

The Role of Chronic Disease Reversal in Value-Based Health Care

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WTW
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Chronic Disease

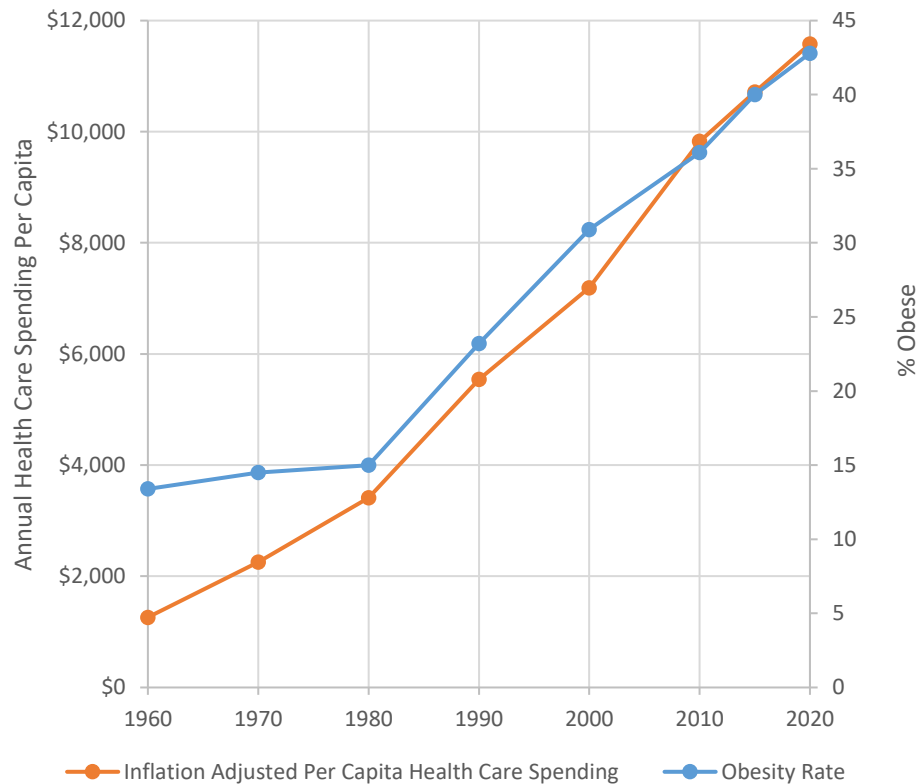
Current Situation

- Chronic diseases kill 40 million people annually worldwide - 70% of all deaths
- **Nearly 90% of U.S. health care costs attributable to chronic disease, approaching 20% of GDP**
- Leading metabolic risk factors for chronic disease deaths are:
 - (1) high blood pressure (responsible for 19% of deaths)
 - (2) overweight and obesity (obesity has tripled since 1975)
 - (3) raised blood glucose (diabetics use more than 2X the health care resources than non-diabetics, diabetes prevalence has increased 600% in last 50 years)
- Heart Disease killed twice as many people as COVID during 2020

Current Strategy

- Focus is on managing conditions through medication compliance/procedures/preventative tests
- Minimal attention given to addressing the underlying cause resulting in reversal or cure

Current Strategy is Not Working



What if...

A single, low-cost, widely available prescription without any negative side effects could prevent, treat and in many cases reverse all of the these:

Cardiovascular (Heart) Disease
Diabetes
Obesity / Overweight
High Blood Pressure
Osteoarthritis / Rheumatoid Arthritis
Erectile Dysfunction
Multiple Sclerosis
Chronic Kidney Disease

Cancer (some forms)
Constipation/IBS
Acid Reflux/GERD
Dementia/Alzheimer's
Asthma
Kidney Stones
Crohn's / Ulcerative Colitis
Acne

The Prescription: Whole Food Plant-Based Nutrition

Include:

Whole Grains
Legumes (Beans, Peas, Lentils)
Vegetables
Fruits

Exclude:

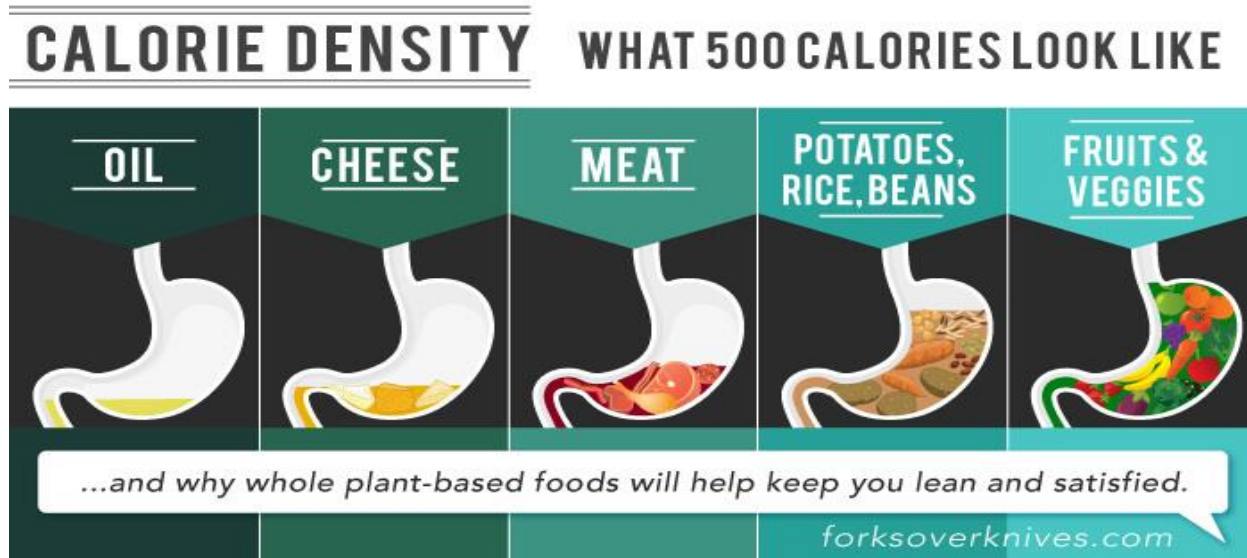
Meat (beef, chicken, pork, fish, etc.)
Dairy products (milk, cheese, yogurt)
Eggs
Oils (olive, safflower, canola, coconut, etc.)

- Choose whole foods and avoid refined and processed foods
(e.g. whole grain bread instead of white bread, olives instead of olive oil)
- No calorie counting required--eat until satisfied and eat when hungry

"Just eat lots of plant foods; your body will do the math for you." – T. Colin Campbell

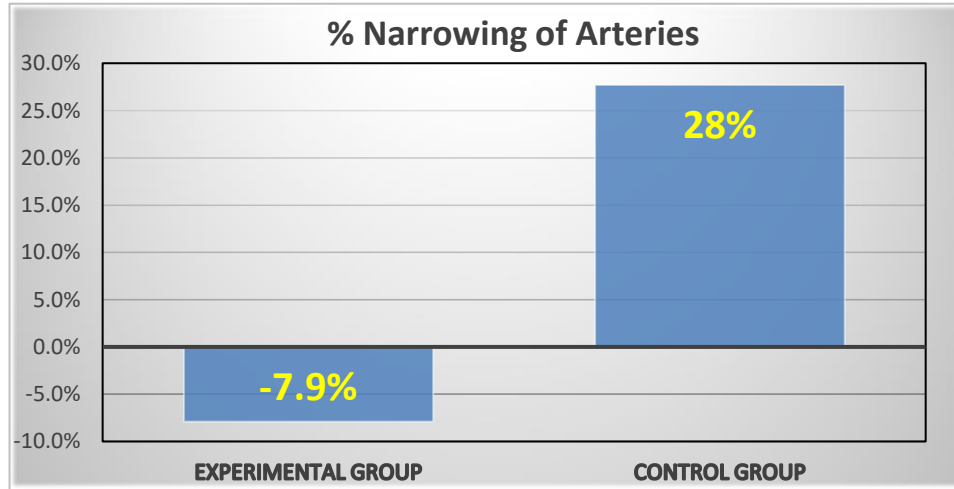
Why does Whole Food Plant-Based Nutrition work?

How is it sustainable?



Dean Ornish, M.D.

Coronary Artery Disease - 5 year study

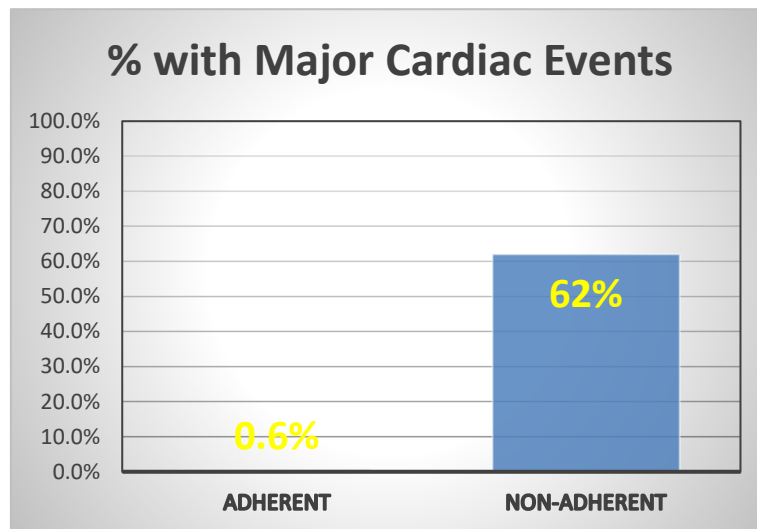
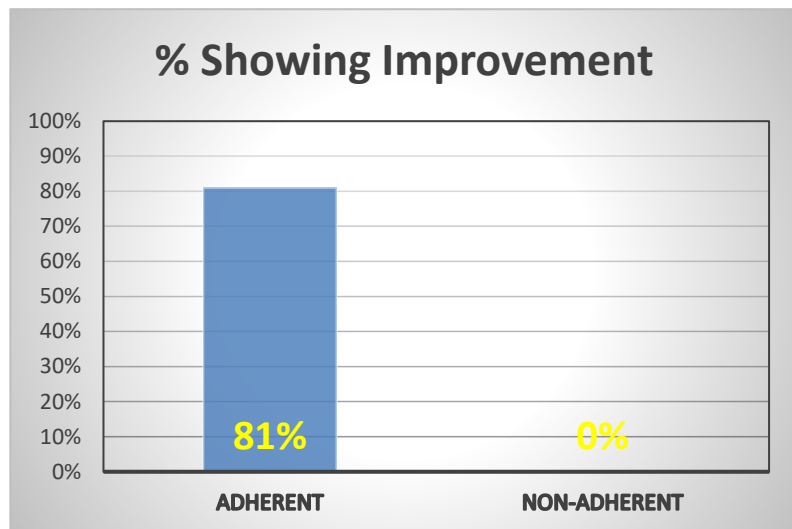


Ornish lifestyle medicine program approved by U.S. Medicare in 2010 as a covered service for heart patients as it showed:

- (1) "significant regression" or reversal of coronary atherosclerosis**
- (2) reduced the need for bypass or angioplasty**
- (3) significant reduction in: LDL cholesterol, triglycerides, body mass index, blood pressure and required medications,**

Caldwell B. Esselstyn Jr., M.D.

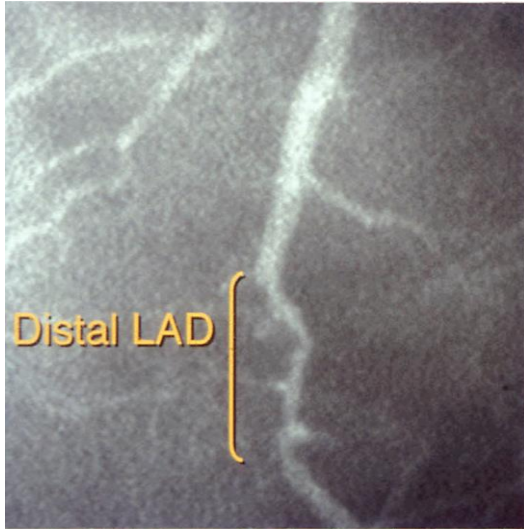
Cardiovascular (Heart) Disease – study averaged 3.7 years



Reversal of Coronary Artery Disease

Caldwell B. Esselstyn Jr., M.D.

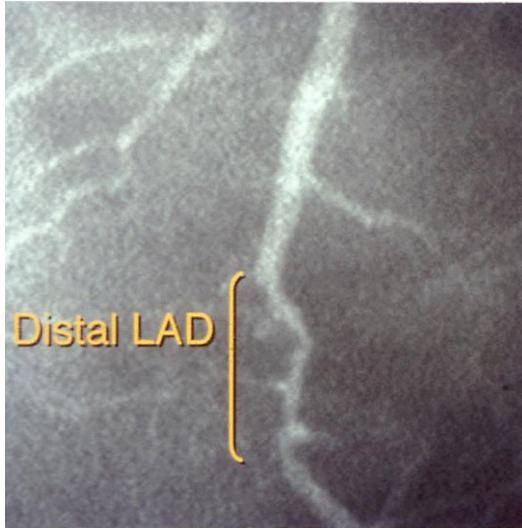
27 November 1996



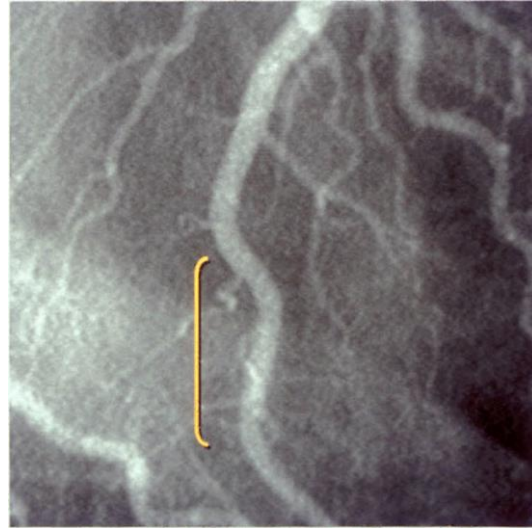
Reversal of Coronary Artery Disease

Caldwell B. Esselstyn Jr., M.D.

27 November 1996



22 July 1999



Dean Ornish, M.D.

Early Stage Prostate Cancer

	Experimental Group	Control Group
PSA (Year 1)	-4%	6%
Reduced growth of cancer cells (Year 1)	70%	9%
Required traditional treatments (Year 2)	5%	27%

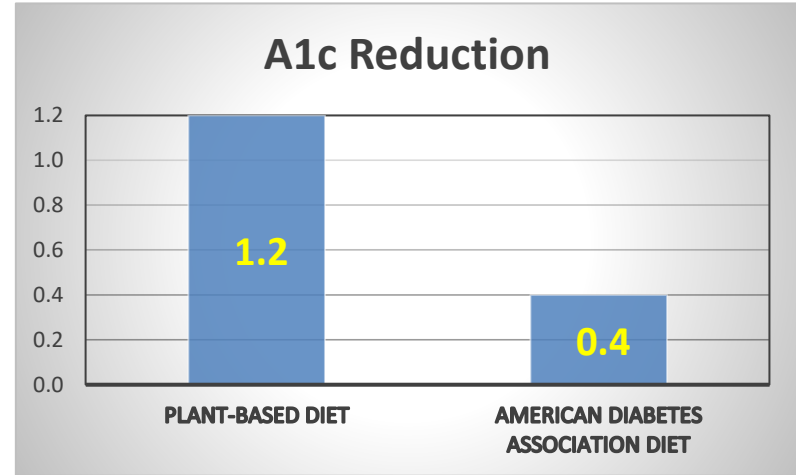
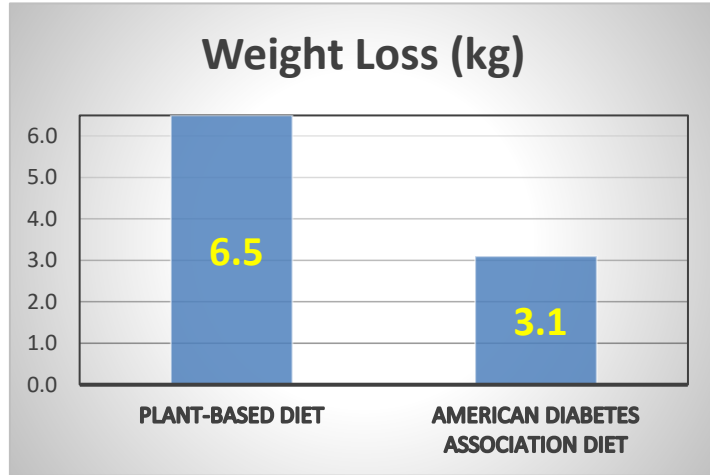
John McDougall, M.D.

7 day intensive program – 1,600 patients

Cholesterol	-29%
Blood Pressure	-18%
Triglycerides	-48%
Reduction in Blood Pressure Medications	86%
Reduction in Diabetes Medications	90%

Neal Barnard, M.D.

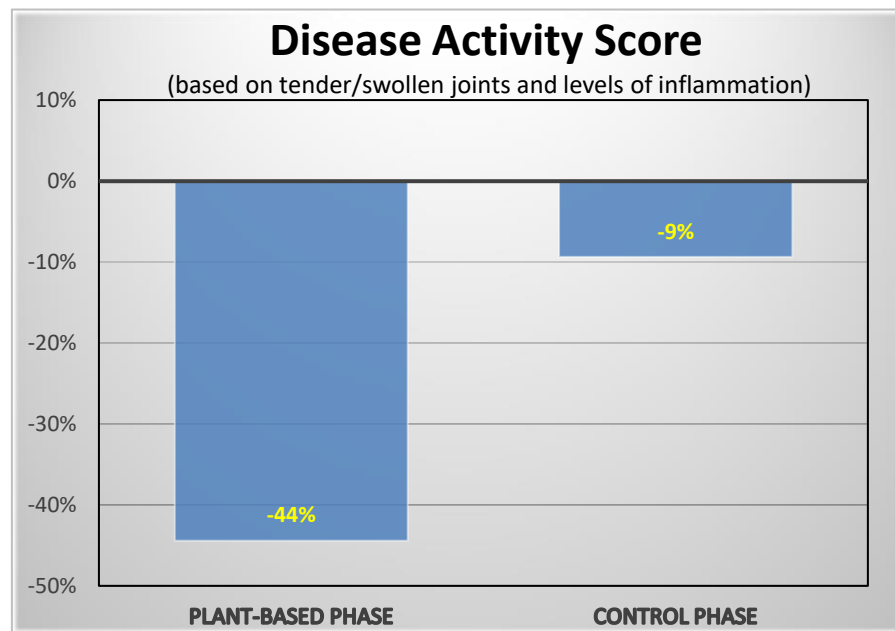
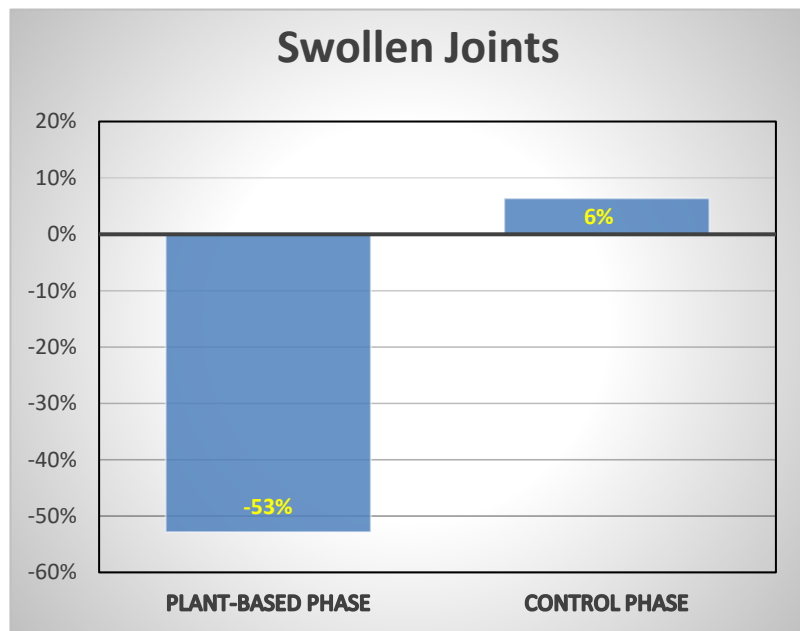
Diabetes - Randomized Control Trial – 22 week study



- **Satisfaction/compliance higher with plant-based diet -- no limits on calories**
- **Plant-based diet easier to understand compared to one that limited portion sizes**

Neal Barnard, M.D.

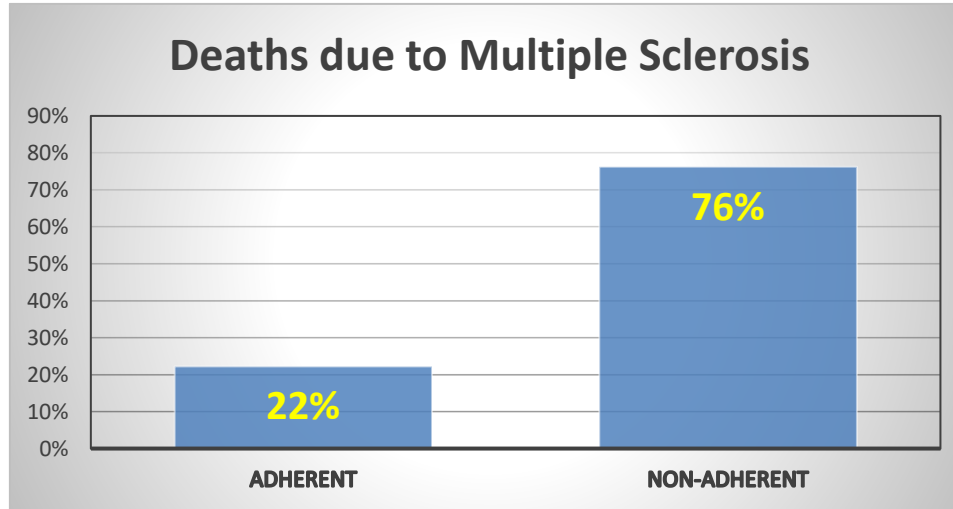
Rheumatoid Arthritis - Randomized Control Trial – 16 week study



Study had a crossover design: several patients who began on the plant-based phase refused to return to their standard (control) diet because they had experienced such significant improvement in their condition

Roy Swank, M.D.

Patients with diagnosed Multiple Sclerosis – 34 years of follow up



Prescribed nutrition was not completely plant-based, but very low in saturated fat (<20g/day)

Why should health care providers prescribe Whole Food Plant-Based Nutrition?

Treatment	Effectiveness	Side Effects	Cost
Bypass surgery for heart disease	15%-50% failure rate at 5 years depending on type	20% complication rate 5% stroke 2% death	\$150,000
High cholesterol (statin) drugs	1.2% reduced risk of death 2.6% reduced risk of heart attack 0.8% reduced risk of stroke (for those with existing heart disease) [based on absolute risk reduction]	10% experience muscle damage 2% develop diabetes Common: diarrhea, muscle/joint pain, upset stomach. In rare cases: liver dysfunction	\$20/month for life (generic)
Diabetes drugs	10% avoid diabetic complications (heart attack, blindness, kidney disease, amputation) 5% avoid diabetes-related death [based on absolute risk reduction]	2%-12% experience diarrhea, nausea, vomiting, upset stomach. In rare cases: lactic acidosis	\$10/month for life (generic)
Whole food plant-based nutrition	See previous slides	More energy, less need for doctor visits and medications	Free (everyone has to eat)

Adherence rates vary widely, but some drug trials have rates <50% and some plant-based nutrition trials have rates >90%

Why is Whole Food Plant-Based Nutrition not being commonly used as treatment?

Non Sequitur by Wiley Miller



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November 19, 2014 from www.gocomics.com

<http://www.gocomics.com/nonsequitur/2014/11/19>

Why is Whole Food Plant-Based Nutrition not being commonly used as treatment?

(1) Concept of chronic disease reversal is not widely known

(2) Lack of monetary incentives for providers to reverse chronic disease

**What can Health Care Payers
(insurers, self-insured employers, Medicare, Medicaid)
do to encourage lifestyle medicine treatment based on
Whole Food Plant-Based Nutrition?**

Actions That All Health Care Payers Can Implement

(1) Deliver a direct message to all insured members that chronic disease can be reversed

Example #1: Insurance Company

- Sent introductory letter: *Did you know that diabetes, heart disease, high blood pressure, obesity, arthritis, etc. can be reversed without drugs/surgery and no negative side effects?"*
- Sent documentary film (*Forks Over Knives*) providing the scientific evidence and compelling personal stories of chronic disease reversal
- Provided other materials: book, websites, recipes
- Not prescribing medicine – simply providing (specific, actionable) information and encouraging discussion with health care providers
- Policyholder response / reaction – extremely positive and appreciative

Actions That All Health Care Payers Can Implement

(1) Deliver a direct message to all insured members that chronic disease can be reversed

Example #2: Self-insured employer (Vanderbilt University)

- Employees with Type 2 diabetes enrolled in CHIP (Complete Health Improvement Program)
- Medical costs decreased 40%
- Prescription Drug costs decreased 14%

Actions That All Health Care Payers Can Implement

(1) Deliver a direct message to all insured members that chronic disease can be reversed

Example #3: GEICO Employees

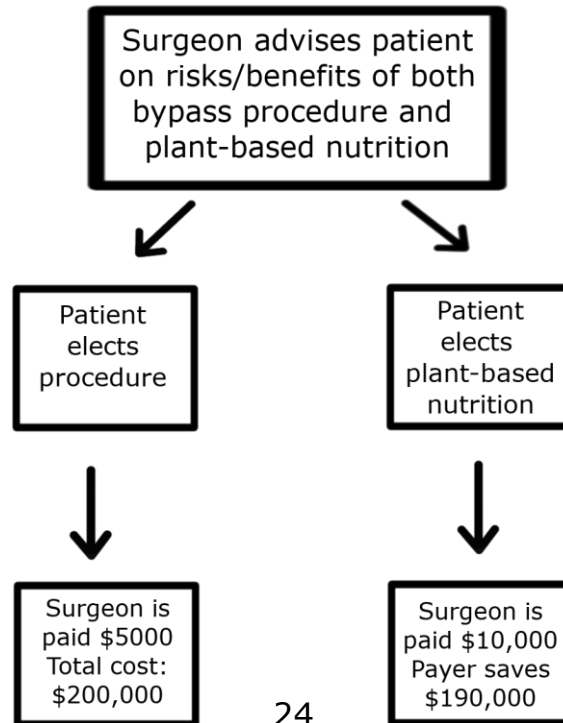
- Participating employees asked to follow a whole food plant-based diet (18 weeks)
- Onsite cafeterias offered whole food plant-based lunches
- Weekly classes (including education and cooking demos) were held
- No restrictions on calories required
- Results: Statistically significant reductions in weight, cholesterol, and diabetic control (A1c) compared to control group

Actions That All Health Care Payers Can Implement

- (1) Deliver a direct message to all insured members that chronic disease can be reversed**
- (2) Require patients be advised of plant-based treatment option before approving payment for non-emergency bypass/stents, bariatric surgery, and PCSK9 drugs**

Actions That All Health Care Payers Can Implement

Example: Bypass surgery



Actions That All Health Care Payers Can Implement

- (1) Deliver a direct message to all insured members that chronic disease can be reversed**
- (2) Require patients be advised of plant-based treatment option before approving payment for non-emergency bypass/stents, bariatric surgery, and PCSK9 drugs**
- (3) Offer ongoing financial incentives for health care providers based on the value patients receive (improvement in health)**

What about current Value Based Initiatives?

Example: CMS 5-Star Rating System

Patient of Dr. Wayne Dysinger	Total cholesterol	Triglycerides
Baseline Values	226	132
After 21 days of Lifestyle Medicine (no statin drugs)	171	75

Rather than an A grade, Dr. Dysinger received a C grade for medication compliance.

How to Develop Financial Incentives Based On: Patient Value = Improvement in Health

(1) Select Objective Clinical Measures

- **BMI (Body Mass Index)**
- **Cholesterol**
- **Blood Pressure**
- **HbA1c (Diabetes indicator)**
- **CRP (C-Reactive Protein inflammation marker)**
- **Endothelial function (vascular health indicator)**

(2) For each patient, physicians receive an incentive payment based on improvement in one or more of these clinical measures

Actuarial Patient Value Model:

Financial Incentives Based on Improvement in Patient Health

	Treatment Year				
	1	2	3	4	5+
Diabetic Patient with HbA1c of:	9.0	6.5	6.5	6.5	6.5
Expected Total Health Spending:	\$15,000	\$7,500	\$7,500	\$7,500	\$7,500
PCP Share of Health Spending:	\$1,500	\$750	\$750	\$750	\$750
Incentive Payment to PCP:		\$2,000	\$2,000	\$2,000	\$2,000
Net Savings Relative to Year 1:		\$5,500	\$5,500	\$5,500	\$5,500

Summary

- **WFPB nutrition can reverse a wide range of chronic conditions without negative side effects**

Quote from Dr. Michael Greger: *"If all a plant-based diet could do was reverse our #1 killer (heart disease), then shouldn't that be the default diet, until proven otherwise?"*

- **Evidence & research supports plant-based nutrition, but financial incentive for health care providers is missing**
- **No downside risk for health care payers to make insured members aware of WFPB nutrition and implement financial incentives for providers**
- **Prevention is very important, but chronic disease reversal is only way to realize significant measurable savings**

Action Items For Your Consideration

- **Discuss the concept of disease reversal with clients and colleagues**
- **Try it for yourself: consider adopting a completely plant-based diet for 30 days and evaluate your own results**
- **If the impact on health and health care costs were not enough, consider that a meat/dairy-based diet is using the Earth's resources at an unsustainable pace:**
 - **A meat/dairy-based diet requires 14 times as much land as a plant-based diet**
 - **91% of the Amazon rain forest destruction is the result of raising animals for food**
 - **1,800 gallons of water is required to produce 1 pound of beef—equivalent to 3 months of showers**
 - **1 calorie of animal protein requires 11 times the amount of fossil fuels as a calorie of plant-protein**
 - **7 million gallons of excrement are produced every minute from food animals in the U.S.**
- **Watch *Forks Over Knives*, read *The China Study*, browse *NutritionFacts.org***

Additional Resources



Actuaries for Sustainable Health Care
actuariesforsustainablehealthcare.org



Plantrician Project
plantricianproject.org



American College of Lifestyle Medicine
Lifestylemedicine.org



NutritionFacts.org
NutritionFacts.org

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