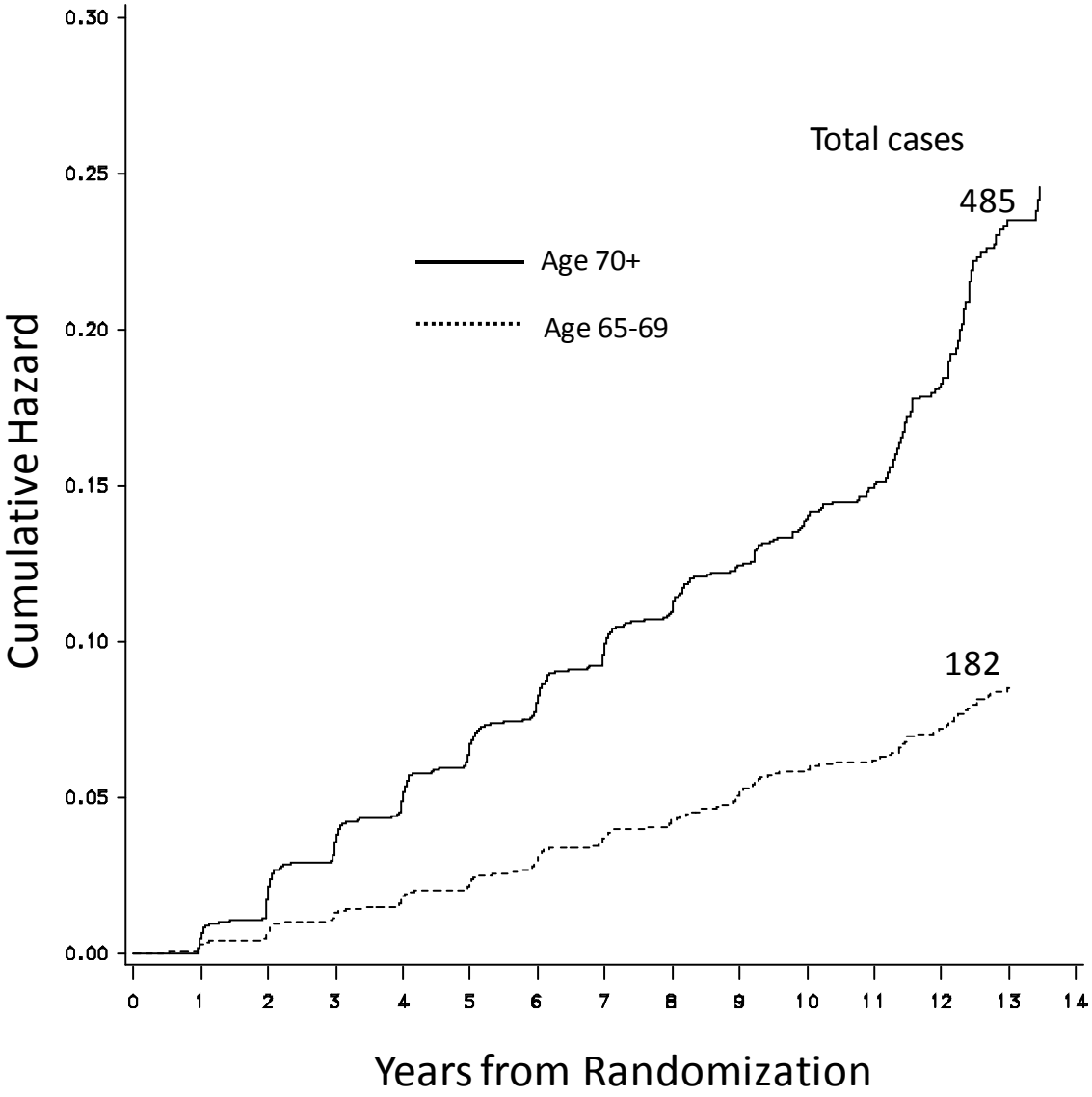
WHIMS Cohort

5.1 Incidence of Probable Dementia by Age at Enrollment

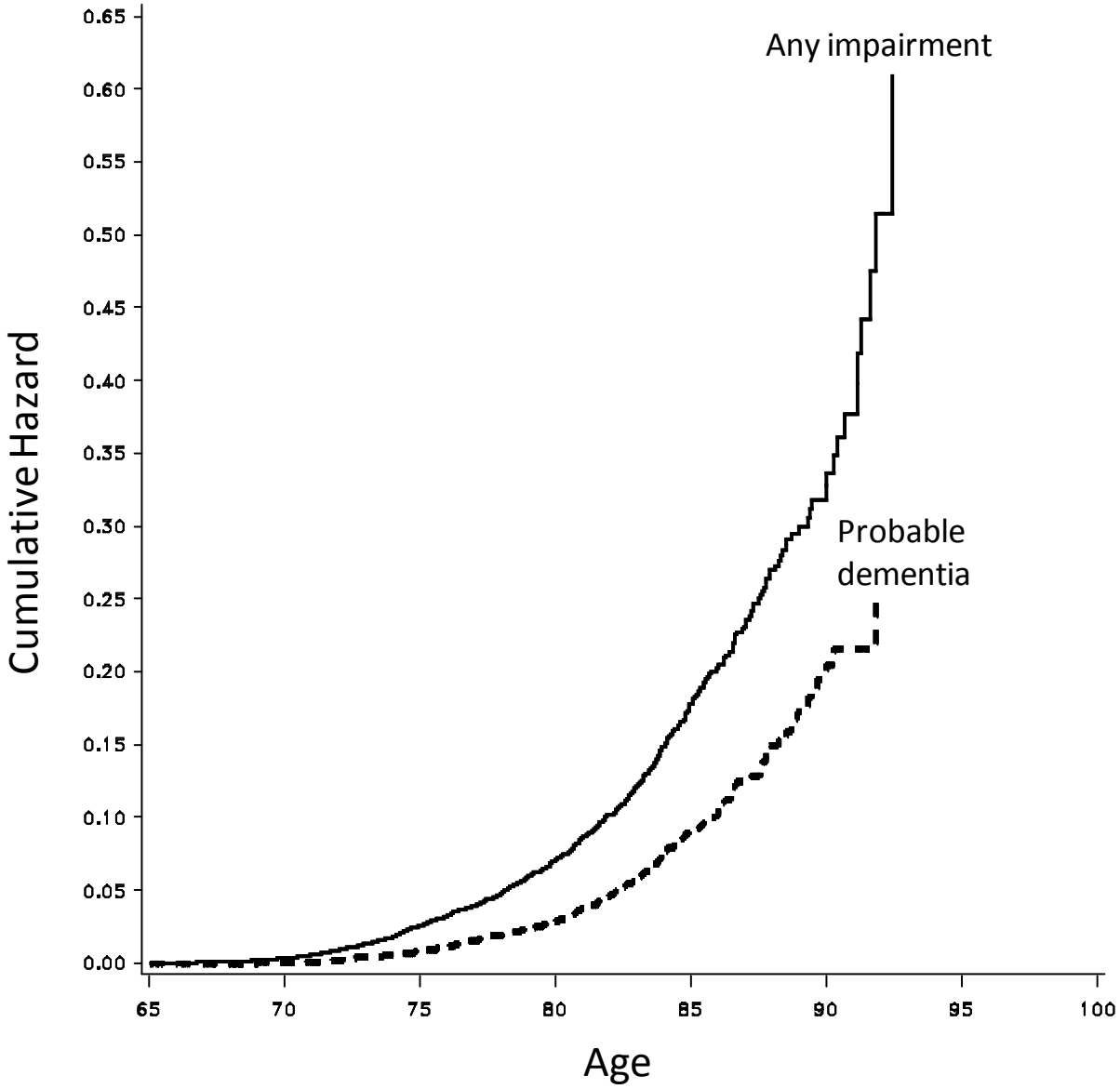
The following figures show the incidence of probable dementia and/or MCI over time.



5.2 Incidence of Any Impairment (Probable Dementia or Mild Cognitive Impairment) by Age at Enrollment



5.3 Incidence of Probable Dementia and Any Impairment by Age at Ascertainment



Section 6.

WHIMS-MRI2

6.1 WHIMS-MRI Summary

Between April, 2005 and January, 2006, 1,426 women underwent magnetic resonance imaging (MRI) across 14 Women's Health Initiative (WHI) field centers. The effort yielded N=1,403 scans that met central reading center quality control standards.

WHIMS MRI-1 found that CEE+MPA and CEE-Alone were not associated with increased ischemic brain lesions, relative to placebo, on brain MRI conducted 8 years following randomization to CEE-based HT. However, both CEE+MPA and CEE-Alone were associated with lower mean total and regional brain volumes.

The WHIMS-MRI2 protocol was designed to collect a second MRI brain scan (approximately 4 years after the first MRI) from these women to assess incident neuropathology and the rate of atrophy.

6.2 WHIMS-MRI2 Progress Report

6.2.1 WHIMS-MRI2 Enrollment

Of 1,345 potential enrollees, 1230 (91.4%) were contacted by field center staff. Of these, 836 (68.0%) were eligible and willing to participate, 32 (2.6%) were ineligible due to absolute contraindications and 362 (29.4%) refused. Of those eligible and willing, 797 (95.3%) provided informed consent, 791 (99.2%) scans were obtained, 700 (88.4%) were readable, and 699 scans were accepted for analysis, resulting in completion of 62% of the original goal of 1123 scans (Figure 6.1).

Figure 6.1: WHIMS-MRI2 Enrollment Diagram

For safety purposes, incidental findings on MRI images were graded as follows:

- LEVEL 1 – Normal MRI Brain Scan
- LEVEL 2 – Age Related and Incidental Findings
  (MRI Abnormalities limited to age related white matter disease, leukoaraiosis, atrophy, etc. and/or other incidental findings, such as sinus disease)
- LEVEL 3 – Non-Urgent Findings of Clinical Disease
  (Findings include remote stroke, small meningioma, or other processes of potential clinical significance).
- LEVEL 4 – Urgent Disease-Related Findings
  (Findings include acute or subacute infarct, acute or chronic subdural or epidural hematoma, subarachnoid hemorrhage, arteriovenous malformation, obstructive hydrocephalus, brain tumor, brain abscess, or other lesion causing mass effect).

Of 787 scans reviewed by the QA center for safety , 15 (2%) were Level 1, 679 (86%) were Level 2, 90 (11%) were Level 3, and 3 (<1%) were Level 4. (Table 6.2). As urgent findings were encountered, the WHIMS-MRI Safety Committee was notified via e-mail and follow-up procedures were employed to ensure that the Principal Investigator, participant, and participant's primary care physician were informed of the result within 72 hours.

Data collection ended December 31, 2010. The Coordinating Center worked with each site to resolve data and close-out issues. A 6-month cost extension allowed the University of Pennsylvania MRIQCC to complete central reading of the MRI scans and to apply final QC procedures to the MRI scans prior to transferring data to the WHIMS MRI2 CoC for analysis and archiving. The WHIMS MRI2 CoC completed analyses in September 2011. Dissemination of the primary and secondary findings through presentations at national meetings and journal articles is planned.

6.2.2 WHIMS MRI2 Publications In Process

The following WHIMS-MRI2 manuscripts have been approved by the WHI P&P Committee and writing groups have been formed:

Writing Group (currently in alphabetic order): Laura H. Coker, PhD (Chair), R. Nick Bryan, MD, Christos Davatzikos, PhD, Mark A. Espeland, PhD, Joseph S. Goveas, MD, Patricia Hogan, MS, Lew H. Kuller, MD, Susan M Resnick, PhD, Jennifer Robinson, MD, Sally A. Shumaker, PhD, Jeff D. Williamson, MD. Rates of changes in brain volumes and ischemic lesion volumes following exposure to conjugated equine estrogen therapies: Results from the Women's Health Initiative Magnetic Resonance Imaging Study.

Writing Group (currently in alphabetical order): Mark A. Espeland, PhD (Chair) Ramon Casanova, PhD; Laura H. Coker, PhD; Joseph S. Goveas, MD; Patricia A. Hogan, MS; Simin Liu, MD, MPH, ScD, Kamal Masaki, MD; Susan M. Resnick, PhD; Jennifer Robinson, MD, MPH; Rebecca Rossom, MD, MSCR, Mustafa S. Siddiqui, MD; and Kristine Yaffe, MD for the WHIMS-MRI2 Study Group. Influences of Type 2 Diabetes Mellitus on Brain Volumes

and Changes in Brain Volumes; Results from the Women's Health Initiative Magnetic Resonance Imaging Study.

The following manuscripts have been approved by the WHI P&P Committee and writing group formation is in process:

Joseph Goveas, MD (Chair). Depression and MRI2 outcomes

Joseph Goveas, MD (Chair). Antidepressant use and MRI2 outcomes

6.2.3 WHIMS-MRIQCC Activities

Under the supervision of Dr. R Nick Bryan, the WHIMS MRI Quality Control Center (MRIQCC) at the University of Pennsylvania conducts a number of tasks in the overall management, quality control and data analysis of the MRI component of the WHIMS-MRI project. Those tasks include receiving the MR image data via a dicom image transfer from fourteen participating network MRI field centers, reviewing the MRI data for protocol compliance and quality control, review of ACR QC phantom data for scanner performance, planning and implementation of image analysis methodology and, quantitative image analysis.

The WHIMS-MRI 2 study completed data collection of 791 MRI scans from the 14 participating WHIMS sites. Image processing/analysis has been successfully completed on 787 scans and data from 700 readable scans were sent to the Coordinating Center at Wake Forest University for further analysis.

The MRIQCC continues to work with the WHIMS personnel at Wake Forest University to address any issues, maintain a clear level of communication and provide updated information as needed at the Data Coordinating Center.

The MRIQCC worked extensively with the WHIMS CoC and the 14 MRI facilities in preparation for the study and trained study staff on image transmission and test scan performance for site approval. Site approval involved data collection of a volunteer test scan from each site for evaluation of MRI protocol compliance and technical issues prior to analysis. In addition, a phantom test scan was acquired for scanner performance and QC. Results of the test scans were sent via an email notification for site acceptance/approval to the sites prior to recruitment of participants into the trial. The MRIQCC monitored the QC scans and participant scans for MRI protocol compliance and ACR standards. The participant scans were also reviewed for incidental findings. Please see the report of incidental findings (Levels 1-4) for safety purposes on Table 6.2.

Table 6-2 Incidental Findings from MRI Summary Report Form by Clinic

	Images accepted/ marginally accepted by UPENN	Level 1 Normal findings		Level 2 Age-related findings		Level 3 Non-urgent findings		Level 4 Urgent findings	
Clinic	Number	Number	%	Number	%	Number	%	Number	%
ALL CLINICS	787	15	2%	679	86%	90	11%	3	0%
25=Minneapolis	62	0	0%	59	95%	3	5%	0	0%
28=Pittsburgh	57	0	0%	43	75%	13	23%	1	2%
30=Davis	67	4	6%	58	87%	4	6%	1	1%
42=Stanford	78	4	5%	54	69%	20	26%	0	0%
43=Milwaukee	56	0	0%	48	86%	8	14%	0	0%
46=Gainesville	22	0	0%	19	86%	3	14%	0	0%
48=Worcester	90	0	0%	83	92%	7	8%	0	0%
49=New York	63	0	0%	59	94%	4	6%	0	0%
50=Columbus	93	2	2%	86	92%	5	5%	0	0%
54=Jacksonville	16	0	0%	14	88%	2	13%	0	0%
58=Chapel Hill	56	3	5%	44	79%	9	16%	0	0%
65=Nevada	48	0	0%	41	85%	6	13%	1	2%
68=Los Angeles	5	0	0%	5	100%	0	0%	0	0%
73=Des Moines	74	2	3%	66	89%	6	8%	0	0%

Section 7.

WHIMS-Y

7.1 WHIMS-Y Protocol Summary

The Women's Health Initiative Memory Study of Younger Women (WHIMS-Y) assesses the long-term impact of random assignment to postmenopausal HT among women enrolled in the WHI HT trials who were 50-54 years of age at study enrollment. An annual telephone-based assessment identical to the WHIMS-ECHO study provides detailed global and specific neuro-cognitive data, thus enhancing our ability to ascertain subtler cognitive changes over time. It also serves to identify women with PD and MCI.

7.2 WHIMS-Y Progress Report and Overall Enrollment

Across all Field Centers, 1,732 WHIMS-Y eligible participants agreed to contact by the WHIMS CoC (Table 7-1). Of those participants who have agreed to contact, 1,361 provided written consent for participation with 371 participants declining consent.

Table 7-1 WHIMS-Y Recruitment Process

	Agreed to initial contact by WHIMS CoC	Declined to participate		Agreed to participate	
Field Center	**Number**	**Number**	**Percent**	**Number**	**Percent**
All Field Centers	***1732***	***371***	***21.4***	***1361***	***78.6***
10=La Jolla/Seattle CoC	24	3	12.5	21	87.5
11/21=Bettendorf/Iowa City	49	9	18.4	40	81.6
12=Birmingham	72	18	25.0	54	75.0
13/71=Greensboro/Bowman Gray	47	11	23.4	36	76.6
14=Boston	33	6	18.2	27	81.8
15=Buffalo	49	13	26.5	36	73.5
16=Chicago	31	8	25.8	23	74.2
18=Seattle	69	3	4.3	66	95.7
19=Atlanta	57	21	36.8	36	63.2
23/69=Pawtucket/Fall River	65	15	23.1	50	76.9
24/70=Memphis/Pauline	42	19	45.2	23	54.8
25=Minneapolis	49	8	16.3	41	83.7
26=Newark	37	4	10.8	33	89.2
27/29=Phoenix/Tucson	34	5	14.7	29	85.3
28=Pittsburgh	56	17	30.4	39	69.6
30=Davis	40	7	17.5	33	82.5
42=Stanford	53	8	15.1	45	84.9
43=Milwaukee	34	5	14.7	29	85.3

Table 7-1 WHIMS-Y Recruitment Process					
	Agreed to initial contact by WHIMS CoC	Declined to participate		Agreed to participate	
Field Center	Number	Number	Percent	Number	Percent
44=George Wash.	50	14	28.0	36	72.0
46/54=Gainesville/Jacksonville	58	8	13.8	50	86.2
47=Houston	42	9	21.4	33	78.6
48=Worcester	38	11	28.9	27	71.1
49=New York	40	12	30.0	28	70.0
50=Columbus	28	4	14.3	24	85.7
51=Medlantic	47	11	23.4	36	76.6
53=Oakland	63	8	12.7	55	87.3
55=Torrance	29	11	37.9	18	62.1
56=Madison	62	12	19.4	50	80.6
57=Stony Brook	29	7	24.1	22	75.9
58=Chapel Hill	42	7	16.7	35	83.3
59/60=Chicago-Rush	42	10	23.8	32	76.2
61=Cincinnati	27	5	18.5	22	81.5
62=Detroit	45	10	22.2	35	77.8
63=Irvine	50	10	20.0	40	80.0
65=Nevada	59	16	27.1	43	72.9
66=Portland	30	9	30.0	21	70.0
67=San Antonio	42	10	23.8	32	76.2
68=Los Angeles	32	5	15.6	27	84.4
72=New Brunswick	12	2	16.7	10	83.3
73=Des Moines	24	0	0	24	100.0

7.3 WHIMS-Y Call Completion Rates

Table 7-2 WHIMS-Y Overall Status of Last Call Attempts by Year						
	Year 1		Year 2		Year 3	
	Number	Percent	Number	Percent	Number	Percent
Agreed to participate	1361		0		0	
---- Cumulative number	1361	100.0	1361	100.0	1361	100.0
Lost to follow-up						
---- Deceased	1		5		3	
---- Withdrew	2		4		26	
---- Attempts to locate exhausted	0		0		0	
Due for telephone contact	1358	100.0	1349	99.1	1320	97.0
Completed test battery	1264	93.1	969	71.8	15	1.1
Failed after 8 attempts	65	4.8	71	5.3	0	0.0
Declined	4	0.3	33	2.4	0	0.0
Phone disconnected	18	1.3	8	0.6	0	0.0
Unable to locate	4	0.3	2	0.1	0	0.0
Recontact	0	0.0	0	0.0	0	0.0
Hearing impaired	1	0.1	1	0.1	0	0.0
Discontinued	0	0.0	1	0.1	0	0.0
No answer	0	0.0	1	0.1	1	0.1
Left message	0	0.0	5	0.4	2	0.2
Scheduled	2	0.1	13	1.0	2	0.2
Busy	0	0.0	0	0.0	0	0.0
No message	0	0.0	11	0.8	8	0.6
Other	0	0.0	0	0.0	0	0.0
Not attempted	0	0.0	234	17.3	1292	97.9

Section 8.

Statistical Support

8.1 Progress Report

The statisticians are organized to collaborate on writing groups from manuscripts based on WHIMS data. Listed are the 27 WHIMS writing groups that have been approved by the WHI Publications Committee and are currently active.

September 2011

Ms597: Prevalence of Anticholinergic Drug Use and Impact on Cognition and Function in Older Adults (WHIMS)
Chair: Kaycee Sink
Biostatistical Collaborators: Mark Espeland and James Lovato

Ms665: Ascertaining Dementia Related Outcomes for Deceased or Proxy-dependent Participants: An Overview of WHIMS Supplemental Case Ascertainment Protocol (WHIMS-SCAP)
Chair: Sarah Gaussoin
Biostatistical Collaborator: Mark Espeland

Ms670: Sleep Duration, Cognitive Function & Neurocognitive Impairment in Older Women (WHIMS)
Chair: Jiu-Chiuan Chen
Biostatistical Collaborators: Mark Espeland and Laura Lovato

Ms683: Education, Neuropathology and Cognitive Performance in Older, Postmenopausal Women: The WHIMS
Chair: Steve Rapp
Biostatistical Collaborator: Mark Espeland

Ms881: Change in Cognitive Function in Cancer Patients among WHIMS Participants
Chair: Susan Resnick
Biostatistical Collaborator: Mark Espeland and Sarah Gaussoin

Ms884: Effects on Dementia & Cognitive Functioning 3 Years after Stopping E +/- Progestin: The WHIMS
Chairs: Claudine Legault, Sally Shumaker
Biostatistical Collaborator: Patricia Hogan

Ms909: Spatial Distribution of Ischemic Lesions in WHIMS-MRI and Effects of Postmenopausal Hormone Therapy
Chair: Christos Davatzikos
Biostatistical Collaborator: Ramon Casanova and Mark Espeland

Ms937: Psychological Attitudes, Neuroanatomy & Important Health Outcomes: WHIMS-MRI
Chair: Hilary Tindle

Biostatistical Collaborator: Patricia Hogan

Ms938: Insomnia, Snoring & Sleepiness and Risk of Cognitive Impairment in Older Women
Chair: Jiu-Chiuan Chen
Biostatistical Collaborators: Mark Espeland and Laura Lovato

Ms979: Depression, Brain Volumes & Subclinical Disease in Postmenopausal Women: WHIMS-MRI
Chair: Joseph Goveas
Biostatistical Collaborators: Mark Espeland and Patricia Hogan

Ms980: The Utility of Variability in Domain-Specific Cognitive Function in Predicting Incident Dementia: Evidence from the WHISCA
Chair: Mark Espeland
Biostatistical Collaborators: Mark Espeland and Sarah Gaussoin

Ms1038: The Relation of Folate Intake & Cognitive Decline & Dementia in WHIMS
Chair: Sylvia Smoller
Biostatistical Collaborator: Patricia Hogan

Ms1042: Relationships that Cognitive Function & Change in Cognitive Function Have with Incident Cardiovascular Disease: WHIMS
Chair: Sally Shumaker
Biostatistical Collaborators: Mark Espeland and Iris Leng

Ms1047: Effects of Conjugated Equine Estrogen Therapy on Region-Specific Brain Volumes: WHIMS-MRI
Chair: Ramon Casanova
Biostatistical Collaborators: Mark Espeland, Sarah Gaussoin

Ms1058: Omega-3 Fatty Acid Biomarkers & Brain Volumes: WHIMS-MRI
Chair: James Pottala
Biostatistical Collaborator: Mark Espeland

Ms1115: Obesity & Brain Volume in Postmenopausal Women: WHIMS-MRI
Chair: Ira Driscoll
Biostatistical Collaborator: Sarah Gaussoin

Ms1121: Calcium Plus Vitamin D Supplementation & Cognitive Impairment in the WHI
Chair: Rebecca Rossom
Biostatistical Collaborator: Mark Espeland

Ms1150: Influence of Diabetic Retinopathy on Cognitive Function & Regional Brain Volumes: WHIMS-MRI
Chair: Mary Haan
Biostatistical Collaborators: Mark Espeland, Sarah Gaussoin

Ms1214: Application of Imbalanced Learning Methods to Study Association of Region-Specific Brain Volumes with Cognitive Function Using WHIMS Study Data
Chair: Ramon Casanova
Biostatistical Collaborator: Mark Espeland

Ms1229: Impact of Type 2 Diabetes on Domain-Specific Cognitive Function in Women 65 Years & Older: Results from the WHISCA
Chair: Mark Espeland
Biostatistical Collaborator: Patricia Hogan

Ms 1414: Rates of Change in Brain Volumes & Ischemic Lesion Volumes Following Exposure to CEE Therapies: Results From the WHIMS-MRI
Chair: Laura Coker
Biostatistical Collaborator: Patricia Hogan

Ms 1415: Vascular Factor-Depression Interactions & Future Cognitive Function: WHIMS & WHISCA
Chair: Joe Goveas
Biostatistical Collaborator: Patricia Hogan

Ms 1498 Interactions between physical activity and APOE status on regional brain volume and white matter lesions in the WHIMS-MRI cohort
Chair: Carson Smith
Biostatistical Collaborator: Mark Espeland

Ms 1499 Prediction of cognitive decline over 6 years from change in physical activity and genetic risk for Alzheimer's disease in the WHI study.
Chair: Carson Smith
Biostatistical Collaborator: Mark Espeland

Ms 1518: Influence of Type 2 Diabetes Mellitus on Brain Atrophy & Increases in Ischemic Lesion Volumes: Results from the MRI Studies
Chair: Mark Espeland
Biostatistical Collaborator: Mark Espeland

Ms 1525: Antidepressant Exposure & Cross-Sectional & Longitudinal Changes in Brain Volumes & Ischmic Lesion Load in Women: The WHIMS-MRI2 Study
Chair: Joe Goveas
Biostatistical Collaborator: Patricia Hogan

Ms 1526: Depression & Longitudinal MRI Changes in Subclinical Cerebrovascular Disease & Regional Brain Volumes: The WHIMS-MRI2 Study
Chair: Joe Goveas
Biostatistical Collaborator: Patricia Hogan

Section 9.

Publications Activities

9.1 WHIMS SUITE OF STUDIES BIBLIOGRAPHY

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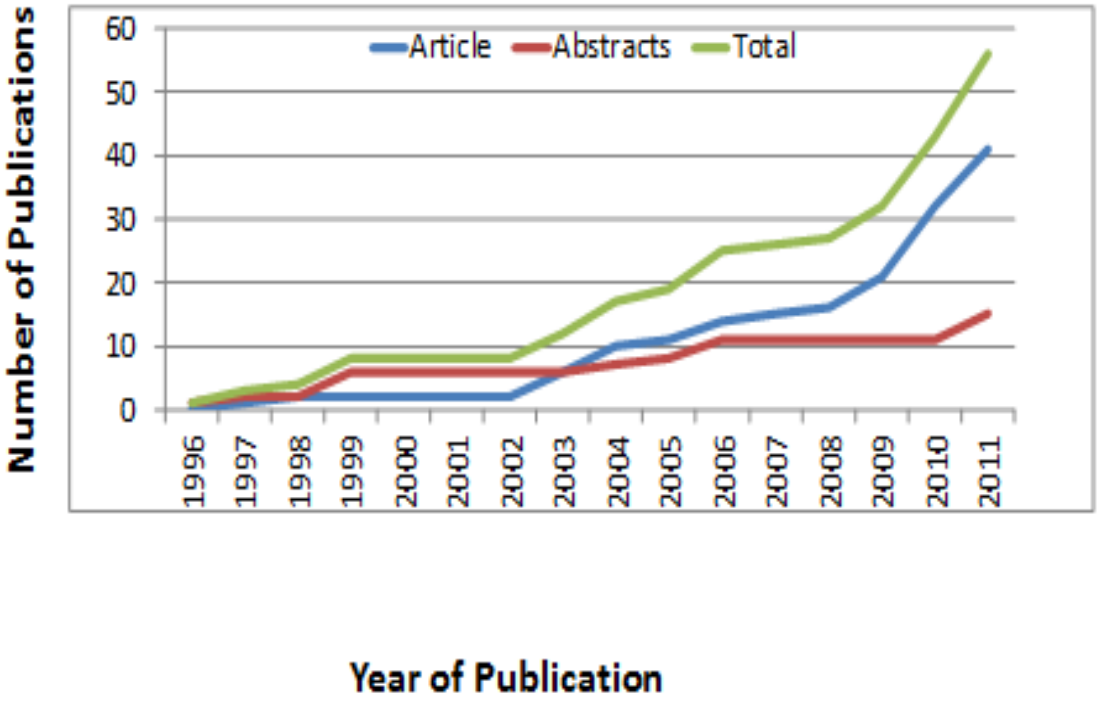

Most Highly Cited WHI Cognition Articles

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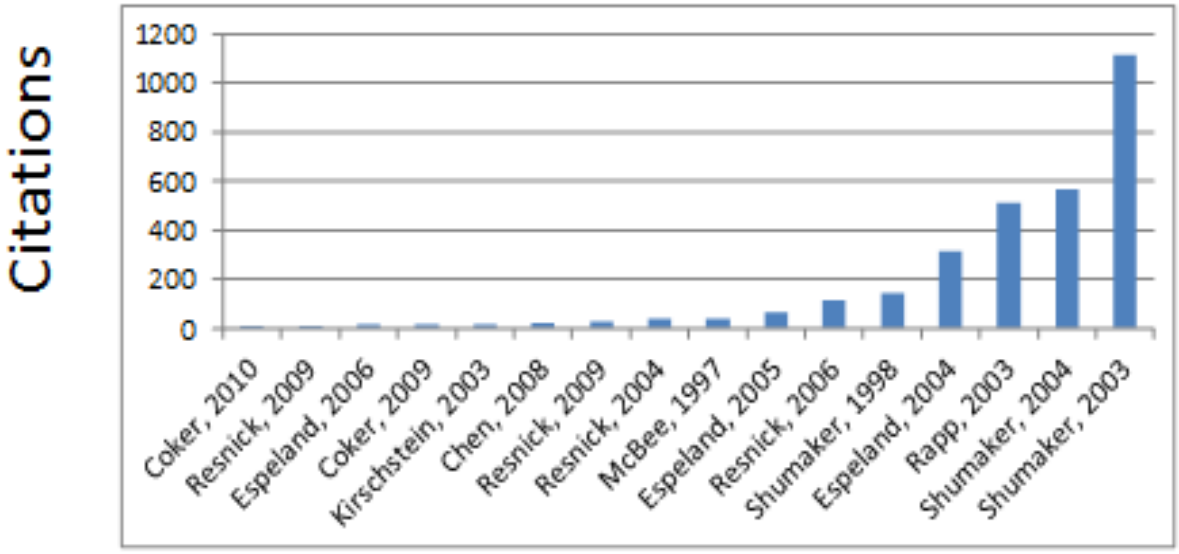
3,021 total citations



Section 10.

Ancillary Studies

Table 10-1 Funded Ancillary Studies from the WHIMS

AS #	Title	PIs	WHI Investigator	Status	Study Dates	Study Populations*	Blood Study	Ms #(s)
262	Women's Health Initiative memory study of younger women (WHIMS-Y)	Anc: Shumaker WHI: Shumaker	Yes	Funded	10/01/08-06/30/11	HT	N	
252	Environmental determinants of cognitive aging in WHIMS	Anc: Chen WHI: Heiss	No	Approved	07/01/08-06/30/13	HT	N	
BA19	Omega-3 fatty acid biomarkers and cognitive decline in WHIMS	Anc: Harris WHI: Robinson	No	Funded	01/09-01/11	HT	Y	
250	Genetic contributions to cognitive decline in normal and pathological aging in older post-menopausal women and modification by hormone therapy	Anc: Driscoll WHI: Shumaker	No	Funded	03/01/09-12/31/09	HT Controls:7479 *All 7479 WHIMS ppts	Y	
244	Women's Health Initiative memory study epidemiology of cognitive health (WHIMS-ECHO)	Anc: Shumaker WHI: Vitolins	Yes	Funded	10/01/07-12/31/10	HT	N	
235	Pilot study to explore assoc between task performance on fMRI w/ cog functioning and vascular, genetic & inflam. risk factors in WHISCA ppt characterized by differing body weight & waist-hip ratios	Anc: Kerwin WHI: Kotchen	Yes	Analysis	11/01/06-06/30/09	CT	N	
233	WHIMS (AS39) extension	Anc: Shumaker WHI: Shumaker	Yes	Analysis	12/13/03-06/30/08	HT 3074 Ppts@32 clinics	N	
183	Effects of hormone therapy on subclinical neurological pathology: WHIMS-MRI (1 & 2)	Anc: Shumaker WHI: Shumaker	Yes	Analysis (1) Funded (2)	07/01/04-06/30/08 (1) 11/30/07-12/31/10 (2)	HT E+P	N	542, 625, 626, 680, 683, 696, 727, 794, 883, 909, 937, 979, 1047 (1)
103	Effects of hormone replacement therapy on cognitive aging: Women's Health Initiative study of cognitive aging (WHISCA)	Anc: Shumaker WHI: Shumaker	Yes	Analysis	04/01/99-06/30/10	HT 2266 Ppts@15 clinics	N	216, 237, 325, 579, 598, 695, 899, 914, 980, 1038

39	The effects of HRT on the development and progression of dementia (WHIMS)	Anc: Shumaker WHI: Shumaker	Yes	Complete	06/01/96- 05/31/05	HT 7528 Ppts@48 clinics	N	60, 138, 173, 225, 226, 274, 276, 332, 336, 356,360, 370, 390, 397, 399, 421, 427, 546, 558, 595, 597, 612, 639, 665, 670, 683, 727, 750, 881, 883,938

*Number of Field Centers includes number of satellite sites.

Table 10-2 Proposed Ancillary Studies from the WHIMS

Investigators, Institutions	Proposal Title	Data Source	Relevant SIG
Laura H Coker, Peggye Dilworth-Anderson, Stephen Rapp, Sally Shumaker (Wake Forest University Health Sciences [WFUHS]; UNC-Greensboro)	Characteristics of caregivers and outcomes of care recipients	Caregiver Questionnaire (new); WHI participant (care recipient) data from the OS, HT WHIMS and WHISCA trial databases.	Psychosocial & behavioral Health (PBH)
Elizabeth Dugan (UMass-Boston); Sally Shumaker (WFUHS)	Women's mobility and driving	New questionnaire (10-15 minutes) to capture driving status, accidents, safety, behavior and needs; cognition status from WHIMS/WHISCA; US Census.	CAFS, PBE
Mark Espeland, Laura H Coker (WFUHS)	Structural magnetic resonance imaging of the WHIMSY cohort	New structural MRIs (N=616); treatment, risk factors, cognition and potential confounders from WHI, WHIMS, and WHIMSY databases.	CAFS
Mary Haan (University of California, San Francisco); Mark Espeland (WFUHS)	Associations between changes in retinopathy and brain MRI	New eye exams; brain MR outcomes, treatment, risk factors, cognition and potential confounders from WHI, WHIMS, WHIMS-MRI databases	CAFS
Daniel Kim-Shapiro, W Jack Rejeski (Wake Forest University), Sally Shumaker (WFUHS)	Plasma nitrite and functional health	Plasma nitrite concentrations; 400-m walk speed and MAT-SF test scores.	CAFS
Stephen Rapp (WFUHS)	Depression, morbidity and mortality	Interview to obtain current and past depressive symptoms, diagnoses of major and minor depression and treatments; WHIMS (ECHO) data on cognition, risk factors, potential confounders.	CAFS, PBH
J. C. Chen (University of Southern California) **Mark Espeland** (WFUHS) **Eric A Whitsel** (UNC-CH) **R-01 Submitted 10/10**	Social disparity in disturbed sleep: neighborhood and brain-behavior interaction	WHIMS, WHI, Neighborhood socio-economic status data	CAFS, PBE
Regina A Shih (RAND Corp), **Karen Margolis** (Univ Minnesota; Health Partners Research Fdn) **Mark Espeland** (WFUHS)] **R-01 Submitted 10/10**	Neighborhood Characteristics, Cognitive Declines, and Brain Structure in Older Women	WHIMS, WHI, Neighborhood socio-economic status data	CAFS, PBE

Key: Scientific Interest Groups: Cognition, Aging, and Functional Status (CAFS); the Physical and Built Environment (PBE); and Psychosocial and Behavioral Health (PBH).

Section 11.

Recent Scientific Findings

11.1 Published Papers

Recent scientific findings from papers appearing in the past year:

- "Of the 112 women who met all MCI criteria examined, the most common subtype was amnestic multi-domain MCI (42.8%) followed by non-amnestic multiple domain MCI (26.7%), non-amnestic single domain (24.1%) and amnestic single domain MCI (6.3%)….Despite the attention it receives in the literature, amnestic mild cognitive impairment is the least common type highlighting the importance of identifying and characterizing other nonamnestic and multidomain subtypes." Rapp SR, Legault C, Henderson VW, et al. Subtypes of mild cognitive impairment in older postmenopausal women: the Women's Health Initiative Memory Study. Alzheimer Dis Assoc Disord 2010;24:248-255.

- "Higher body mass index was associated with poorer cognitive function in women with smaller waist hip ratios. Higher waist hip ratio, estimating central fat mass, was associated with higher cognitive function in this cross-sectional study. Further research is needed to clarify the mechanism for this association. Kerwin D, Zhang Y, Kotchen JM, et al. The cross-sectional relationship between body mass index and cognitive function in postmenopausal women enrolled in the Women's Health Initiative (WHI). J Am Geriatr Soc, 2010;28:1427-1432.

- "The relationship between body mass index, cognition and incident cognitive impairment among older women is effected by waist-hip ratio which suggests that body fat distribution is a contributing factor." Kerwin DR, Gaussoin SA, Chlebowski RT, et al. Interaction between body mass index and central adiposity and risk of incident cognitive impairment and dementia: results from the Women's Health Initiative Memory Study. J Am Geriatr Soc 2011:59:107-112.

- "Depressive symptoms are independently associated with an increased incidence of mild cognitive impairment and probable dementia among women 65 years and older." Goveas JS, Espeland MA, Woods NF, et al. Depression and incidence of mild cognitive impairment and dementia in elderly women: The Women's Health Initiative Memory Study. J Am Geriatr Soc 2011;59:57-66.

- "Prescription of conjugated equine estrogens therapy for an average of 6.6 years is associated with lower regional brain volumes, but it does not induce a characteristic spatial pattern of changes in brain volumes of sufficient magnitude to discriminate users and non-users." Casanova R, Espeland MA, Goveas JS, et al. Application of machine learning methods to describe the effects of conjugated equine estrogens therapy on region-specific brain volumes. Mag Res Imag 2011;29:546-553.

- "The socioeconomic status of a woman's neighborhood may influence cognitive function. This relationship is only partially explained by vascular, health behavior, or psychosocial factors. Future research will examine the longitudinal relationships between neighborhood socio-economic status, cognitive impairment and cognitive decline." Shih RA, Ghosh-Dastidar B, Margolis K, et al. Neighborhood socioeconomic status and cognitive function in women. Am J Publ Health 2011;101:1721-1728.

- "Weight loss, and not weight gain, was associated with modest, graded cognitive decrements in performance across several, but not all, cognitive domains. The lack of associations between weight gain and cognition in women is consistent with the existent literature." Driscoll I, Espeland MA, Wassertheil-Smoller S, et al. Weight change and domain-specific cognitive function. Findings from the Women's Health Initiative Study of Cognitive Aging. Obesity 2011;19:1595-1600.

- "Elevated depressive symptoms were associated with lower volumes in certain frontal lobe sub-regions but not in the medial temporal lobe structures. Our findings support the role of frontal lobe structures in late-life depressive symptoms among women." Goveas JS, Espeland MA, Hogan P, et al. Depressive symptoms, brain volumes, and subclinical cerebrovascular disease in postmenopausal women: The Women's Health Initiative MRI Study. J Affect Disord 2011:132:275-284.

- "Although proxy interviews were successful in reducing biases in estimated incidence rates and risk factor relationships, it is unlikely that they will fully eliminate many biases. Proxy-based assessments are necessary in longer-term studies to reduce undercounting of dementia cases and to characterize risk factor relationships." Gaussoin SA, Espeland MA, Absher J, et al. Ascertaining dementia related outcomes for deceased and proxy-dependent participants: an overview of WHIMS Supplemental Case Ascertainment Protocol (WHIMS-SCAP). Intern J Geriatr Psych 2011.

- "Type 2 diabetes mellitus (T2DM) was associated with cognitive deficits in most domains. Relative deficits in verbal knowledge and verbal memory may continue to increase after deficits in other domains have stabilized. Relative deficits in fine motor speed may be larger among women with earlier onsets of T2DM. Use of insulin, which may reflect greater T2DM severity, was associated with relatively greater cognitive deficits." Espeland MA, Miller ME, Goveas JS, et al. Cognitive function and fine motor speed in older women with diabetes mellitus: results from the Women's Health Initiative Study of Cognitive Aging. J Women's Health 2011;20(10):1435-1443.

- "The correspondence we found between retinopathy and cognitive impairment, along with larger ischemic lesion volumes, strengthens existing evidence that retinopathy as a marker of small vessel disease is a risk factor for cerebrovascular disease that may influence cognitive performance and related brain changes. Retinopathy may be useful as a clinical tool if it can be shown to be an early marker related to neurologic outcomes." Haan M, Espeland MA, Klein BE, et al. Retinopathy, cognitive function, ischemic brain lesions and volumes. Neurology 2011 (in press).

11.2 Unpublished papers:

Sleep Duration, Cognitive Function, and Neurocognitive Impairment in Older Women

Jiu-Chiuan Chen, MD., MPH, Sc.D., Mark A. Espeland, PhD., Robert L. Brunner, PhD., Laura C. Lovato, MS., Robert B. Wallace, MD., MSc., Xiaoyan Leng, MD., PhD., Lawrence S. Phillips, MD., Jennifer G. Robinson, MD, MPH., Jane M. Kotchen, MD., MPH., Karen C. Johnson, MD, MPH., JoAnn E. Manson, MD, DrPH., Marcia L. Stefanick, PhD.,Gloria E. Sarto, MD., Ph.D., W. Jerry Mysiw, MD.

Abstract

CONTEXT: Despite well-documented acute effects of sleep deprivation on cognitive functions in clinical and animal studies, very little is known about the long-term neurocognitive sequelae of sleep loss. Previous studies have linked self-reported habitual sleep duration with cardiovascular disease and related risk factors predictive of dementia.

OBJECTIVE: To determine whether habitual sleep duration is associated with declining cognitive function and increased risk of cognitive impairments.

DESIGN, **SETTING**, **AND PARTICIPANTS**: A prospective, population-based study on 7180 community-dwelling, generally healthy older women (aged 65-80 years) with self-reported sleep duration, nested within the Women's Health Initiative Memory Study in 1995-2008.

MAIN OUTCOME MEASURES: Global cognitive function measured annually with the Modified Mini-Mental State Examination and incidence of mild cognitive impairment and probable dementia ascertained during an average of 4.5 years of follow-up.

RESULTS: Poorer baseline cognitive performance, more cognitive decline, and an increased risk of mild cognitive impairment (MCI)/probable dementia were found in participants with either short (≤6 hours/night) or long (≥9 hours/night) sleep, compared to those with sleep of 7 hours/night. These associations remained after accounting for demographics, socioeconomic status, lifestyle, depression, and cardiovascular risk factors. Using a sleep duration of 7 hours/night as the referent, multivariable-adjusted hazard ratios (95% confidence intervals) were 1.27 (0.97−1.67), 1.35 (1.12−1.63), 1.16 (0.94−1.43) and 1.04 (0.67−1.60) for cognitive decline and 1.31 (0.94−1.84), 1.34 (1.05−1.71), 1.20 (0.90−1.59) and 1.39 (0.85−2.29) for MCI/dementia among women reporting 5, 6, 8, and 9 or more hours of sleep, with stronger associations noted among women with prior cardiovascular disease and related comorbidities.

CONCLUSION: In older women, especially those with cardiovascular disease, extreme habitual patterns with either short or long sleep duration may predict long-term cognitive decline and increase subsequent risk of cognitive impairments.

Validation of a Cognitive Test Battery Administered by Telephone

Laura H. Coker, PhD; Maggie Dailey, PhD; Mark A. Espeland, PhD; Patricia Hogan, MS; Claudine Legault, PhD; Stephen R. Rapp, PhD; Susan M. Resnick, PhD, and Sally A. Shumaker, PhD for the CAT Study Group (authors listed alphabetically)

Abstract

Background: Telephone-administered cognitive assessments have emerged as a promising alternative to face-to-face assessments because they can reduce substantially the costs of administration and participant burden. The Cognitive Assessment by Telephone (CAT) study was designed to compare cross-sectionally and longitudinally the performance of a telephone-

administered cognitive test battery to the same battery administered face-to-face in women ages 65 and older.

Methods: One hundred and ten women (mean = 72.4 yr. SD=5.7) were randomly assigned to receive two administrations of the same cognitive battery spaced six months apart in one of the four following orders (1^{st} administration/2^{nd} administration): telephone/telephone; telephone/face-to-face; face-to-face/telephone; or face-to-face/face-to-face. The cognitive battery assessed attention, concentration, verbal learning and memory, verbal fluency, working memory and executive function plus global cognitive functioning. In addition to assessments of cognitive performance, participants completed questionnaires assessing perceived memory problems, depression, sleep disturbance and health-related quality of life over the phone and in person. Test-retest reliability, concurrent validity and estimates of the bias of telephone assessments relative to face-to-face assessments (i.e. telephone assessment minus face-to-face assessment) were evaluated.

Results: Baseline data were collected on 105 predominantly Non-Hispanic White (n=93) participants and 91 completed follow-up. There were no statistically significant differences in scores on any of the cognitive tests or questionnaires between randomly assigned modes of administration at baseline indicating equivalence across modes. There were no statistically significant biases for 12 of 13 cognitive parameters tested (ps>0.01). Nor were there significant differences in mean change scores between modes of administrations (p>.01) except for the Category Fluency test. There were no significant interactions (p>0.01) between modes of administration and race, age or baseline 3MSE scores, except for the Recognition subtest of the CVLT. Moderately high mean correlations occurred when both administrations were by telephone, both administrations were by face-to-face, or when a telephone administration was followed by a face-to-face administration: 0.74 (SD=.09), 0.67 (.12), and 0.66 (.21), respectively but lower mean correlations occurred when the mode of administration changed from face-to-face to telephone: 0.50 (0.21)

Conclusions: Results show that the two modes of administration yield scores that are equivalent. Using a telephone-administered battery can reduce the cost of administration and participant burden, particularly in large studies.

Section 12.

Appendix

Appendix 1
WHIMS-ECHO and WHIMS-Y Study Measures

Study Measures

Hearing. Only women who can hear adequately over the phone are administered the measures. To determine this, we ask each woman standard questions (e.g., Do you usually have trouble hearing when one person speaks to you?) and administer a brief hearing screening test requiring participants to repeat a simple phrase. Women who report no or minimal hearing difficulty and who repeat the phrase correctly will be administered the cognitive measures.

Telephone Interview for Cognitive Status-modified [5] measures **global cognitive functioning** and is modeled after the Mini Mental State Exam (MMSE) [3,4,5,6]. The *TICS-m* is a 14-item test (range of scores 0 to 50) with items assessing participant's name (2 points), telephone number (2 points), date (5 points), counting backwards (2 points), word list recall (10 points), subtraction (5 points), responsive naming (4 points), repetition (2 points), President's name (2 points), Vice President's name (2 points), finger tapping (2 points), word opposites (2 points) and delayed word list recall (10 points). It has been previously validated for administration to older adults [4,5,14,15,16] and has been used in large-scale epidemiological studies of dementia [21] as well as clinical trials assessing MCI [18]. The TICS-m correlates highly with the MMSE (r=0.86), the Clinical Dementia Rating scale (r=-0.75), and with neurocognitive tests administered face-to-face [19,20,21]. The TICS-m has excellent sensitivity (0.87) and specificity (0.89) for differentiating older persons with dementia from normal controls. It is sensitive to racial and ethnic differences [22], is inversely correlated with age [6], has good sensitivity and specificity for detecting amnestic MCI [18] and yields normal distributions in population studies [6]. The TICS-m will be used in lieu of the 3MSE [23], the cognitive screening tool in the original WHIMS protocol. The TICS-m and the 3MSE are highly correlated (0.89) [19]. For women who score ≤ 30 on the TICS-m, a telephone interview is conducted with a previously identified friend or family member (proxy) during which the Dementia Questionnaire (described below) is administered.

East Boston Memory Test (EBMT) measures **verbal memory** [7]. Participants are read a short paragraph consisting of 12 distinct elements and immediately asked to recall as many elements as possible (immediate recall) and again 15 minutes later (delayed recall).

Verbal Fluency-Animals (VF-A) measures **verbal fluency and executive function** [9]. This task requires participants to spontaneously name as many animals as possible during one minute. The total number of unique words yields the score. The VF-A test is included in the CERAD battery, which was administered to participants in the original WHIMS protocol.

Digit Span Test (DST) measures **working memory** [10]. This task requires the participant to repeat sequentially a series of single digit numbers of increasing length presented orally, first as presented (Digits Forward) and subsequently in reverse order (Digits Backwards). The score is the longest span of digits recalled. The sum of Digits Forward and Digits Backward (DST-Total) is used.

Oral Trail Making Test (OTMT) [8] measures **attention** (Part A) and **executive function** (Part B) and visual motor skillfulness. The respondent is asked to count from 1 to 25 as quickly as possible (Part A) and recite sequentially and in alternating manner numbers from 1 to 13 and letters from A to L (i.e., 1-A-2-B..). The time it takes (sec) to complete each task is the score.

California Verbal Learning Test (CVLT) [29] measures **verbal learning** and **verbal memory**. It consists of 5 learning trials of the same 16-item word list with immediate recall of as many words as possible after each trial (Immediate Recall) plus a single learning trial of a different 16 item list with recall (Interference Trial) and both uncued recall (Free Recall) and cued recall (Cued Recall) of the first list approximately 20 minutes after the learning trials (Delayed Recall). The CVLT was modified in WHISCA by using only 3 learning trials instead of 5 to reduce administration time and participant burden [1]. Our analyses of WHISCA data supported that decision by revealing that total score of the 3 learning trials was the most sensitive CVLT parameter to the effects of CEE+MPA [2]. For these reasons and to be consistent with WHISCA, *we propose to administer the same 3 learning trials with immediate recall in ECHO and WHIMS-Y in addition to the assessments currently in use in WHIMS-ECHO/ Y*. Another change we are proposing is to omit the second list learning task and the short-and delayed recall tasks to reduce the risk of proactive interference between the TICS-m word list learning and delayed recall tasks and the CVLT. To further reduce interference between measures, we propose to administer the 3 CVLT learning and immediate recall trials at the end of the battery. After the study is underway, we will compare the CVLT scores and trends from WHISCA to the trends in ECHO and WHIMS-Y to help determine whether there is significant interference. With these two modifications to the current WHIMS-ECHO/Y protocols, we (1) include a well-validated and widely used learning and memory task in the battery, (2) reduce participant burden, (3) match the measure to the one we used in WHISCA and (3) reduce the proactive interference between the two similar tasks.

The TICS-m, EBMT, VF-A, and DST were previously used within the Nurses' Health Study [15]. Grodstein et al. reported a correlation of 0.70 (p=0.0001) between two administrations of the TICS-m (one month apart) and inter-rater reliability of 0.95. They also compared an overall composite score from the telephone-administered battery (mean of all tests after standardization to z-score) with a separate battery of 21 tests administered face-to-face to 61 women and reported a correlation of 0.81. They reported correlations between scores from the telephone-administered battery and major risk factors for cognitive impairment derived from their study as similar to other studies using face-to-face testing. Last, the overall composite score demonstrated sensitivity to change [15,16].

Dementia Questionnaire (DQ). The DQ [13] is a structured interview designed for a knowledgeable proxy to provide information needed to make a dementia diagnosis and to identify causes of cognitive impairment. It covers six domains: memory and cognition, verbal expression, daily functioning, recognition of problems/insight, other medical and psychiatric problems, and medical contacts. Proxies estimate dates of symptom onset. The DQ has been validated against the 'gold standard' of a clinical evaluation with sensitivities and specificities >90% and inter-rater (face to face vs. phone) agreement of >94% [13,24,25]. The WHIMS Supplemental Case Ascertainment Protocol (SCAP) currently uses the DQ to help classify women as normal, MCI and PD posthumously or among participants who have terminated full follow-up.

The TICS-m with the DQ have been previously validated for identifying dementia cases in community samples [13,17,25] with sensitivity of 83%, specificity of 100%, and agreement with face-to-face clinical evaluation of 89% [20].

Additional Moderating Variables

All participants in WHIMS-ECHO receive additional measures related to accurately assessing underlying factors associated with cognitive performance. Both depressed mood and sleep problems can influence cognitive functioning and these variables are assessed as covariates in

WHIMS-ECHO. **Depression** is measured with the 15-item (Y/N) Geriatric Depression Scale-Short Form (GDS-SF) [11,12], which can be administered orally, has excellent demonstrated psychometric properties, and has excellent normative data available [26,27]. The GDS-SF was used in the original WHIMS protocol. **Sleep disturbance** is related to cognitive function, aging and co-morbidities associated with aging, and hormonal variations. It is assessed with the WHI Insomnia Rating Scale (WHIIRS). This 5-item self-report instrument has excellent reliability and construct validity, and is sensitive to change over time [28].

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