

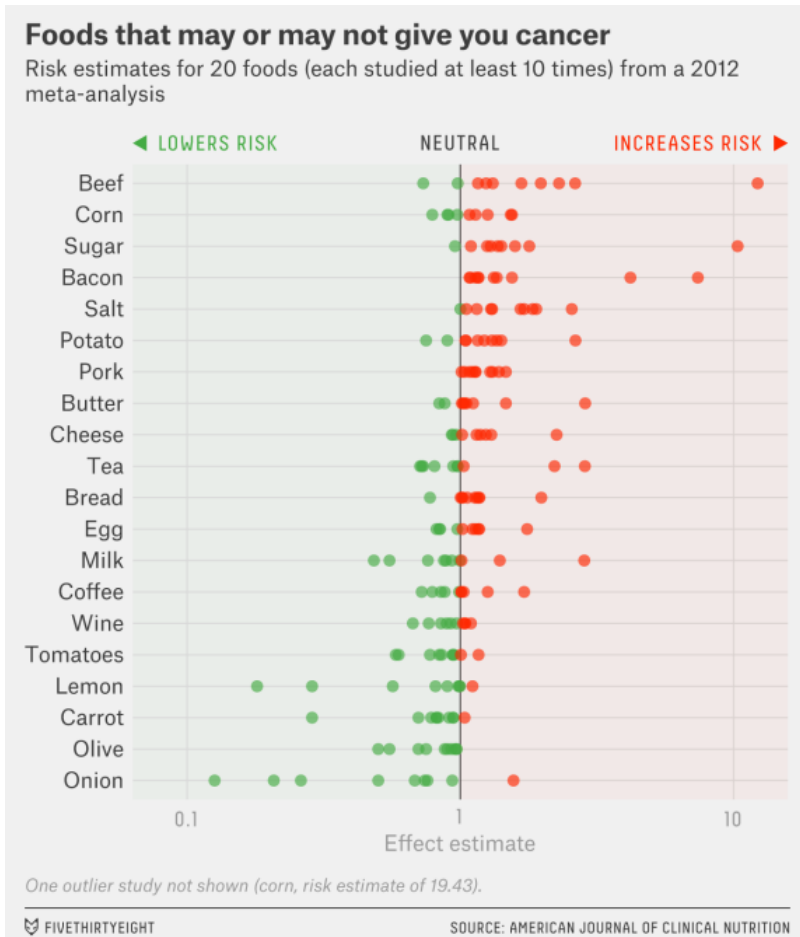


The Blue Zones

What we can learn from the diet and lifestyle secrets of the long lived

Dr Tim Crowe

Nutrition Confusion: Why we don't all agree



- Impractical to run long-term, high-compliance diet RCTs to answer the big health questions
- Observational studies use imprecise dietary assessment methods and can't correct for 'unknown unknowns'
- We are diverse creatures!
- Conflict of interest an issue
- Selective use of evidence
- **BUT**, there are recurring themes we can learn from

The beginnings of the Blue Zones

- Grew out of demographic work first done in Sardinia by Michel Poulain and Gianni Pes
- Term was from **blue circles** drawn on a map around clusters of villages that had the highest longevity
- Dan Buettner (author, educator, explorer, producer and public speaker) gave **Blue Zones** greater recognition from his work with the key researchers in the field and his own exploration of the growing regions where he worked with anthropologists, demographers, epidemiologists and dietitians to see the commonalities between communities
- Findings reported in November 2005 National Geographic Magazine – “Secrets of a Long Life” - third highest selling issue of all time
- The first book on the topic was released in 2008

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FEATURE

The Secrets of Longevity
NOVEMBER 2005

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SIGHTS & SOUNDS



Unlock the secrets of





Ikaria



- 8 years longer life expectancy than mainland Greece
- More than half the rates of dementia (20% vs 50% for > 80 yrs)
- Eat a variation of the Mediterranean diet – high consumption of potatoes, beans and greens
- Minimal meat (goat mostly)
- Activity is spread throughout the day (gardening, kneading bread, walking to store etc.) rather than dedicated ‘30 minute’ bouts

Okinawa



- World's highest life expectancy: men 84 yrs, women 90 yrs
- Have 6.5 centenarians per 10,000 c.f. 1.7 for Australia
- Rates of CVD, breast and prostate cancer 80% lower than similar aged western adults, and half the rate of dementia
- Highest per capita consumption of tofu in the world. Sweet potatoes a staple. Turmeric also common. Eat only a little fish.
- Walkable communities
- Practice moai: childhood to old age peer groups

Sardinia



- Ratio of centenarian men to women is 1:1 while for rest of the world it is 1:5
- Goats milk and cheese a staple, with beans and wine
- Higher longevity in goat herders from their daily physical activity

Nicoya Peninsula



- Beans, corn, squash and tropical fruits are staple foods
- Meals eaten early
- Faith and family play a big role

Loma Linda



- Half of the 24,000 population belong to the Seventh Day Adventist church
- Grains, fruits, nuts and vegetables are at the diet's core with most being vegetarians. No alcohol
- Adventist's who follow the church's teachings live around 10 years longer
- This zone is evidence for the case that genetics cannot explain all the benefits seen in other Blue Zones as the group is much more recent and more mixed

1. More plants, more legumes and less meat



2. Move naturally



3. Have a sense of purpose



4. Stress less



5. Hara hachi bu



6. A glass of wine with friends



7. Join a community

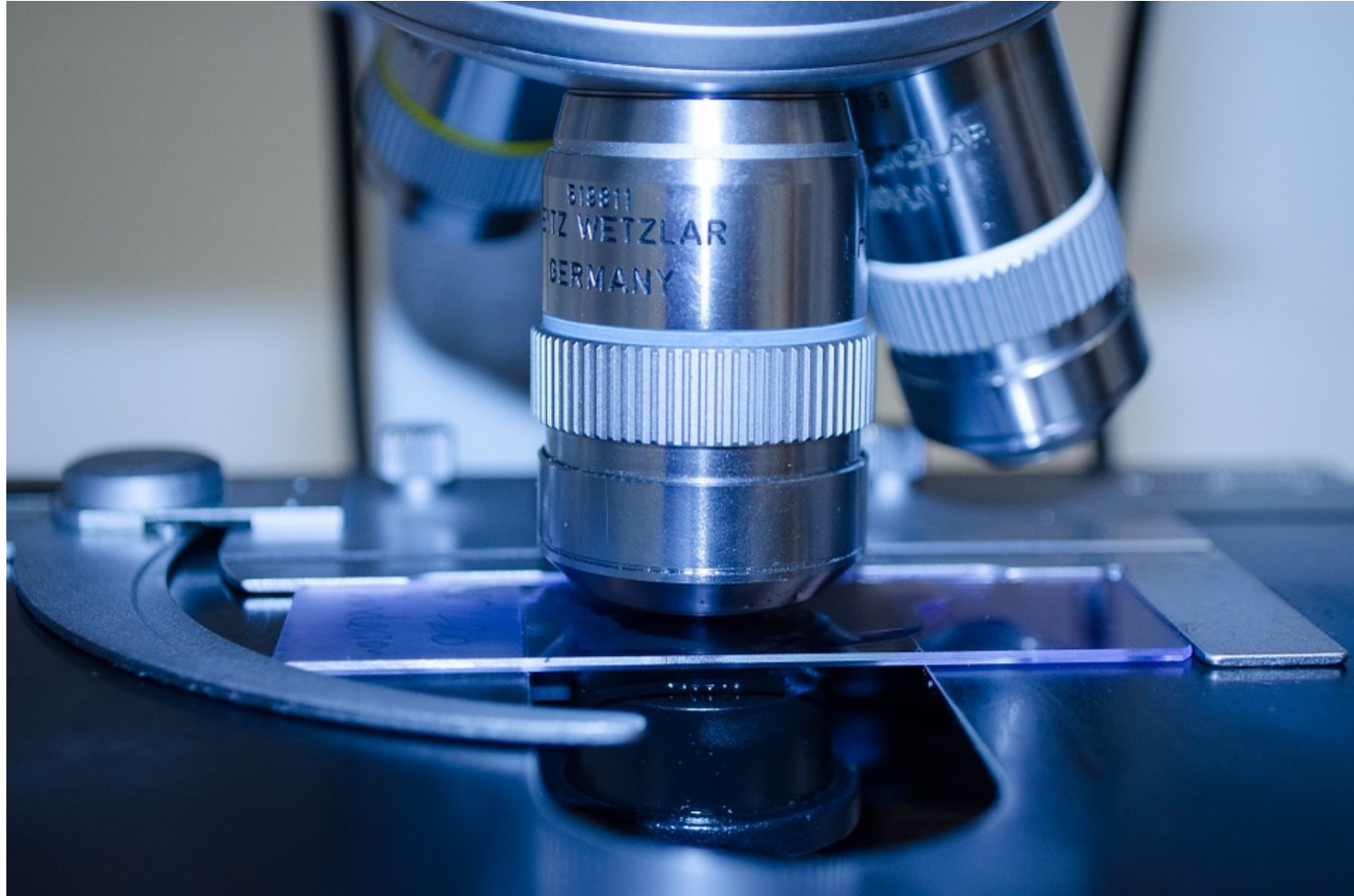


8. Put your loved ones first



9. Find your tribe





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REVIEWS**

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Lead Article

Associations between food and beverage groups and major diet-related chronic diseases: an exhaustive review of pooled/meta-analyses and systematic reviews

Anthony Fardet [✉](#), Yves Boirie

First published: 18 November 2014 [Full publication history](#)



View issue TOC
Volume 72, Issue 12
December 2014
Pages 741-762

Review looked at diet and chronic disease links from 304 meta-analyses and systematic reviews published in the last 63 years

1. Plant-based foods more protective against risk of chronic disease c.f. animal-based foods
2. Wholegrain-based foods more protective than fruits and vegetables
3. Refined grains deleterious
4. Dairy products neutral
5. Red/processed meat increased risk
6. Tea the most protective beverage; soft-drinks the least


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Am J Public Health. 2016 August; 106(8): 1504–1510.

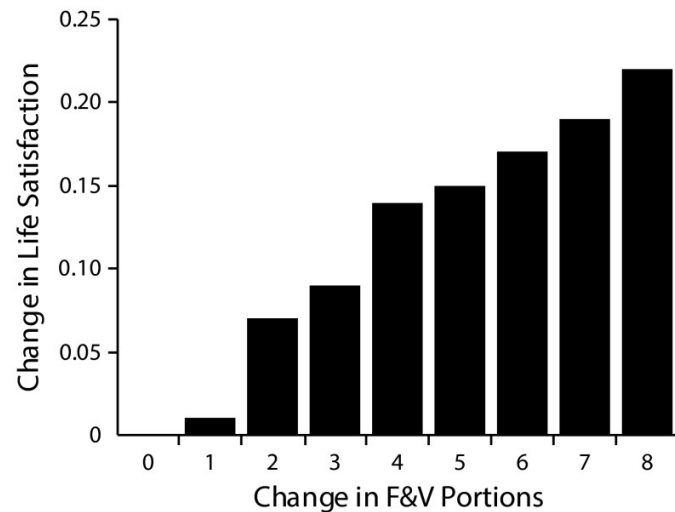
PMCID: PMC4940663

Published online 2016 August. doi: [10.2105/AJPH.2016.303260](https://doi.org/10.2105/AJPH.2016.303260)

Evolution of Well-Being and Happiness After Increases in Consumption of Fruit and Vegetables

[Redzo Mujcic](#), PhD and [Andrew J. Oswald](#), DPhil 

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- Tracked 12,000 randomly selected people in Australia using Household Income and Labour Dynamics in Australia Survey from 2007, 2009 and 2013
- F&V intake predictive of increased happiness, life satisfaction and well-being
- People going from eating no fruits and vegetables to eating eight portions a day experienced an increase in life satisfaction equivalent to moving from unemployment to employment
- The change seen is ‘rapid’ hence more of a motivation to eat healthy

Just SMILE

Jacka et al. *BMC Medicine* (2017) 15:23
DOI 10.1186/s12916-017-0791-y

BMC Medicine

RESEARCH ARTICLE

Open Access



A randomised controlled trial of dietary improvement for adults with major depression (the 'SMILES' trial)

Felice N. Jacka^{1,4,9,10,13*}, Adrienne O'Neil^{1,2,13}, Rachele Opie^{5,13}, Catherine Itsiopoulos⁵, Sue Cotton³, Mohammedreza Mohebbi¹, David Castle^{4,11}, Sarah Dash^{1,13}, Cathrine Mihalopoulos⁷, Mary Lou Chatterton⁷, Laima Brazionis^{5,6}, Olivia M. Dean^{1,4,12,13}, Allison M. Hodge⁸ and Michael Berk^{1,3,12,13}

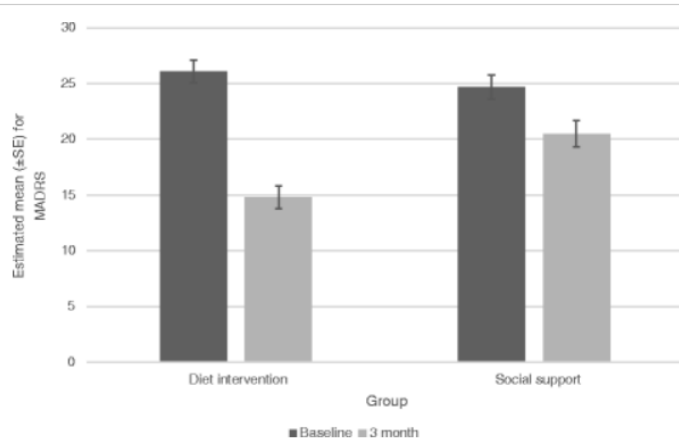


Fig. 2
MADRS scores for dietary support and social support control groups at baseline and endpoint. Effect size: Cohen's $d = -1.16$ (95% CI $-1.73, -0.59$). Baseline data $n = 67$; 12 week data $n = 56$

- 12 wk RCT in 67 people with moderate to severe depression
- Diet intervention based on modified Australian Dietary Guidelines and Dietary Guidelines for Adults in Greece
- Control group received ongoing social support, but no specific dietary advice
- Statistically significant improvement in the rating scale of depression (MADRS)

e publication > 17 August 2016 > Full text

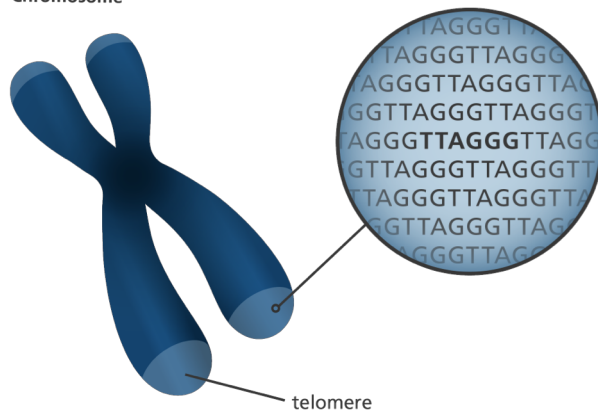
Review

European Journal of Clinical Nutrition advance online publication 17 August 2016; doi:
10.1038/ejcn.2016.149

Dietary patterns, food groups and telomere length: a systematic review of current studies

N Rafie^{1,2}, S Golpour Hamedani^{1,2}, F Barak^{1,2}, S M Safavi^{1,2} and M Miraghajani³

Chromosome



- Pool of 17 studies looking at diet and telomeres
- Both a Mediterranean style dietary pattern and diets high in fruits and vegetables were linked to longer telomere length
- Diets high in highly refined grains, processed meat, and sugar-sweetened beverages were pointing towards a shorter telomere length

Is Sitting The New Smoking?



Reviews | 20 January 2015

Sedentary Time and Its Association With Risk for Disease Incidence, Mortality, and Hospitalization in Adults: A Systematic Review and Meta-analysis

Aviroop Biswas, BSc; Paul I. Oh, MD, MSc; Guy E. Faulkner, PhD; Ravi R. Bajaj, MD; Michael A. Silver, BSc; Marc S. Mitchell, MSc; and David A. Alter, MD, PhD

[+] Article, Author, and Disclosure Information

See Also:

Published Letter: [Biswas et al](#)

Published Letter: [Urushidani et al](#)

[Too Much Sitting and Chronic Disease Risk: Steps to Move the Science Forward](#)

Ann Intern Med. 2015;162(2):123-132. doi:10.7326/M14-1651

Text Size: [A](#) [A](#) [A](#)

How is Australia Faring?

Areas with lowest obesity rates and highest PA are eastern Sydney and inner Melbourne (~13% obesity and 70% active). Worst is Darling Downs

1 in 4 households in Australia is a sole occupant (was 1 in 10 in the early 1970s)

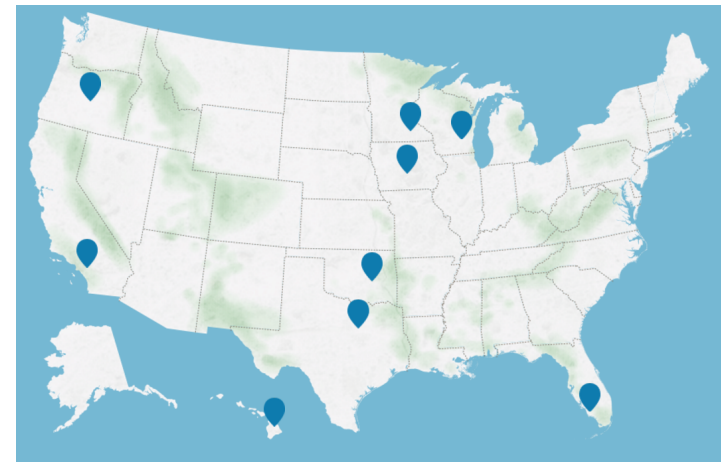
Only 7% eating recommended amount of vegetables

Blue Zones Project

Launched in Iowa in 2011 now with 27 communities in seven states

Project works with communities to make healthy choices easier through permanent changes to environment, policy, and social networks

Focus on the built environment and active transport







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@CroweTim