

יהיו מזונותיך תרופותיך

הרצאה פותחת: הראיות המדעיות

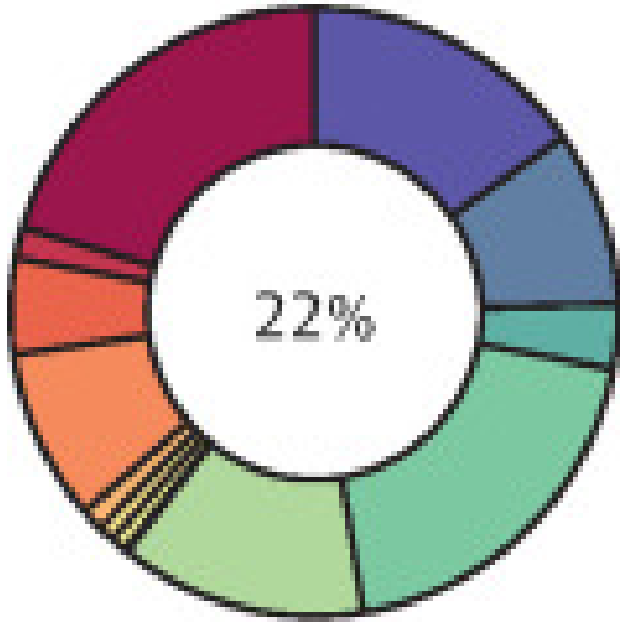
ד"ר אבישי קרן, רופא ילדים, מכבי שירותי בריאות



**Why should
Physicians be
Interested in
Nutrition?**

Diet-related Deaths

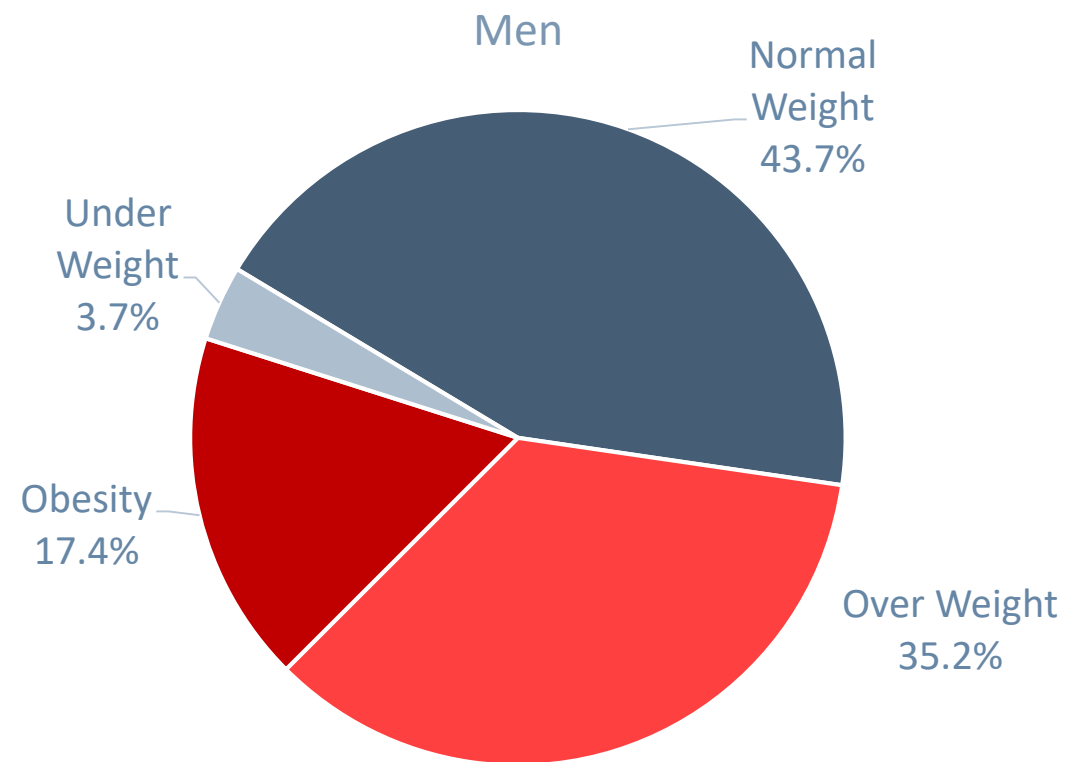
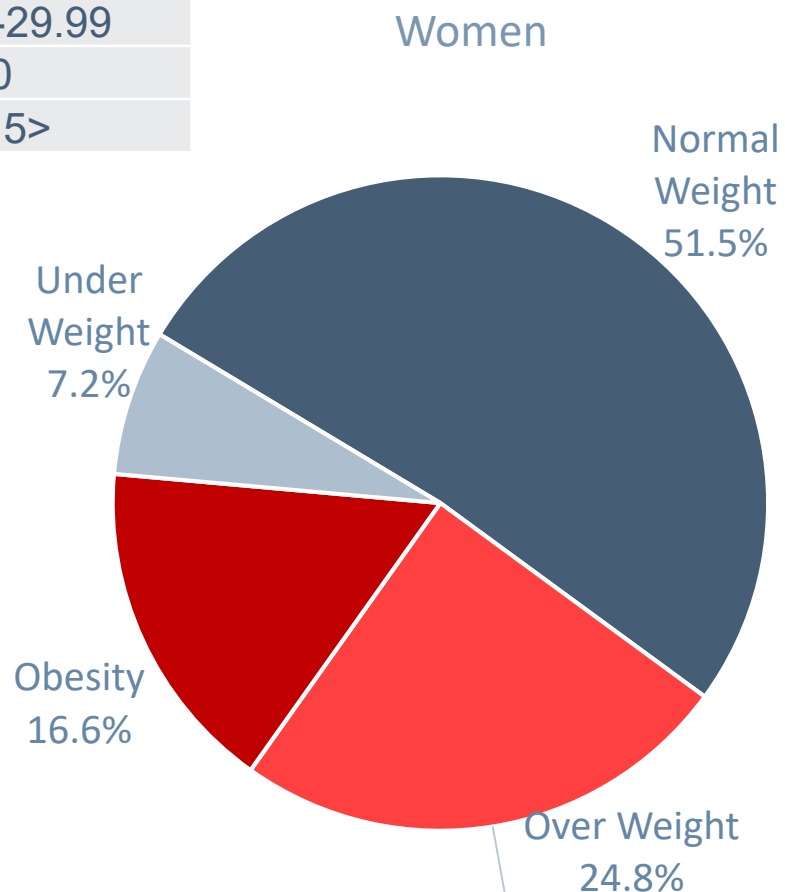
Global



Globally, in 2017, dietary risks were responsible for 11 million [95% UI 10–12] deaths (22% [95% UI 21–24] of all deaths among adults)

Obesity rates in Israel

Category	BMI (kg/m ²)
Normal Weight	18.5-24.99
Over Weight	25-29.99
Obesity	≥30
Under Weight	18.5>



Children's consumption of fruits and vegetables in Israel

מאז שנת 1998 ועד לשנת 2011 חלה ירידה דרסטית באחוז התלמידים (תלמידי כיתות ו', ח' ו-י') שאוכלים פירות וירקות לפחות פעם ביום מ-85% ל-42.9%.



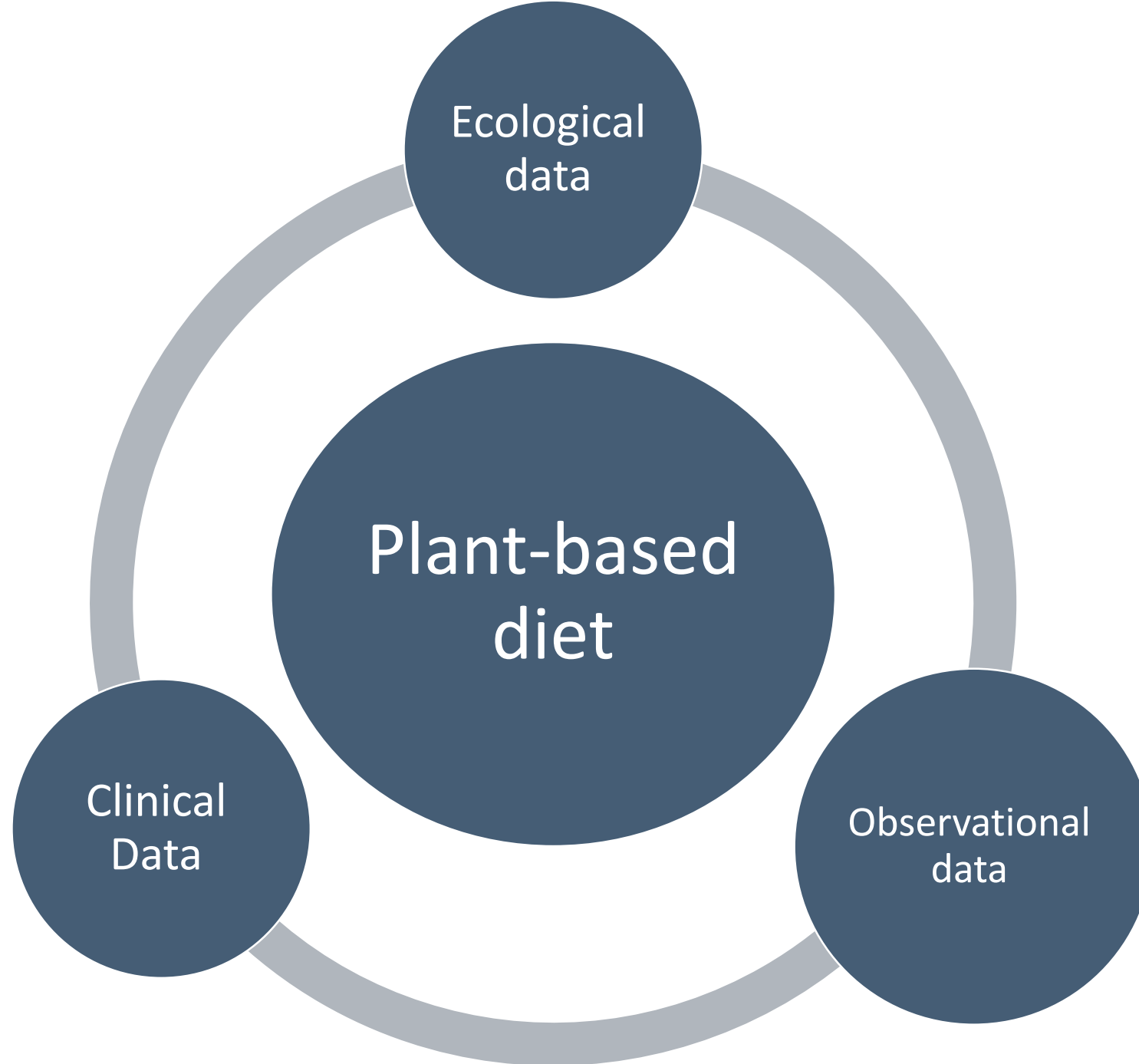
המועצה הלאומית לשלום הילד
National Council for the Child

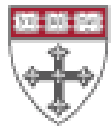
לקט נתונים* מתוך השנתון
"ילדים בישראל – 2014"

“The single person most people trust for advice and recommendations on health, diet, and wellness is their physician”

The background features a series of concentric circles in light gray, some solid and some dashed, creating a ripple effect. A large, dark blue oval is centered on the page, containing the text. A lighter blue, curved shape is positioned behind the bottom-left of the dark blue oval.

**So which diet is the
best?**





HARVARD
T.H. CHAN

SCHOOL OF PUBLIC HEALTH



Public Health
England



中国营养学会
Chinese Nutrition Society

Canada's
Dietary
Guidelines



Academy of Nutrition
and Dietetics



American
Heart
Association®



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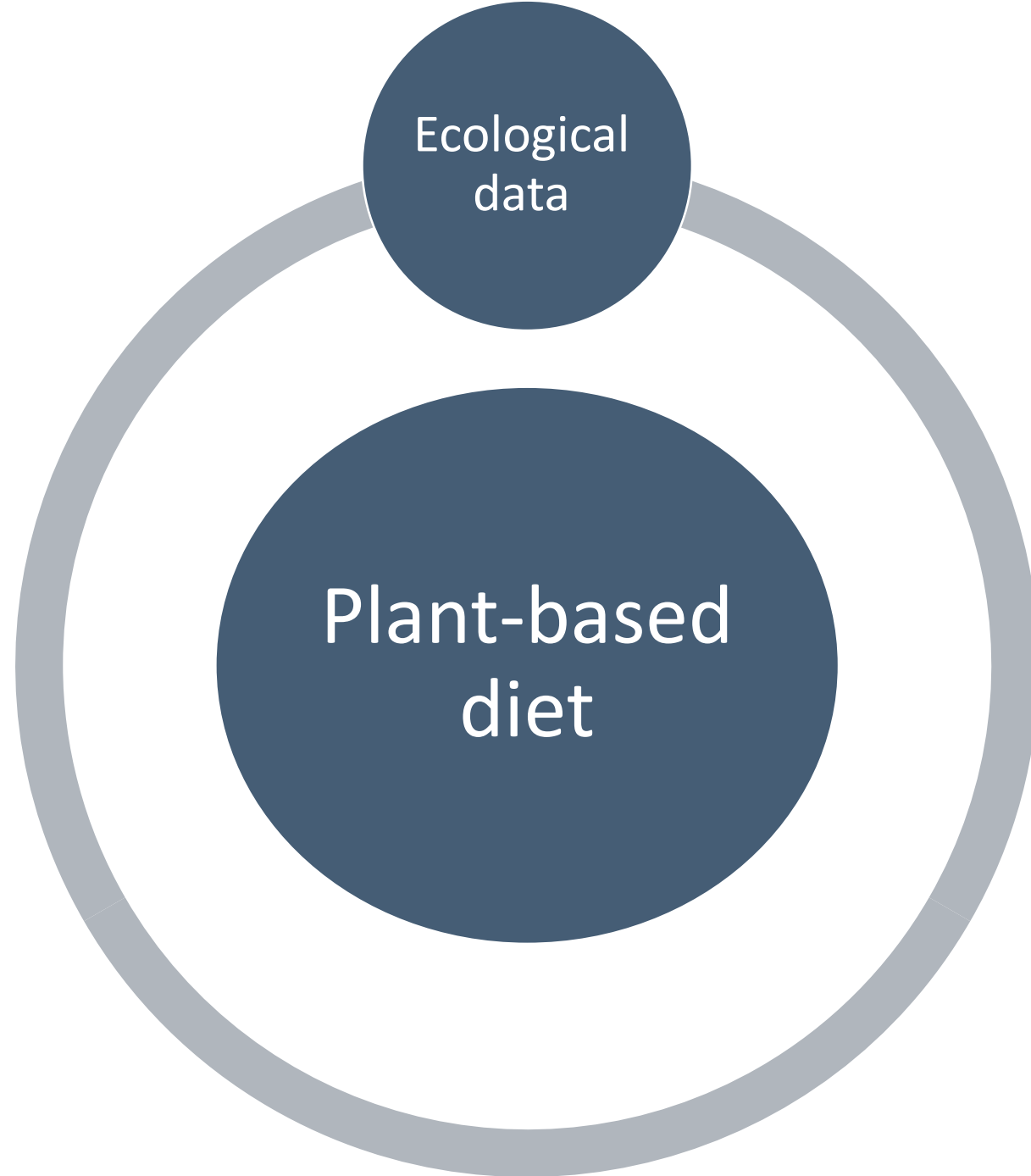
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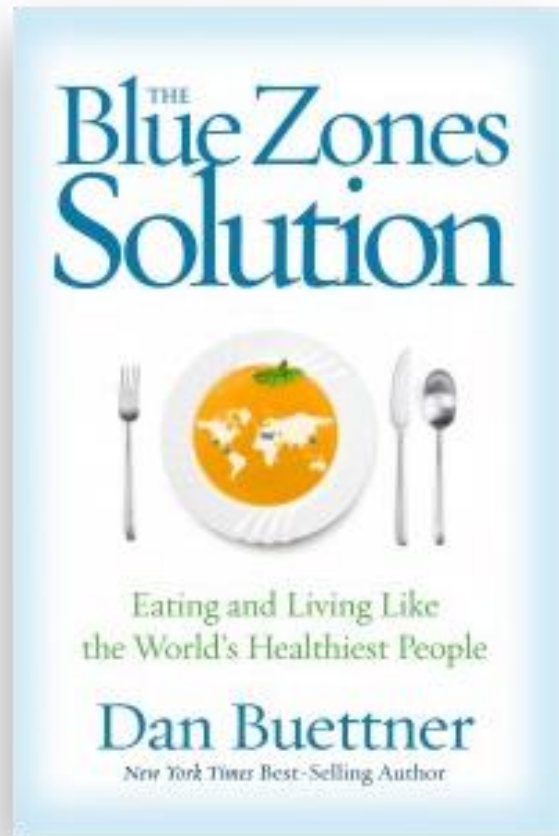


American
Diabetes
Association®

**משרד
הבריאות**
לחיים בריאים יותר







Blue zones



LOMA LINDA
CALIFORNIA

SARDINIA
ITALY

OKINAWA
JAPAN

IKARIA
GREECE

NICOYA
COSTA RICA

The Five Original Blue Zones



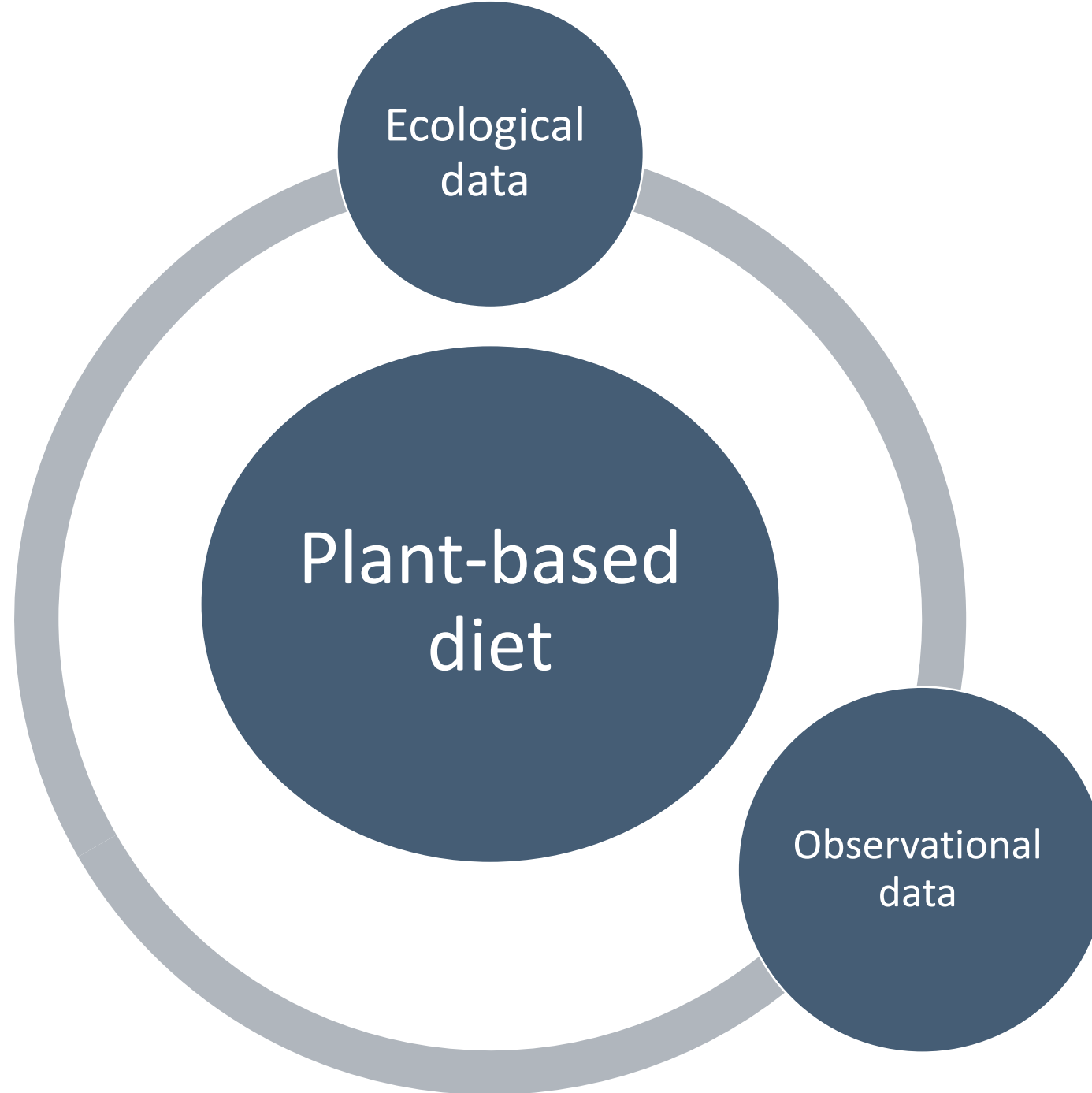
SEVENTH-DAY
ADVENTIST
CHURCH

A photograph of an elderly woman with short, curly white hair and dark sunglasses, wearing a maroon ribbed sweater. She is sitting in the driver's seat of a car, with her hands on the steering wheel. The car's interior features a light-colored dashboard with wood trim and a vintage-style radio. Through the windshield, a sunny street scene with palm trees and houses is visible. A dark grey rectangular box with white text is overlaid in the bottom left corner.

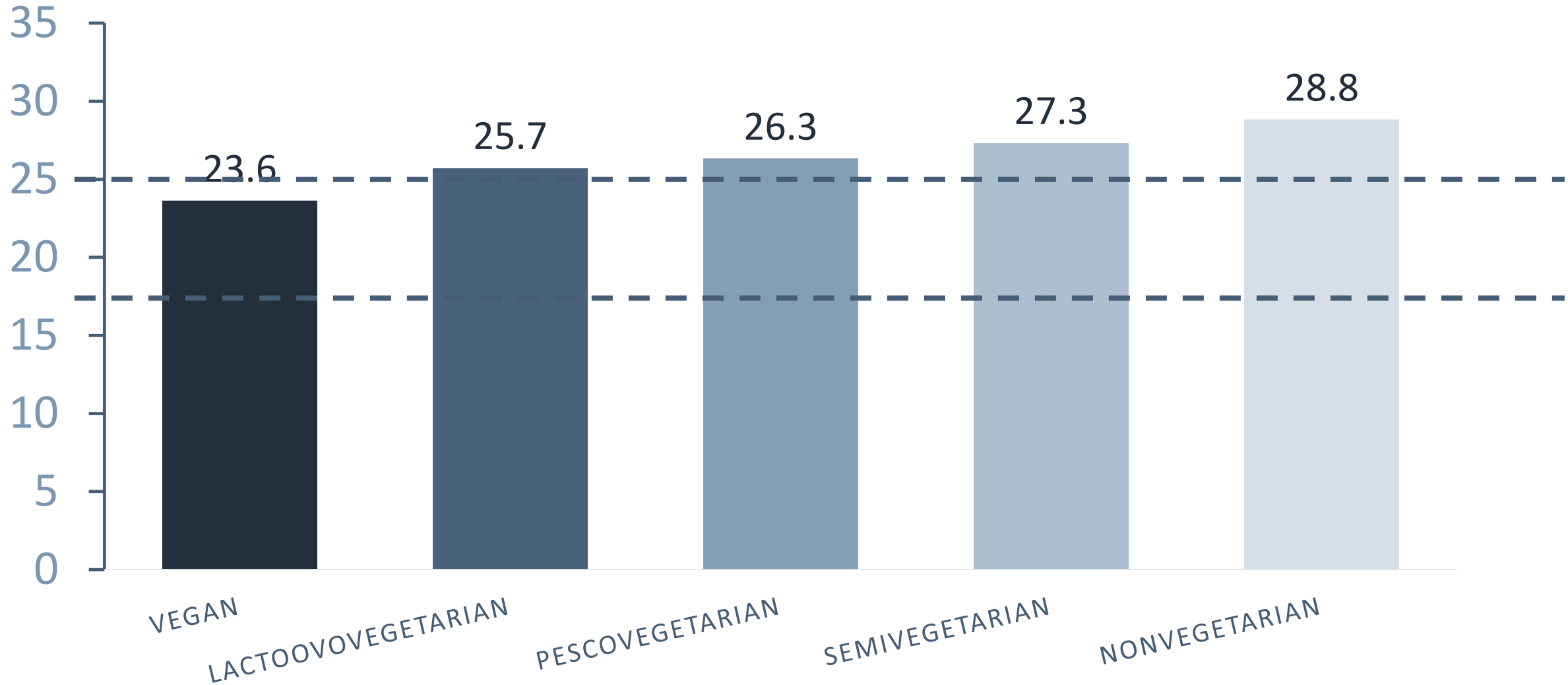
**100-year-old Marge
Jetton**



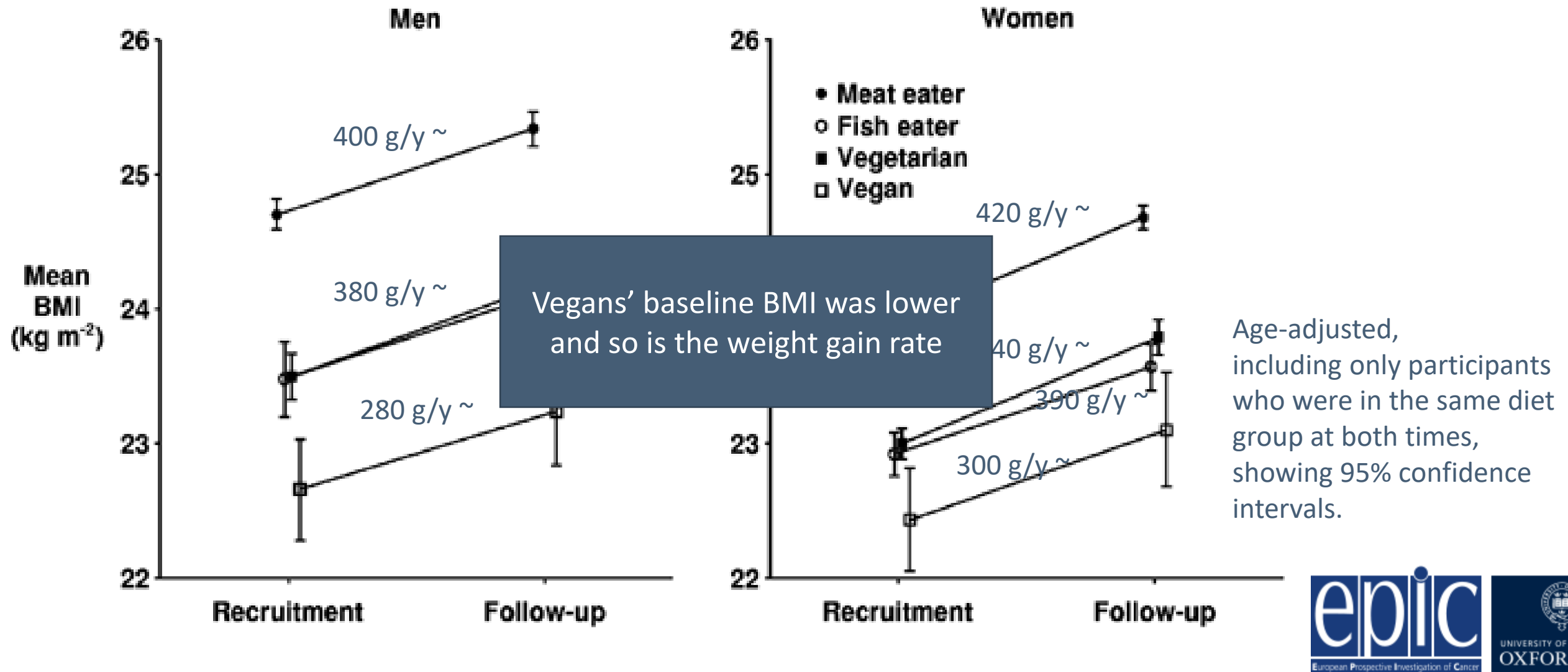
**94-year-old Marion
Westermeyer**



BMI Among the Seventh-day Adventists

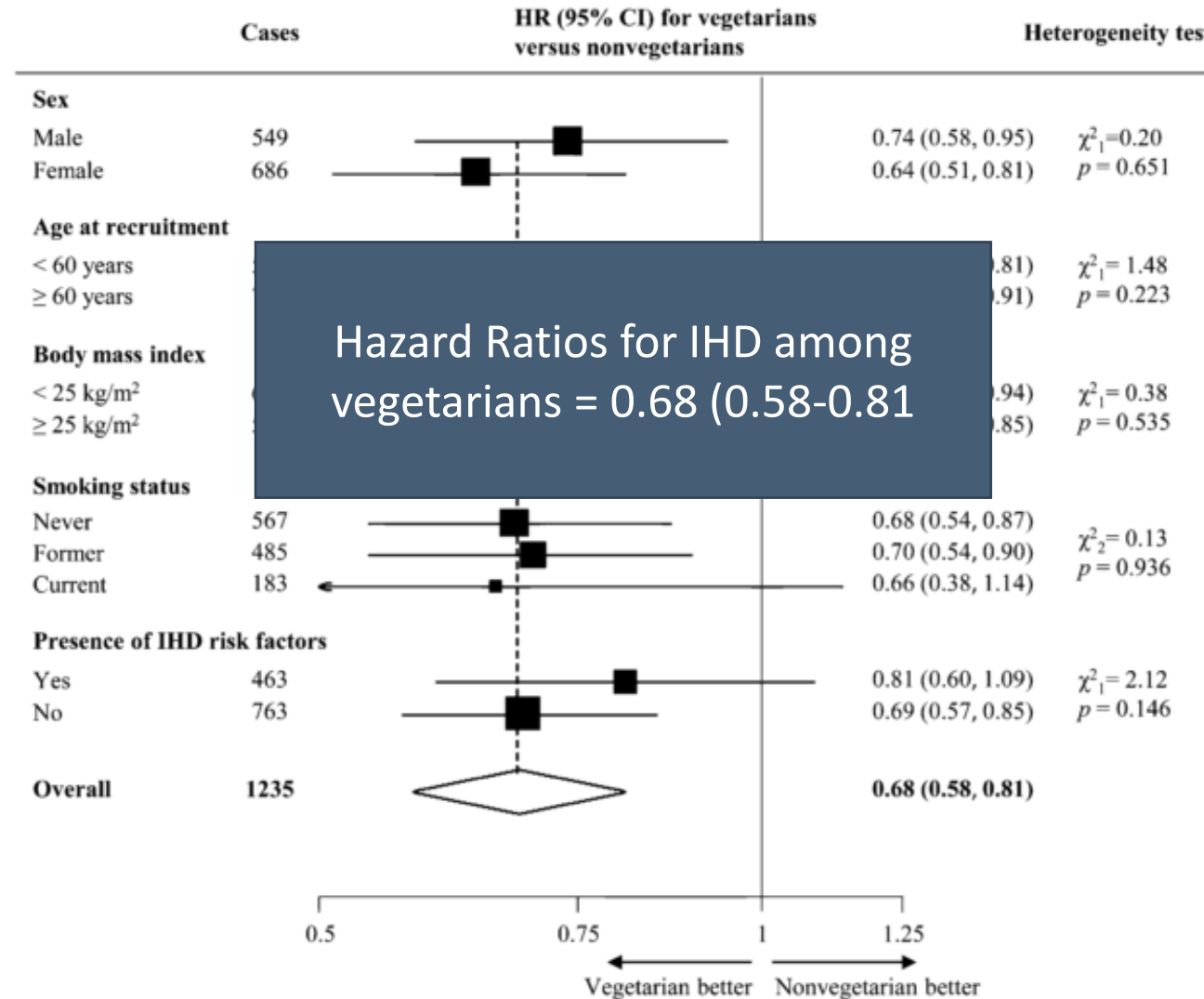


Mean BMI at Baseline and Follow-up by Diet Group*



Rosell M, Appleby P, Spencer E, et al. (2006) Weight gain over 5 years in 21,966 meat-eating, fish-eating, vegetarian, and vegan men and women in EPIC-Oxford. *Int. J. Obes.* 30, 1389–96.

Risk of IHD in vegetarians vs. nonvegetarians within certain subgroups



Vegetarian Diet and Diabetes

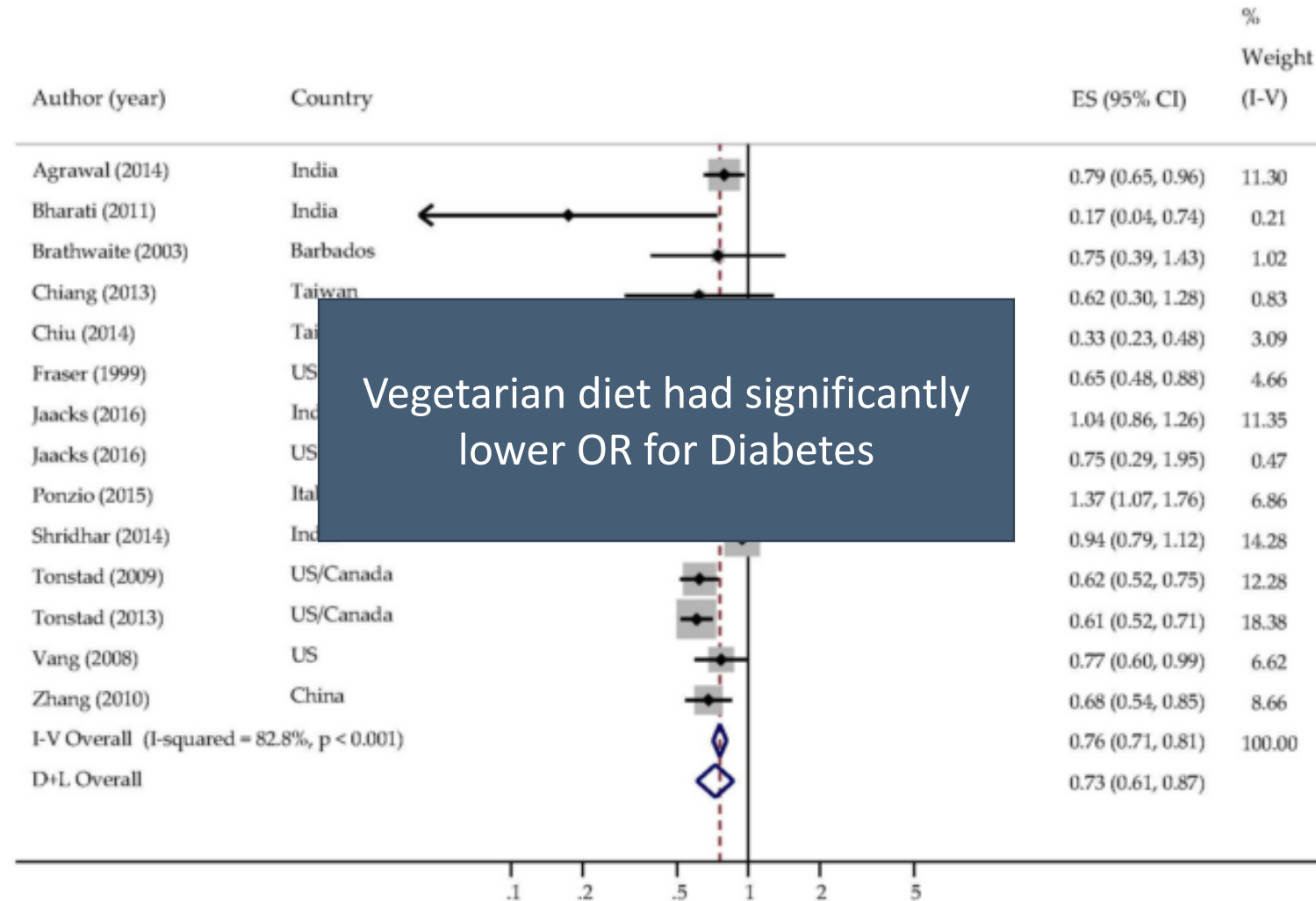
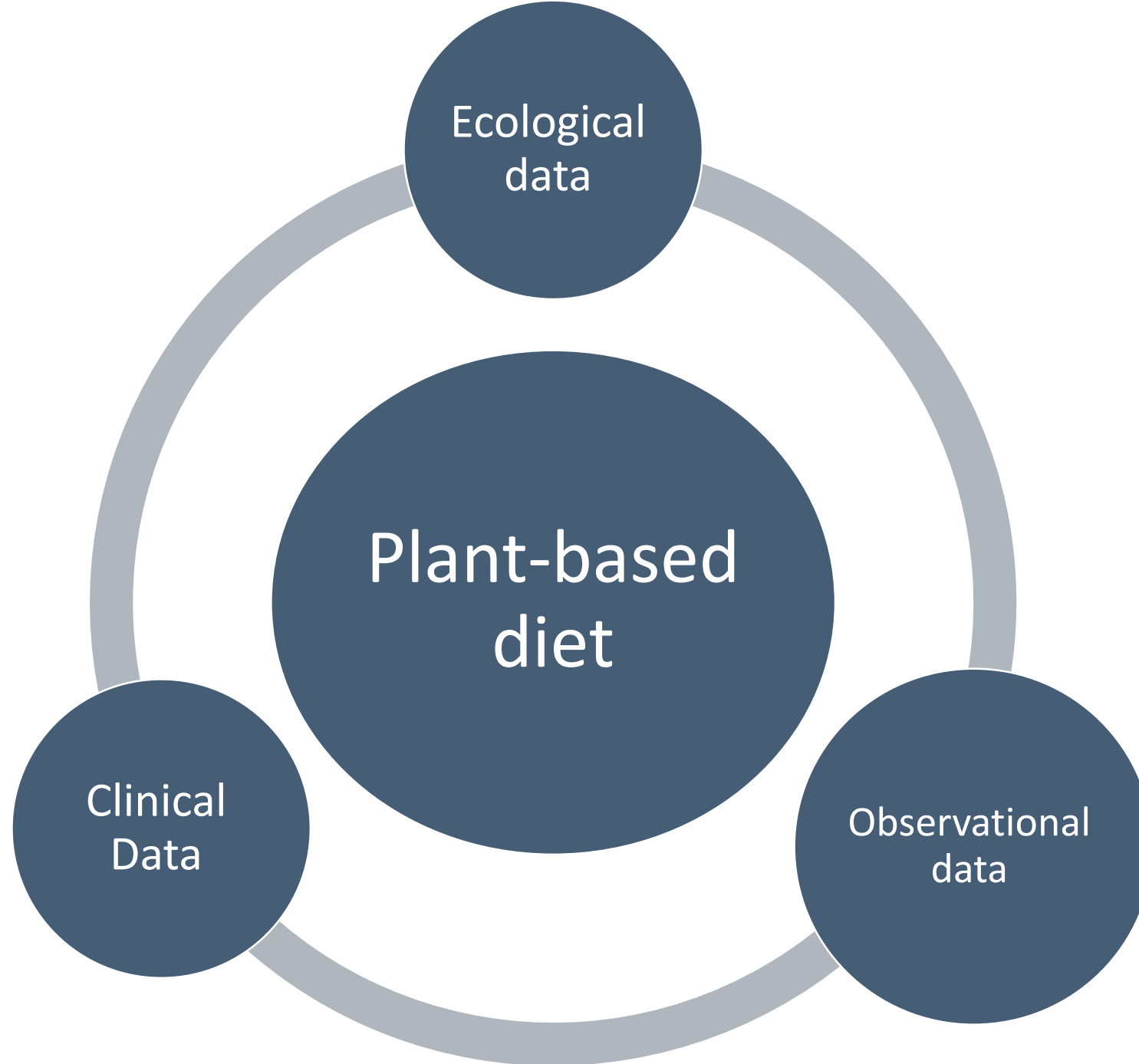


Figure 2. Forest plot of the pooled odds ratios of the association between a vegetarian diet and the prevalence or incidence of diabetes.



THE LANCET

Can lifestyle changes reverse coronary heart disease?

The Lifestyle Heart Trial

DEAN ORNISH SHIRLEY E. BROWN LARRY W. SCHERWITZ
JAMES H. BILLINGS WILLIAM T. ARMSTRONG THOMAS A. PORTS
SANDRA M. MCLANAHAN RICHARD L. KIRKEEIDE
RICHARD J. BRAND K. LANCE GOULD



The Diet Intervention: low-fat vegetarian

The Diet included:

- ✓ **Fruits**
- ✓ **Vegetables**
- ✓ **Grains**
- ✓ **Legumes, and soybean products**
- ✓ **1 cup per day of non-fat milk or yoghurt**
- ✓ **Egg white**
- ✓ **whole food only**

No caloric restriction

- **10% fat**
- **15-20% protein**
- **70-75% complex carbohydrates.**

The Diet excluded:

- ✗ **Meat (beef and chicken)**
- ✗ **Fish**
- ✗ **Cholesterol < 5 mg**
- ✗ **Egg yolk**
- ✗ **Dairy products**

 **Year follow-up**

Experimental Group Results:

- 24%



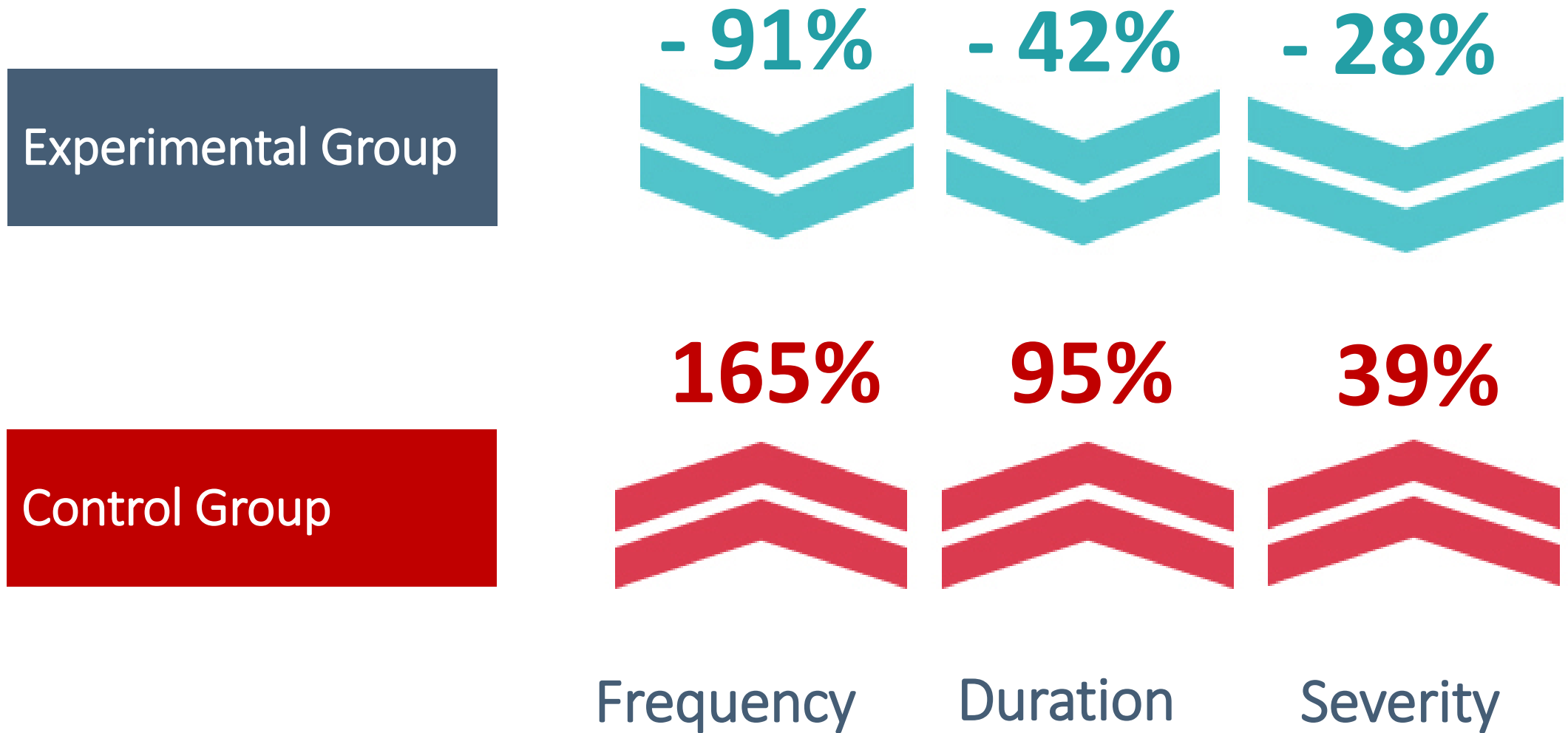
Total Cholesterol

- 37%



LDL Cholesterol

Angina symptoms:



Diameter stenosis:

From 40% to 37.8

Experimental Group

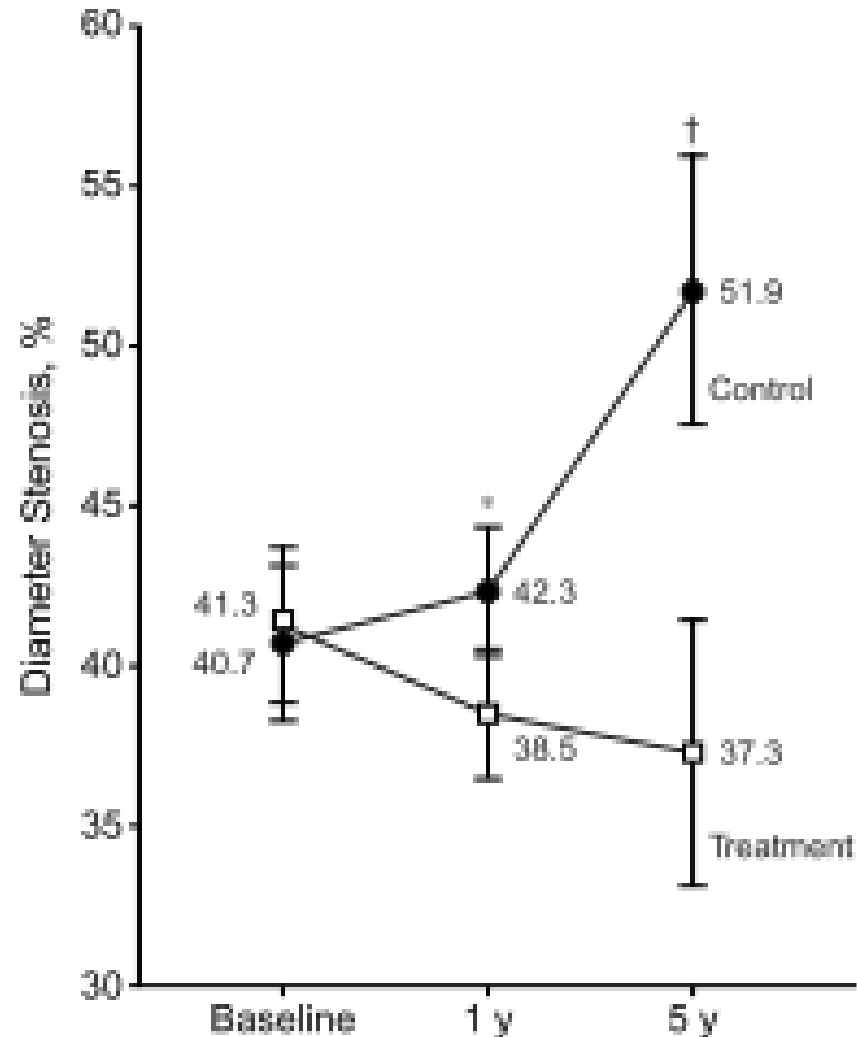


From 42.7% to 46.1

Control Group



5 years later...



Risk ratio for cardiovascular event = 2.47 for control group vs. experimental group

Mean percentage diameter stenosis in treatment and control groups at baseline, 1 year, and 5 years .

REVIEWS

Resolving the Coronary Artery Disease Epidemic Through Plant-Based Nutrition

Caldwell B. Esselstyn, Jr., MD

The world's advanced countries have easy access to plentiful high-fat food; ironically, it is this rich diet that produces atherosclerosis. In the world's poorer

Autopsy data from the conflicts in Korea² and Vietnam,³ the Bogalusa study,⁴ and the Pathological Determinants of Atherosclerosis in Youth (PDAY)⁵



Study Group



**intensive intervention:
(Very) Low fat vegan diet**



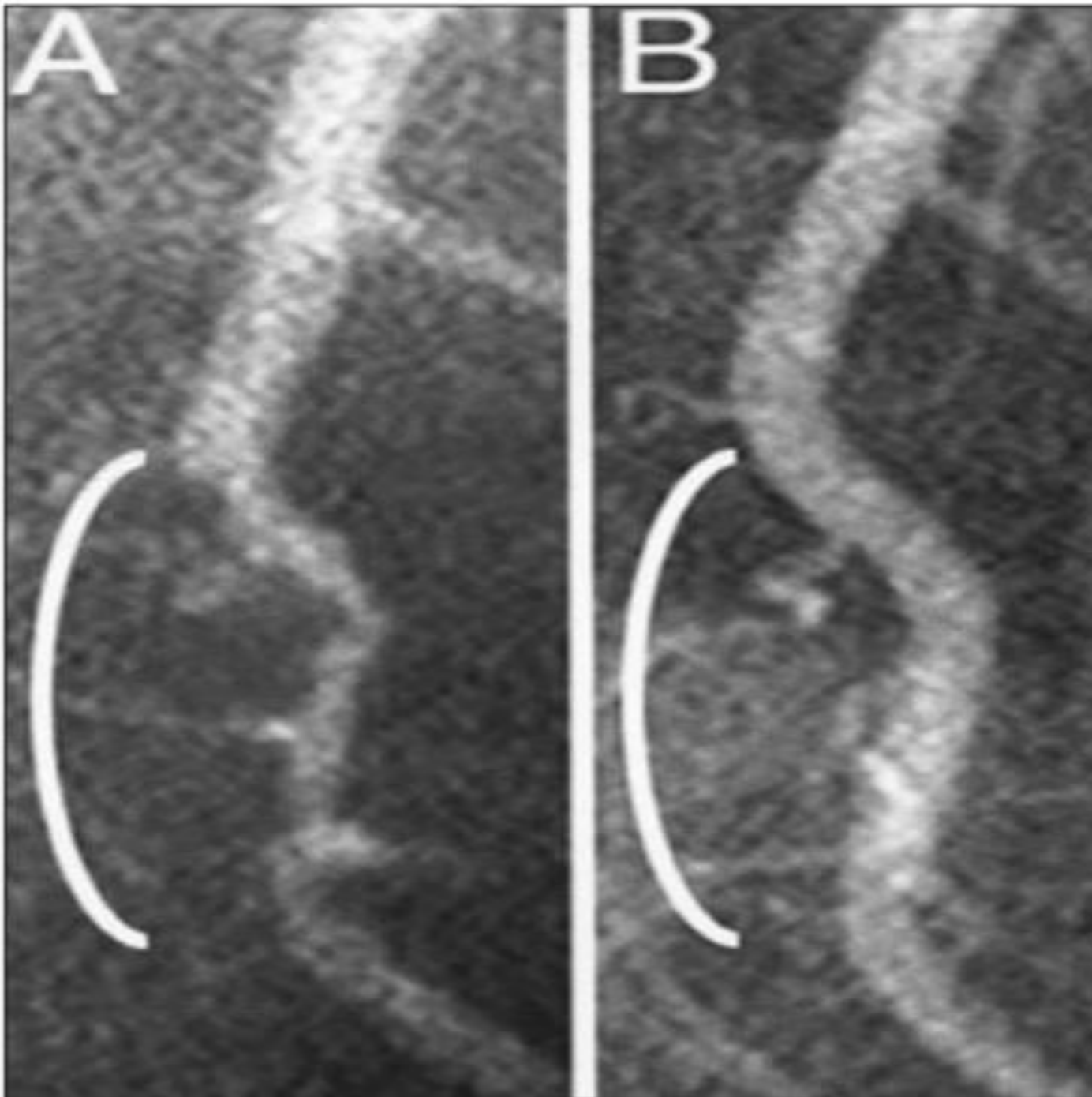
Year follow-up

Results:

70% had selective regression
none had progression

No recurrent coronary events
during the 12 years.

Total cholesterol <150 *mg/dL*



Coronary angiograms of the distal left anterior descending artery before and after 32 months of a plant-based diet

Esselstyn CB (2001) *Prev. Cardiol.*

Diabetes Care



A Low-Fat Vegan Diet Improves Glycemic Control and Cardiovascular Risk Factors in a Randomized Clinical Trial in Individuals With Type 2 Diabetes



**The American Journal of
CLINICAL NUTRITION**



The Diet Interventions

The Low Fat Vegan Diet (n=49)

- ✓ **Fruits**
- ✓ **Vegetables**
- ✓ **Grains**
- ✓ **Legumes, and soybean products**

Portion sizes, energy intake, and carbohydrate intake were unrestricted

- 10% **fat**
- 15% **protein**
- 75% **complex carbohydrates.**

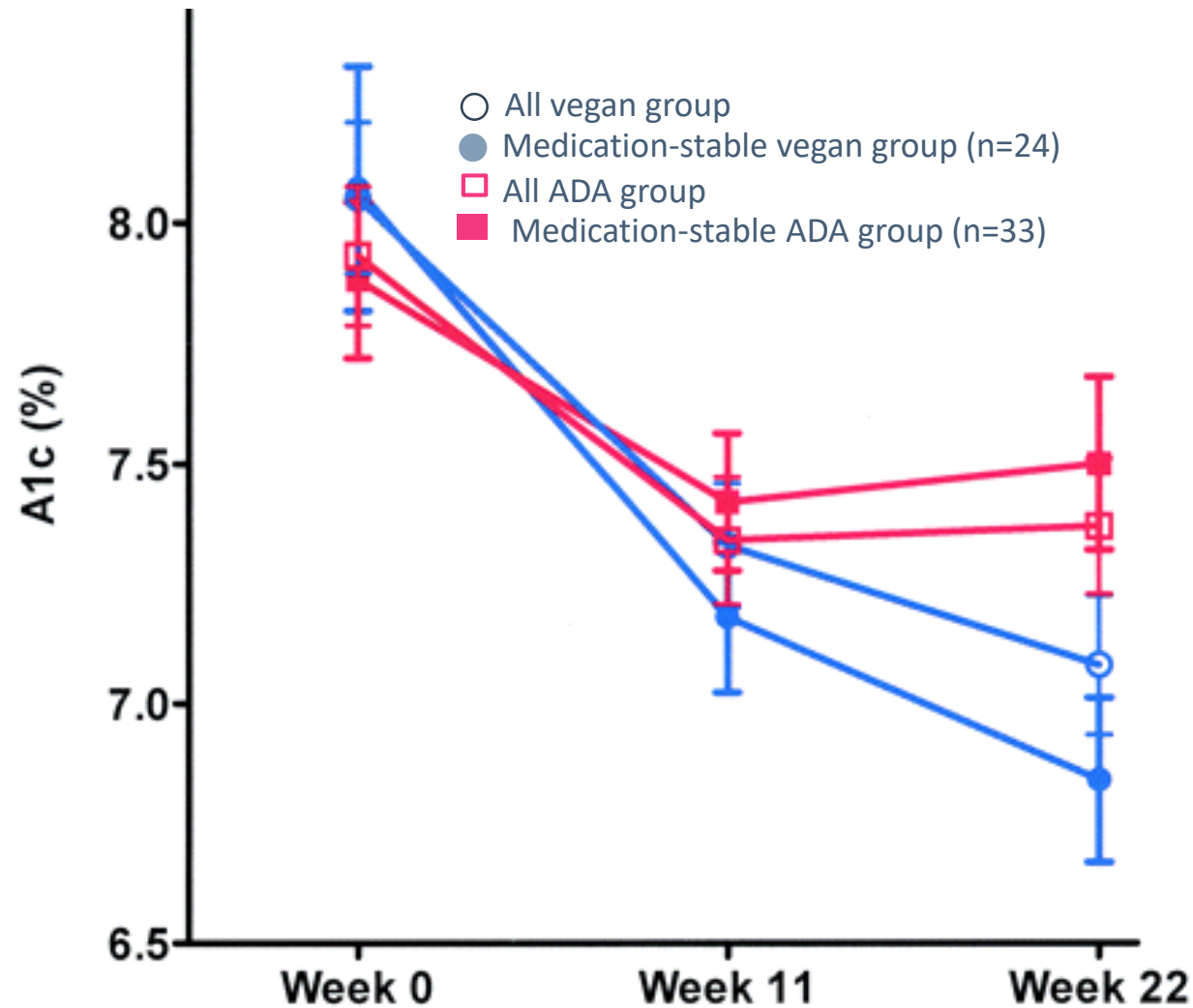
low-glycemic index foods, such as beans and green vegetables

The ADA Diet (n=50)

- **Protein** 15–20%
- **Saturated fat** 7%
- **Carbohydrate and monounsaturated fats** 60–70%
- **Cholesterol** < 200 mg/day
- **Energy intake deficits of** 500–1,000 kcal

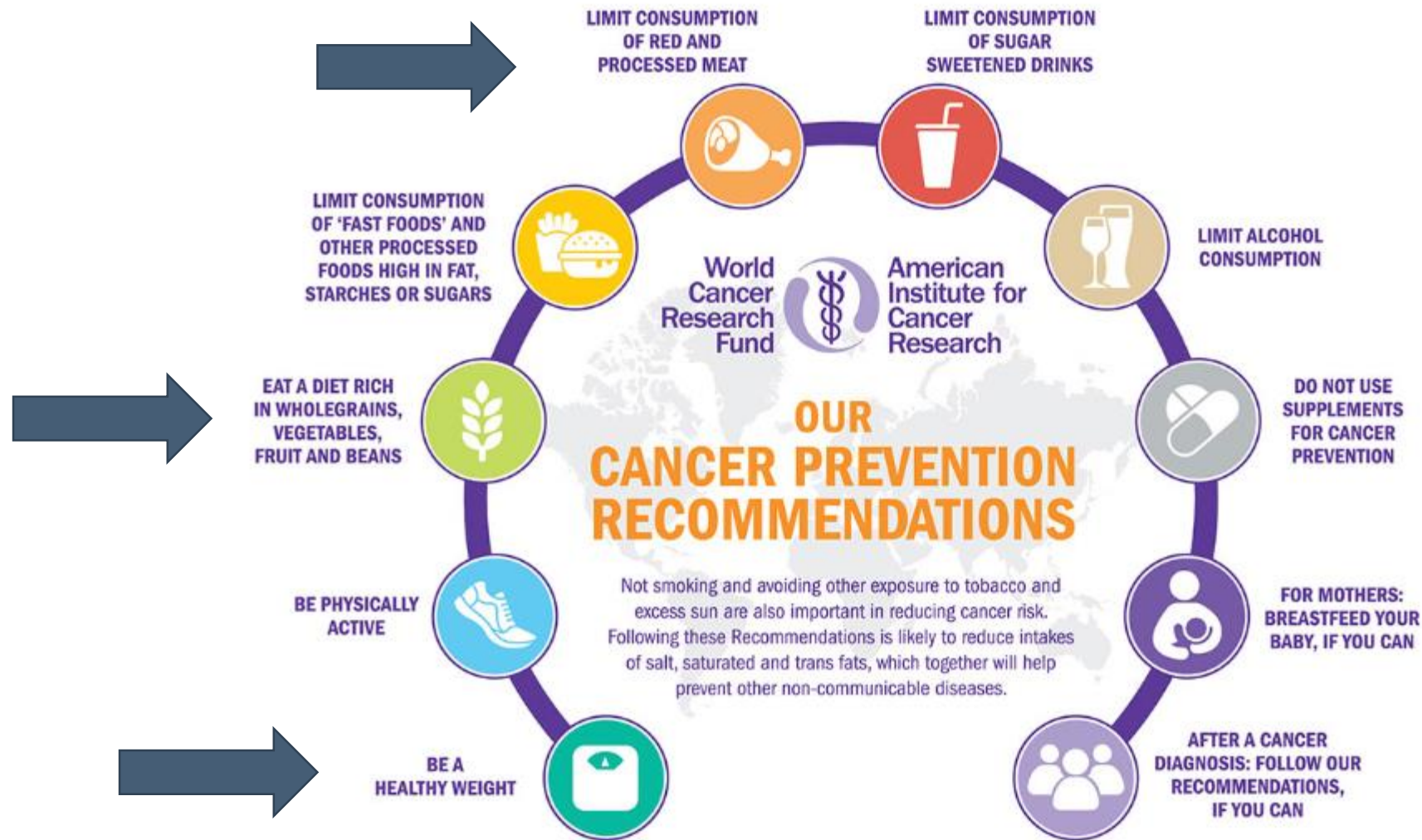
 **22** Weeks follow-up

Hemoglobin A₁C at Baseline, 11 Weeks, and 22 Weeks



A1C fell 0.96 percentage points ($P < 0.0001$) in the vegan group and 0.56 percentage points ($P = 0.0009$) in the ADA group (between-group $P = 0.089$; baseline-adjusted $P = 0.091$; Table 2 and Fig. 1). Among participants whose diabetes medications remained unchanged throughout ($n = 24$ vegan and $n = 33$ ADA), A1C fell 1.23 points in the vegan group and 0.38 points in the ADA group ($P = 0.01$; baseline-adjusted $P = 0.007$).

What about Cancer Prevention?



Processed Meat and Cancer

updates



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Q&A on the carcinogenicity of the consumption of red meat and processed meat

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2. What do you consider as processed meat?

Processed meat refers to meat that has been transformed through salting, curing, fermentation, smoking, or other processes to enhance flavour or improve preservation. Most processed meats contain pork or beef, but processed meats may also contain other red meats, poultry, offal, or meat by-products such as blood.

Examples of processed meat include hot dogs (frankfurters), ham, sausages, corned beef, and biltong or beef jerky as well as canned meat and meat-based preparations and sauces.

3. Why did IARC choose to evaluate red meat and processed meat?

An international advisory committee that met in 2014 recommended red meat and processed meat as high priorities for evaluation by the IARC Monographs Programme. This recommendation was based on epidemiological studies suggesting that small increases in the risk of several cancers may be associated with high consumption of red meat or processed meat. Although these risks are small, they could be important for



**Why should
Physicians be
Interested in
Nutrition?**

■ ORIGINAL RESEARCH & CONTRIBUTIONS

Special Report

Nutritional Update for Physicians: Plant-Based Diets

Phillip J Tuso, MD; Mohamed H Ismail, MD; Benjamin P Ha, MD; Carole Bartolotto, MA, RD

Perm J 2013 Spring;17(2):61-66

<http://dx.doi.org/10.7812/TPP/12-085>

Abstract

The objective of this article is to present to physicians an update on plant-based diets. Concerns about the rising cost of health care are being voiced nationwide, even as unhealthy lifestyles are contributing to the spread of obesity, diabetes, and cardiovascular disease. For these reasons, physicians looking for cost-effective interventions to improve health outcomes are becoming more involved in helping their patients adopt healthier lifestyles. Healthier eating may be best achieved with a plant-based diet, which we define as a regimen of whole, plant-based foods and discourages meats, dairy products, and processed foods. We present a case study

daily; and atorvastatin, 20 mg daily. He was prescribed metformin, 1000 mg twice daily; glipizide, 5 mg daily; and 10 units of neutral protamine Hagedorn insulin at bedtime. His physician also prescribed a low-sodium, plant-based diet that excluded all animal products and limited sugars and limited fats. He also ate and tortilla

A Plant-Based Diet, Atherogenesis, and Disease Prevention

Phillip Tuso, MD, FACP, FASN; Scott R Stoll, MD; William W Li, MD

ABSTRACT

A plant-based diet is increasingly becoming recognized as a healthier alternative to a diet laden with meat. Atherosclerosis associated with high dietary intake of meat, fat, and carbohydrates remains the leading cause of mortality in the US. This condition results from progressive damage to the endothelial cells lining the vascular system, including

Plant-Based Diets: A Physician's Guide

Julieanna Hever, MS, RD, CPT

E-pub: 07/06/2016

ABSTRACT

Because of the ever-increasing body of evidence in support of the health advantages of plant-based nutrition, there is a need for guidance on implementing its practice. This article provides physicians and other health care practitioners an overview of the myriad benefits of a plant-based diet as well as details on how best to achieve a well-balanced, nutrient-dense meal plan. It also defines notable nutrient sources, describes how to get started, and offers suggestions on how health care practitioners can encourage their patients to achieve goals, adhere to the plan, and experience success.

Perm J 2016 Summer;20(3):15-082
<http://dx.doi.org/10.7812/TPP/15-082>

growth factor-1, more is generated endogenously.²¹ Fostering growth as a full-grown adult can promote cancer proliferation.

- Heme iron: Although heme iron, found in animal products, is absorbed at a higher rate than nonheme iron, found in plant-based and fortified foods



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Plant-Based Diets: A Physician's Guide

Despite the strong body of evidence favoring plant-based diets, including studies showing a willingness of the general public to embrace them.

many physicians are not stressing the importance of plant-based diets as a first-line treatment for chronic illnesses.

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**Why whole food plant
based is better?**