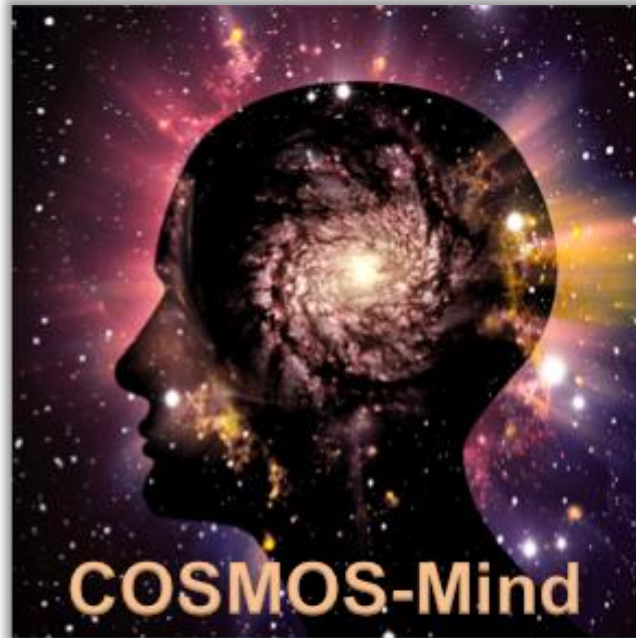


Effects of Cocoa Extract and a Multivitamin on Cognitive Function



Funding:

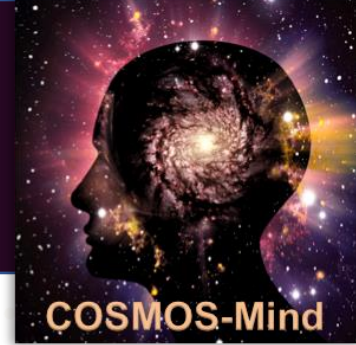
National Institutes of Health,
National Institute on Aging

Laura D. Baker



JoAnn Manson, Steve Rapp, Howard Sesso, Sarah Gaussoin, Sally Shumaker, Mark Espeland, for the COSMOS-Mind Study Group

Cocoa Flavanols & Cognition

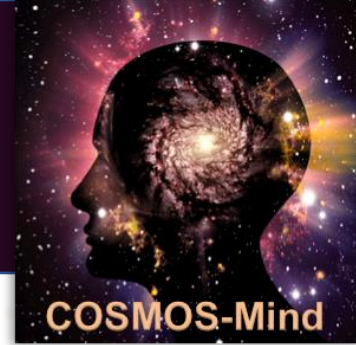


Can cocoa flavanols improve cognitive function in older adults?

Yes, maybe ... particularly with high amounts of flavanols (500-750 mg per day)

But few studies and none the size of COSMOS-Mind

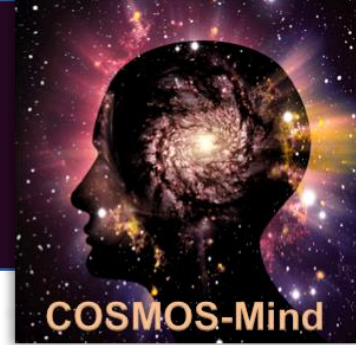
Multivitamin-Mineral & Cognition



What about a simple multivitamin?
Is there a benefit for memory and thinking abilities?

- **Micronutrients and minerals are critical for normal body and brain function**
- **Deficiencies may increase risk for cognitive decline and dementia**
- **Physician's Health Study: no benefit for cognition**

COSMOS-Mind Goals



**Can daily cocoa extract
(versus placebo) for 3 years
improve cognitive function?**



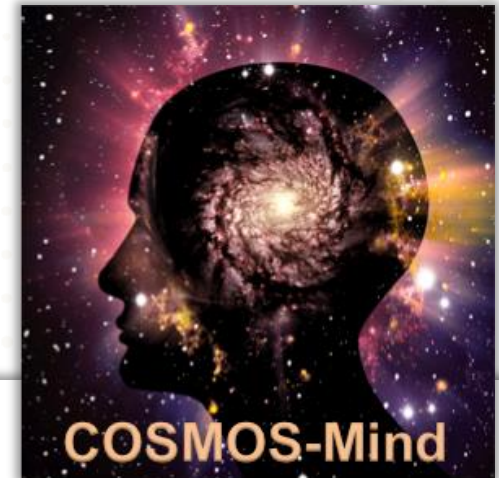
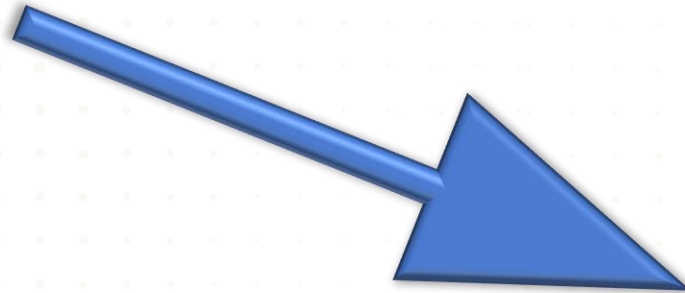
**Can a daily multivitamin-mineral
(versus placebo) improve
cognitive function?**



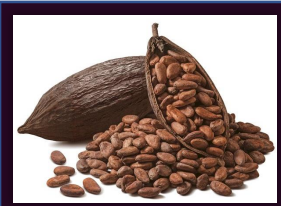
**Look at these effects in subgroups of individuals
who are at higher risk for cognitive decline**

COSMOS-Mind Methods

Parent Trial



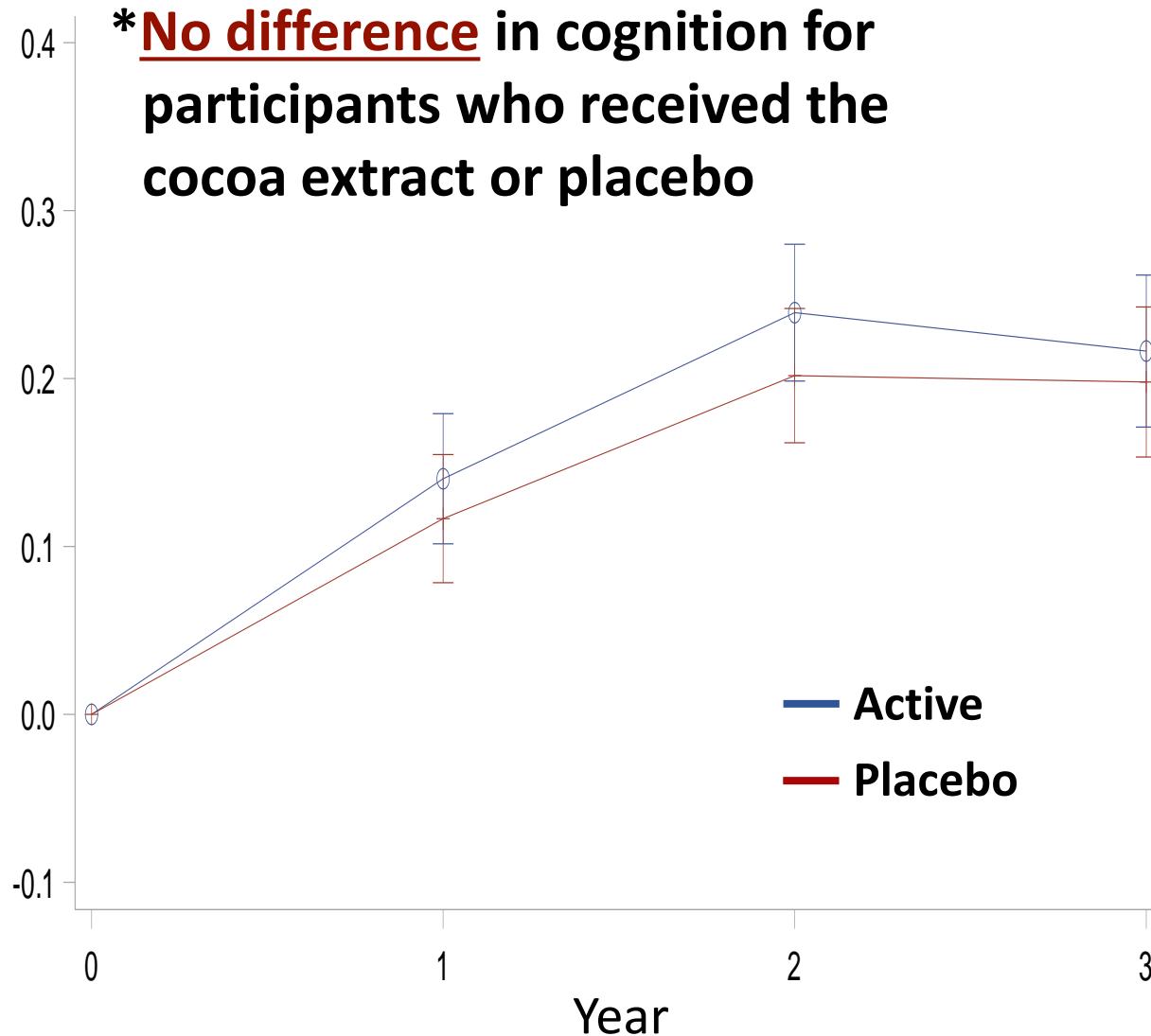
- Enrolled 2,262 COSMOS participants
- Participants completed cognitive testing by telephone at baseline and every year for 3 years
- Tests measured short-term memory, attention and concentration, mental flexibility, and language



Cocoa Extract: Global Cognitive Function

(summed scores across tests administered)

Change in
Cognition
from
Baseline

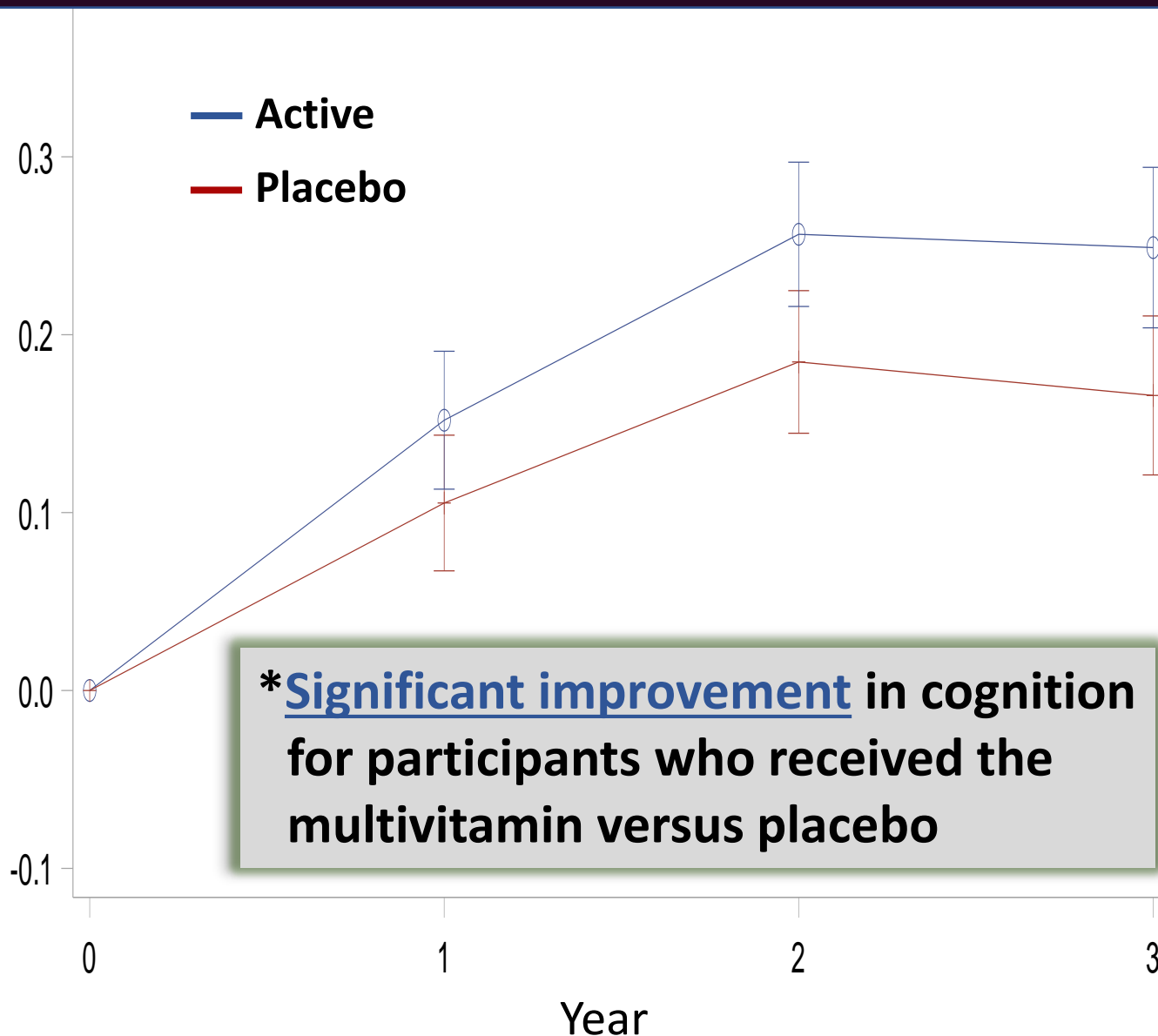




Multivitamin-Mineral: Global Cognitive Function

(summed scores across tests administered)

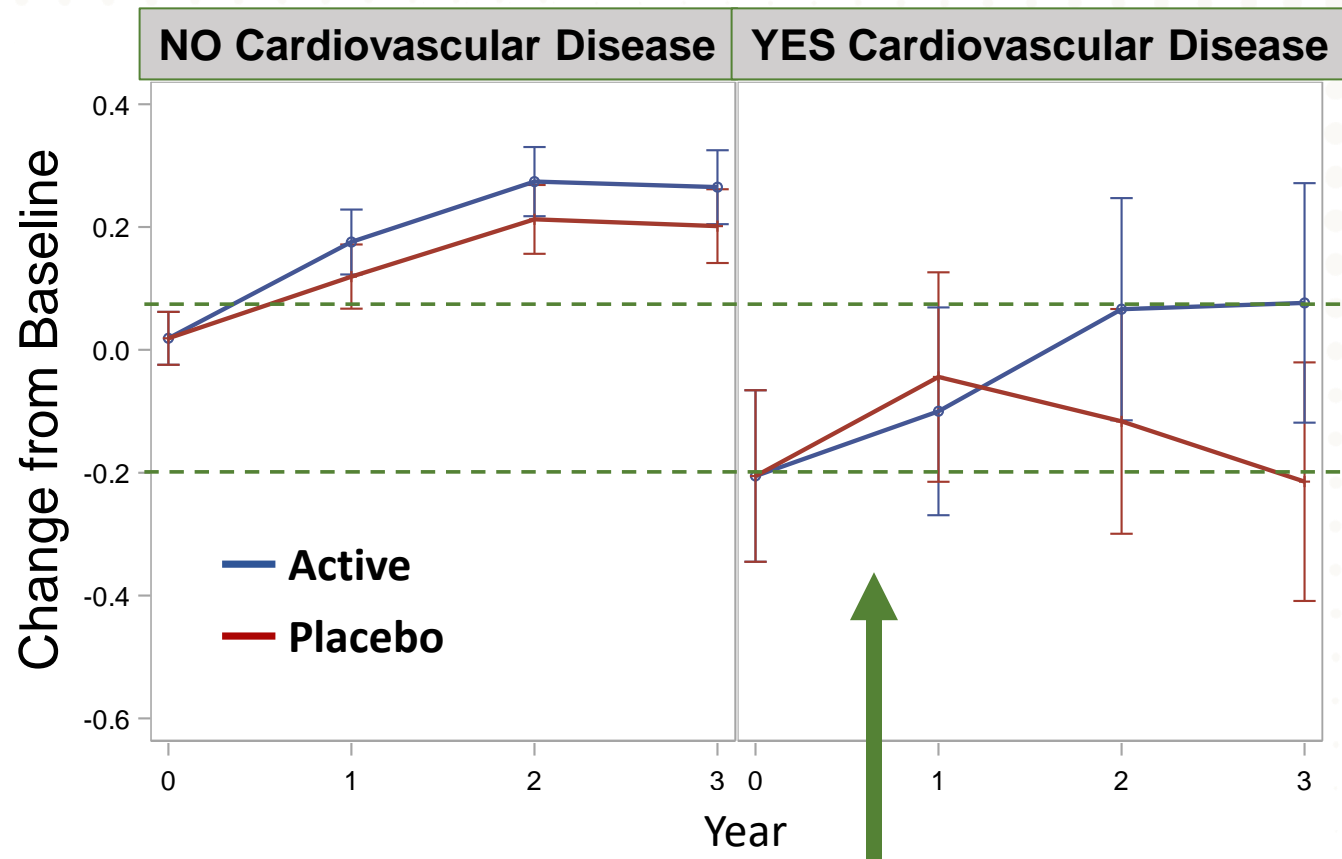
Change in
Cognition
from
Baseline





Multivitamin-Mineral: Global Cognition & Cardiovascular Disease

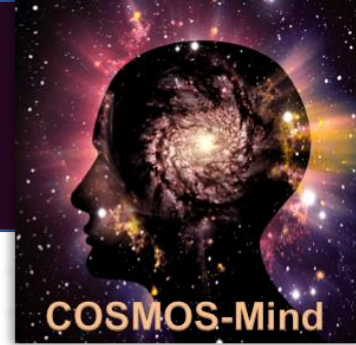
All participants
showed
improvement
with the
multivitamin



For participants *with* cardiovascular disease:

- ✓ benefit appears to be larger
- ✓ multivitamin may protect against cognitive decline

Summary & Conclusions



- New evidence that a daily multivitamin-mineral for 3 years may be beneficial for cognitive function in older adults; **in COSMOS-Mind, the multivitamin appears to have slowed cognitive aging by 50%.**
- This benefit may be stronger for adults with cardiovascular disease.
- Daily cocoa extract for 3 years did not improve or harm cognitive function. ***Was the dose high enough? Was our follow-up long enough?***
- COSMOS-Mind findings may have important public health implications given the accessibility, low cost, and safety of the multivitamin-mineral.
- What's next? ***We still need another trial as there are important questions that remain unanswered...***

Thank You COSMOS-Mind Participants!

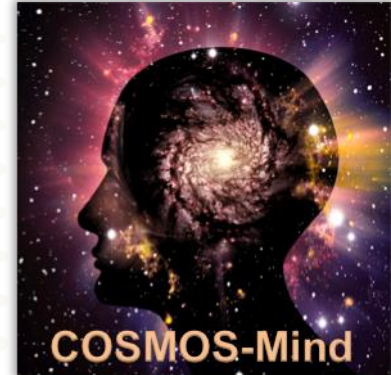
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