



GLOBAL WELLNESS
SUMMIT 2017



The Transformative Power of Lifestyle Medicine

Dr. Dean Ornish, Founder & President, Preventive Medicine
Research Institute, U.S.

A photograph of three people on a rocky shore at sunset. Two people are standing on the left, and one is running on the right. The background shows a calm body of water and a bright sunset sky. The image is partially covered by a semi-transparent blue rectangle containing the title and speaker information.

The Transformative Power of Lifestyle Medicine

Dean Ornish, M.D.

Founder & President
Preventive Medicine Research Institute
Clinical Professor of Medicine
University of California, San Francisco

Lifestyle Medicine=
lifestyle to reverse disease
as well as prevent it.

Transformative Power of Lifestyle Medicine



- Whole foods plant-based diet naturally low in fat & refined carbohydrates
- Stress management
- Moderate exercise
- Psychosocial support



EAT WELL



MOVE MORE



STRESS LESS



LOVE MORE



What is
the *cause*?



Your body often has a remarkable capacity to begin healing itself if you give it a chance to do so—
and **quickly**.

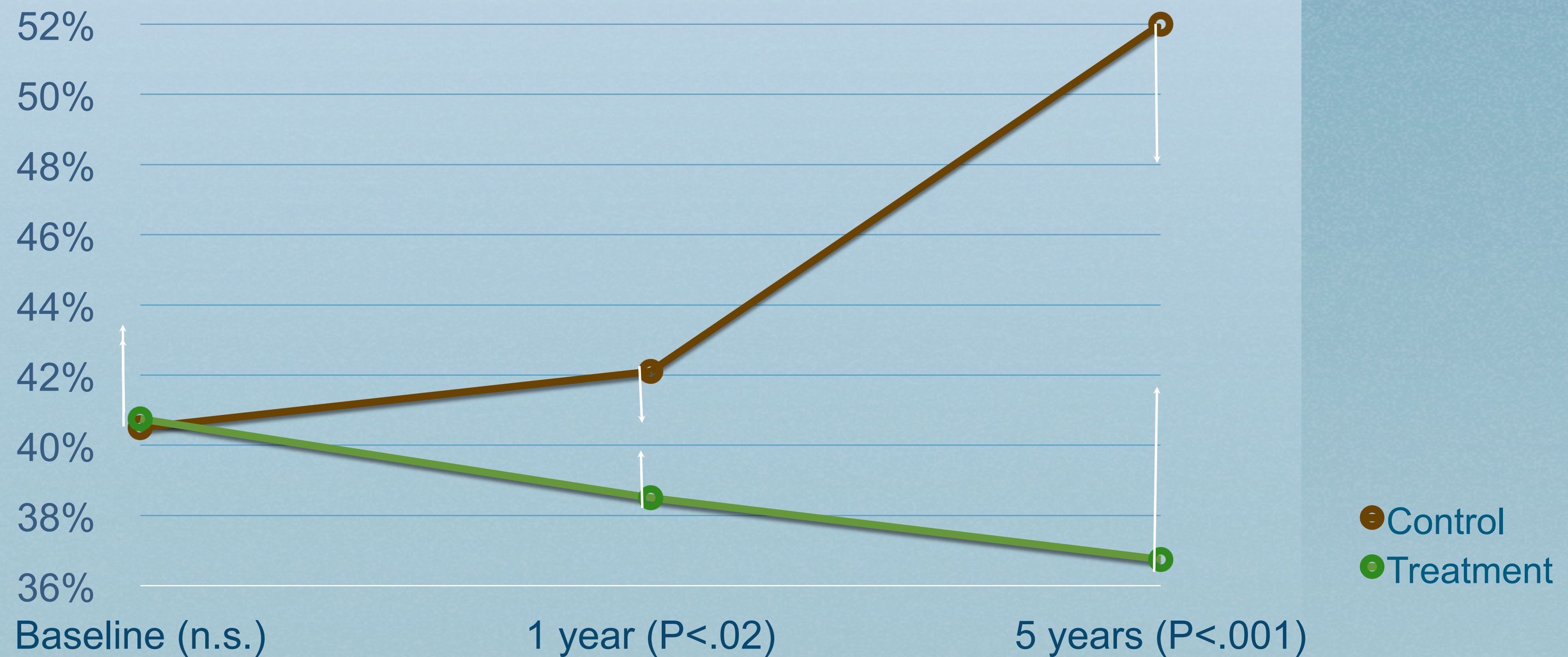
Impossible

Disruptive

Can Lifestyle Changes Reverse Heart Disease?

Lifestyle Heart Trial

% Diameter Stenosis: Quantitative Coronary Arteriography



Ornish D et al. Lancet. 1990; 336:129 & JAMA. 1998;280:2001.

There was a 400%
improvement in coronary
blood measured by cardiac
PET scans after 5 years.

--Gould KL, Ornish D, et al. *JAMA*. 1995;274:894-901.

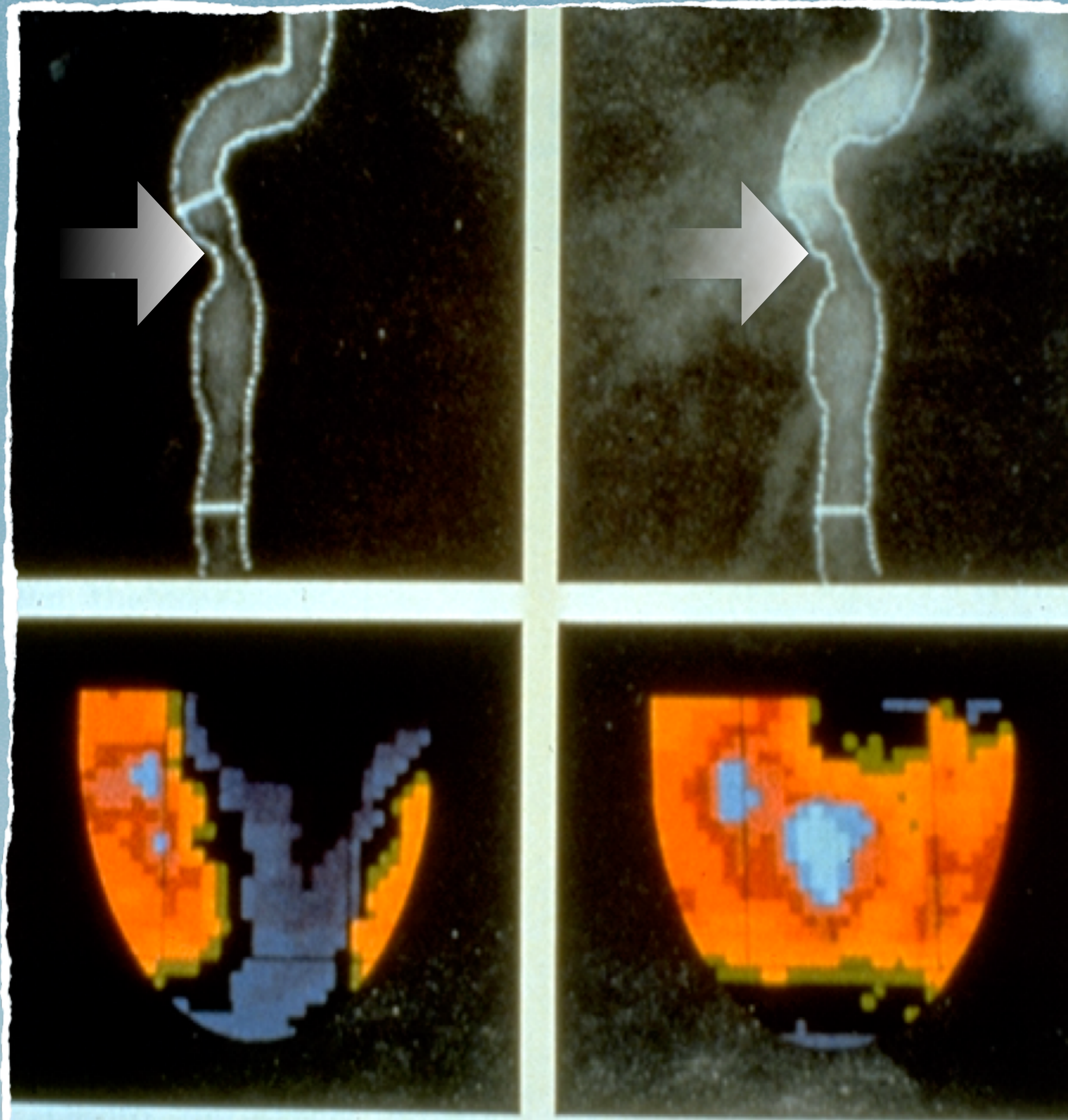
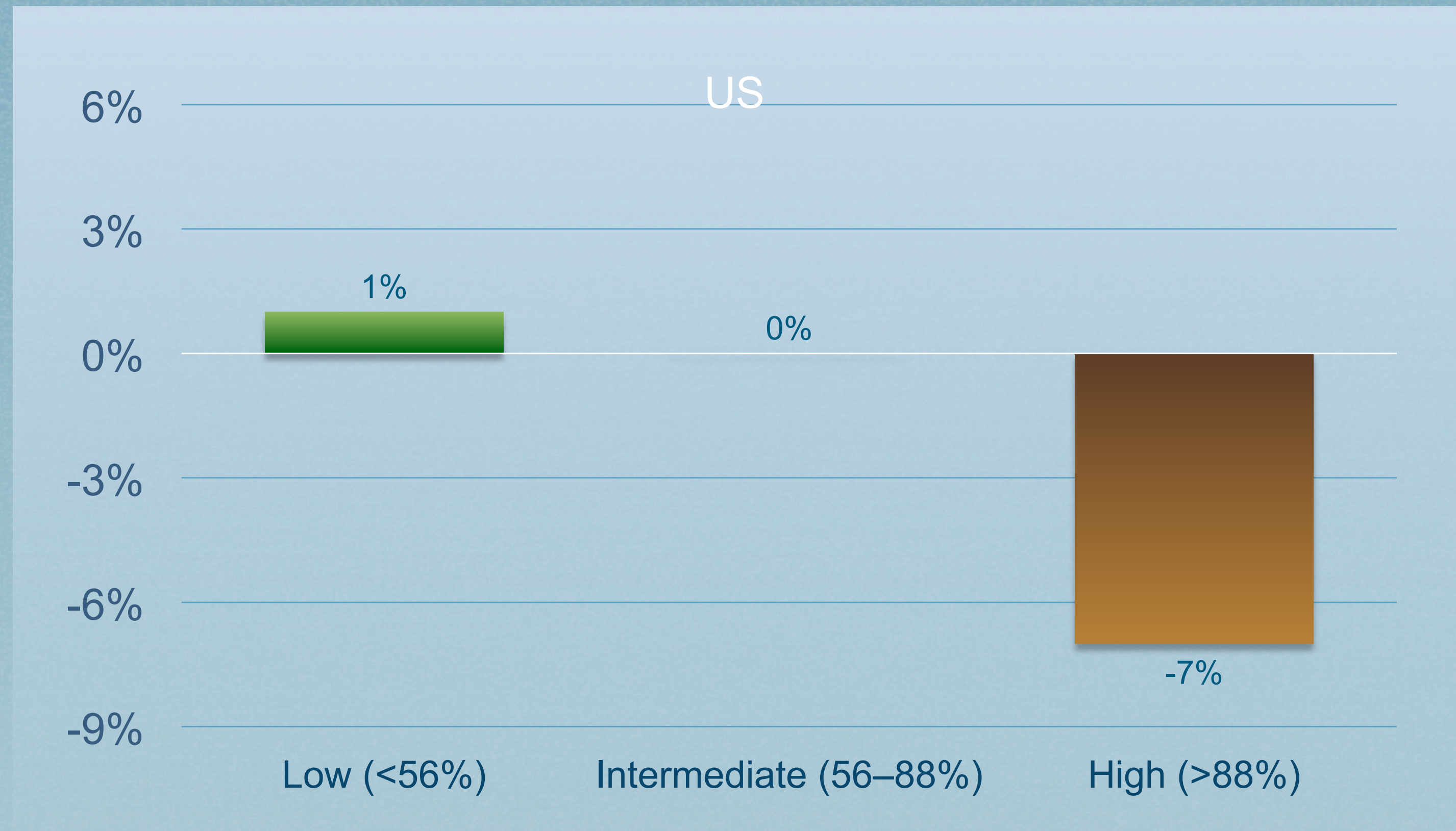


Figure 2. Quantitative coronary angiograms and cardiac PET scans obtained

99% of patients stopped or reversed
their heart disease as measured by
cardiac PET scans after 5 years.
In contrast, only 5% of controls
improved ($p = 0.03$).

--Gould KL, Ornish D, et al. *JAMA*. 1995;274:894-901.

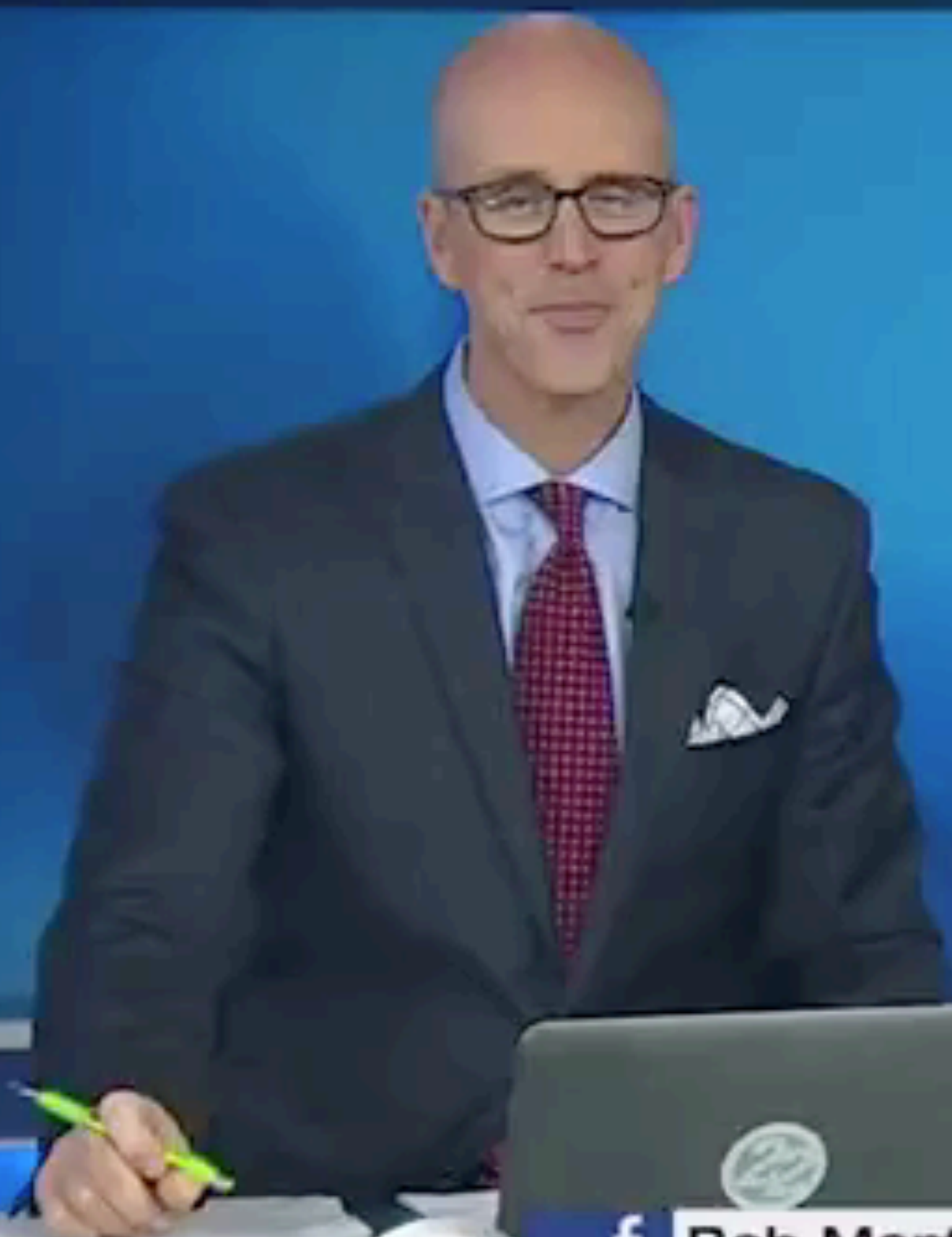
Adherence and Change in Coronary Atherosclerosis after Five Years



Ornish D et al. JAMA. 1998;280:2001

Lifestyle Heart Trial

- There were 2.5 times as many cardiac events in the randomized control group as in the lifestyle group after five years.



f Bob Montgomery WSBT



BOB
MONTGOMERY



f Leanne Tokars WSBT

LEANNE
TOKARS

6:44 40°

ELKHART

9AM



45° | NOON



57° | 3PM



61°

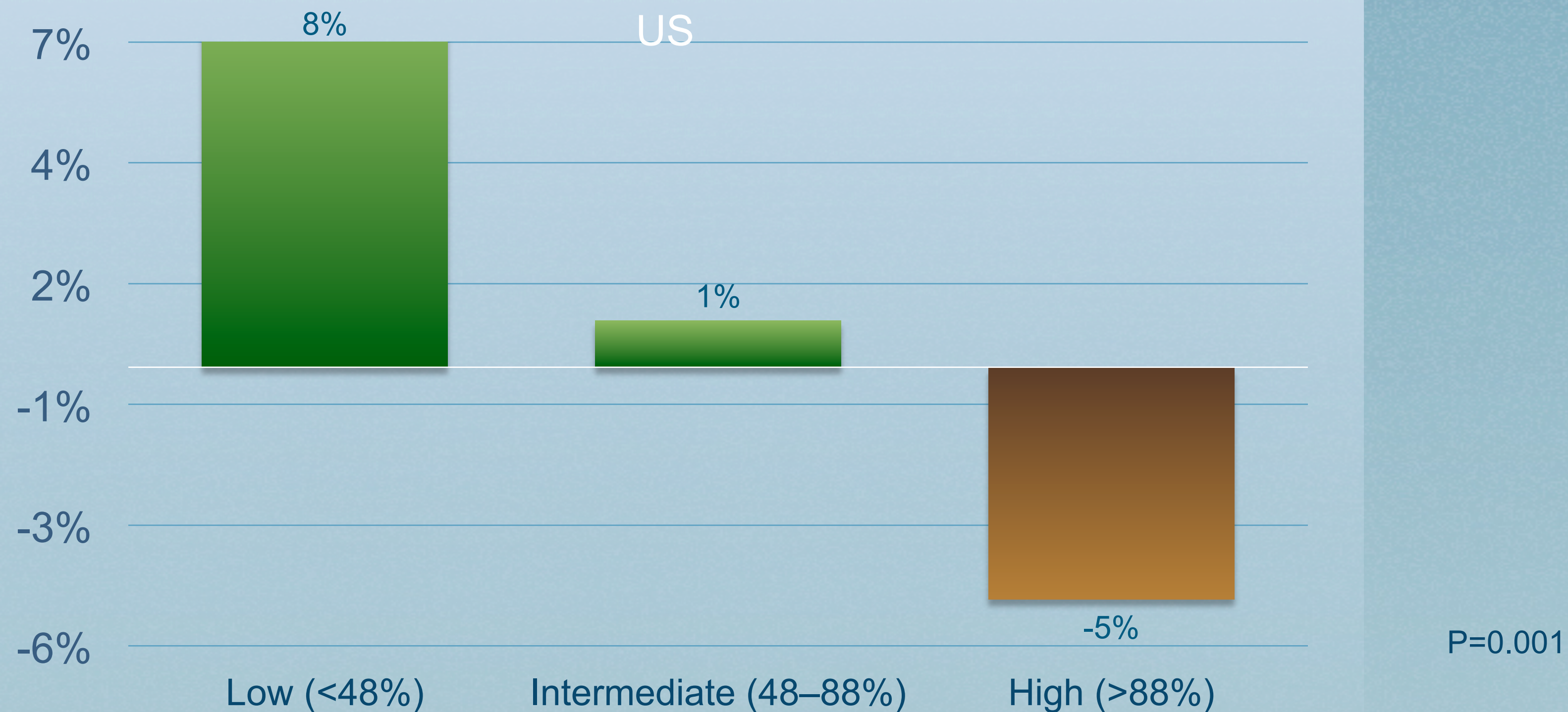
The “Ornish diet” was rated
“#1 for heart health” by a panel of
independent experts convened by
U.S. News & World Report in 2011,
2012, 2013, 2014, 2015, 2016, 2017.

Can Lifestyle Changes Reverse Prostate Cancer?

Changes in PSA

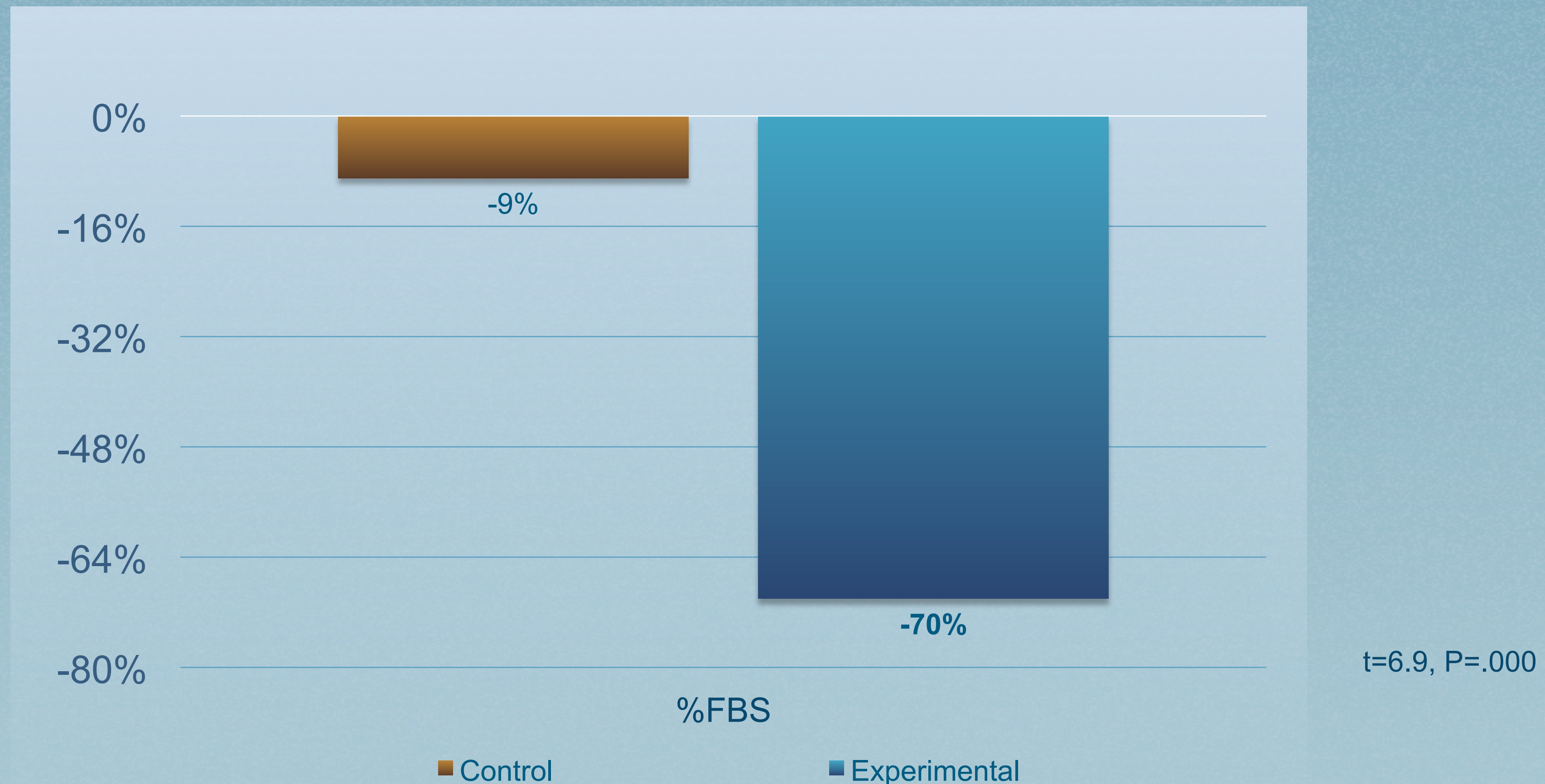


Degree of Lifestyle Change and Changes in PSA

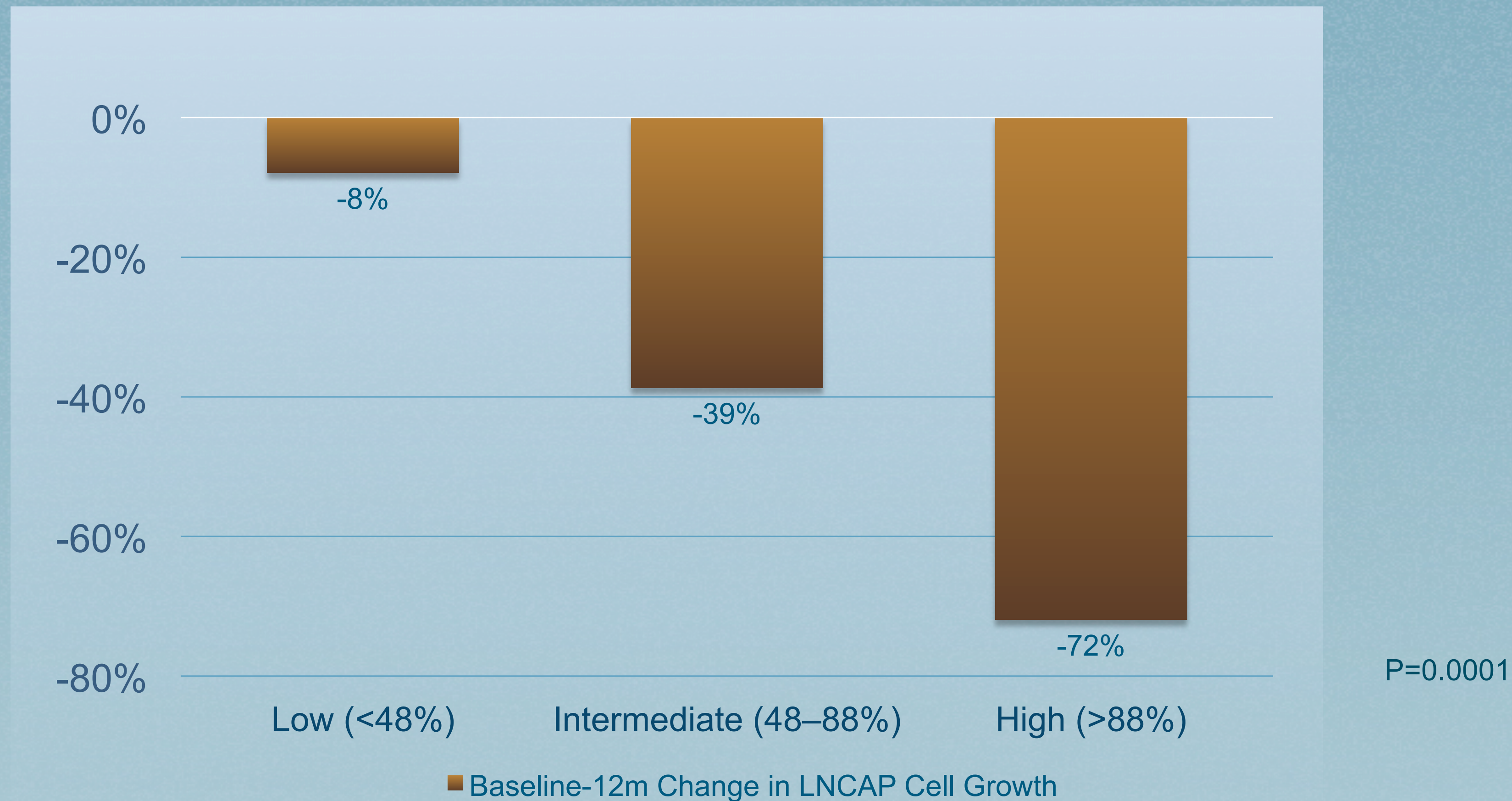


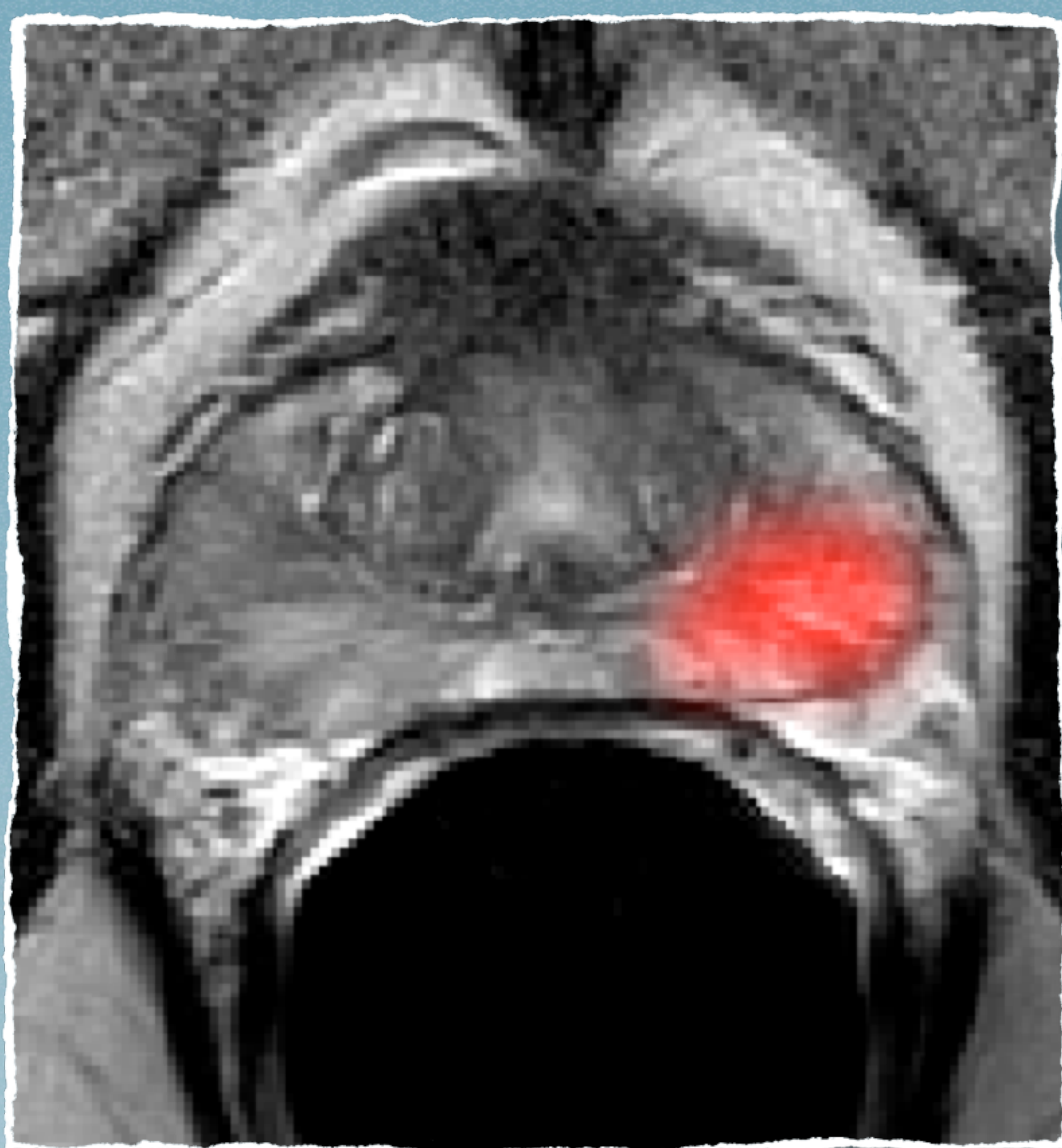
Ornish D et al. Journal of Urology. 2005;174:1065

Change in Prostate Tumor Growth (LNCaP)



Degree of Lifestyle Change and Inhibition of LNCaP Tumor Growth





Baseline
PSA—6.4 ng/ml



1 year later
PSA—4.5 ng/ml

None of the experimental group
patients but six control group
patients had conventional treatment
during the first year.

Ornish D et al. Journal of Urology. 2005;174:1065

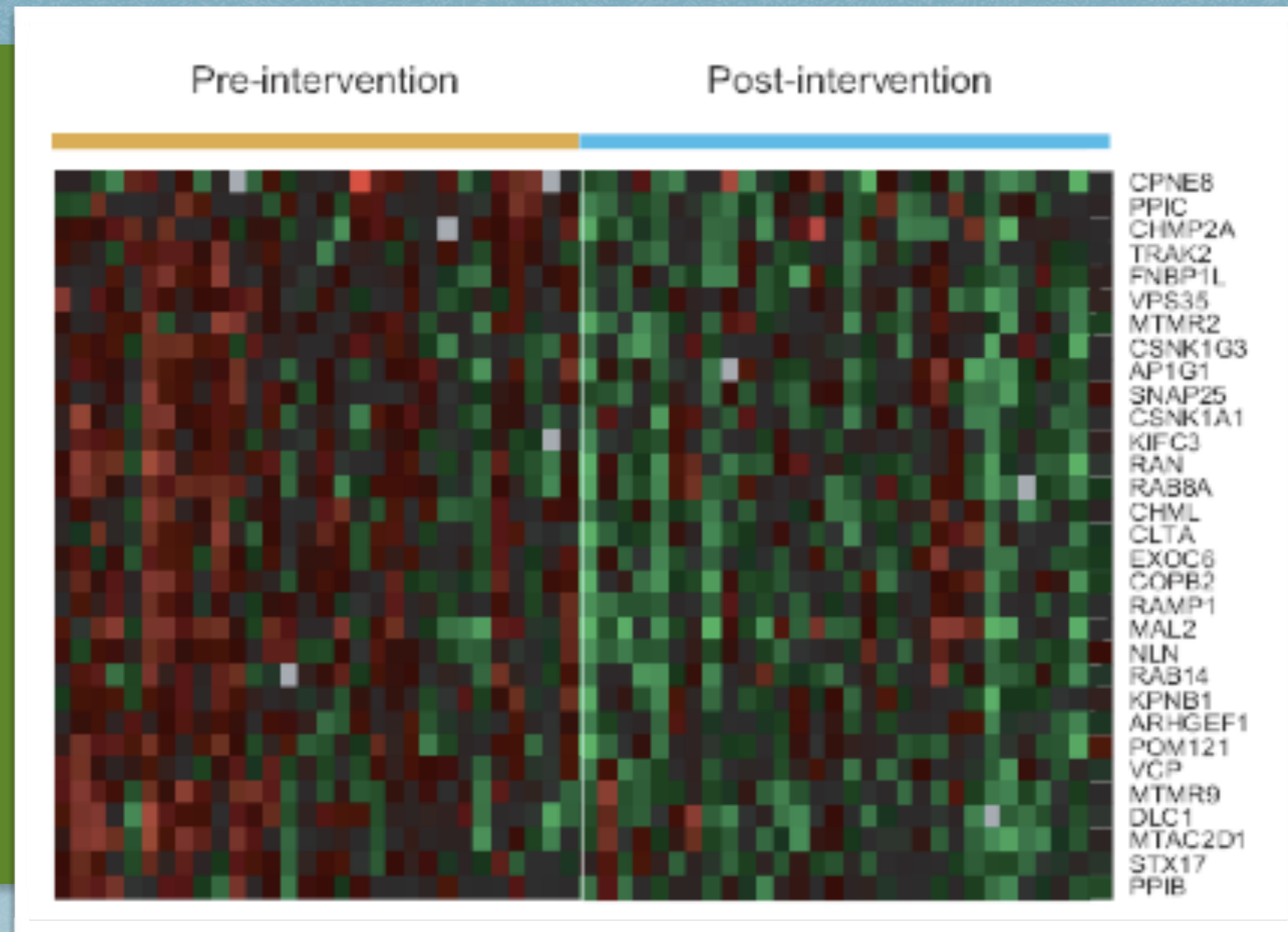
A man with dark, curly hair and a beard is sitting at a wooden table, smiling broadly while eating cereal from a white bowl. He is holding a yellow spoon. On the table are a white mug, a bag of cereal, and a large jug of milk. In the background, there is a wooden shelf with various items and a yellow wall with a handwritten grocery list. The text "can lifestyle changes beneficially affect gene expression?" is overlaid on the right side of the image.

can lifestyle changes
beneficially affect
gene expression?

Gene expression in 501
genes was beneficially
affected in only 3 months

Ornish et al. Proc Nat Acad Sci USA 2008; 105: 8369.

Oncogenes that promote prostate cancer, breast cancer, and colon cancer were downregulated (turned off).



change in genes
linked with
breast cancer and
prostate cancer
(red = turned on
green = turned off)

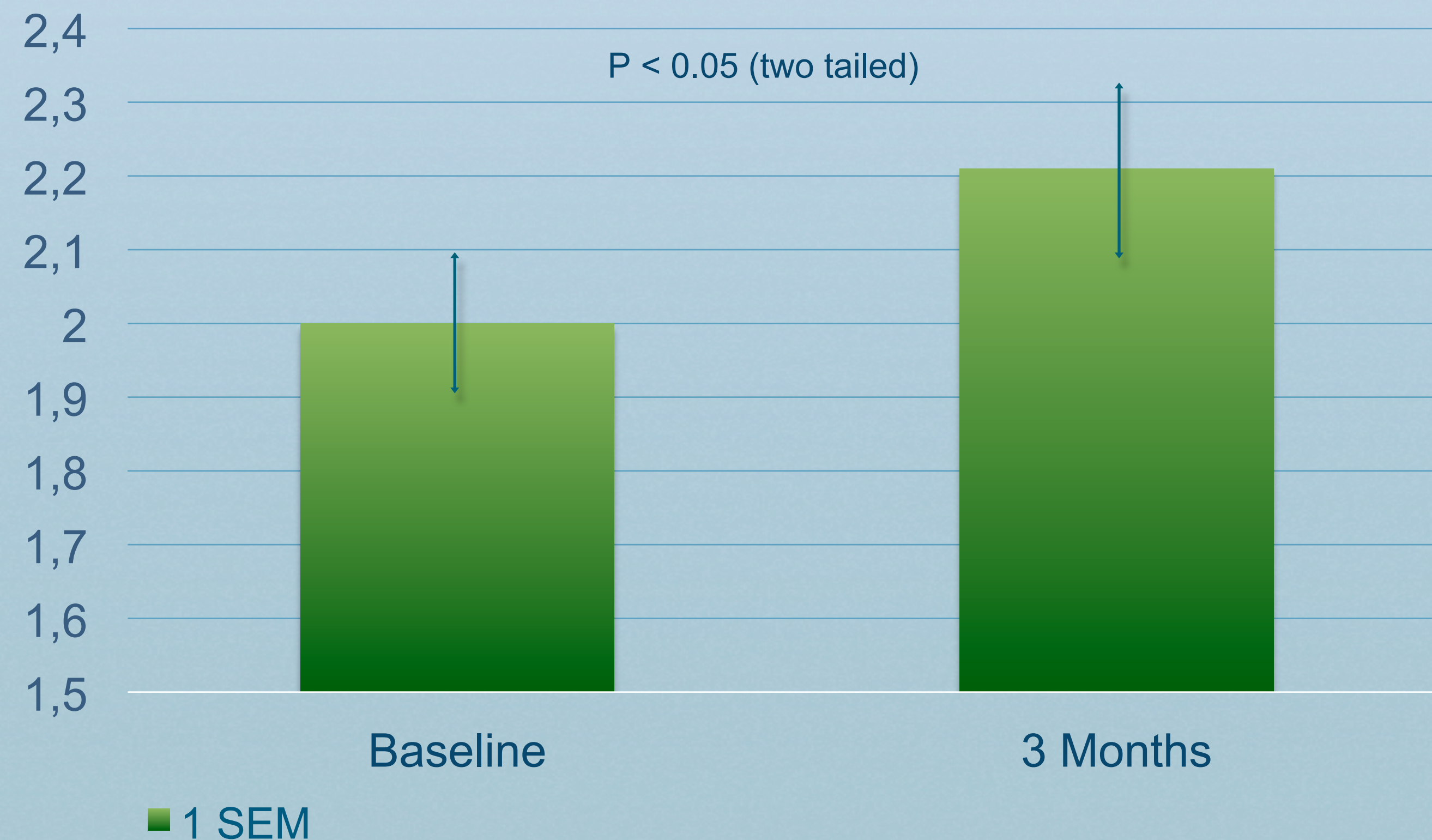
Ornish et al. *Proc Nat Acad Sci USA* 2008; 105: 8369.

Our Genes Are
Not Our Fate

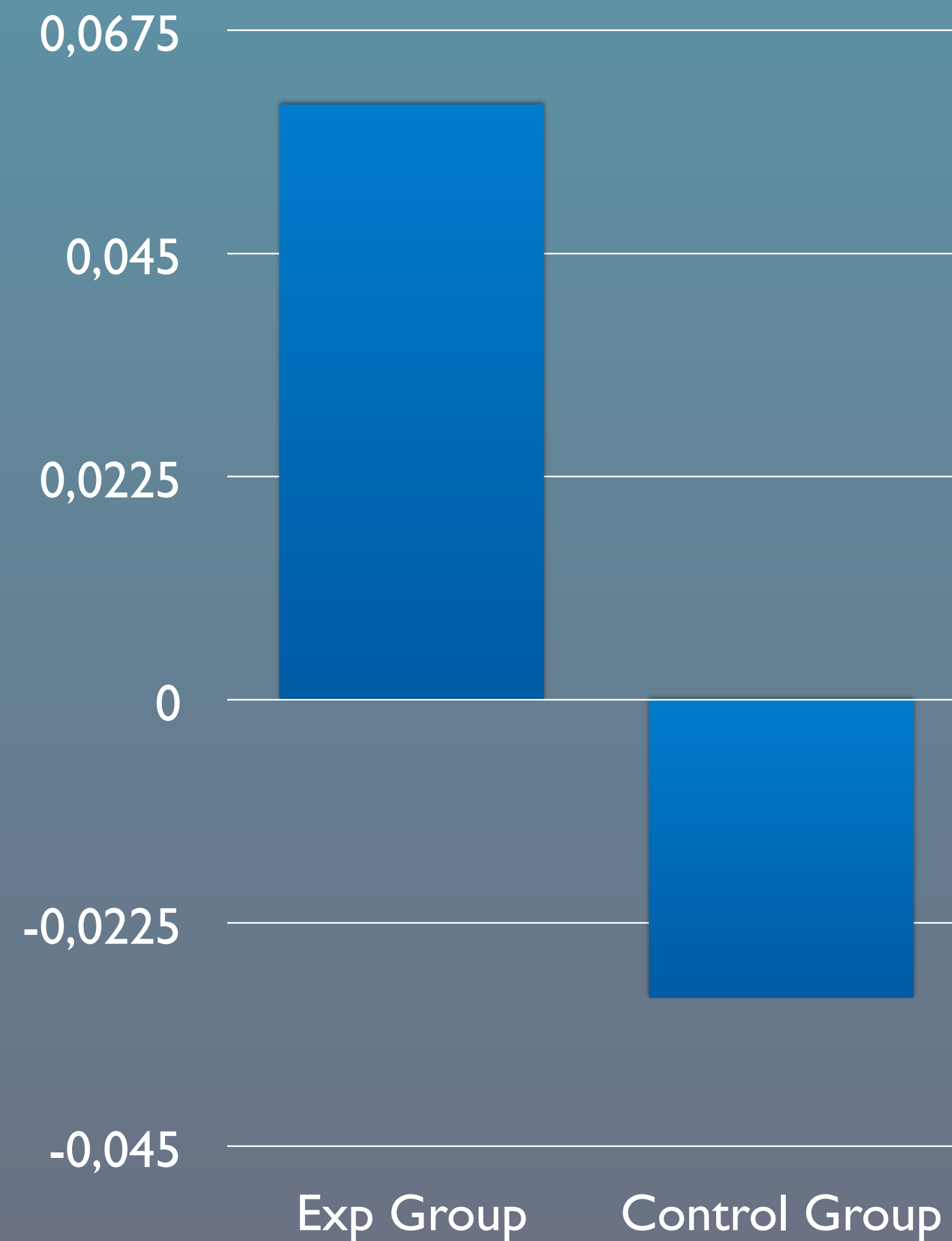
Can Lifestyle Changes Reverse Cellular Aging?

Telomerase increased 30% in only 3 months

Telomerase Activity (Ln)



Mean Changes in Telomere Length After 5 Years



$p < 0.004$

There was a significant correlation between adherence and telomere length ($p < 0.007$)

Ornish D et al. *Lancet Oncology* 2013.

The more chronic diseases and
the more mechanisms we studied,
the more benefits we
documented.

Same diet and lifestyle
program for all of these
improvements.

Shared Underlying Mechanisms

- Chronic inflammation
- Oxidative stress
- Apoptosis
- Angiogenesis
- Gene expression
- Telomeres
- Immune system

What enables people
to make sustainable
changes in their lives?

Risk factor
modification =
fear-based

Fear is not a
sustainable
motivator

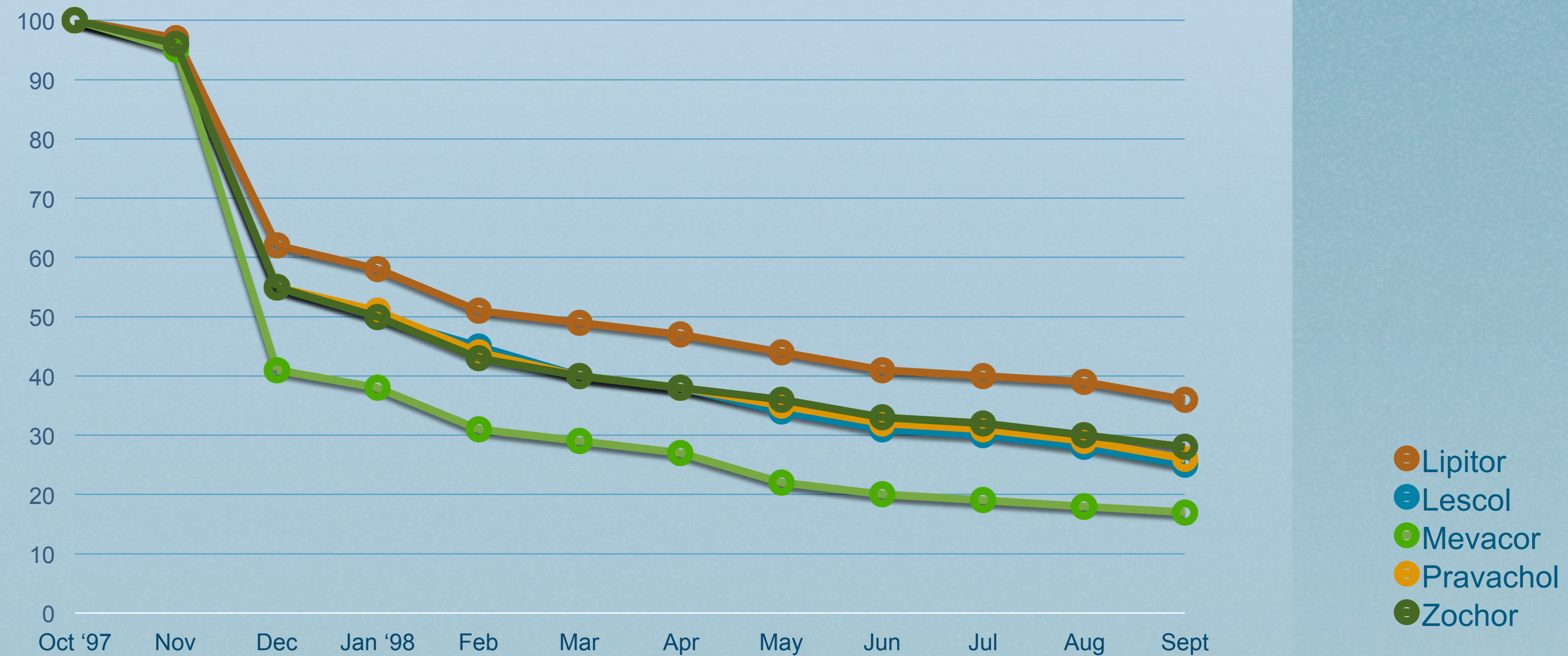


Fun, freedom,
pleasure, & love

Love is more
powerful than fear

Adherence to Statin Therapy

% of 37,000 New-to-Statin Patients Remaining on Therapy



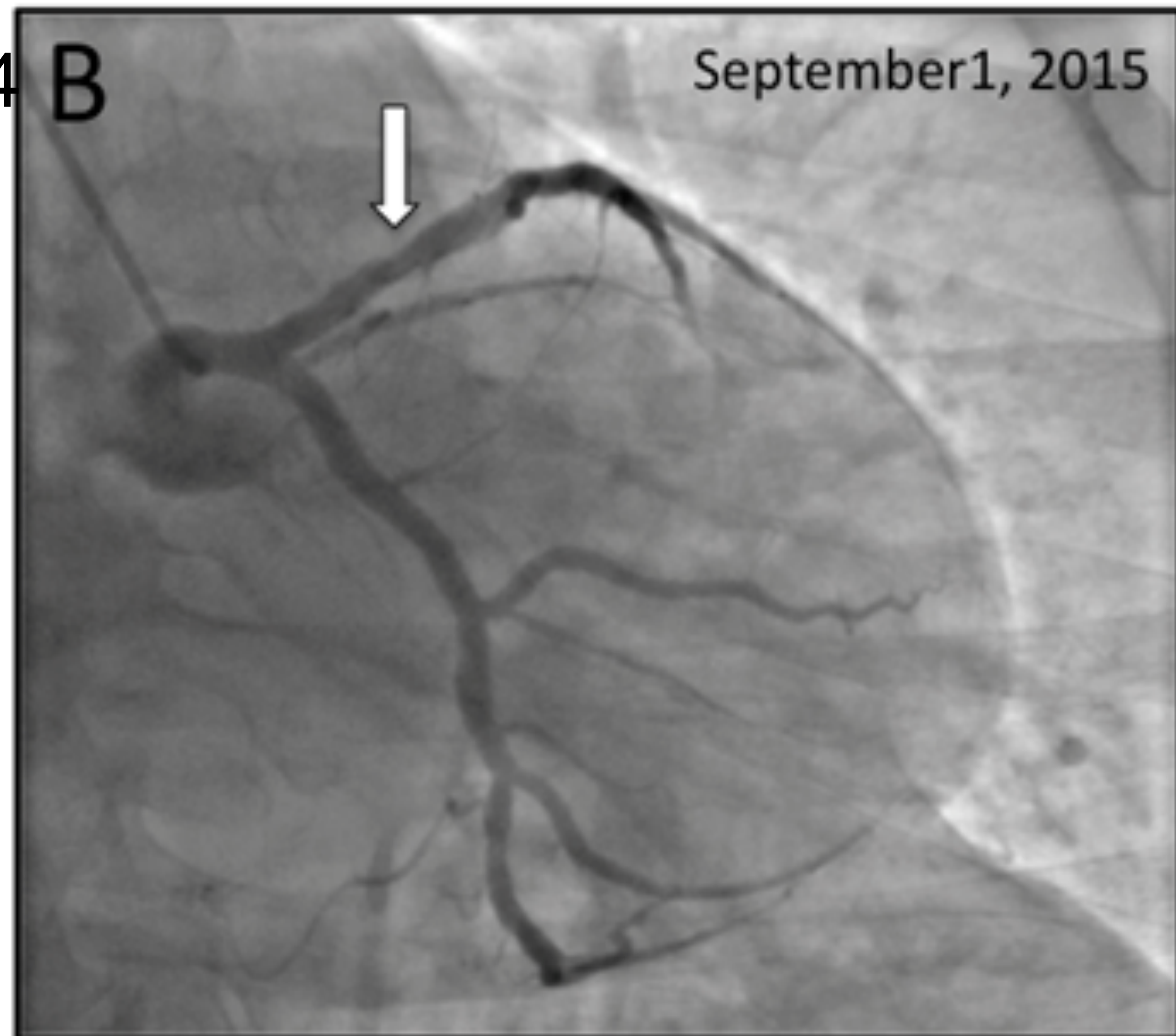
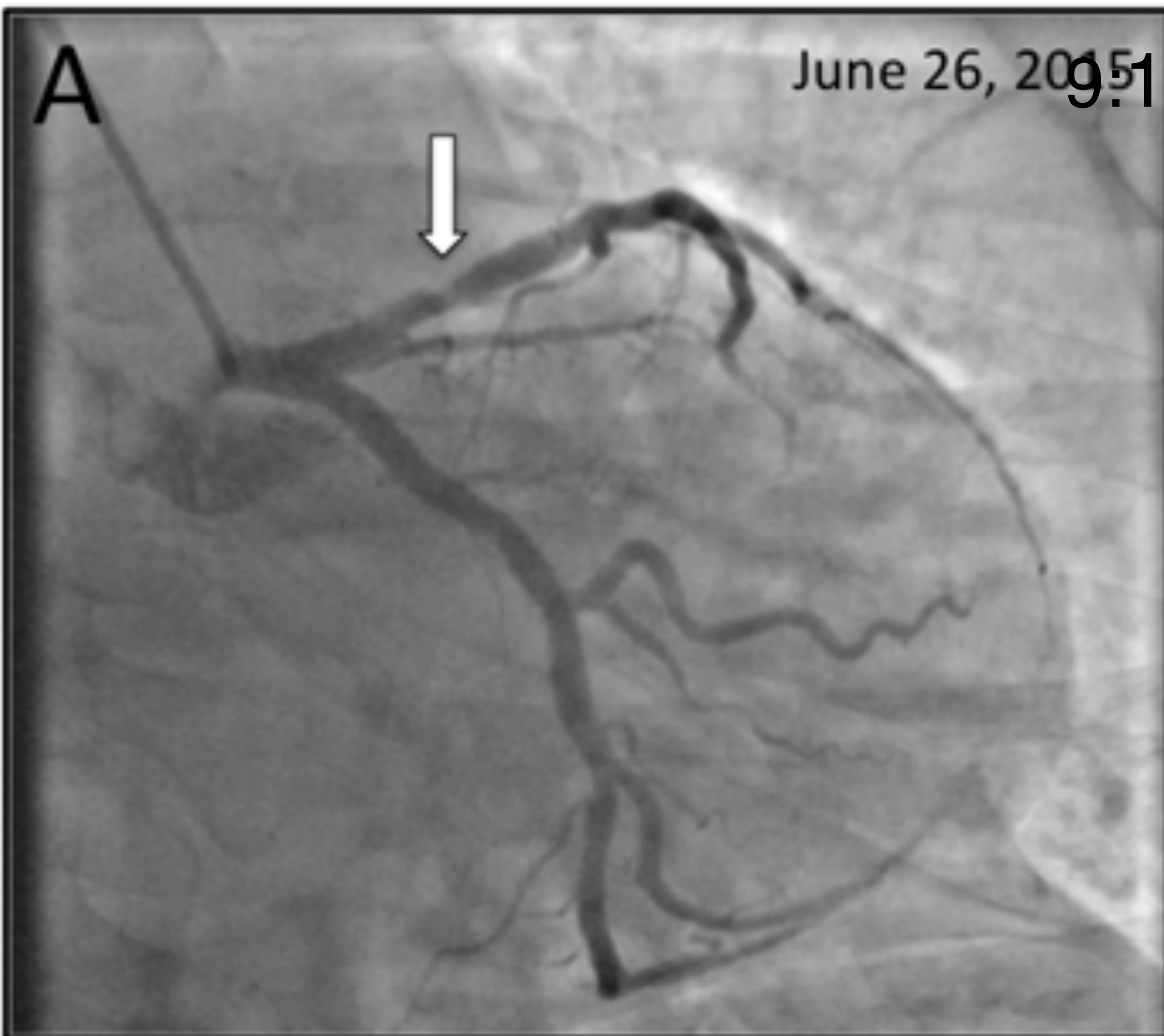
Source: NDC Health Information Services, 1998

- Adherence was 85-90% in 3,780 men and women at all sites after 1 year

When people feel loved and cared for,
they are more likely to make lifestyle
choices that are life-enhancing than
self-destructive.

Dynamic

There's no point in giving
up something you enjoy
unless you get something
back that's even better—
and quickly!



DO LIFESTYLE CHANGES SAVE MONEY?

multicenter lifestyle
demonstration projects



Lifestyle Medicine Saves Money Quickly

- 80% of U.S. total health care costs are due to 5% of the population.
- Therefore, this lifestyle medicine program shows substantial cost savings in the first year.

1 | The Multicenter Lifestyle Demonstration Project

- Almost 80% of 333 patients who were eligible for bypass surgery or angioplasty were able to safely avoid it by changing lifestyle

Ornish D. Avoiding revascularization with lifestyle changes: The Multicenter Lifestyle Demonstration Project. *American Journal of Cardiology*. 1998; 82: 72T–76T.

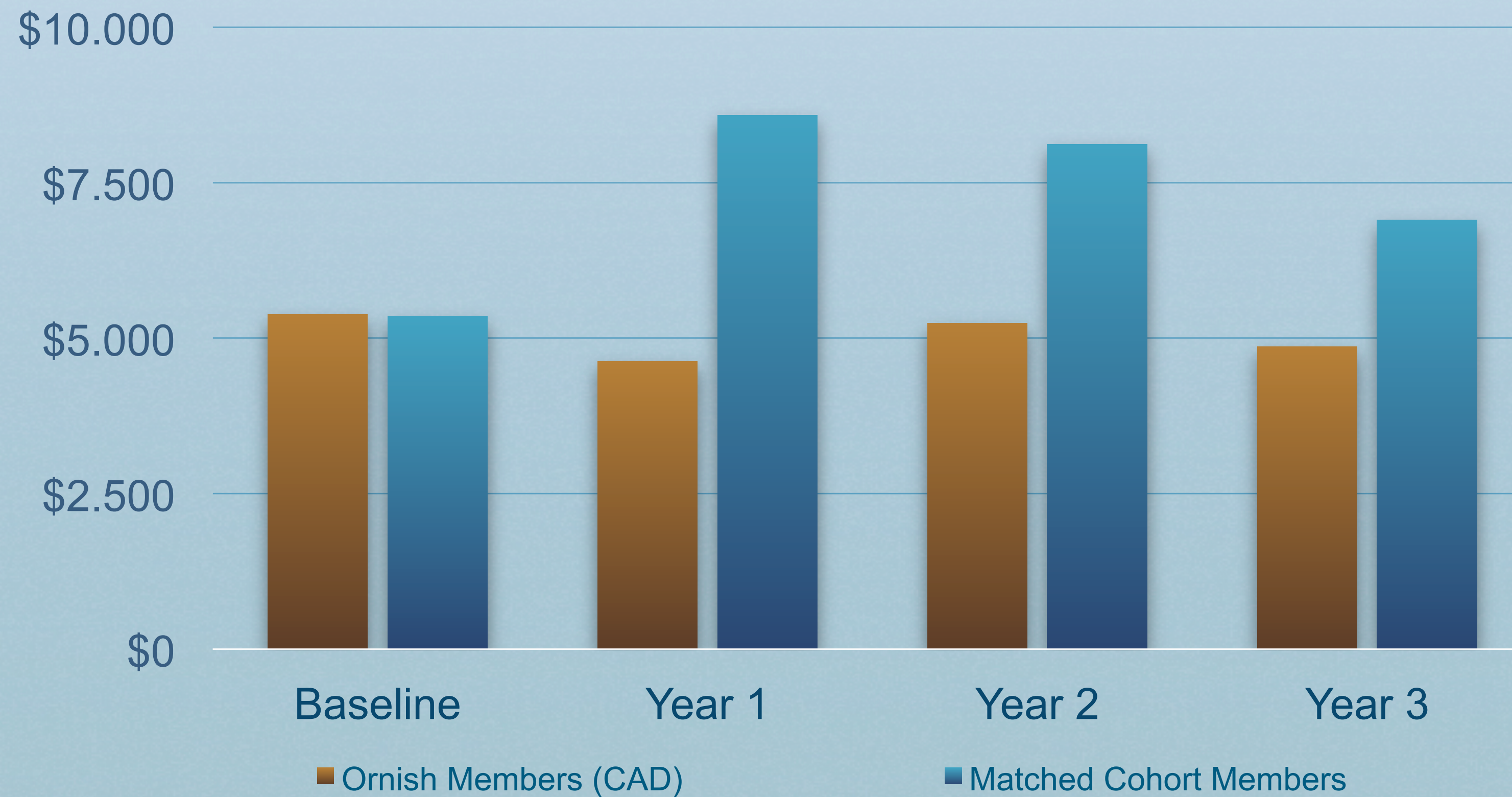
Koertge J, Weidner G, Elliott-Eller M, et al. Improvement in medical risk factors and quality of life in women and men with coronary artery disease in the Multicenter Lifestyle Demonstration Project. *American Journal of Cardiology*. 2003; 91: 1316–1322.

Mutual of Omaha calculated
saving almost \$30,000 per
patient in the first year.

2

The Highmark Blue Cross Blue Shield Demonstration Project: Cost Comparisons After 3 Years

Experimental Group (CAD) vs. Matched Cohort (CAD) Members Year by Year



Experimental Group (CAD) (N=75) Baseline vs. 3 year average=8.7% decrease in costs
 Matched Cohort Members (CAD) (N=75) Baseline vs. 3 year average= 47.2% increase in costs

Highmark BCBS High Cost Study

In the year after entering our lifestyle program, there was a **400% reduction** in patients with claims costs greater than \$25,000 compared to matched controls

3 | Medicare

- On January 1, 2011, Medicare began covering “Dr. Ornish’s Program for Reversing Heart Disease,” the first time Medicare has covered a program of lifestyle changes as **treatment** in a new benefit category, “Intensive Cardiac Rehabilitation.”

We train a team of six health care professionals:

- Physician = Quarterback
- Nurse
- Stress management specialist
- Exercise physiologist
- Registered dietitian
- Clinical psychologist





Patients come for 18 four-hour sessions with 15 patients/class (twice/week for 9 weeks):

- 1 hour of supervised exercise
- 1 hour of stress management
- 1 hour of a support group
- 1 hour lecture + group meal



Or a 12-day immersion retreat (six hours/day x 12 days)





Patients come for 18 four-hour sessions with 15 patients per class.

Medicare reimburses \$107/hour/patient:

72 hours are reimbursed =

$72 \times \$107/\text{hour} = \underline{\$7,704/\text{patient}}$



Commercial carriers reimburse \$130/hr
 $\times 72 \text{ hours} = \underline{\$9,360/\text{patient}}$

$15 \text{ patients/group} \times \$107/\text{hr} = \underline{\$1,605/\text{hr}}$

$15 \text{ patients/group} \times \$130/\text{hr} = \underline{\$1,950/\text{hr}}$



If it's reimbursable,
then it's sustainable.

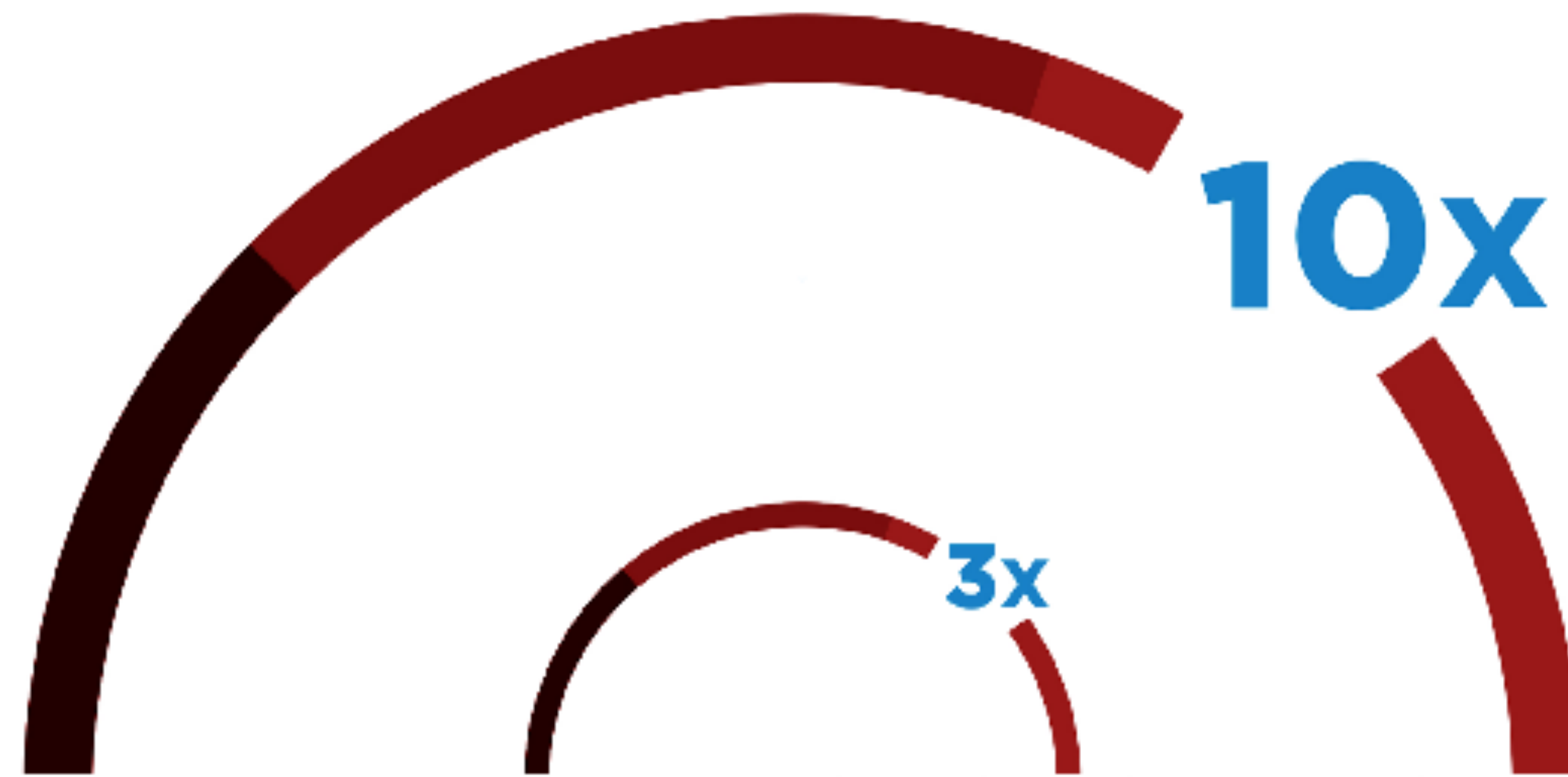
Reclaiming our role
as healers, not just
technicians

DANGER IN LONELINESS

ISOLATION AND
DEPRESSION

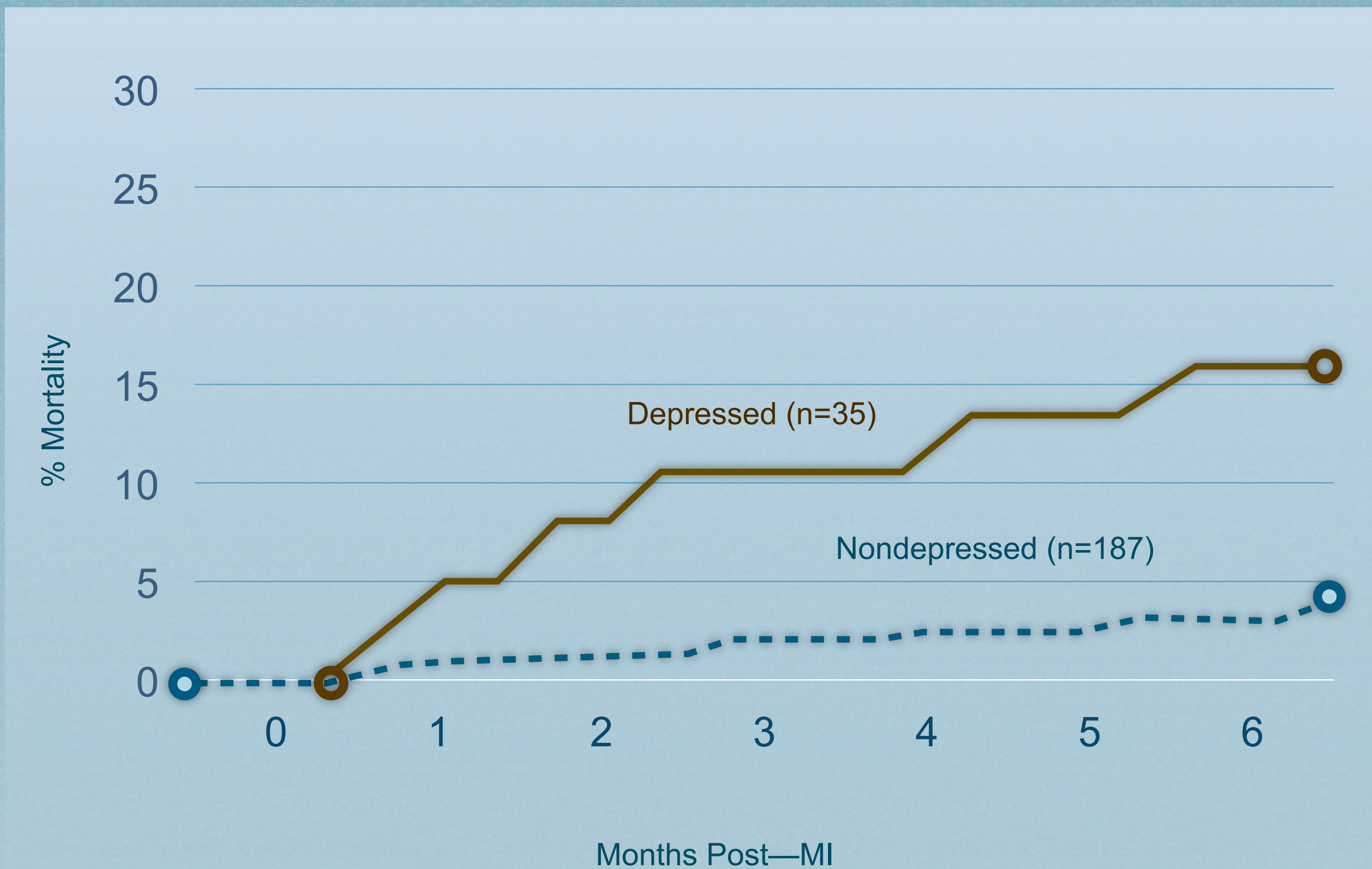


CHRONIC STRESS
AND HEART DISEASE



PEOPLE SUFFERING FROM LONELINESS, DEPRESSION
AND ISOLATION HAVE **3 TO 10** TIMES GREATER RISK
FOR PREMATURE DEATH

Depression and Mortality 6 months After a Heart Attack



INTIMACY IS HEALING

YOU CAN ONLY BE **INTIMATE** TO THE DEGREE THAT YOU CAN BE **EMOTIONALLY VULNER-
ABLE**, AND YOU CAN ONLY BE VULNERABLE TO THE DEGREE THAT YOU FEEL **SAFE**.

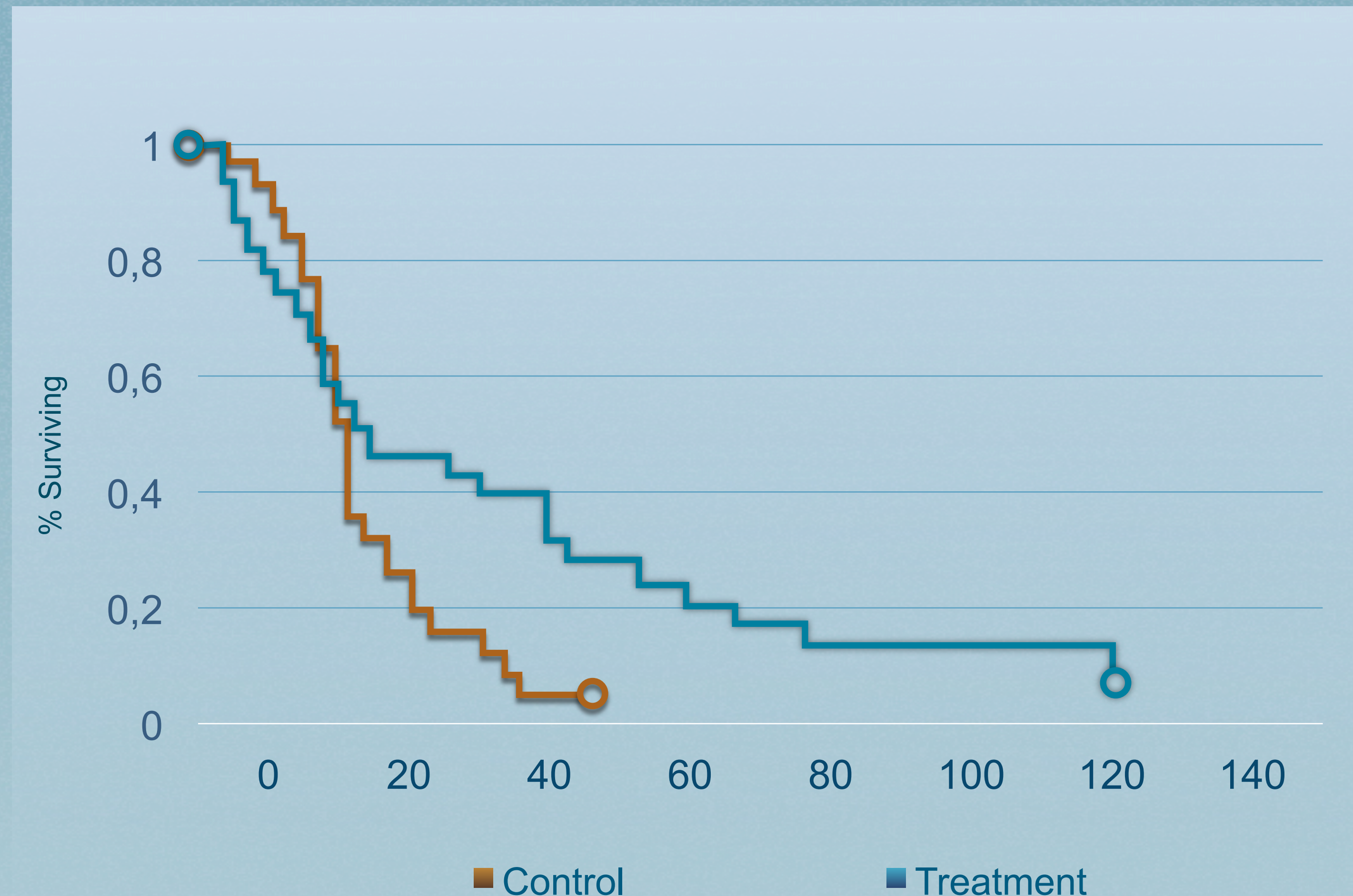
GROUP SUPPORT IS A

Safe

ENVIRONMENT FOR YOU



Support Groups DOUBLED Survival in Breast Cancer



Trust→

Intimacy→

Healing & Meaning

Social Networks & Health

- If your friends are obese, your risk of obesity is 45% higher
- If your friend's friends are obese, your risk of obesity is 25% higher
- If your friend's friend's friend is obese, your risk is 10% higher—even if you've never met them

“**Why** do you want
to live longer?”

If it's meaningful,
it's sustainable

“I feel deprived because I can’t eat this food” is not sustainable.

“I’m choosing not to eat this because what I gain is much more than what I give up” is sustainable.

Choosing **not** to do something
imbues it with deep meaning &
purpose, making it **sacred**

SACRED =

- the most meaningful
- the most intimate
- the most erotic
- the most exciting
- the most powerful
- the most fun
- the most ecstatic

Dis-ease
De-fine

Lifestyle Medicine and
Wellness = Spiritual Journey
and Conspiracy of Love



Doing this sacred work to help people use the experience of illness and suffering as a doorway for transforming and healing their lives in the most meaningful ways—for them and for each of us.



ornish
lifestyle medicine

www.ornish.com







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