



Reengineering Healthcare Delivery

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Our Discussion Today

Overview of Global Health Status

Factors Contributing to Poor Health Outcomes

Encouraging Positive Behavior Change

Intervening and Engaging Patients

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Chronic Disease Facts

86%

U.S. health care dollars goes to treatment of chronic disease

#1

Cause of disability in U.S.

62%

Percentage of deaths in South-East Asia from chronic disease

50%

Adult Americans with at least one chronic disease

75%

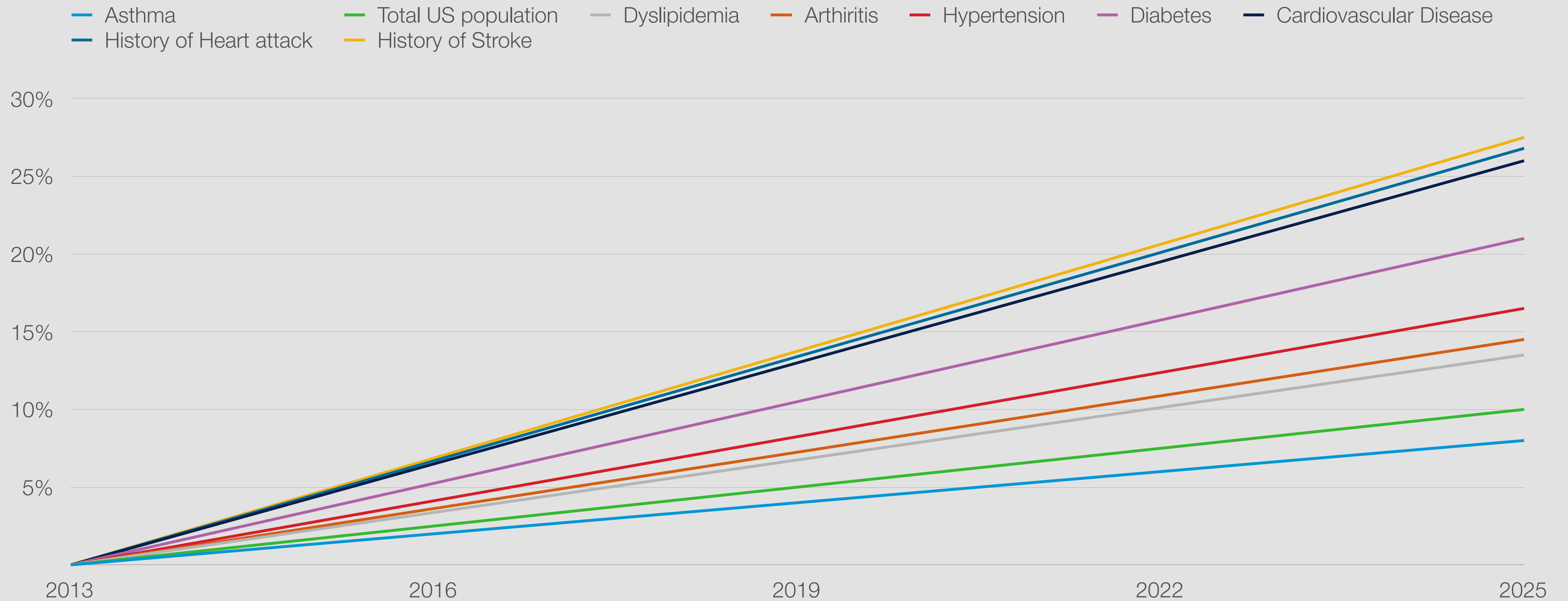
Percentage of deaths in U.S. from chronic disease

90%

Seniors with at least one chronic disease
(77% have 2+ chronic conditions)

Projected Growth

Projected growth in population with chronic conditions 2013–2025



Major Causes of Chronic Disease

Health behaviors

Lack of Physical Activity

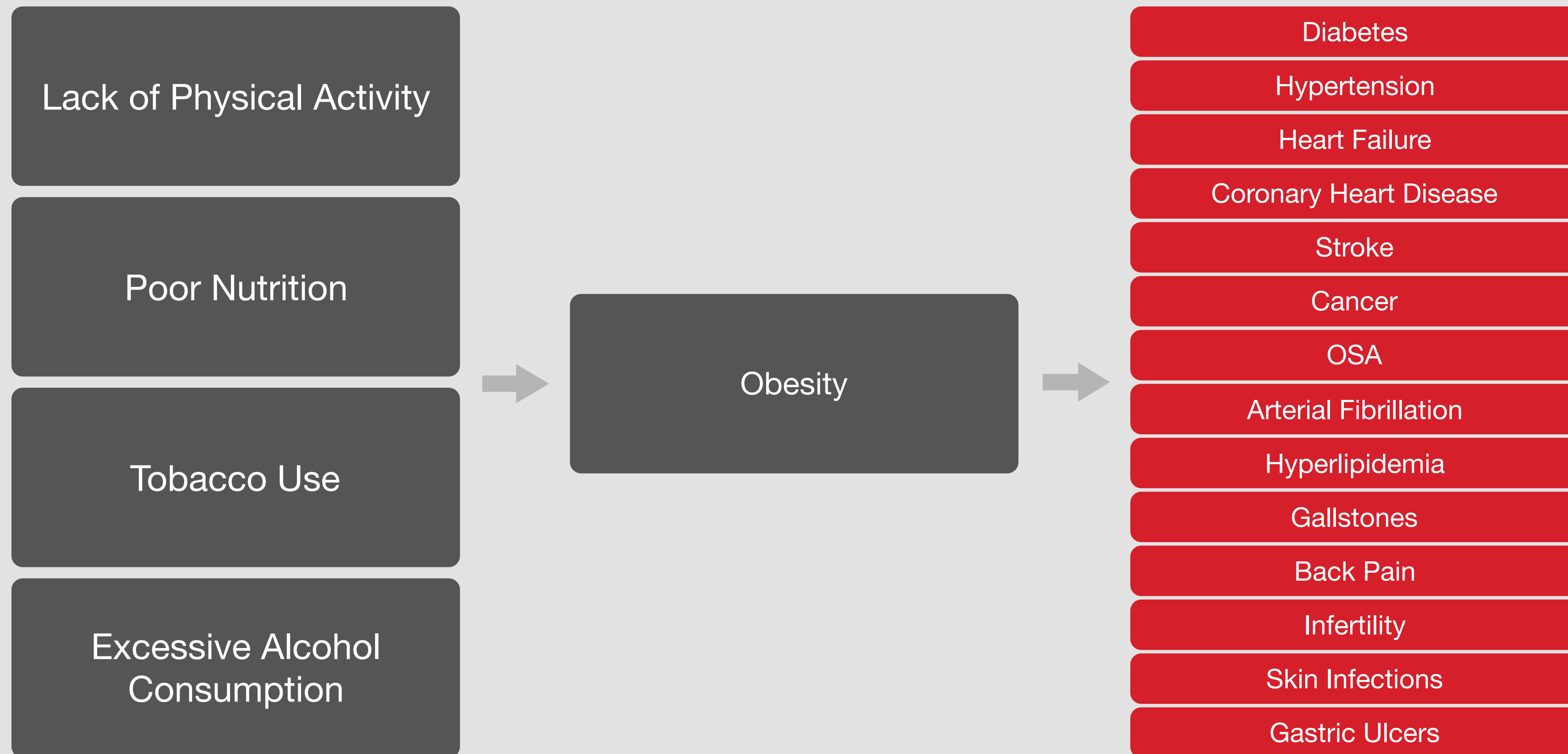
Poor Nutrition

Tobacco Use

Excessive Alcohol
Consumption

Major Causes of Chronic Disease

Health behaviors



Adherence to Quality Indicators

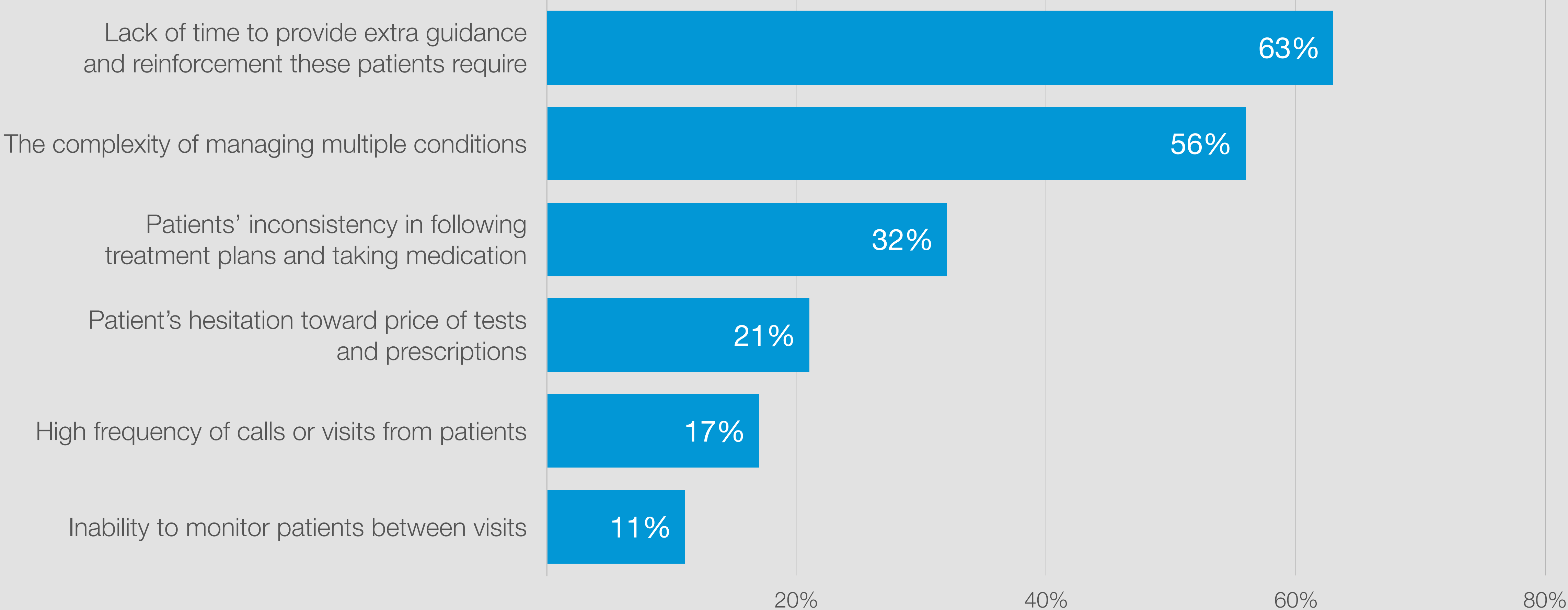
In chronic disease

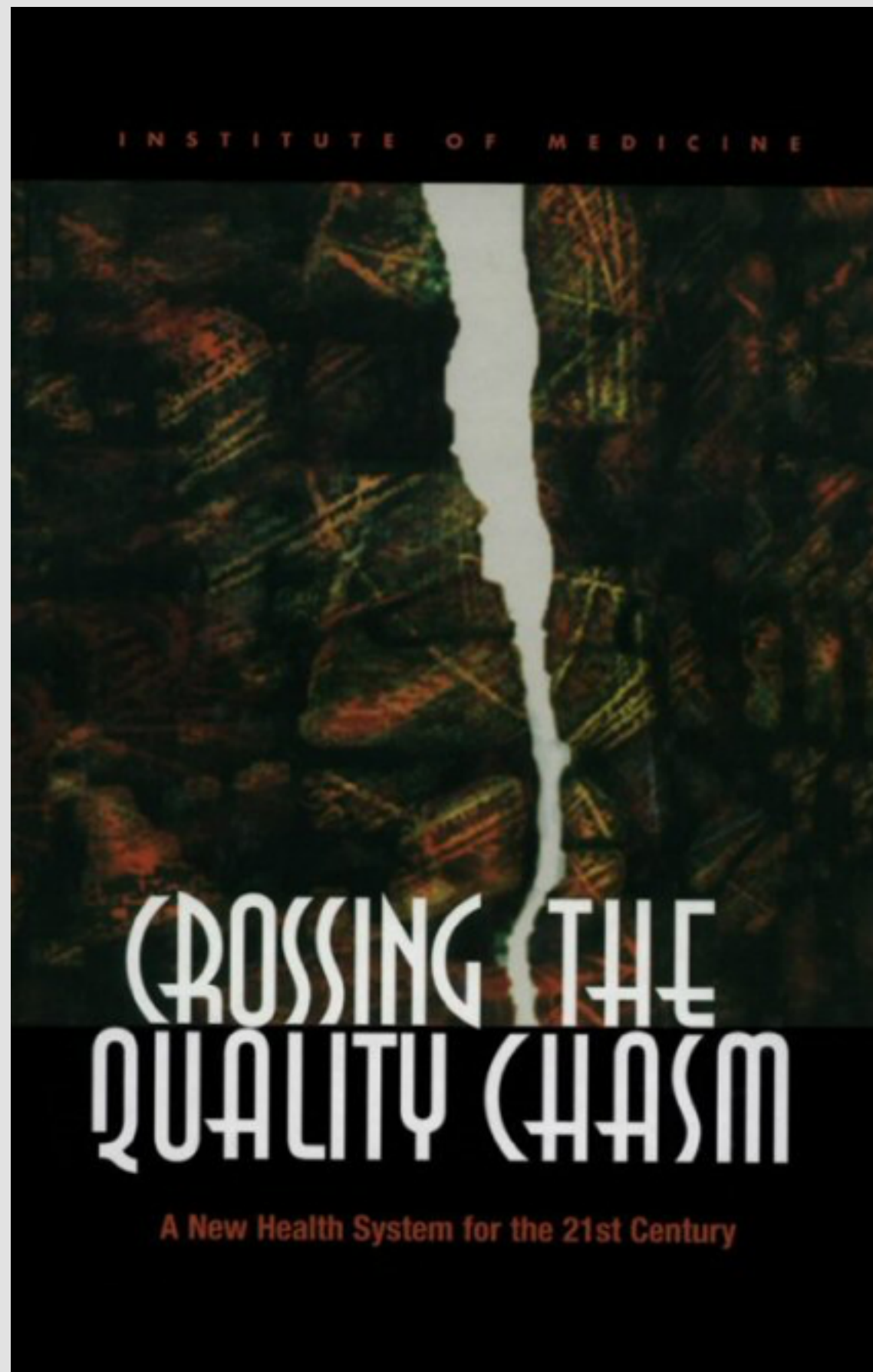
Condition	No. of Indicators	% of Recommended Care Received
Overall Care	439	54.9%
Hypertension	27	64.7%
Heart Failure	36	63.9%
COPD	20	58%
Asthma	25	53.5%
Hyperlipidemia	7	48.6%
Diabetes mellitus	13	45.4%
Peptic ulcer disease	8	32.7%
Atrial fibrillation	10	24.7%

n=6,712

Challenges Physicians Face

Caring for patients with 2+ chronic conditions





Quality problems occur typically not because of failure of goodwill, knowledge, effort or resources devoted to health care, but because of fundamental shortcomings in the way care is organized...

Trying harder will not work...Changing care systems will.

Institute of Medicine

Leading Causes of Death in 1900

Number of times you'd see a doctor

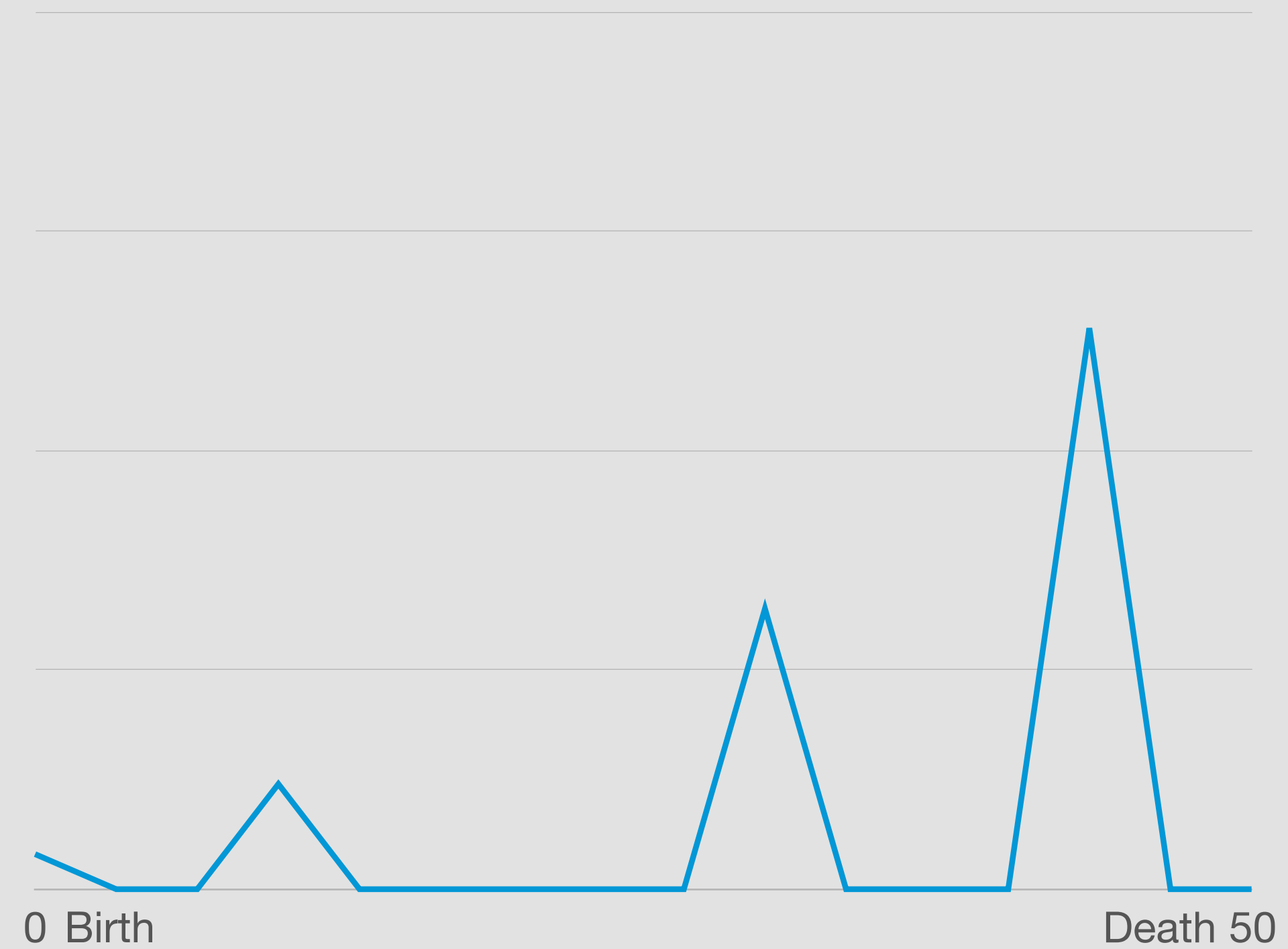
59%

Due to acute disease



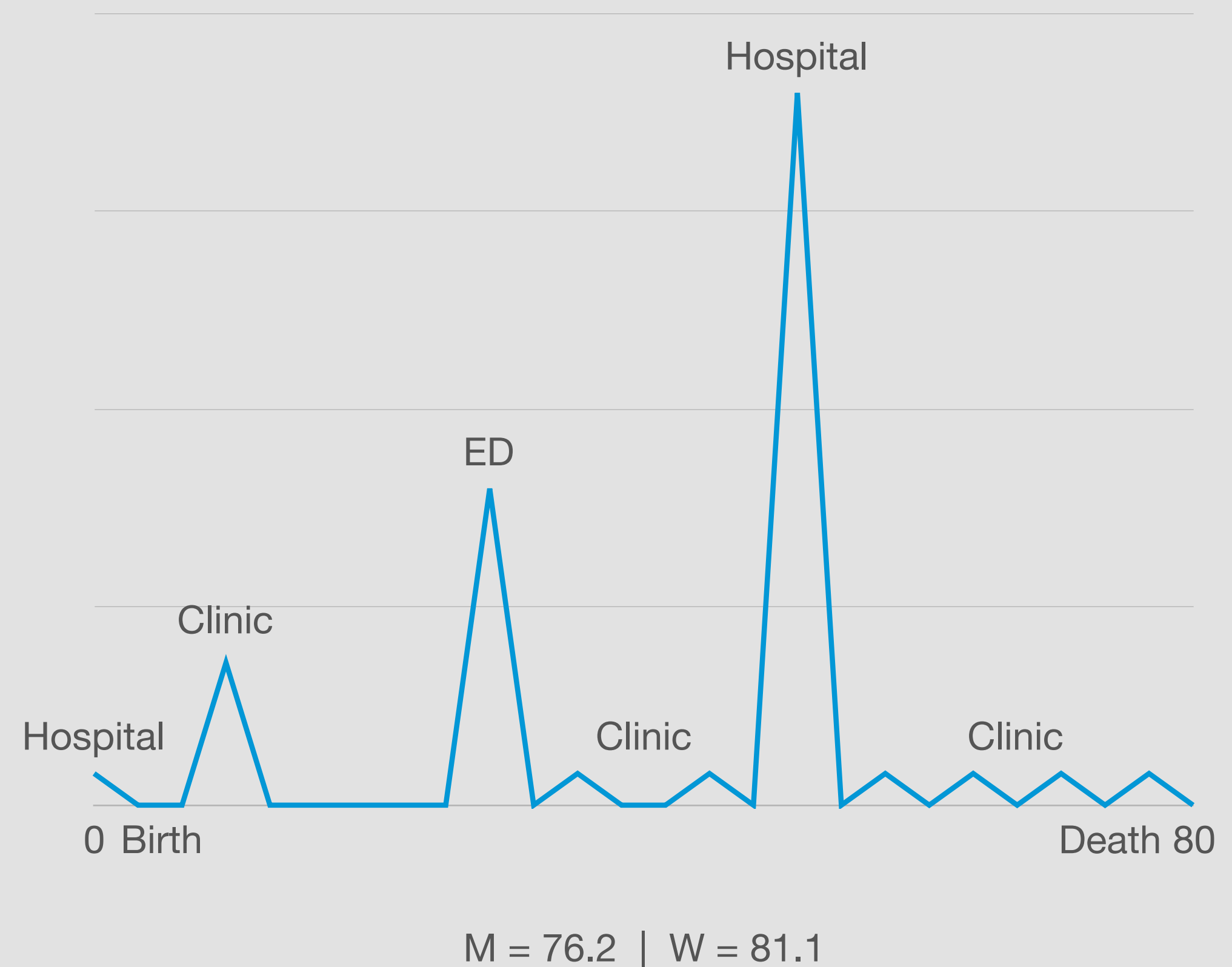
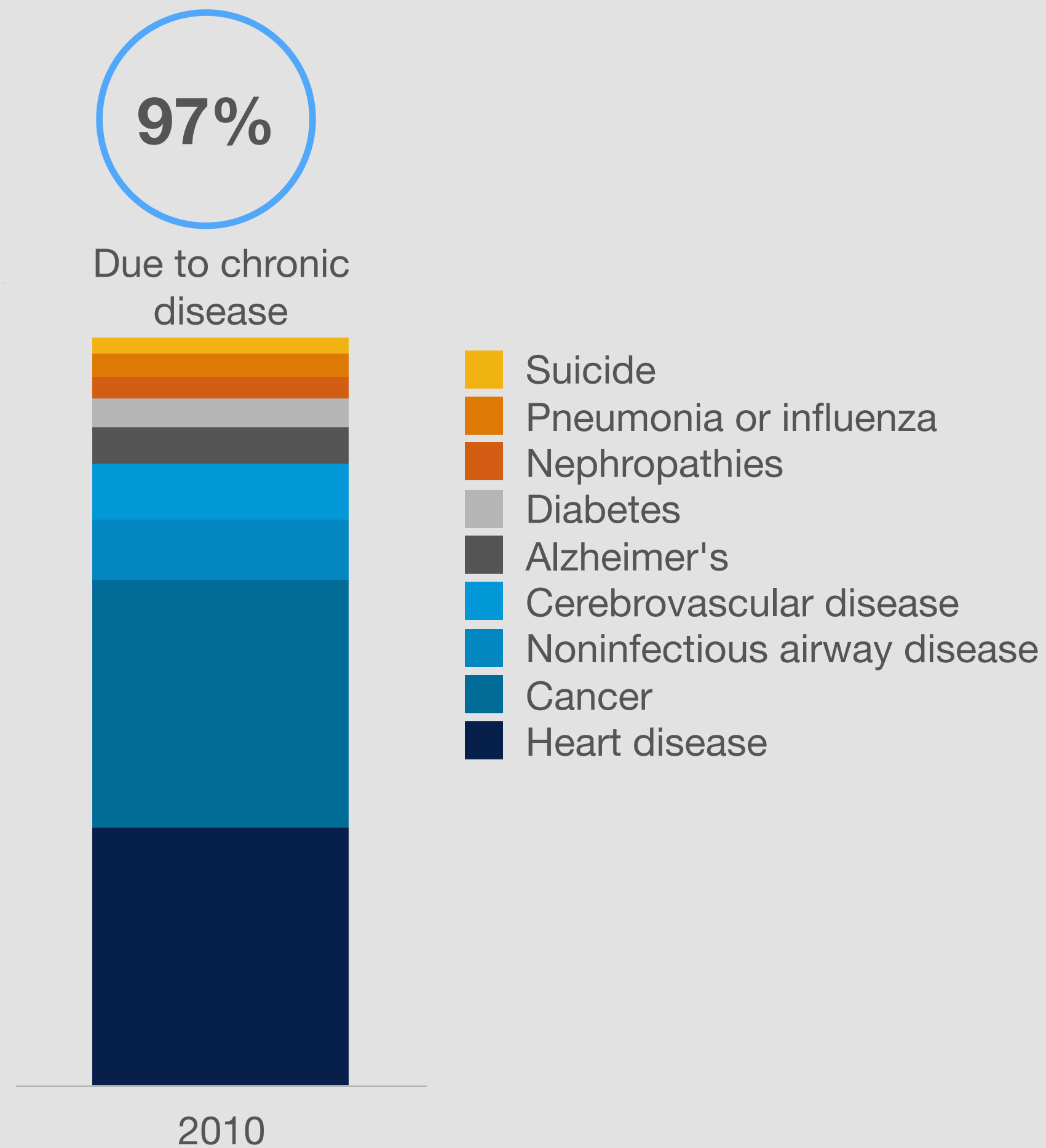
- Diphtheria
- Senility
- Cancer
- Accidents
- Nephropathies
- Cerebrovascular disease
- Heart disease
- Gastrointestinal infections
- Tuberculosis
- Pneumonia or Influenza

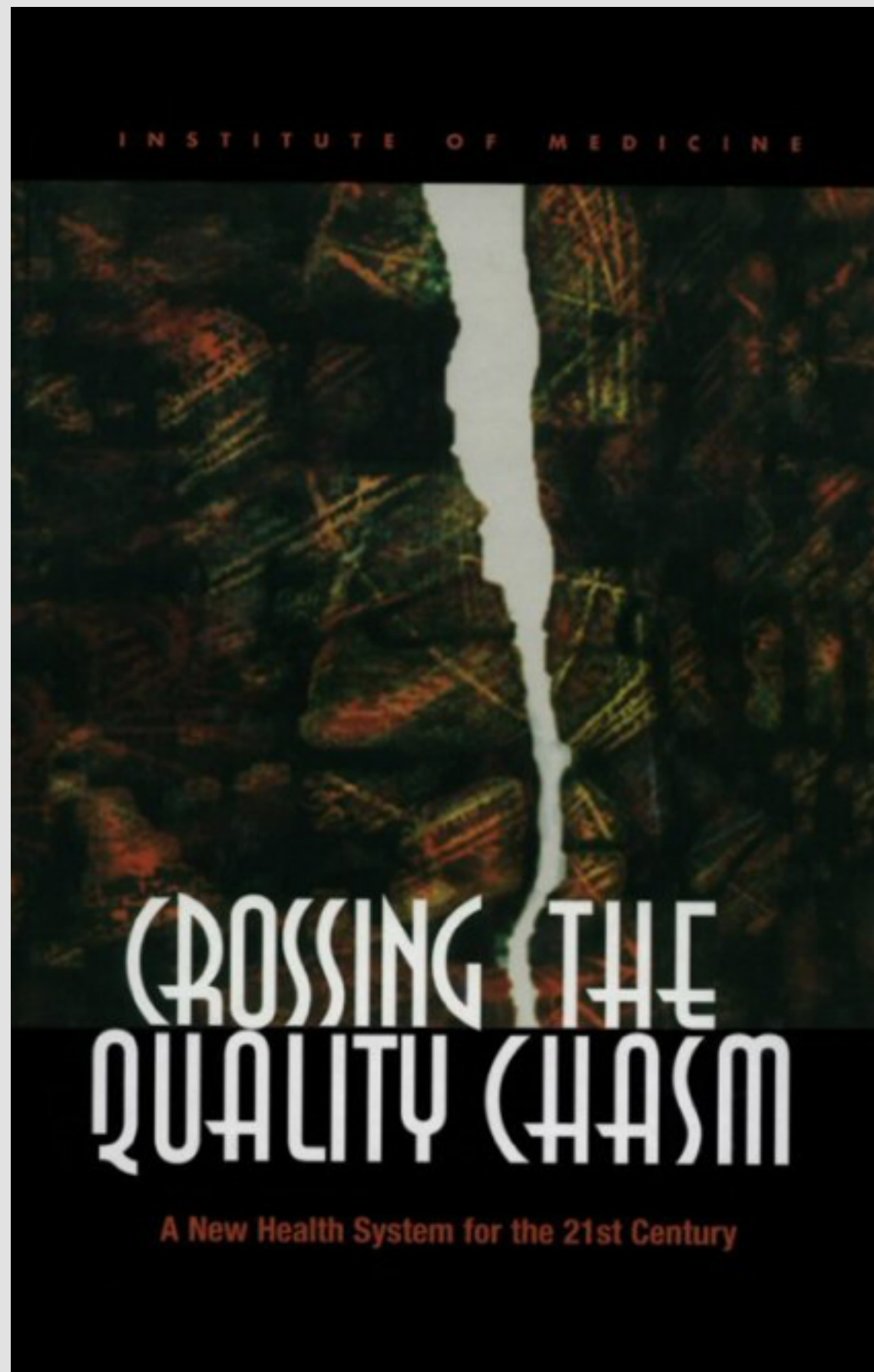
1900



Leading Causes of Death in 2010

Many more visits towards end of life





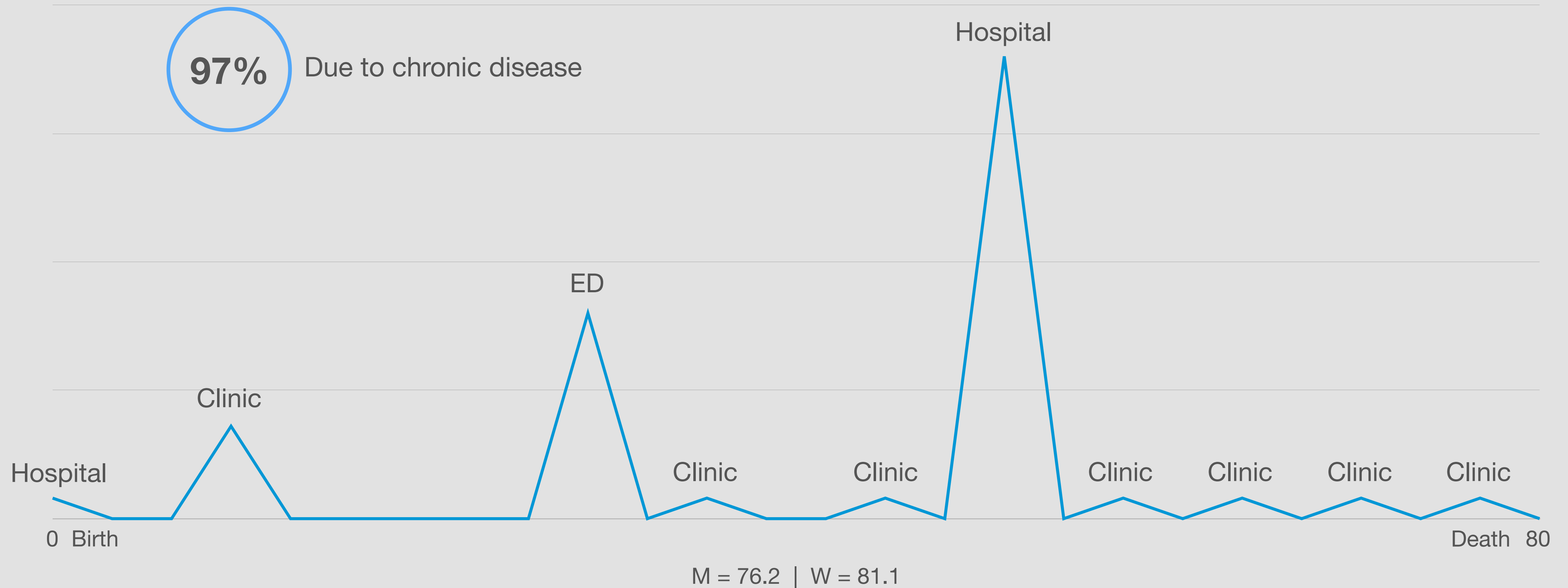
Our current health care delivery system, which is organized around professionals and types of institutions, grew out of a need to provide primarily acute care rather than chronic care.

This is one kind of chasm we have to cross.

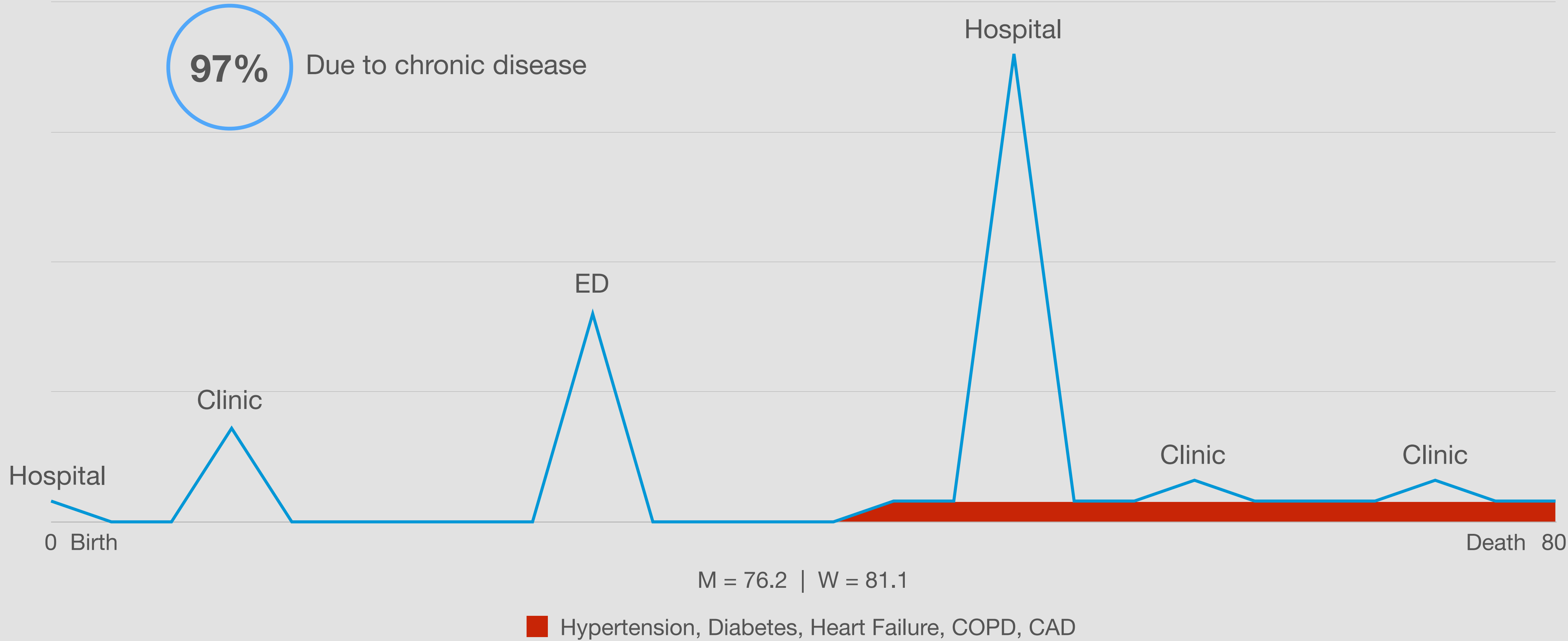
The health care delivery system must be reorganized to meet the real needs of patients.

Institute of Medicine

Managing patients today



Continuous monitoring is required



Our Discussion Today

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Factors Contributing to Poor Health Outcomes

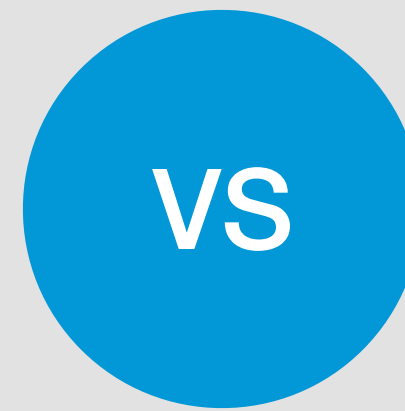
Encouraging Positive Behavior Change

Intervening and Engaging Patients



Health Care

Care delivery

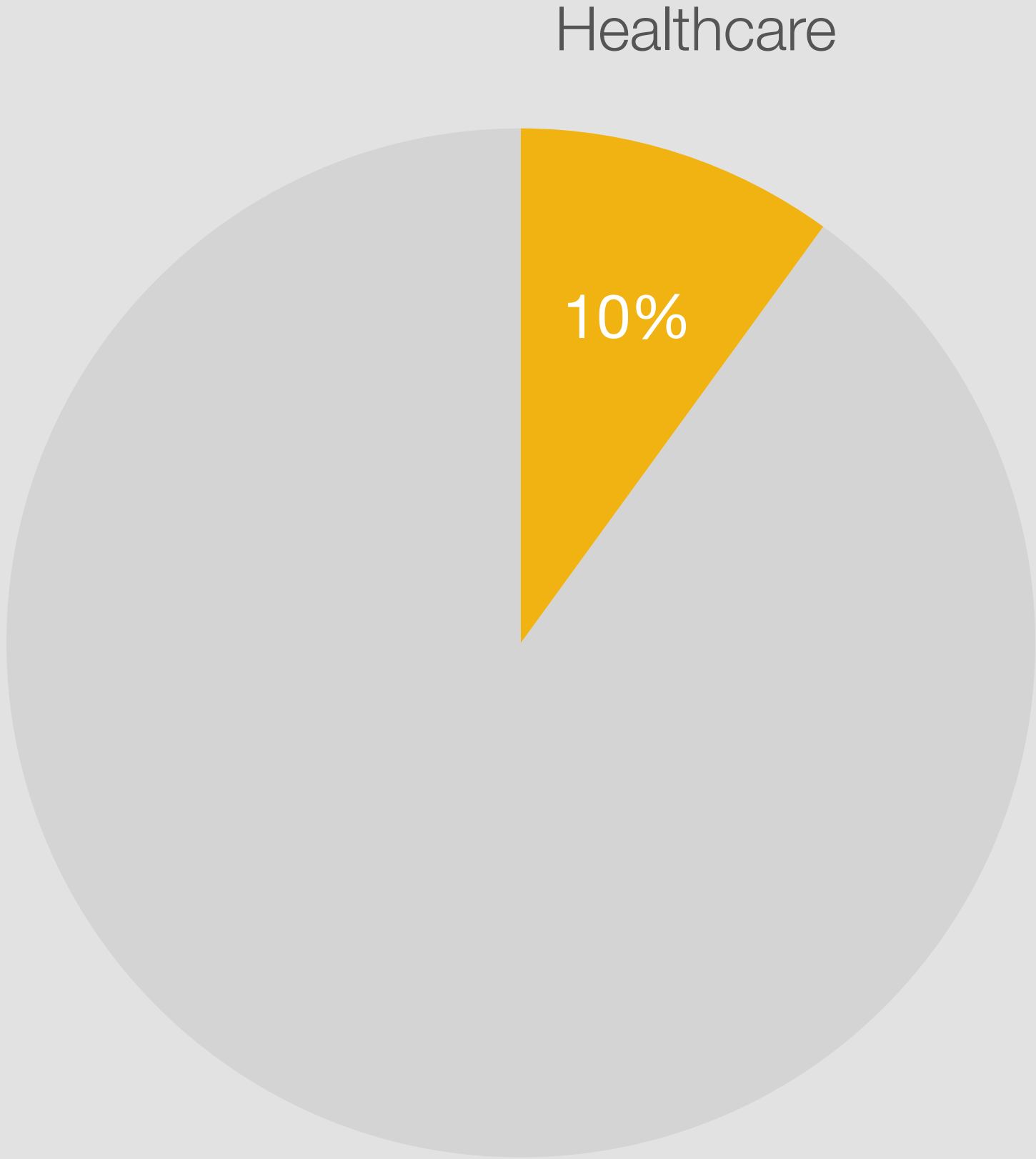


Health of a Population

Health determinants

Health Status

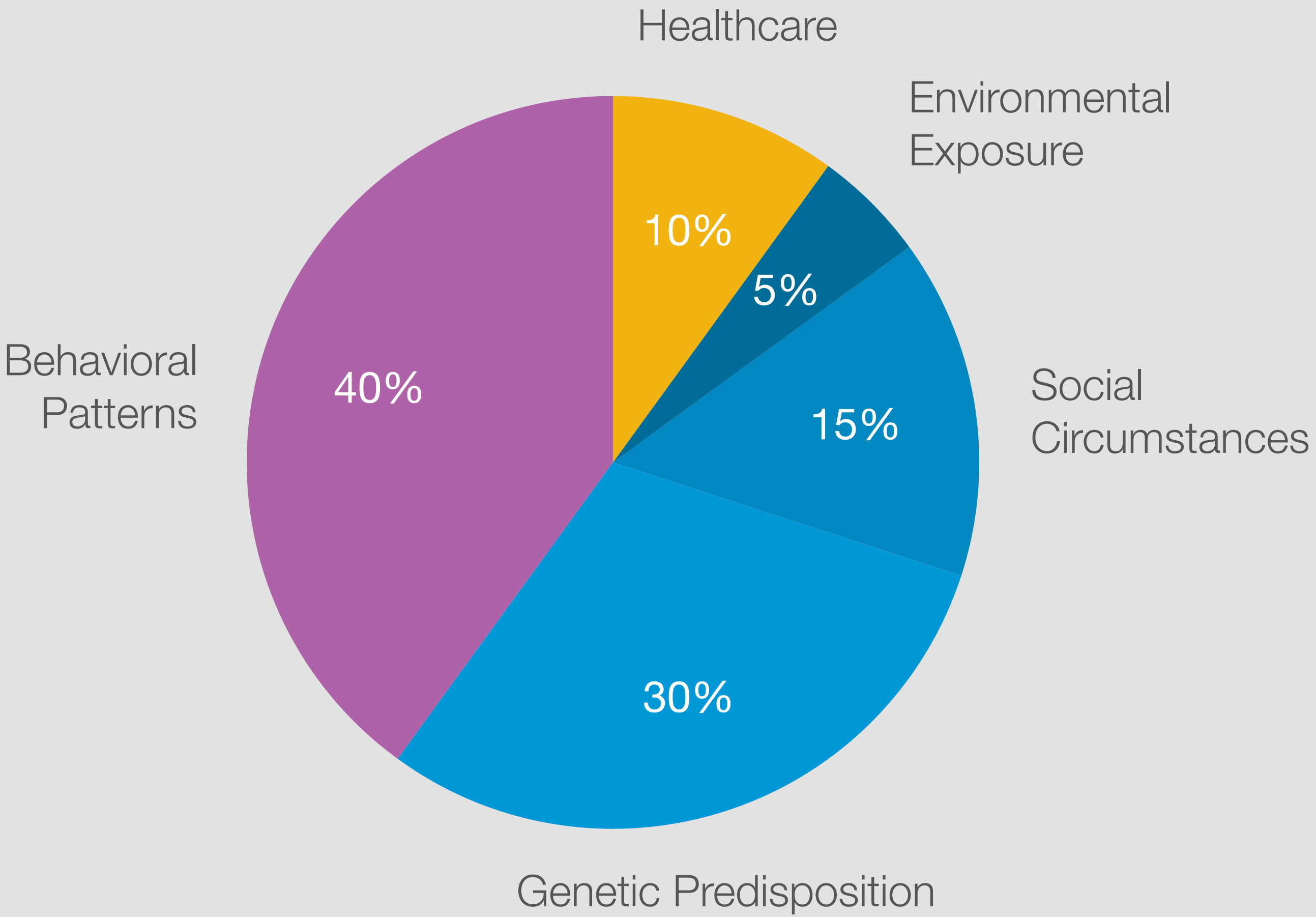
Influencing factors



Schroeder SA. N Engl J Med 2007;357:1221-8.

Health Status

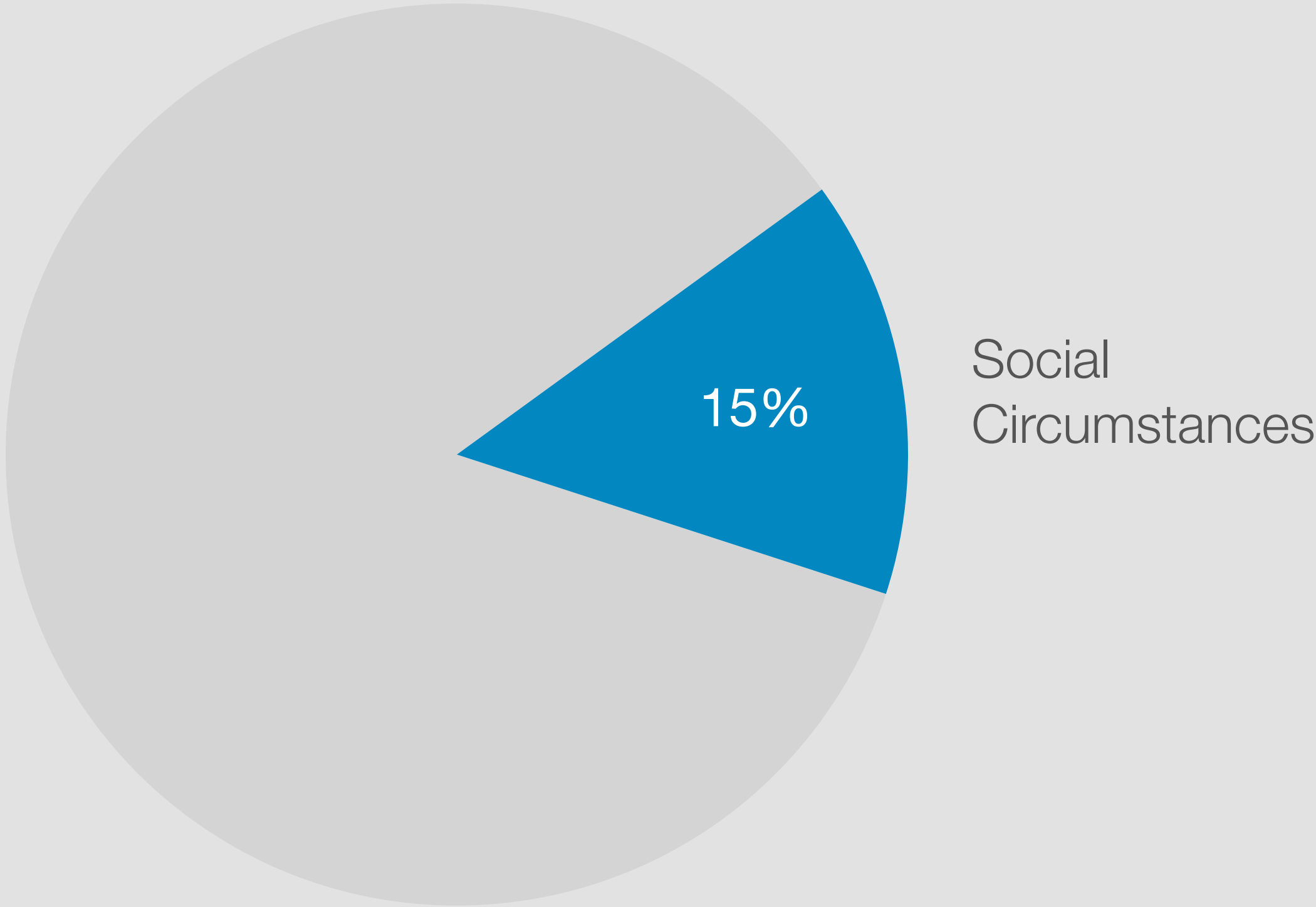
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Health Status

Influencing factors





Social Isolation

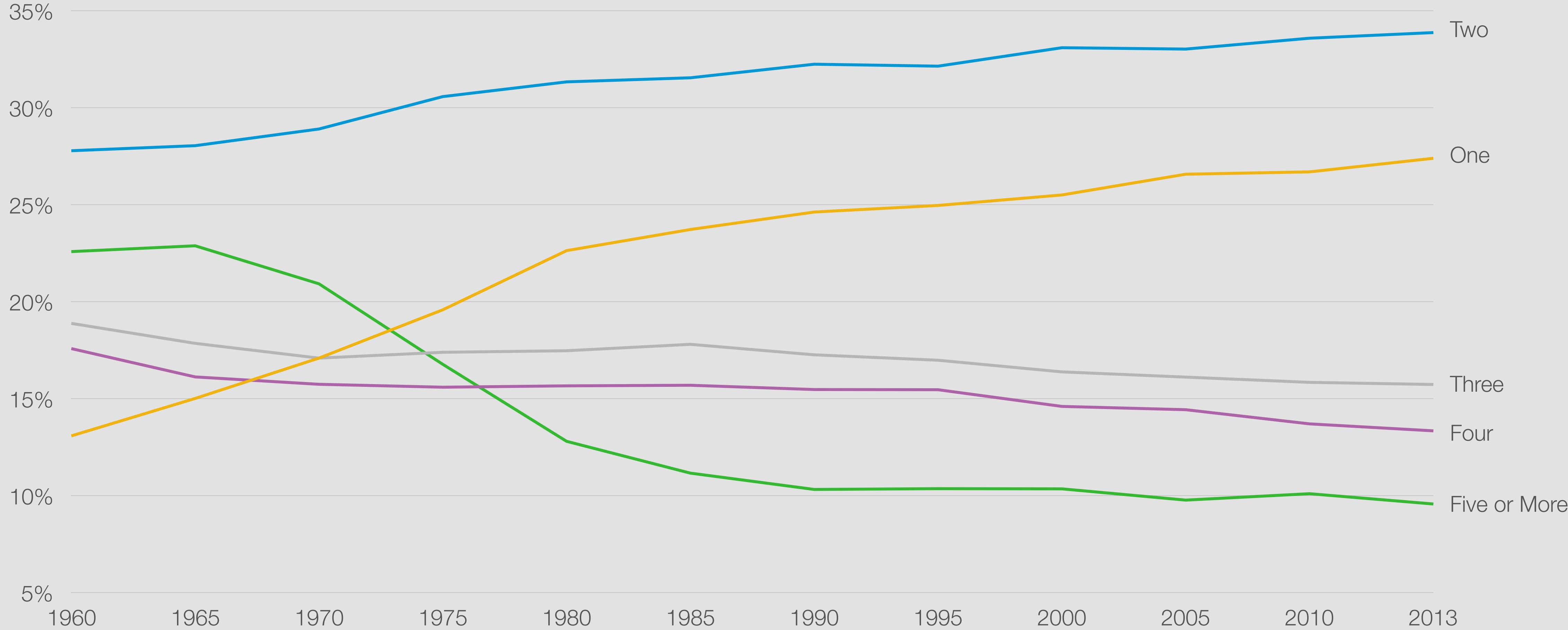
About 28% (12.1M) of noninstitutionalized older persons (≥ 65 years) live alone.

Almost half of women ≥ 75 years (45%) live alone.

Associated with a 29% increase in CHD and 31% increase in stroke.

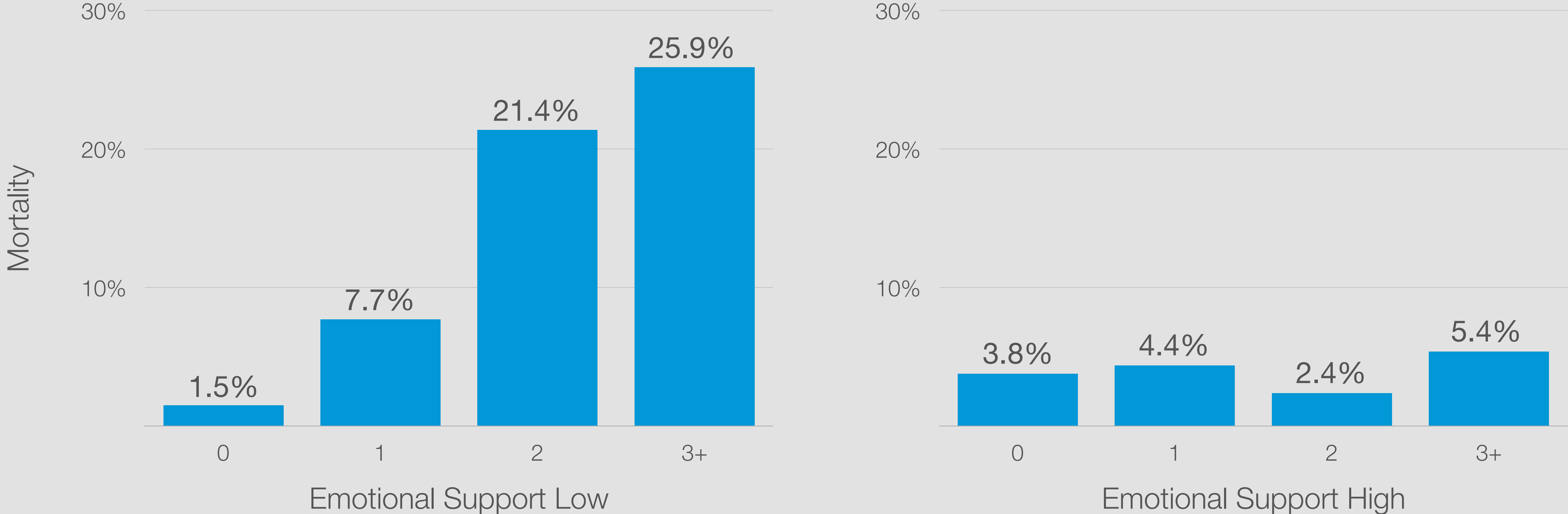
One Person Living Alone

One in four American households



Emotional Support Buffers Stressful Life Events

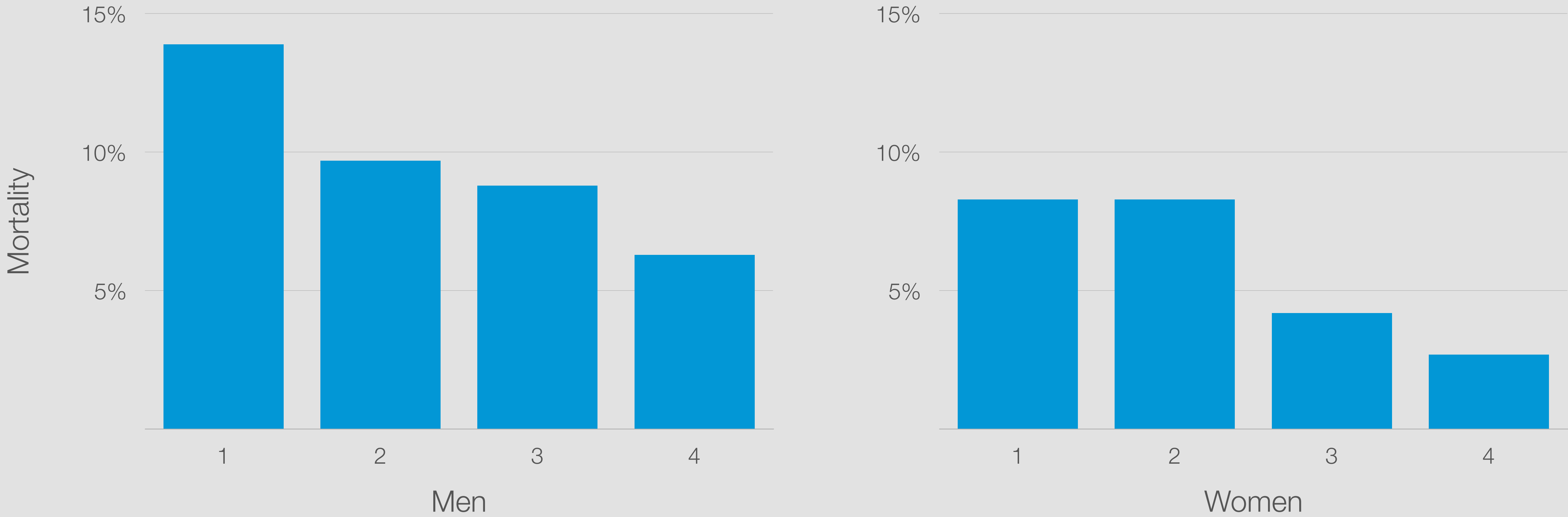
Number of Stressful Life Events



Rosengren A, et al. BMJ 1993;307:1102-1105.

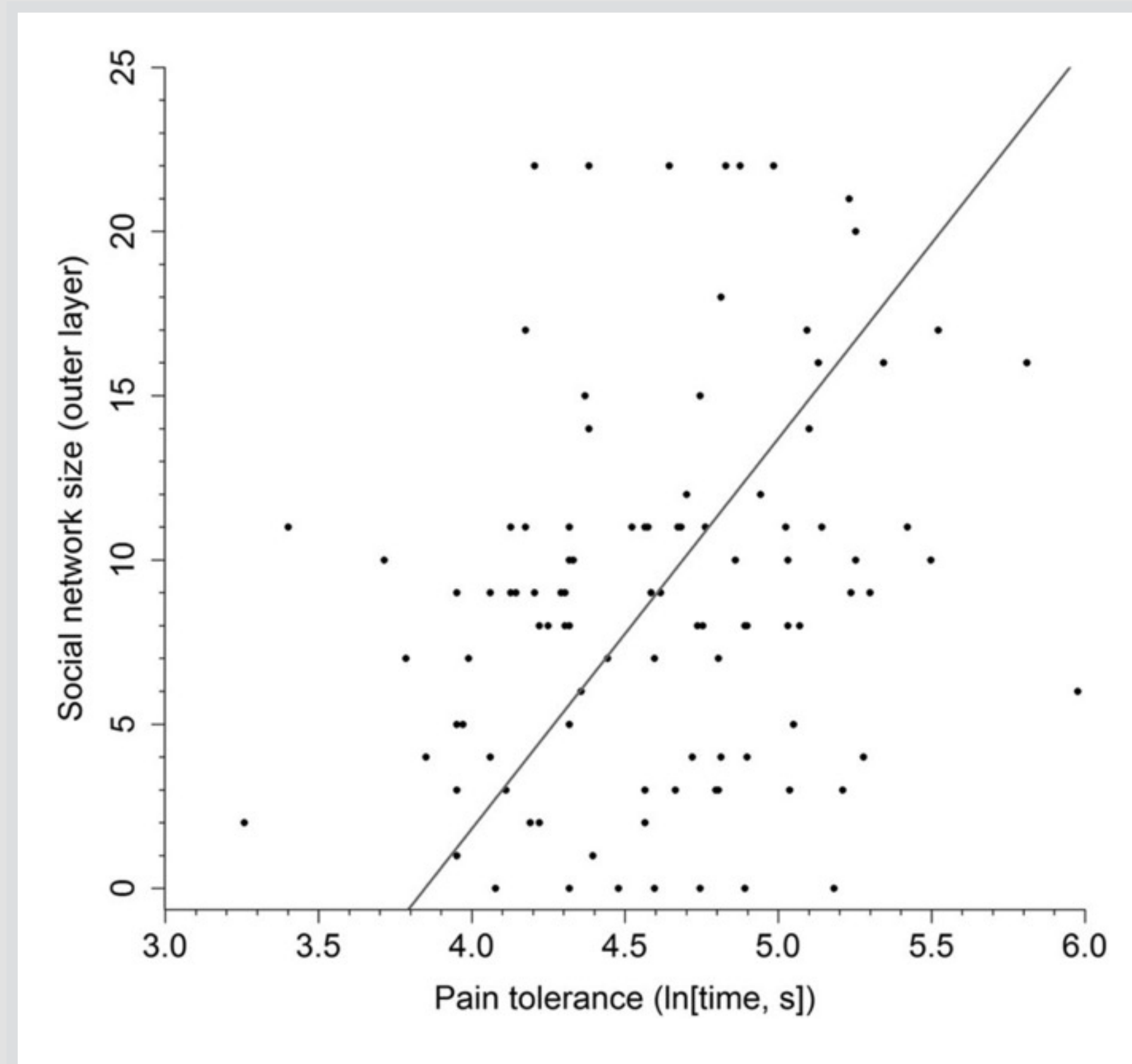
Social Integration in Chronic Disease

Number of Social Connections



Berkman LF, et al. Am J Epidemiology 1979;109:186-204.

Pain Tolerance Predicts Human Social Network Size



Heart Failure Program

Inpatient intervention

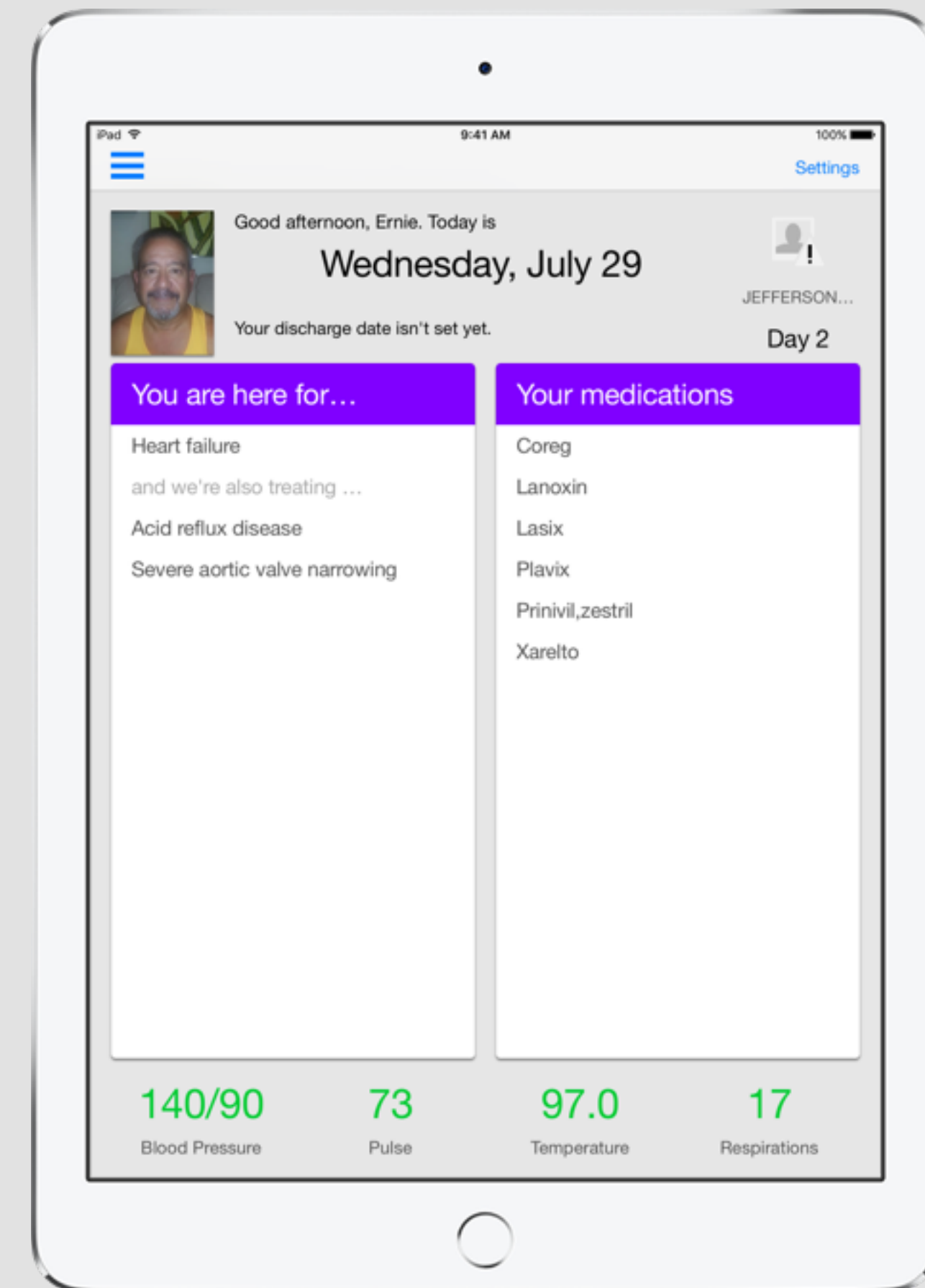


Heart Failure Program

Inpatient intervention

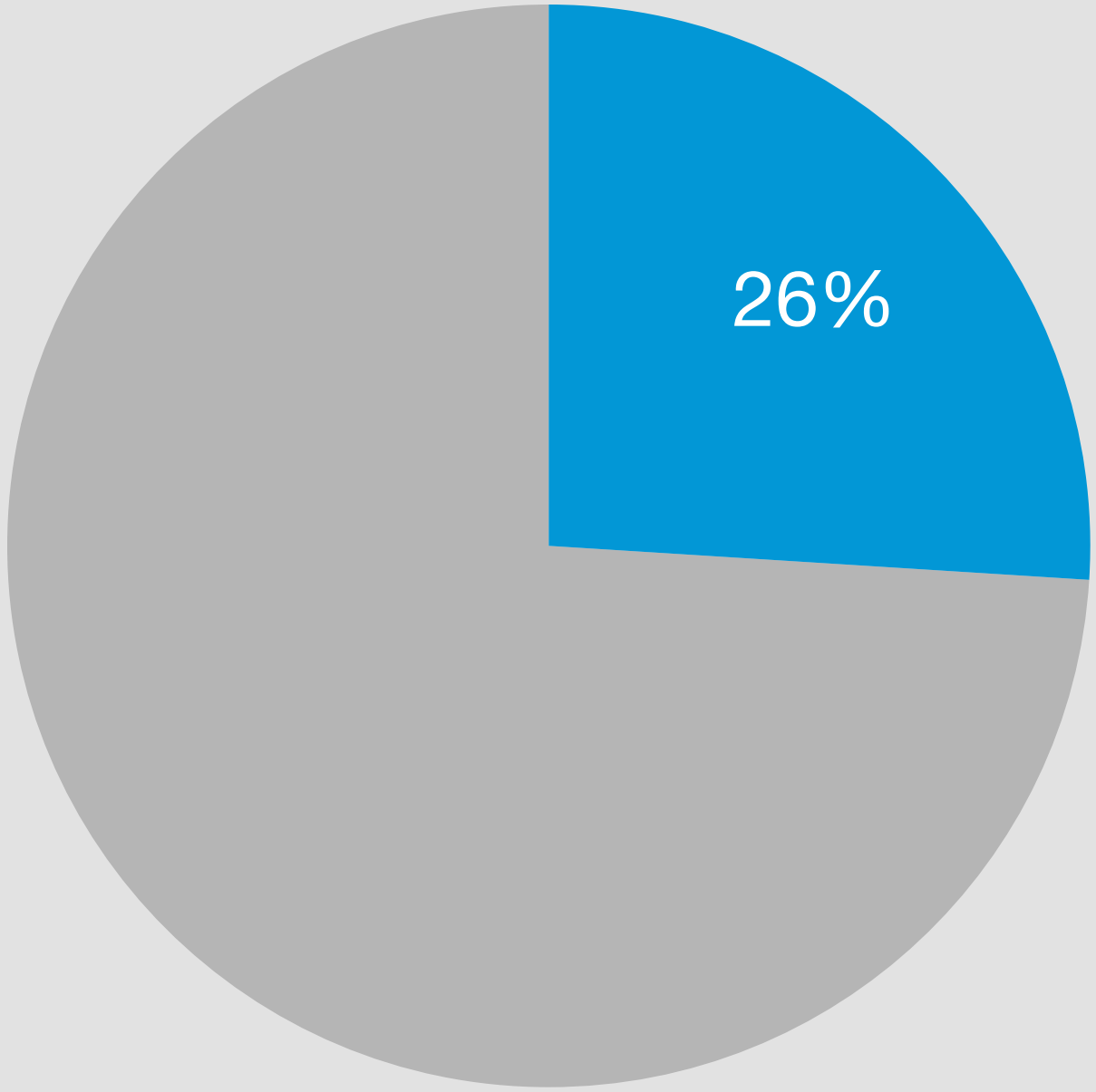
Scores high on sodium consumption

- “Who shops for your groceries”?
- “Who prepares your meals”?
- Patient views video on importance of low sodium foods
- Individual(s) who shops for and prepares meals sent email with literature and video link

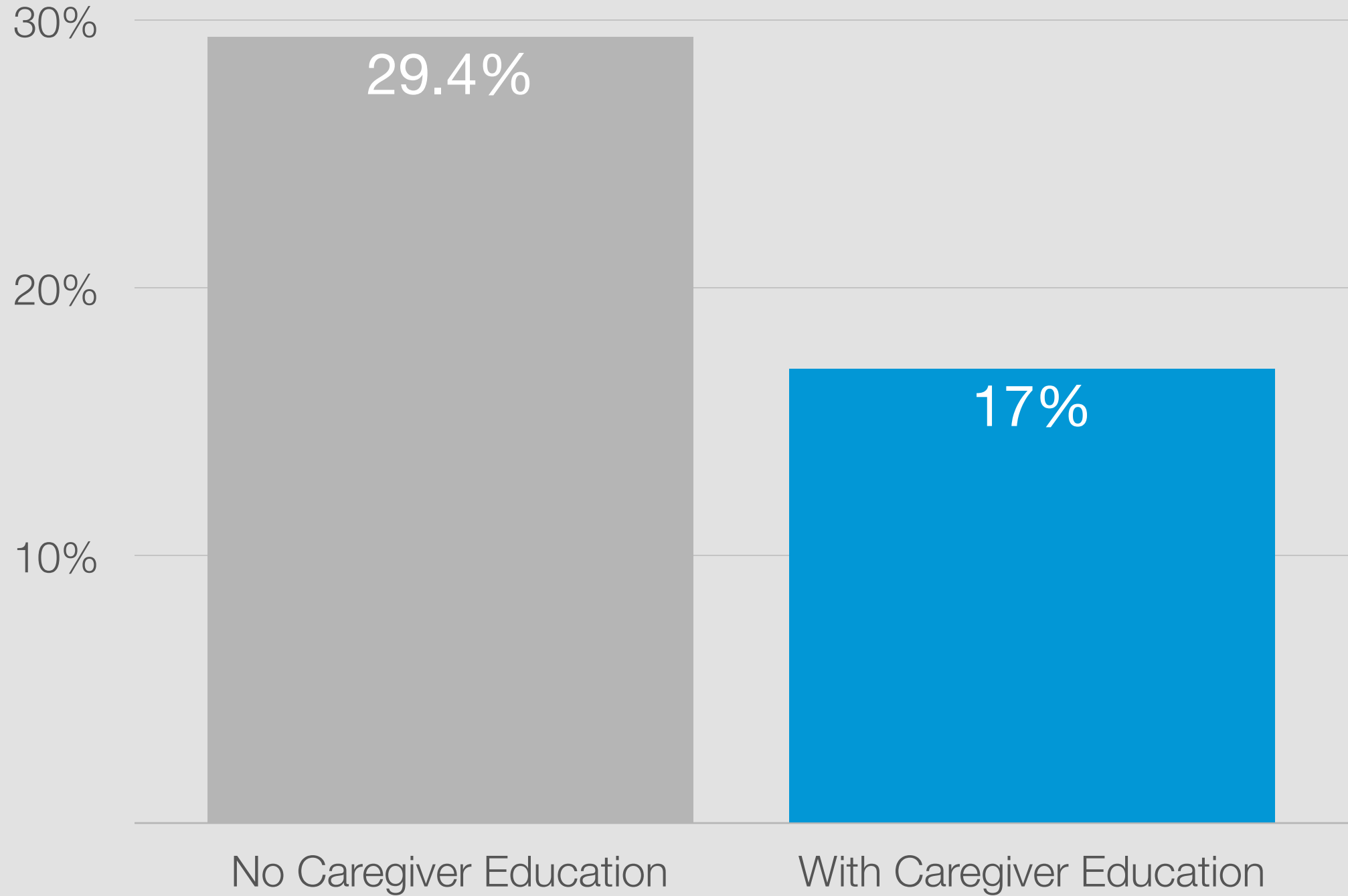


Impact of Caregiver Dietary Education on Readmission

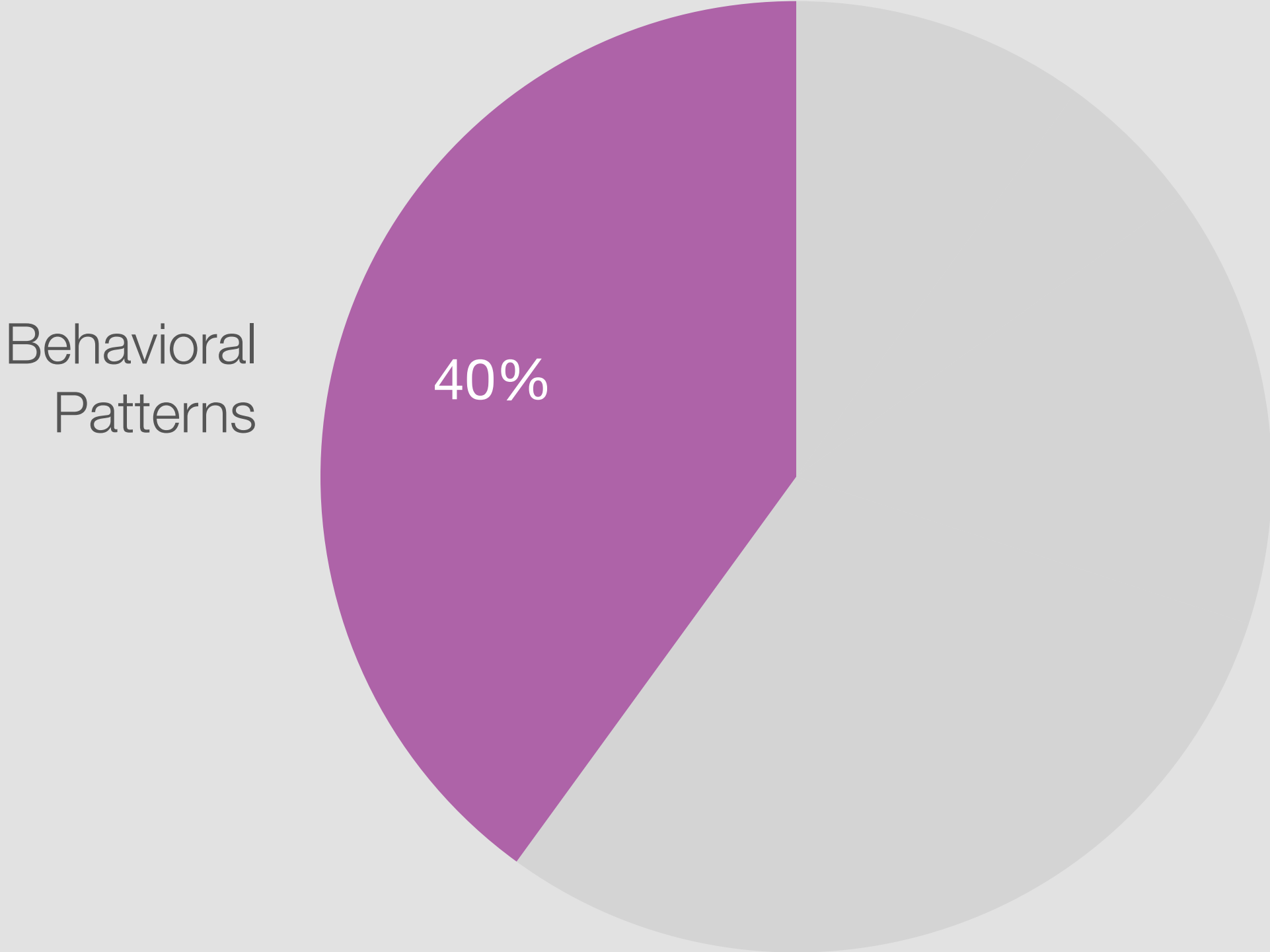
Caregiver Watched
Low-Sodium Educational Video



Readmission Rate



How Much of an Impact?



Schroeder SA. N Engl J Med 2007;357:1221-8.

Medication Adherence

Facts

50% of patients with chronic disease do not take meds as prescribed

Increased morbidity and death

Estimated to cost ~ **\$100B/year**



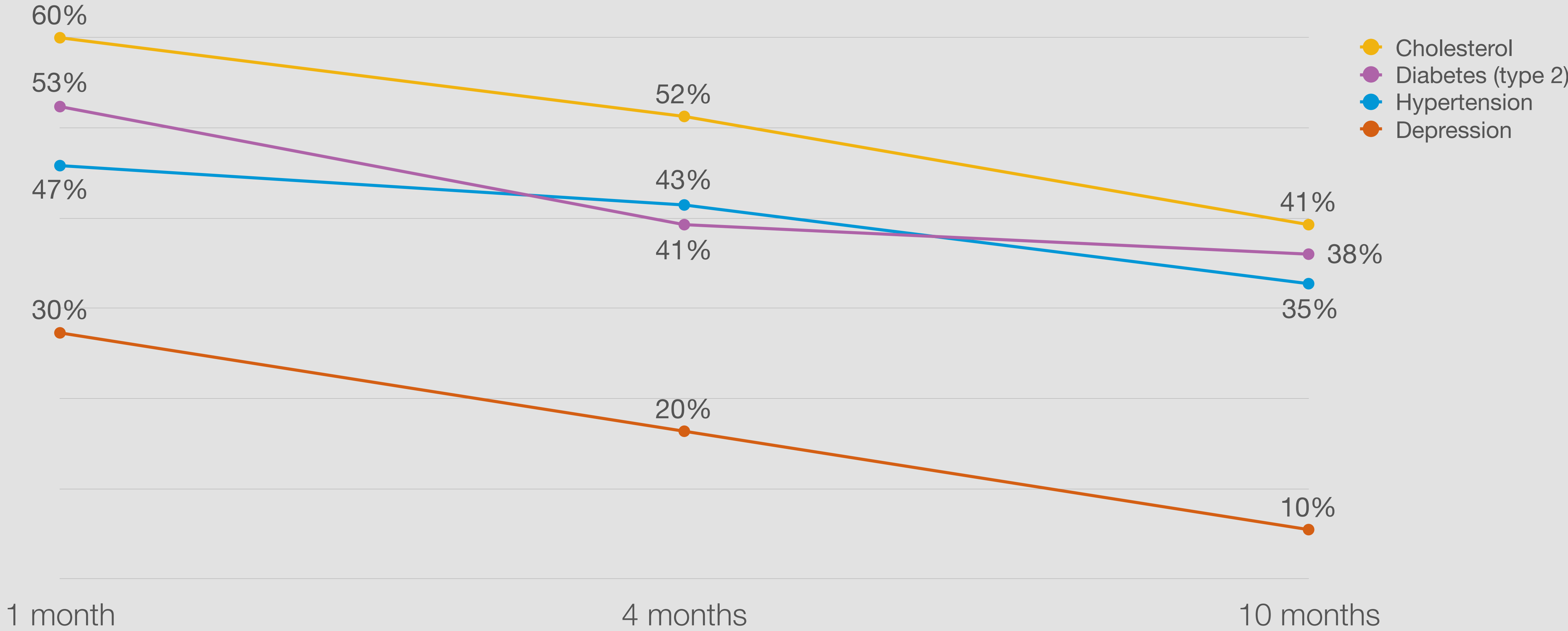
Increasing the effectiveness of adherence interventions may have a far greater impact on health of the population than any improvement in specific medical treatments.



**World Health
Organization**

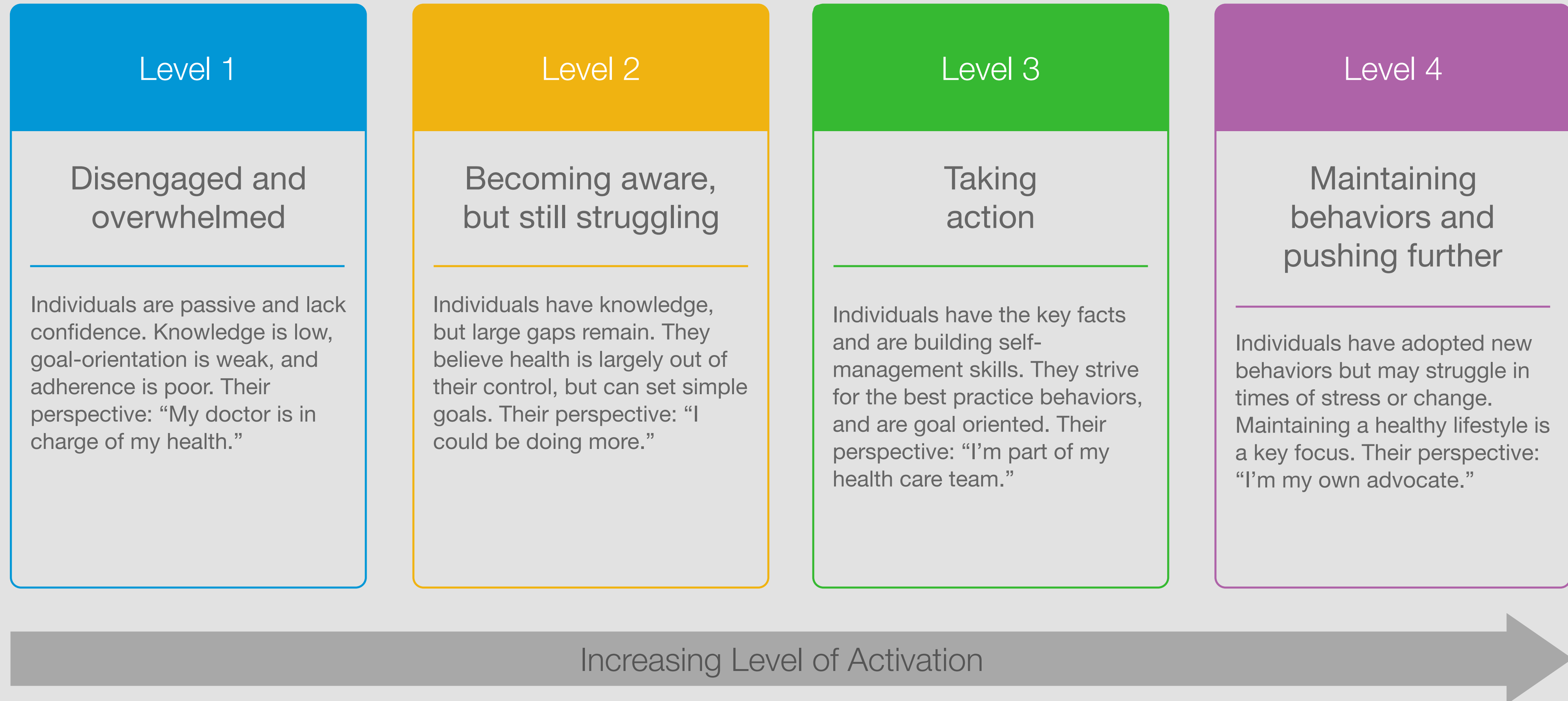
Therapeutic Adherence

Levels plummeting over time



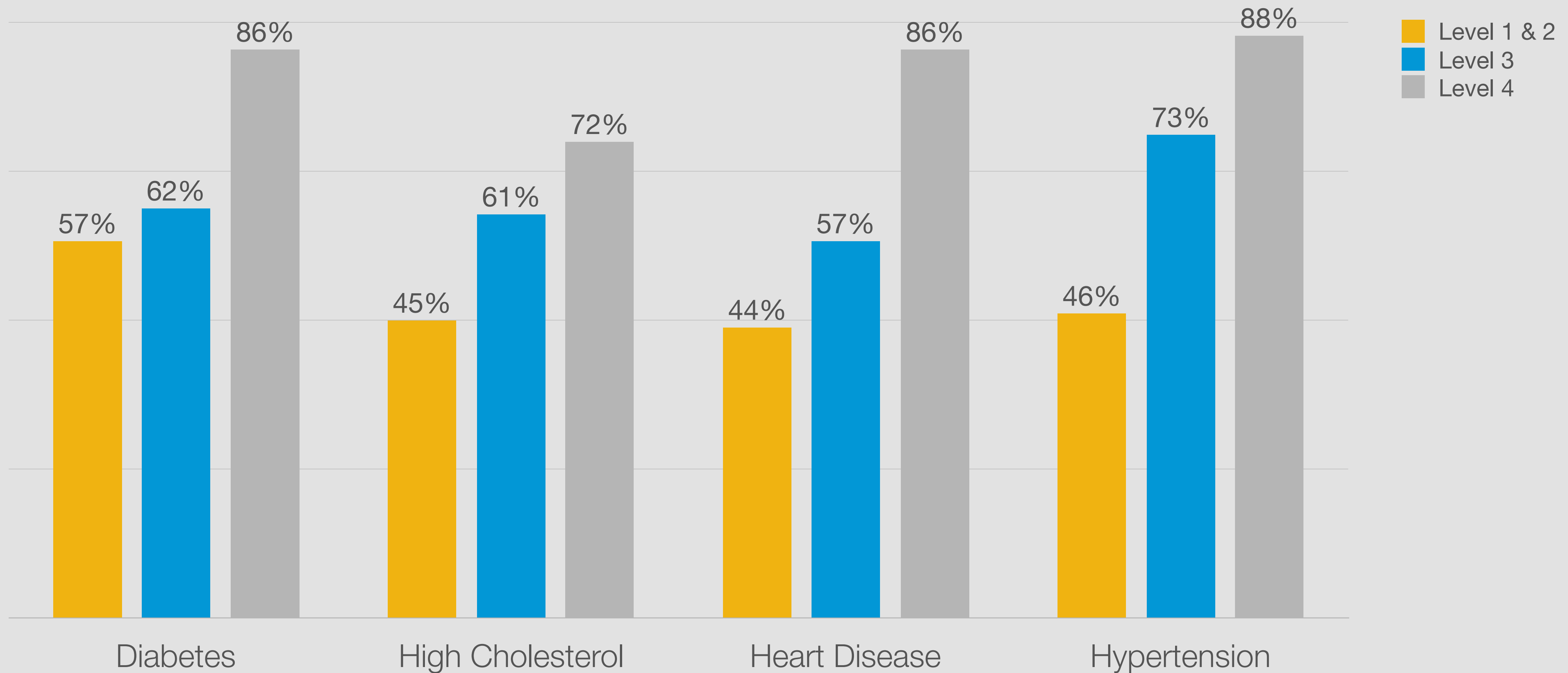
Patient Activation

An incremental process



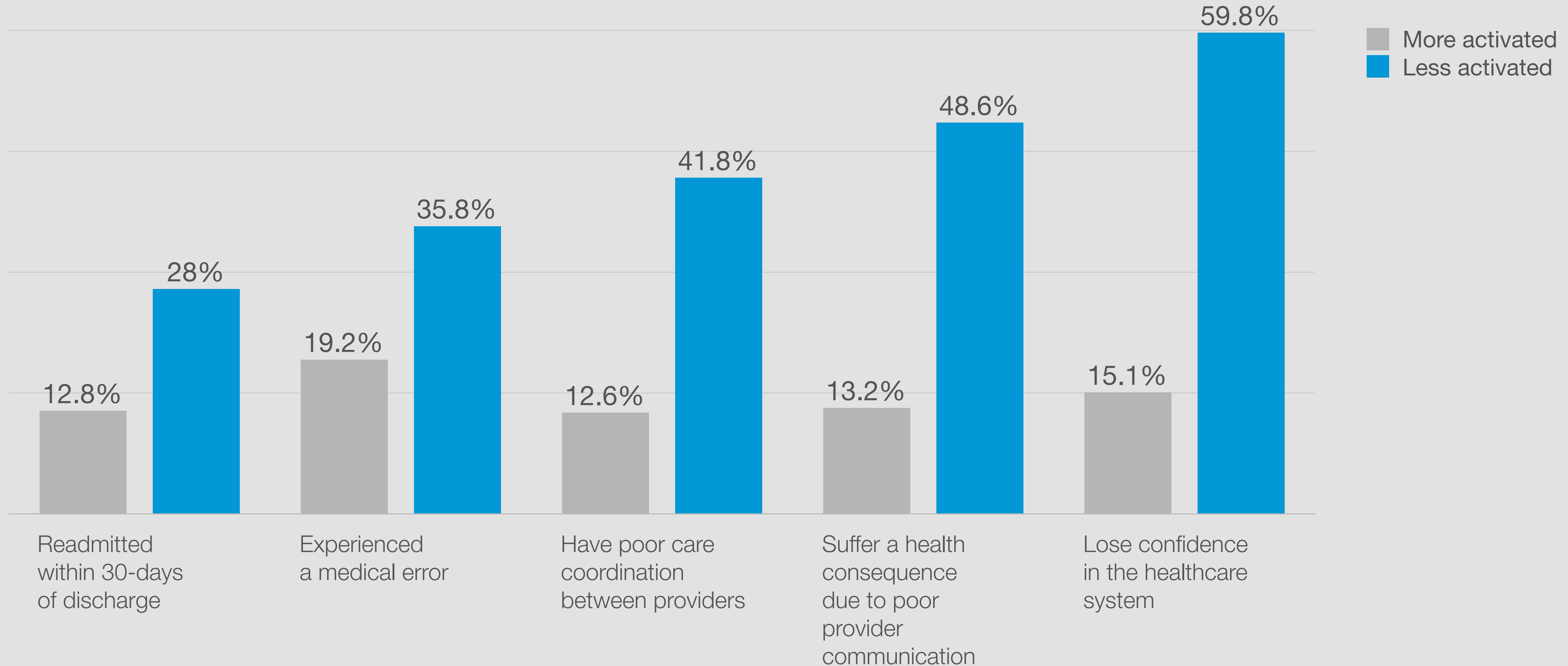
Patient Activation Level

Medication adherence in chronic disease

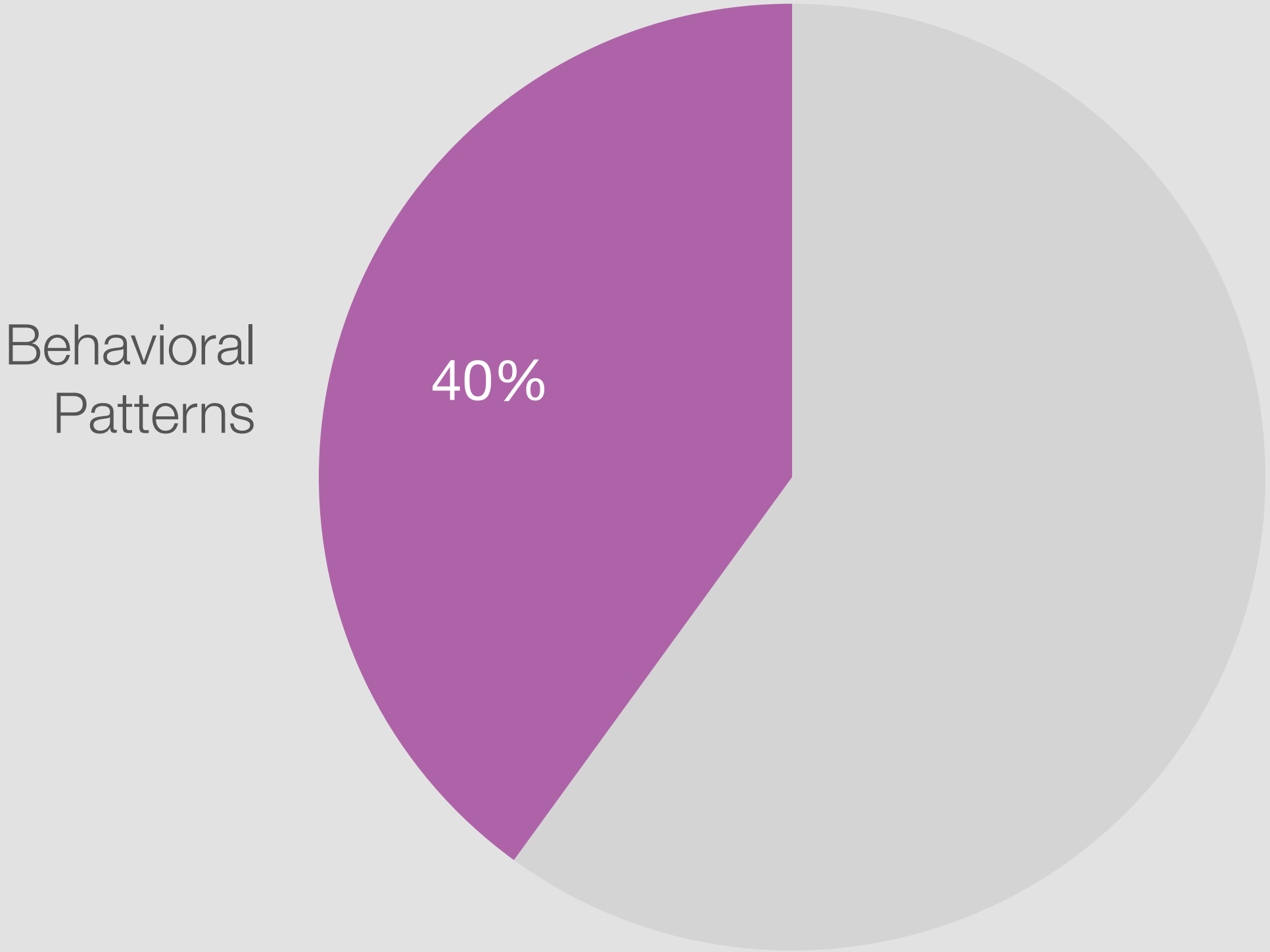


Patient Activation Level

Healthcare quality

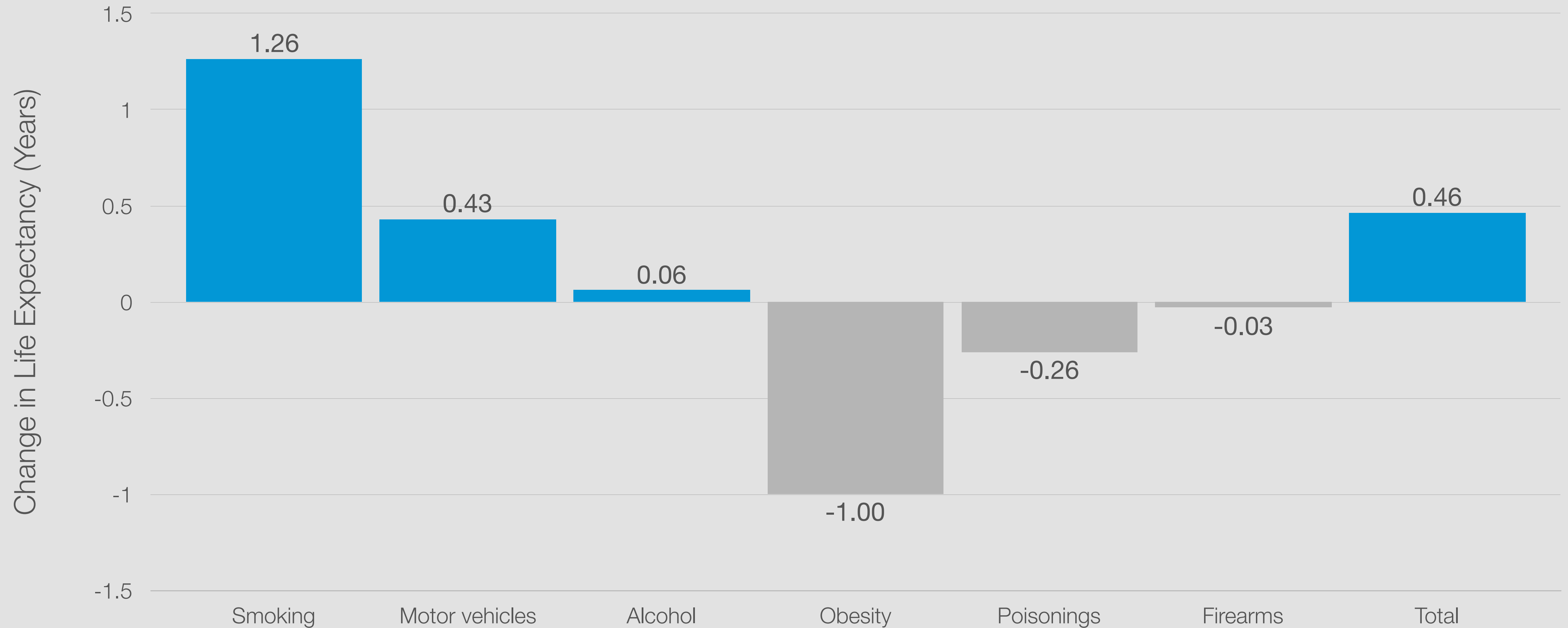


Does Changing Behaviors Change Outcomes?



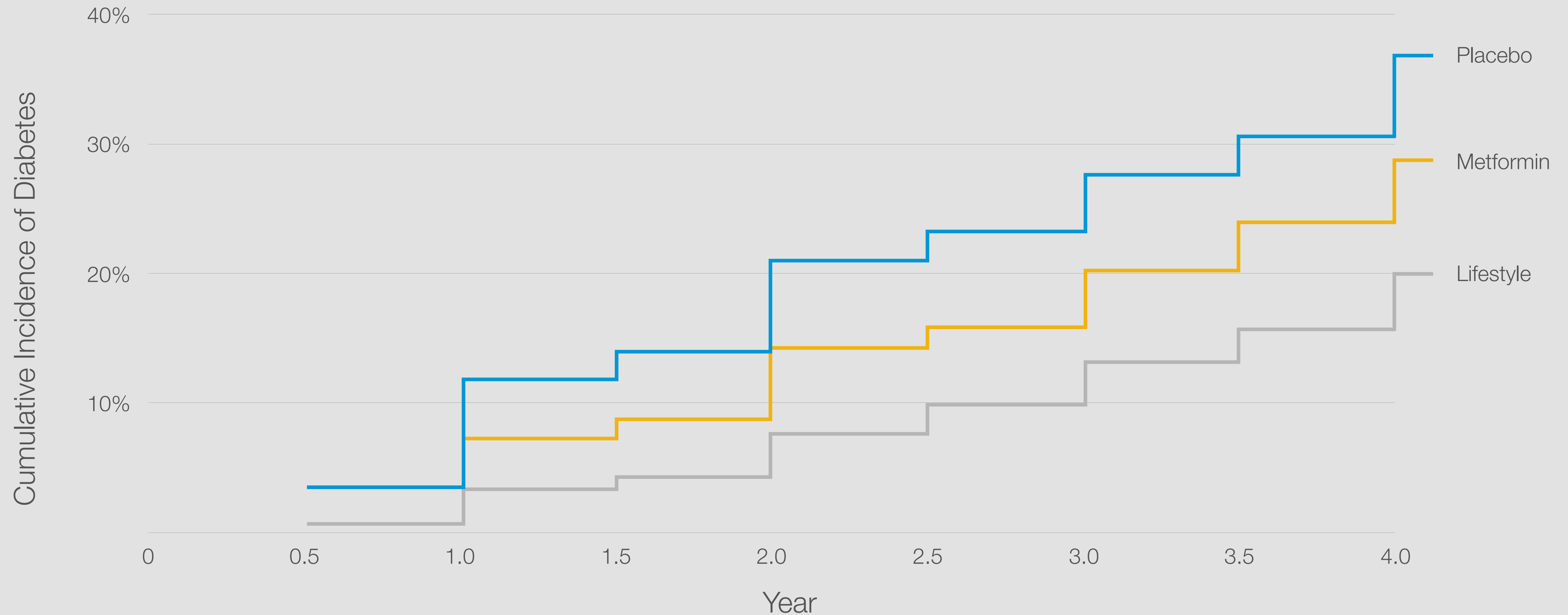
Behavioral Changes

Impact on life expectancy



Benefits of Behavior Change

Diabetes prevention program



Our Discussion Today

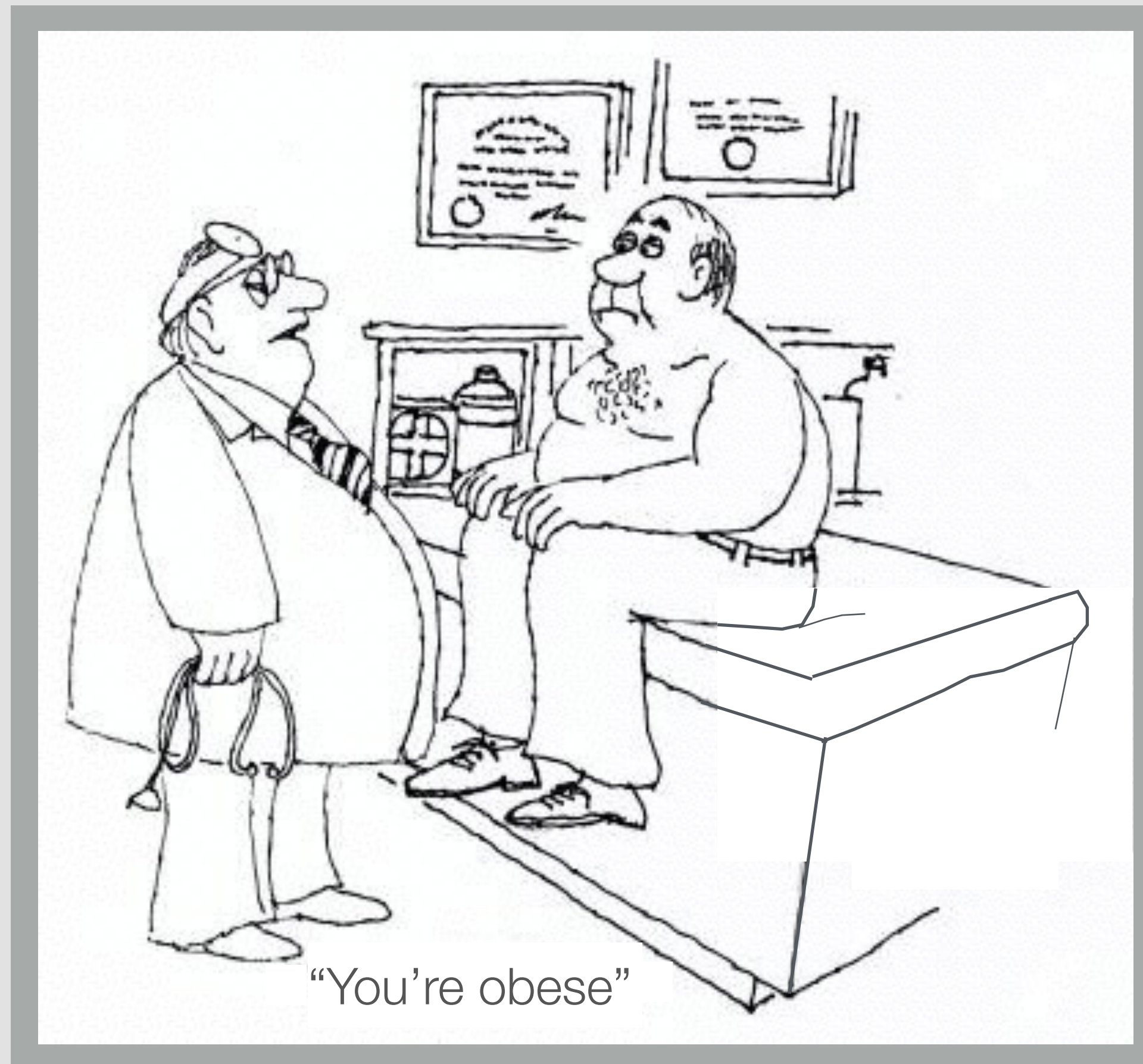
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Encouraging Positive Behavior Change



Social Contagion

Many health behaviors impacted through social interactions

Smoking

Eating

Exercise

Weight

Medication Adherence



The Power of Peer Influence

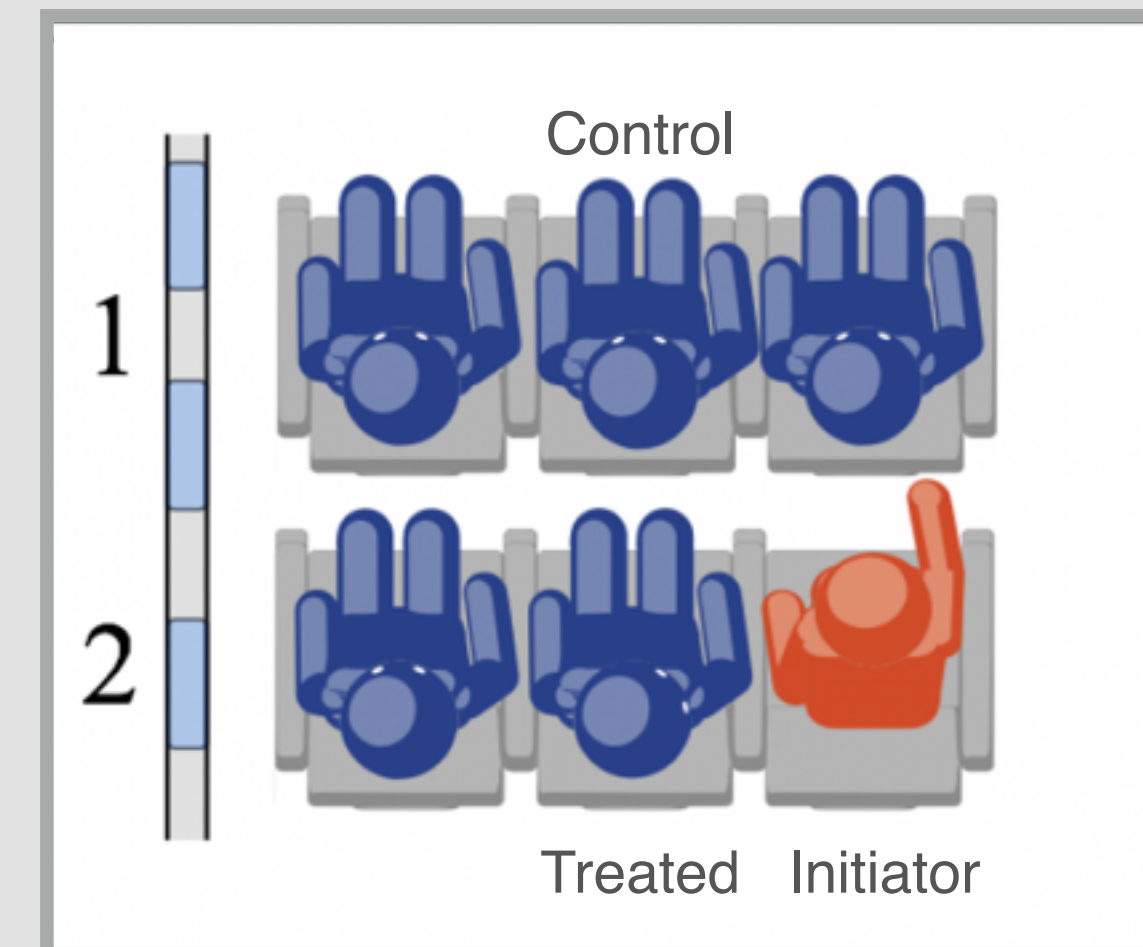
65,525 transactions

1,966 flights

257,000 passengers

Excluded people flying
together, kids

Tests purely the effect of a stranger's choice

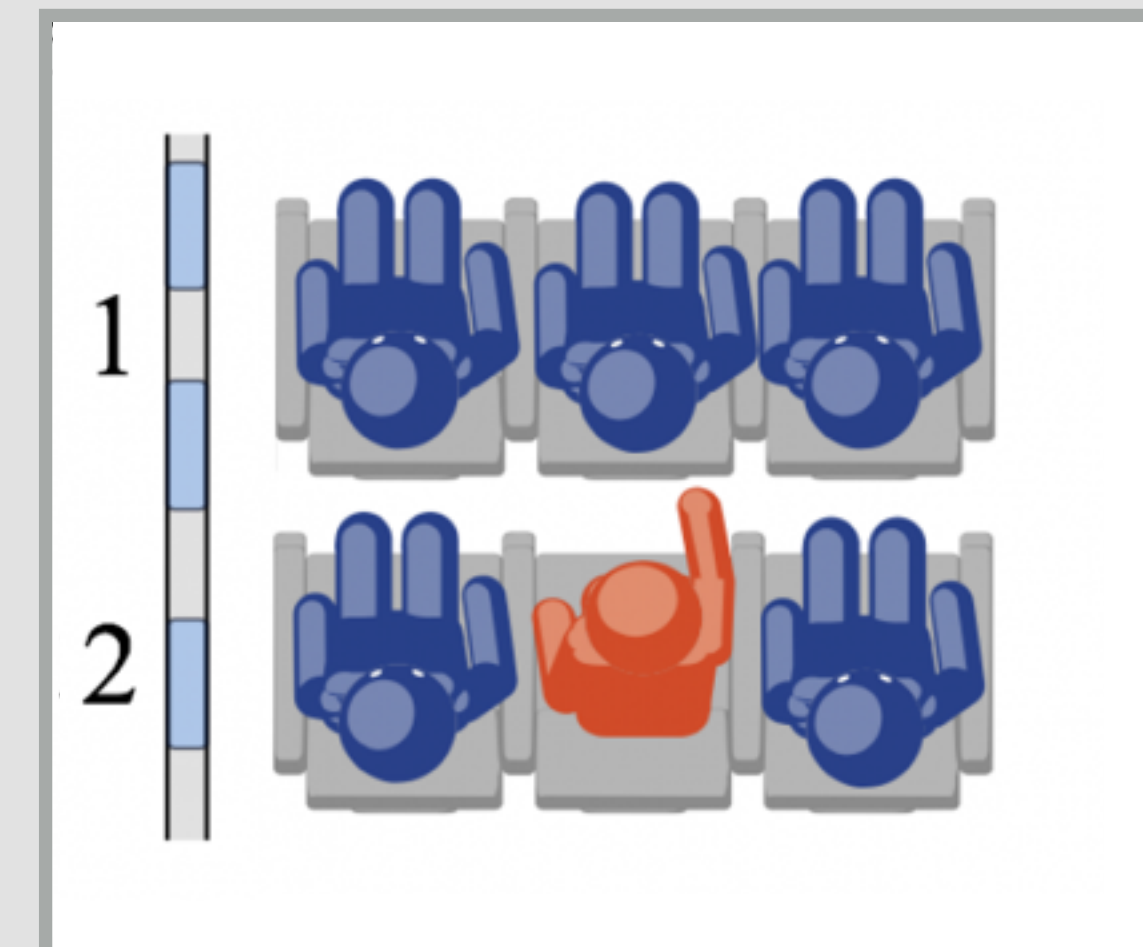


Time 2:
Purchase window begins
i.e. experiment begins

The Power of Peer Influence

On average, people purchased a movie or snack 15-16% of the time

If you saw someone next to you order something, your chances of buying something increased by 30%



Time 3A:
Treated passenger buys

Aspirin Use and Cardiovascular Events in Social Networks

Women

Men

More likely to take aspirin if a brother had been recently taking aspirin

More likely to take aspirin if a male friend had recently been taking aspirin

More likely to take aspirin if a female friend recently had a CV event

More likely to take aspirin if a brother recently had a CV event

Aspirin use is correlated with the health and behavior of friends and family

Smoking Cessation

Impacted through social interactions

Smoking cessation appears to spread from person-to-person

Decisions to quit smoking is not done in isolation, but rather reflect choices made by groups connected to each other

People appear to act under collective pressures within niches in their social network



Smoking Cessation

Impacted through social interactions

Relationship	Behavioral Impact	Requirements	Details
Spouse	67%	N/A	—
Friend 1	61%	Educated subject and friend	≥ 1 year college
Friend 2	57%	Educated subject	≥ 1 year college
Friend 3	55%	Educated friend	≥ 1 year college
Friend 4	43%	Mutual friends	↔
Friend 5	36%	Any friends	→
Co-worker	34%	Small firm	≤ 6 employees
Sibling	25%	N/A	—

Normative Social Influence

A type of social influence leading to conformity.

It is defined in social psychology as “the influence of other people that leads us to conform in order to be liked and accepted by them.”

The power of normative social influence stems from the human identity as a social being, with a need for companionship and association.

Normative Social Influence

Household energy consumption

Test effectiveness of various messages

Sample: 1,207 households in San Marcos

Message types

- Environmental
- Financial
- Social responsibility
- Information
- Descriptive norms

Delivered on door-hangers to households for 4 weeks

Join your neighbors
in conserving
energy

Summer is here and most San Marcos residents are finding ways to conserve energy at home.

"How are most San Marcos residents conserving this summer?"

By using fans instead of A/C!

Why?
According to a recent telephone survey conducted by Cal State San Marcos, **77% of San Marcos residents said that they often use fans instead of air conditioning to keep cool in the summer.**

**Using fans instead of air conditioning –
San Marcos' Popular Choice!**

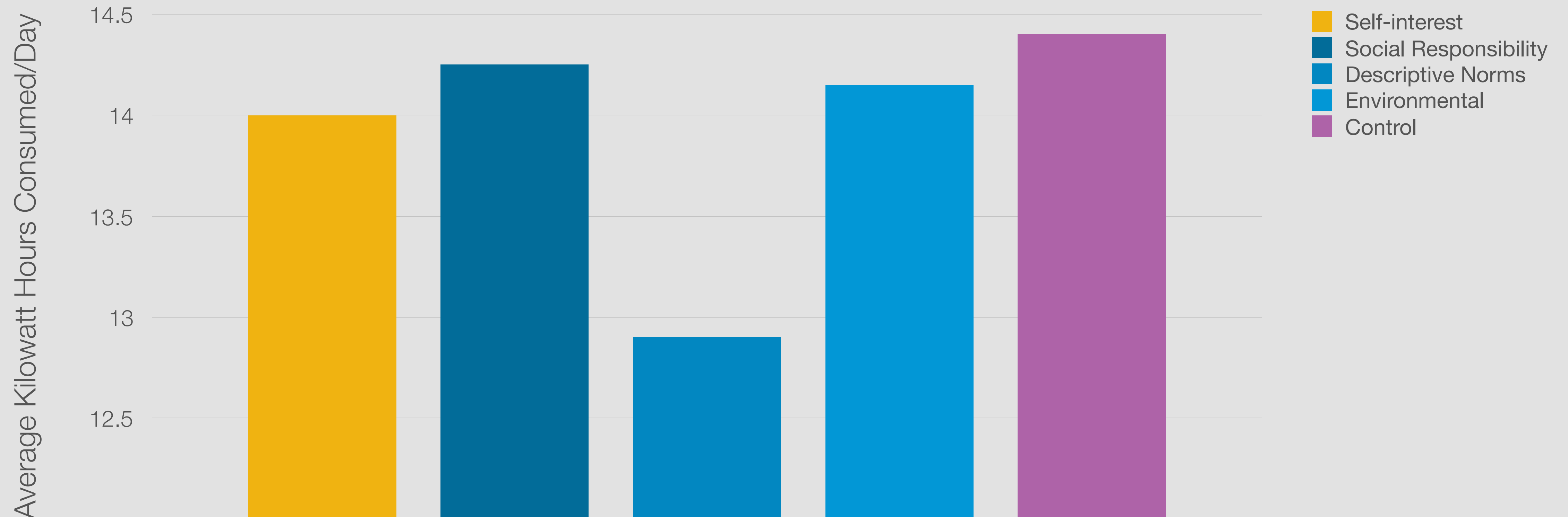
Cal State San Marcos

Please direct questions or comments to Jessica Nolan at CSUSM: 760.750.3022

Normative Social Influence

Household energy consumption

Daily Household Energy Consumption

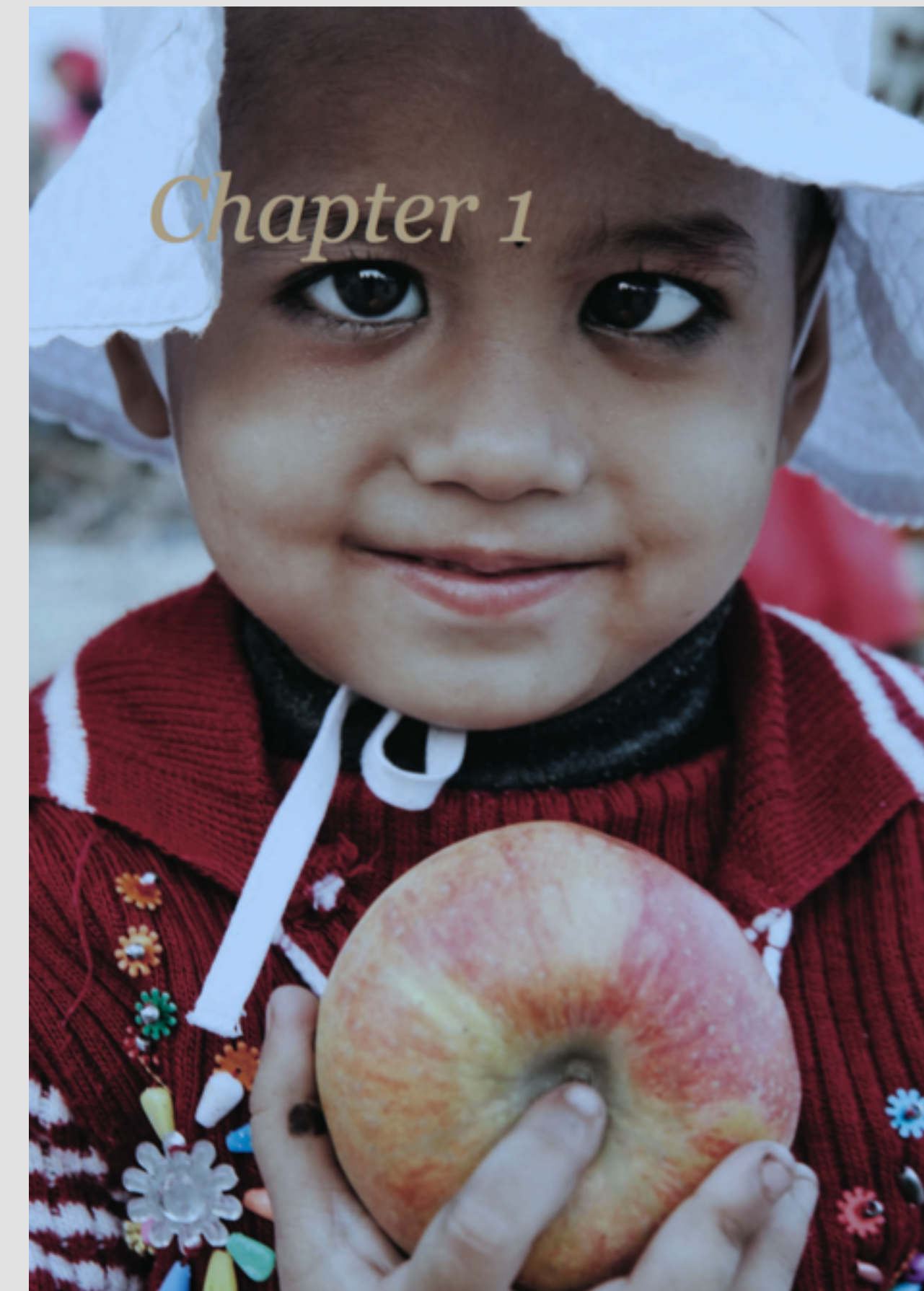


Changing Dietary Behavior

Fresh fruit consumption

Approximately 80% of the population of South-East Asia do not eat sufficient quantities of fruits and vegetables.

Half a million deaths in this region are attributed to low intake of fruits and vegetables.

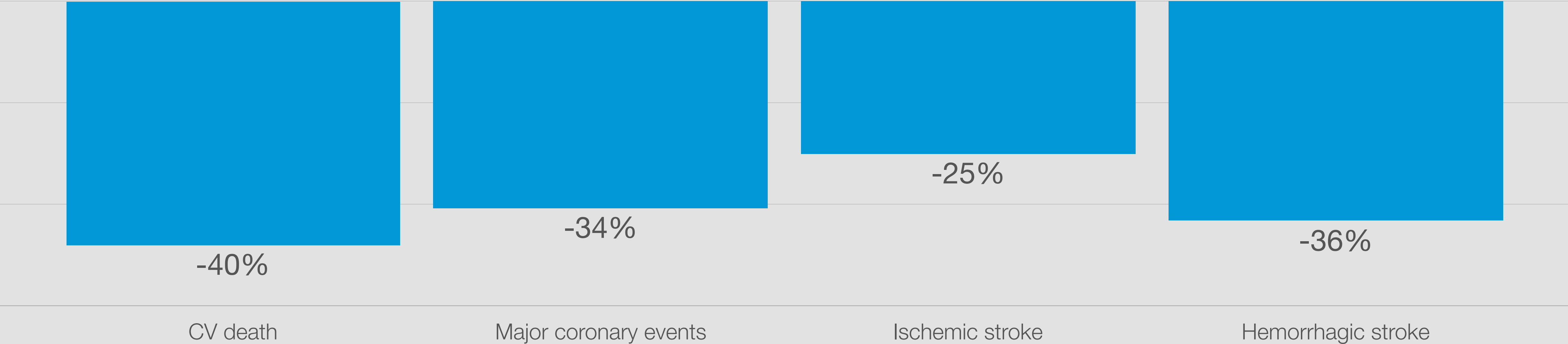


Changing Dietary Behavior

Fresh fruit consumption

Compared to participants who never or rarely consumed fresh fruit, those consuming daily (4-6 days/week) experienced

- 4 mmHg decrease in systolic BP
- 9.0 mg/dl decrease in blood glucose



Du H, et al. N Engl J Med 2016;374:1132-43.

Behavior Change

Healthy food

Google Food Team and Yale Center for Customer Insights

- Wellness initiatives fail because they rely on placing too much emphasis on providing information
- Evidence from behavioral economics has shown that information rarely succeeds in changing behavior or building new habits or food choices
- Behavior often diverges from intentions
 - Self-control is taxed by any type of depletion
 - Necessity of making food decisions many times a day means we can't devote much processing power to each choice
 - Eating behaviors tend to be habit and instinct-driven

Healthy Food

“Process” for employees

Google Food Team and Yale Center for Customer Insights

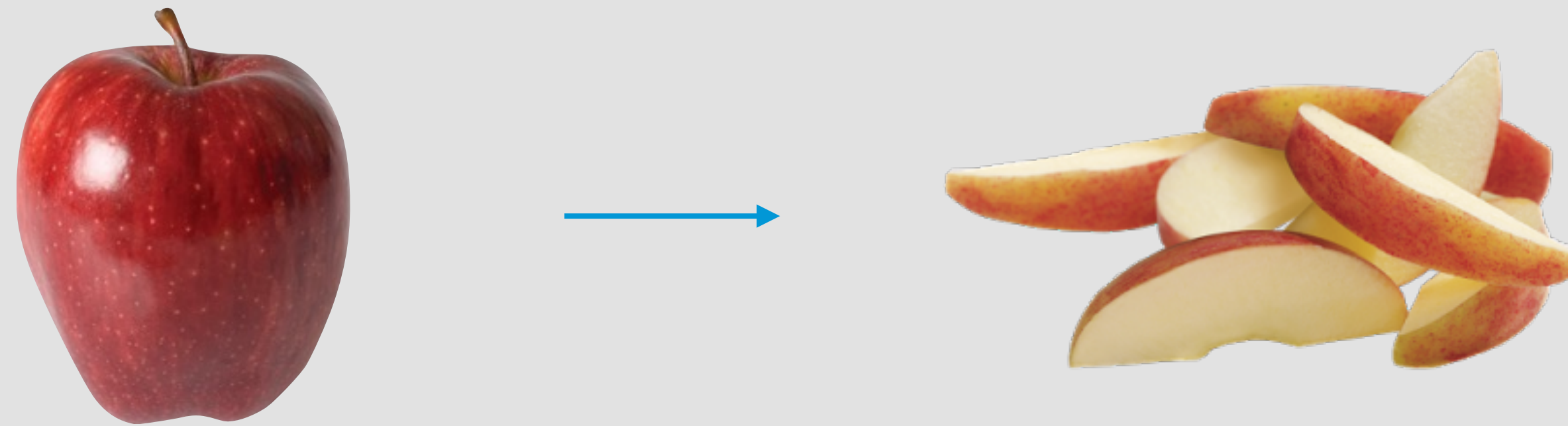
- **Order**—Sequence matters (the “privileged position”)
 - Visual set: the privileged position is the first item in a pair or the middle item in a set of three
 - Auditory set: are both the first and last items
- **Defaults**—Due to a bias toward the status quo and to the ease of not making a decision, defaults exert a strong pull on choices. They can make the “better” choice the easy choice.
- **Accessibility**—People tend to eat food that is easy to see or easy to reach

Changing Dietary Behavior

Fresh fruit consumption

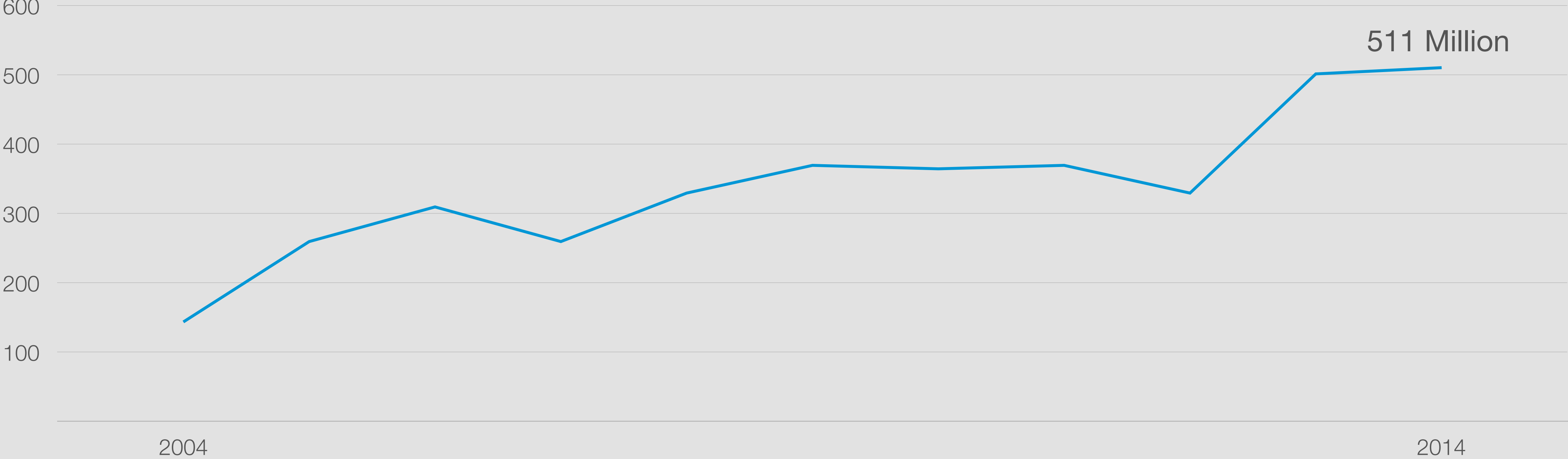
National School Lunch Program began recommending apples to be served, to school children, however the majority of apples (> 60%) ended up in the trash, virtually untouched.

Studies have since demonstrate that apple consumption increases by more than 70% when apples were served as slices.



The Rise in Sliced Apples

U.S. Sliced Apple Consumption, Millions of Apples



Timely or Unexpected Support

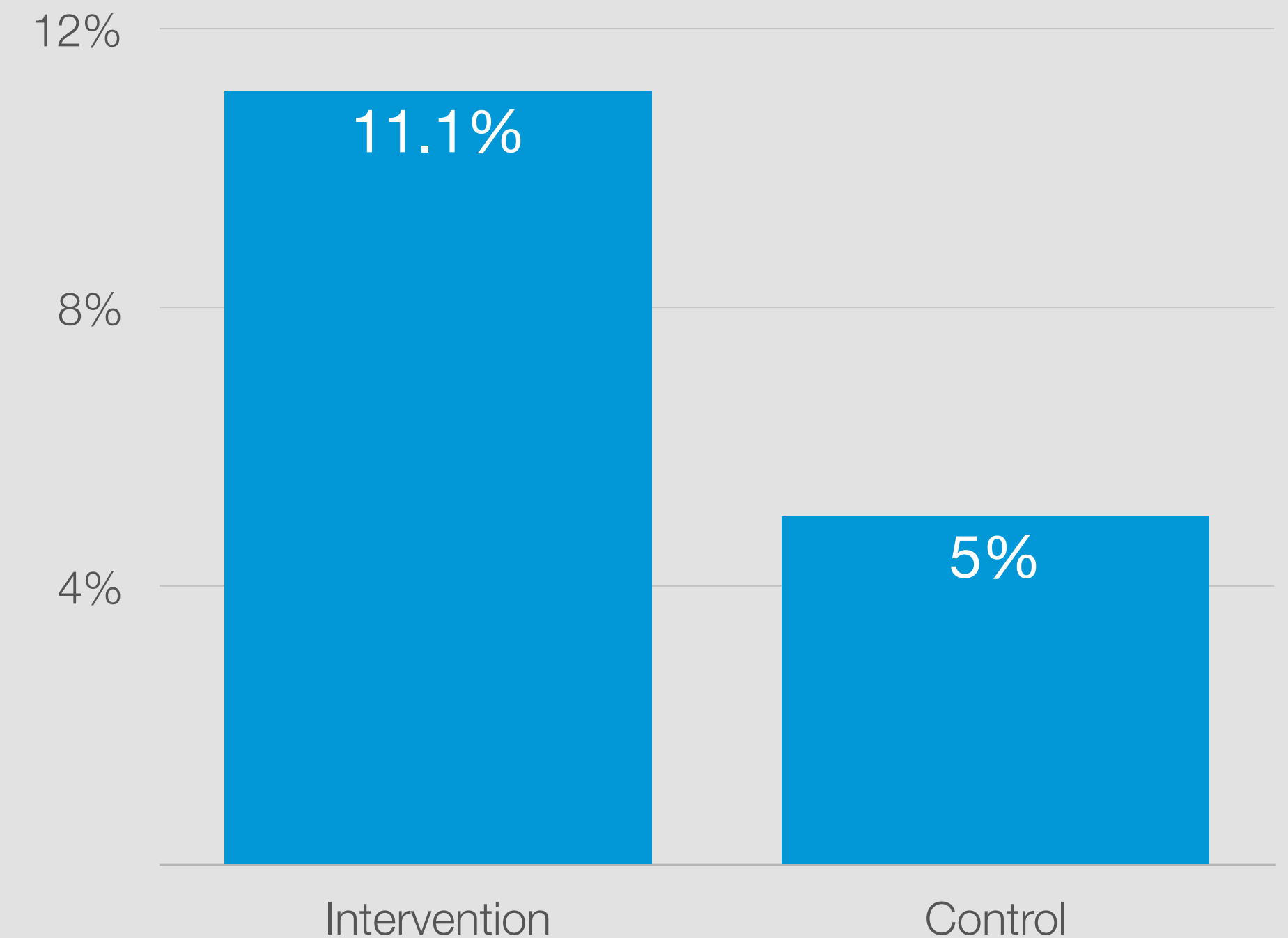
Smoking Cessation

Texting as a means of changing behavior

Messages tailored

- Participant's first name
- Gender
- Chosen quit date
- Top 3 reasons for quitting
- Money saved
- Person selected for social support
- Triggers for smoking (up to 5)

Abstinence Rate



Lifestyle-Focused Texts

Effect on patients with coronary heart disease

A Randomized Clinical Trial

Clara K. Chow, MBBS, PhD; Julie Redfern, PhD; Graham S. Hillis, MBChB, PhD, Jay Thakkar, MBBS; Karla Santo, MBBS; Maree L. Hackett, PhD; Stephen Jan, PhD; Nicholas Graves, PhD; Laura de Keizer, BSc (Nutr); Tony Barry, BSc; Severine Bornpoint, BSc (Stats); Sandarine Stepien, MBiostat

LDL-C	-0.06	0.04
Systolic BP	-0.06	<0.001
BMI	-0.04	<0.001
Physical activity (MET)	+46%	0.003
Smoking	-0.39	<0.001



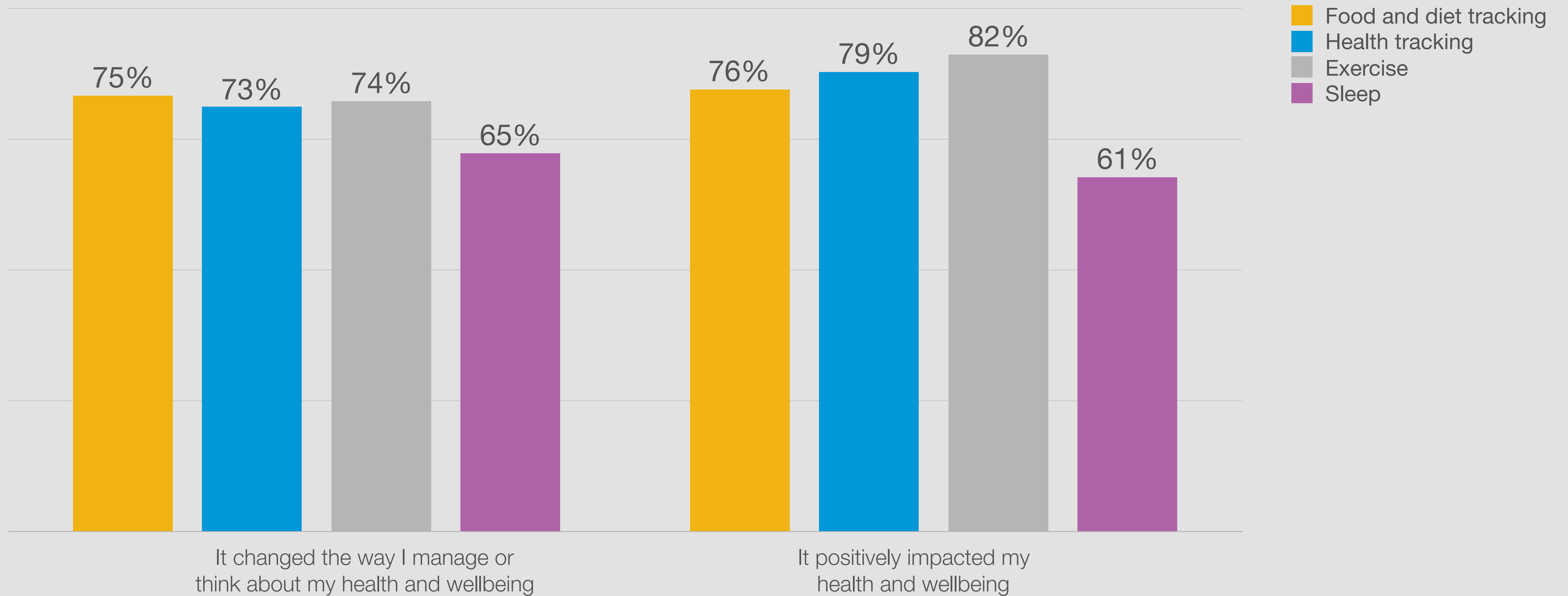
Chronic diseases can be biologically infectious or non-infectious, but epidemics are driven by behaviors spread through social networks.

Unhealthy behaviors are socially contagious.

Improving health and managing disease can be made contagious.

Mobile Apps

Impact on health and wellbeing



93% of Physicians Believe That Mobile Health Apps Can Improve Patient's Health

THE JOURNAL OF
**FAMILY
PRACTICE**

Helen Lippman, MA
The Journal of Family
Practice

hlippman@
fordisnemed.com

The author reported no
potential conflict of interest
relevant to this article.

How apps are changing family medicine

Medical applications for smartphones and tablets are so ubiquitous that it's easy to become a victim of app overload. Here's a look at FDA-approved apps, reference apps, and apps that FPs are "prescribing."

INSTANT POLL

Which of the following best describes your use of medical apps?

- I look up drug interactions, symptoms, etc, during visits
- I read medical journals and reference material on a mobile device
- I "prescribe" apps to patients with chronic conditions
- All of the above
- None, I still use a laptop and a "dumb" phone

jfonline.com

In April, hundreds of attendees at TEDMED, a conference on medical innovation, waited in line for a "smartphone physical." Curated by Shiv Gaglani, a medical student and an editor at the medical technology journal Medgadget, the exam involved 10 apps that turn an ordinary smartphone into a medical device (TABLE 1).¹ Among them were the AliveCor Heart Monitor (pictured at right), which produces a one-lead EKG in seconds when a patient's fingers or chest are pressed against the electrodes embedded in the back of what is essentially a phone case²; a pulse oximeter, and an ultrasound that can capture images of the carotid arteries.¹

All but one of the apps is paired with a physical component, such as an ultrasound wand or otoscope. The exception is SpiroSmart, an app that uses the phone's built-in microphone and lip reverberations to assess lung function. Shwetak Patel, PhD, of the University of Washington, one of its developers, told JFP that the accuracy of SpiroSmart has been found to be within 5% of traditional spirometry results.³

While smartphone physicals are not likely to be integrated into family practice for some time to come, Glen Stream, MD, board chair of the American Academy of Family Physicians, predicts that integration of some of their features is not too far away. "The spirometry application is an especially good one; it addresses one of the top 5 chronic conditions that contribute to health care costs,"

Dr. Stream said. The apps will be beneficial, as long as they "are used in a way that contributes, to, rather than detracts from, the relationship between patients and physicians."

For now, Dr. Stream and many of his fellow FPs use mobile devices and apps primarily to access reference materials, both in and out of the exam room. He has begun "prescribing" apps to tech-savvy patients. Still others have never used a mobile app, either because they prefer a desktop or laptop computer to a smartphone or tablet, or because, as one FP put it, "I have a phone."

Wherever you fall on the spectrum, it's a safe bet that you're going to be increasingly inundated by the many manifestations of mobile health (mHealth).

Epocrates is No. 1 reference app
The number of medical/health apps for smartphones or tablets is difficult to pin down, but estimates range from 17,000 to more than 200,000 and growing.⁴ More is known about the use of smartphones and tablets.

A March 2013 survey of nearly 300 family physicians found that 74% use smartphones and 43% use them to look up drug information.⁵ The favorite tool? A 2012 survey conducted by the University of Pennsylvania's School of Medicine to identify the best mobile apps put Epocrates at the top of the list (TABLE 2).⁶ Epocrates was the very

TABLE 2
2012 medical app survey identifies top 8 apps⁶

Epocrates Essentials (comprehensive clinical reference suite)
MedCalc (medical formulas, scores, scales, and classifications)
Medscape Mobile (drug and condition reference, medical news, CME courses)
DynaMed (clinical reference, updated daily)
VisualDX (visual diagnostic clinical decision support system)
Micromedex Drug Information (comprehensive information on drugs, doses, and interactions)
Skyscape (customizable repository of drug and clinical information, medical calculators, etc.)
Diagnosaurus DDx (diagnostic search tool)

TABLE 3
A sampling of apps your colleagues are prescribing

Condition	App
Anxiety	Breathe2Relax Relaxation Techniques
Headache/migraine	iHeadache
Medication/OC management	GoodRx MedMory MyOC MyPill
Menopause	BioDesk myPause
Pain	WebMD Pain Coach
Sleep problems	Sleep Diary
Voiding	Bladder Pal iP Voiding Diary
Weight loss	Calorie Count Lose It! MyFitnessPal

OC, oral contraceptive.

Abigail Lowther, MD, an FP at the University of Michigan in Ann Arbor, also recommends apps frequently. But she typically broaches the subject only with patients who have their smartphones out when she walks into the room.

Among the apps Dr. Lowther prescribes are myPause to track menopausal symptoms and Bladder Pal, a voiding diary for women struggling with incontinence. She advises women taking oral contraceptives to use the timer function on their phone to remember to take a pill at the same time every day.

But there are apps (myPill, for one) that do that, too.

The upside of patient apps. A smartphone is ideal for keeping a symptom diary because it's something that most people are never without. Anyone can use the notes function on a phone or tablet to jot down details about exacerbations, but those using disease-specific apps tend to capture more precise information. Some patients print out the information they've gathered and bring a hard copy to an office visit, while others simply show their physician what's on their smartphone.

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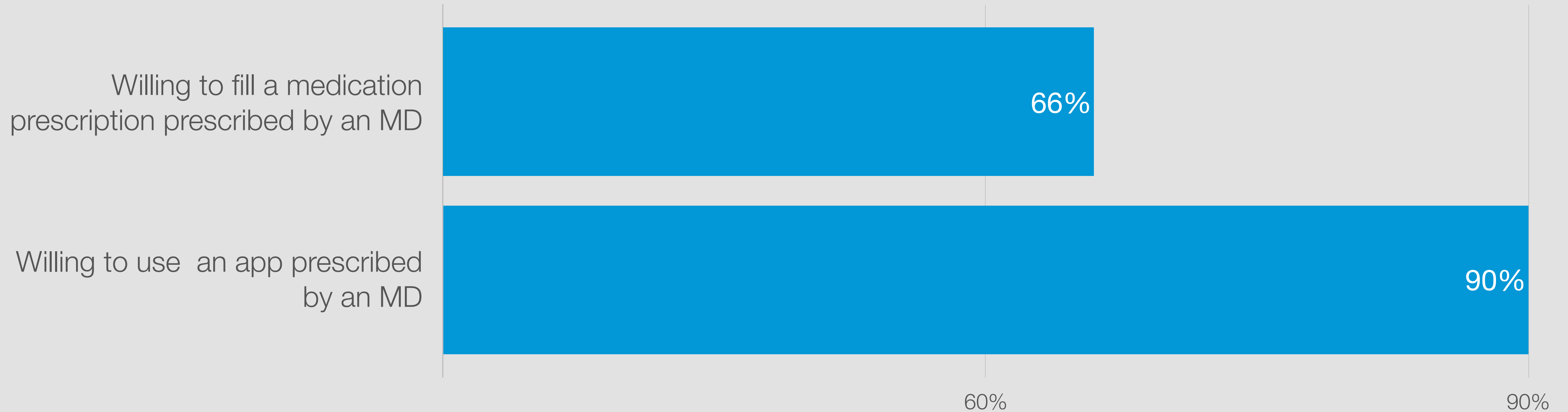
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JFPONLINE.COM VOL 62, NO 7 | JULY 2013 | THE JOURNAL OF FAMILY PRACTICE 365

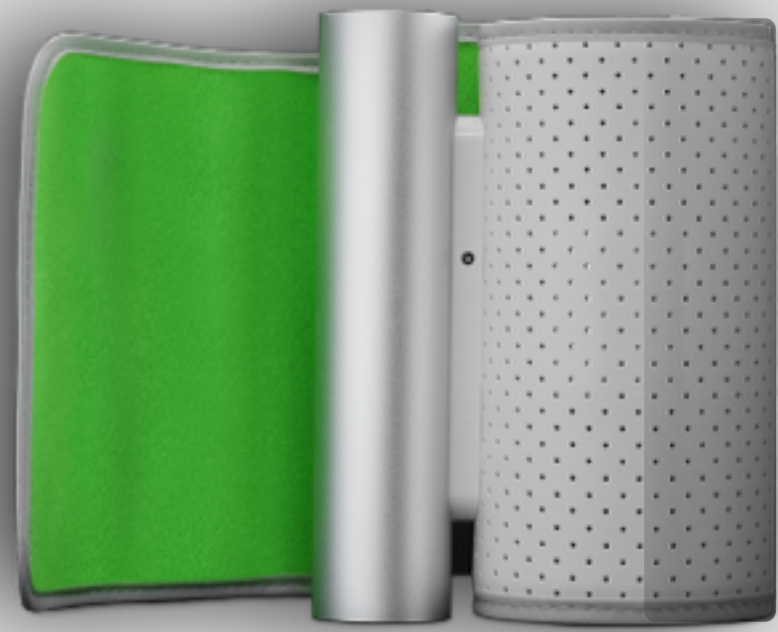
Patients Prefer Apps

In chronic disease

2,000 patients with chronic disease and a smartphone

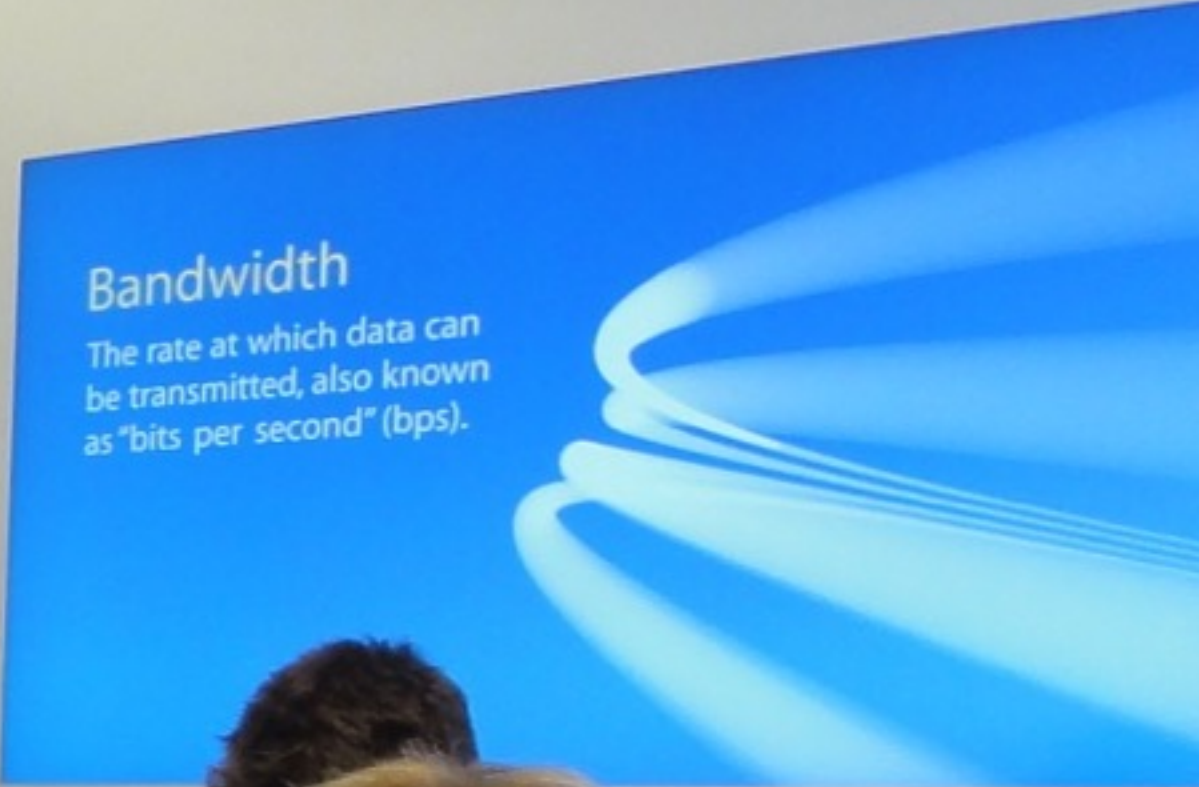


20 different chronic disease including cardiac, GI, respiratory, CNS and diabetes



Among the tens of thousands of health apps and numerous devices, how do you decide what's effective?





Bandwidth

The rate at which data can be transmitted, also known as "bits per second" (bps).





O Bar

Enables patients in self-discovery.

Apps create independence with profound results in lifestyle change.

Promotes engagement.



Ochsner Center for Primary Care & Wellness
1401 Jefferson Highway, New Orleans, LA 70121

504.842.8566
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Patient

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R_x APPS

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- Diabetes
- Medication
- Smoking
- General Health

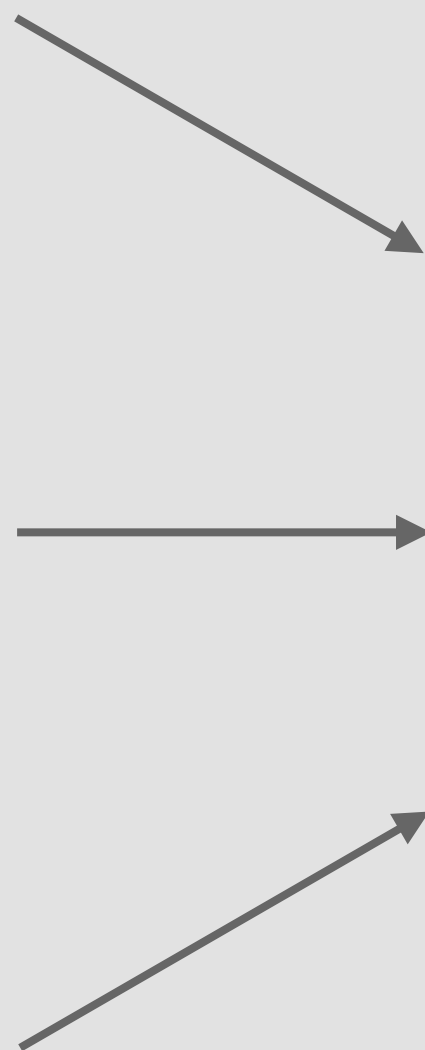
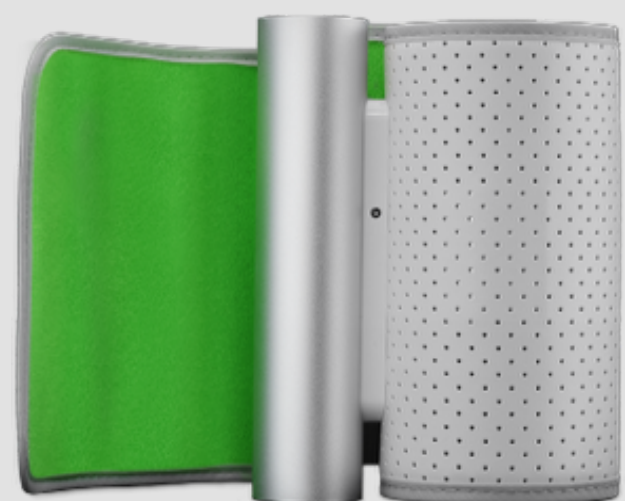
DEVICES

- Activity Monitor
- Blood Glucose Monitor
with Bluetooth
- Wireless Scale
- Wireless Blood Pressure
Monitor

Physician Signature

*“Tell me and I forget, teach me and I may
remember, involve me and I learn.”*

– BEN FRANKLIN





iPhone



Android



Landline

Our Discussion Today

Overview of Global Health Status

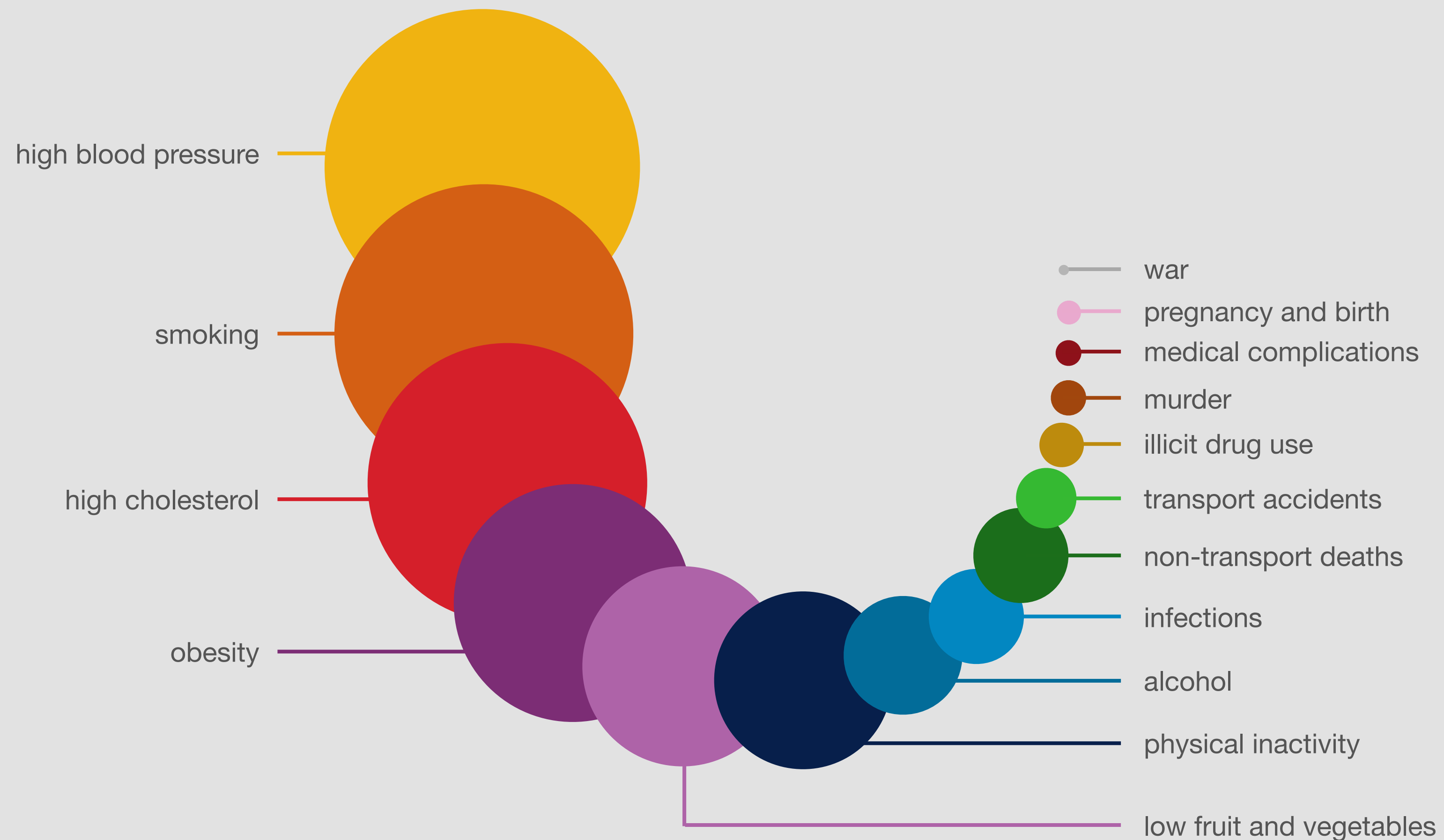
Factors Contributing to Poor Health Outcomes

Encouraging Positive Behavior Change

Intervening and Engaging Patients

Risk Leading to Death

In perspective



Hypertension

Major public health concern

972
Million

Number of people
with HTN worldwide
in 2000

60%

Increase in the #
of adults with HTN
globally by 2025

10%

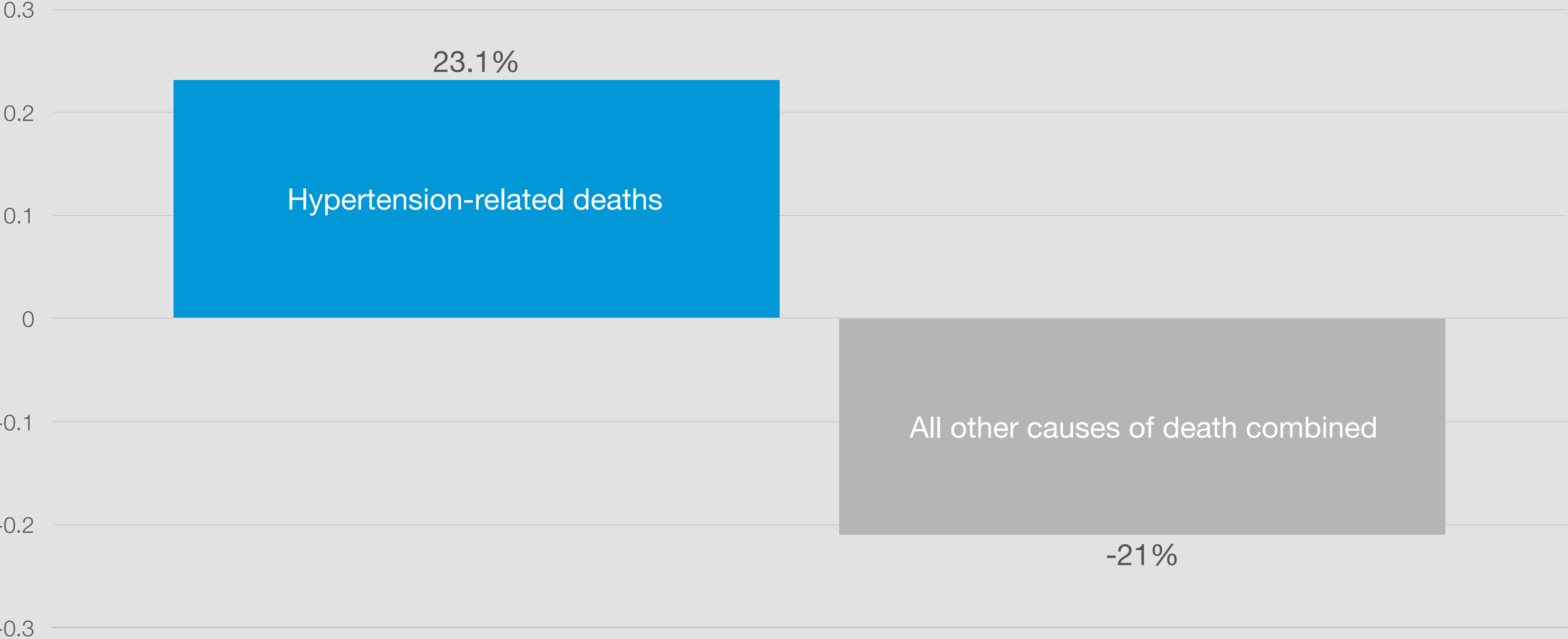
Percent of all global
healthcare spending
attributable to high
blood pressure

\$370
Billion

Annual worldwide
cost of hypertension

U.S. Age-adjusted Death Rates

2000-2013



Uncontrolled Hypertension

92% of participants with uncontrolled HTN in NHANES III had health insurance; 86% report a regular source of care

Average number of visits to physician = 4.3 visits/year*



*Pharmacologic therapy started or intensified in only 22-38% of visits. Hyman DJ, et al, N Eng J Med 2001;345:479-486. Turchin A, et al. Hypertension 2010;56:68-74. Xu W, et al. BMJ 2015;350:1-9.

Uncontrolled Hypertension

Shorter encounter intervals associated with faster decrease in BP and earlier normalization

Increased risk of acute CV events or death if intervention delayed > 6 weeks



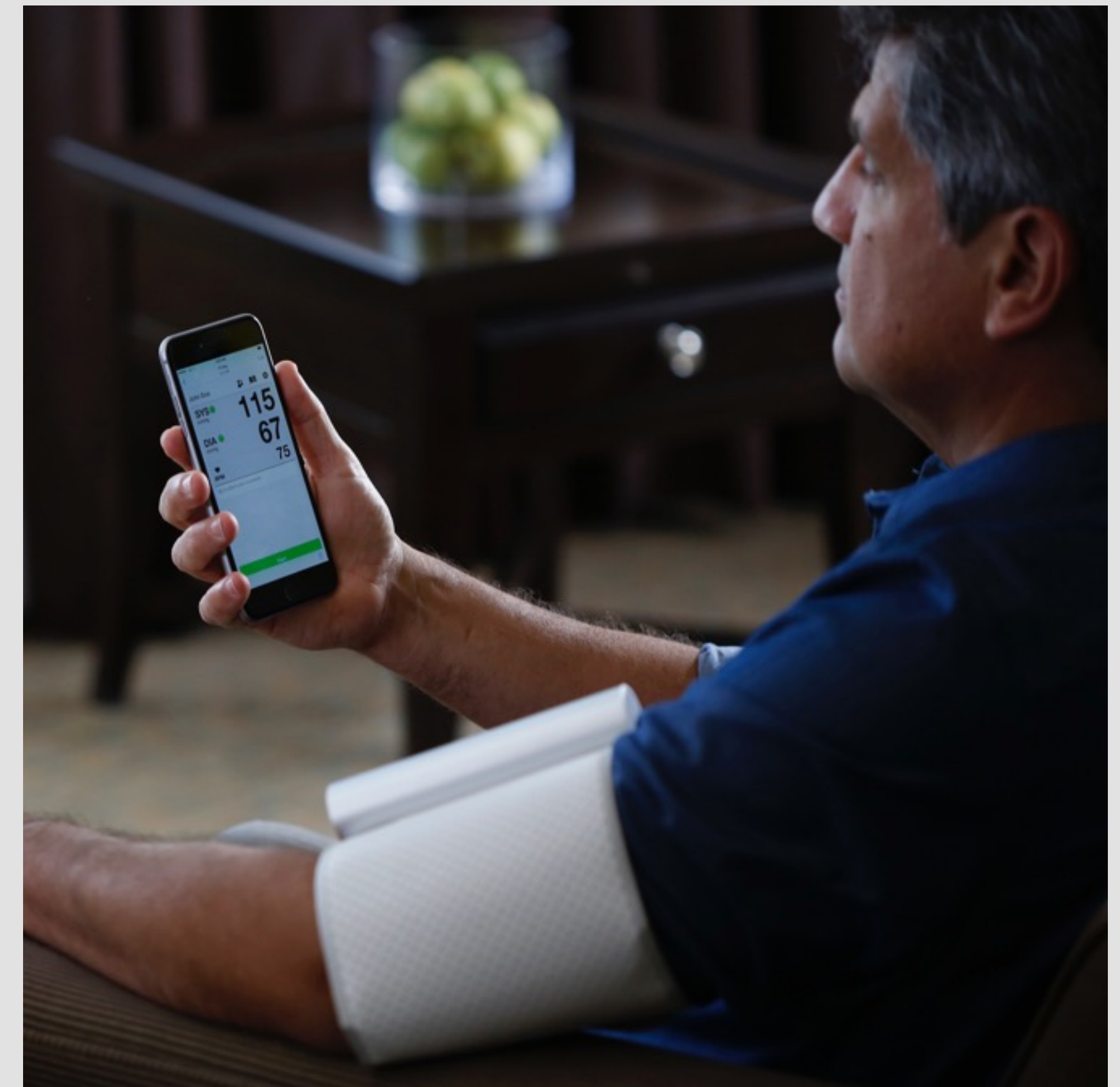
AHA/ASH Scientific Statement

Home blood pressure monitoring

Current technology is accurate, reliable, easy to use and inexpensive

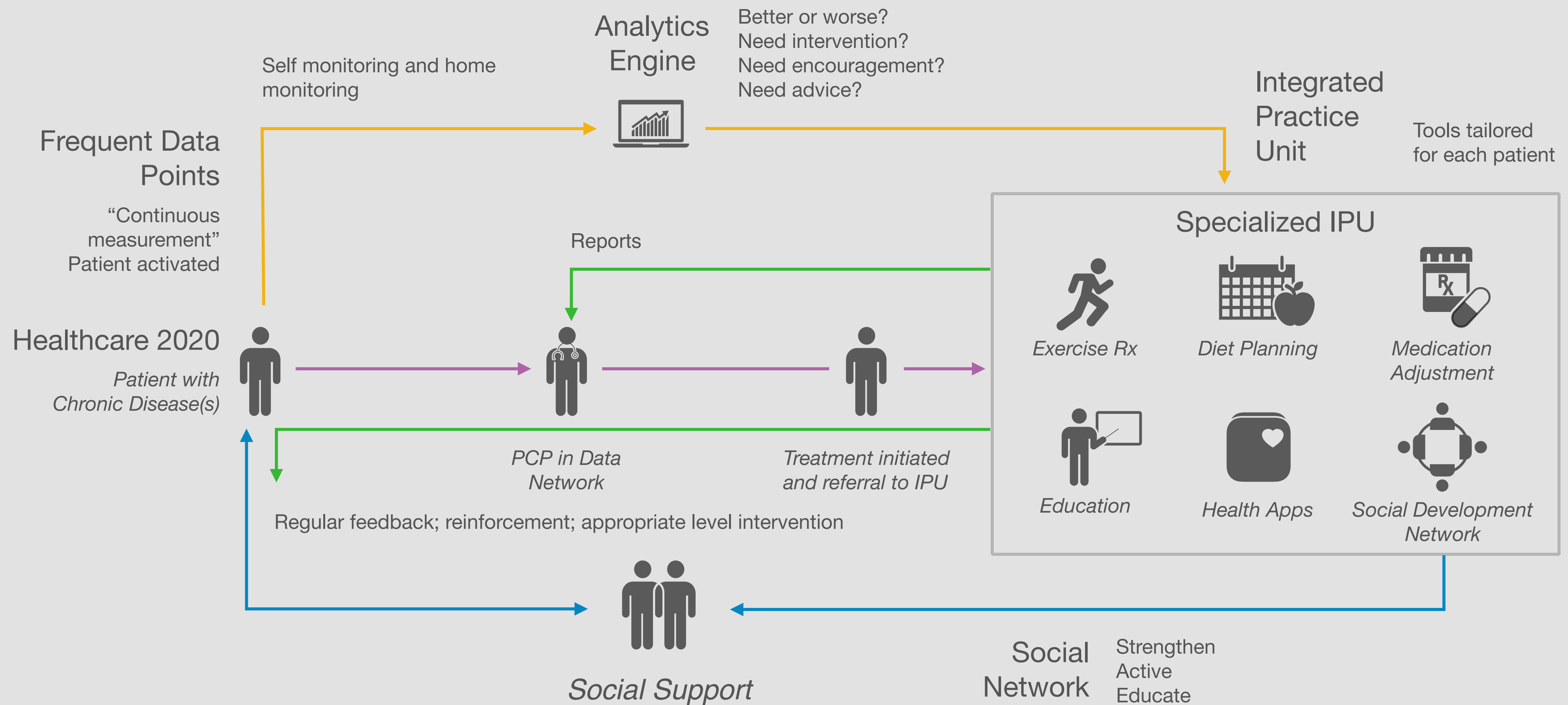
Home BP readings are

- Predictors of CV risk than office measurements
- More reproducible and show better correlation with measures of target organ damage
- Shown to improve medication adherence



Chronic Disease Care

New delivery model



Data Management

Patient generated health data



...a more comprehensive picture of ongoing patient health

...provide relevant information for preventive and chronic care management

The image shows a fact sheet from the National Learning Consortium titled "Patient-Generated Health Data". The document includes the following sections:

- What are patient-generated health data?**

Patient-generated health data (PGHD) are health-related data created, recorded, or gathered by or from patients (or family members or other caregivers) to help address a health concern.

PGHD include, but are not limited to:

 - health history
 - treatment history
 - symptoms
 - biometric data
 - patient-reported outcome measures

PGHD differ from data generated in clinical settings and through encounters with health care providers in two important ways:

 1. Patients, not providers, are primarily responsible for capturing or recording these data.
 2. Patients decide how to share or distribute these data to providers and others.

Examples of PGHD include blood glucose monitoring or blood pressure readings using home health equipment, exercise and diet tracking using a mobile application, and questionnaires such as screening, medication adherence, risk assessment, and intake.
- Why are PGHD important?**

PGHD supplement existing clinical data, filling in gaps in information and providing a more comprehensive picture of ongoing patient health. PGHD can:

 - Provide information about how patients are doing between medical visits.
 - Gather information on an ongoing basis, rather than only at one point in time.
- How does health IT support PGHD?**

The increasing availability of patient portals makes it possible for patients to submit health information electronically.

 - Patients can complete questionnaires online or send information via secure electronic messaging.
 - Practices can send reminders to patients to submit data and follow up with patients as needed based on a review of the PGHD.

Additional text on the right side of the fact sheet includes:

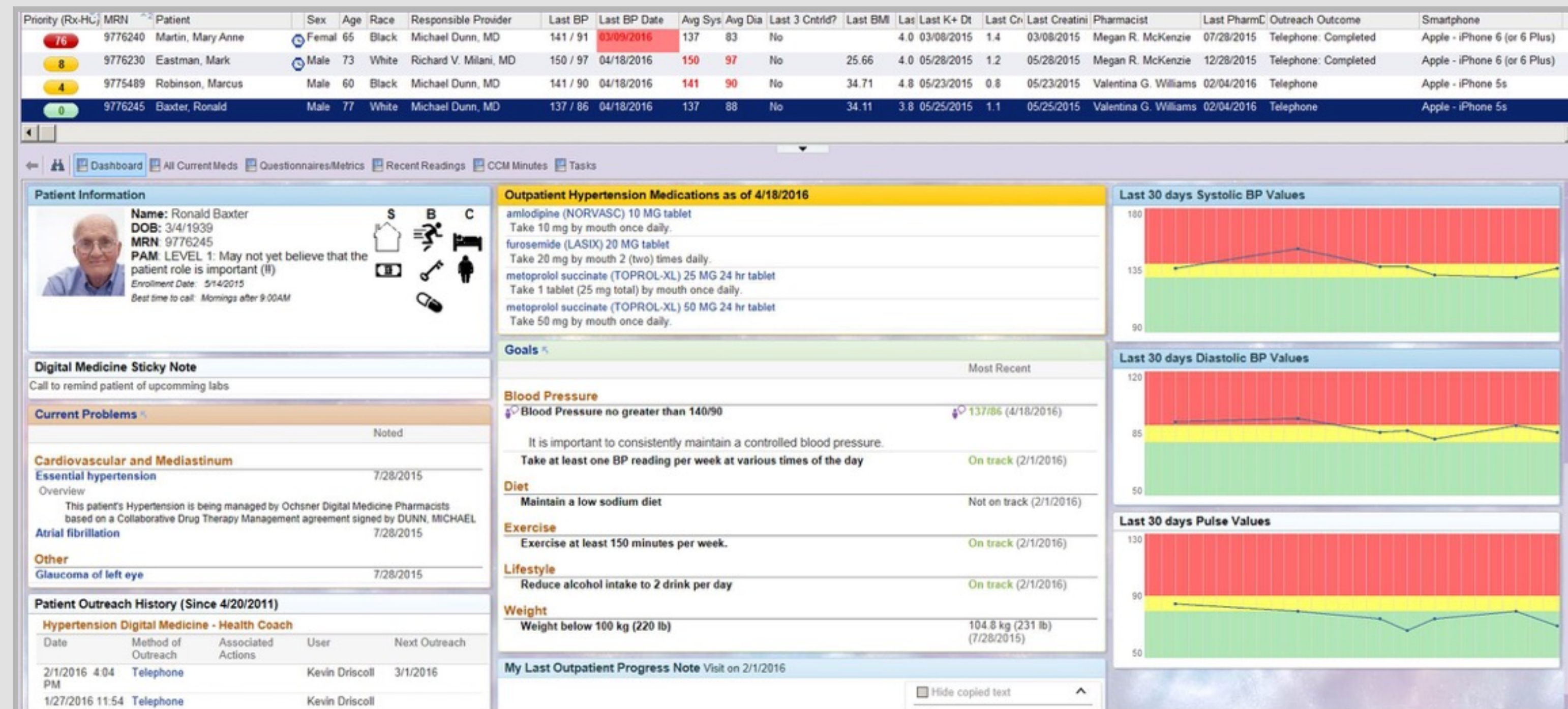
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Page number: 2

Data Management

Data algorithms

Customized data visualization tools that reduces chart time and maximizes care team efficiency and accuracy



Data Management

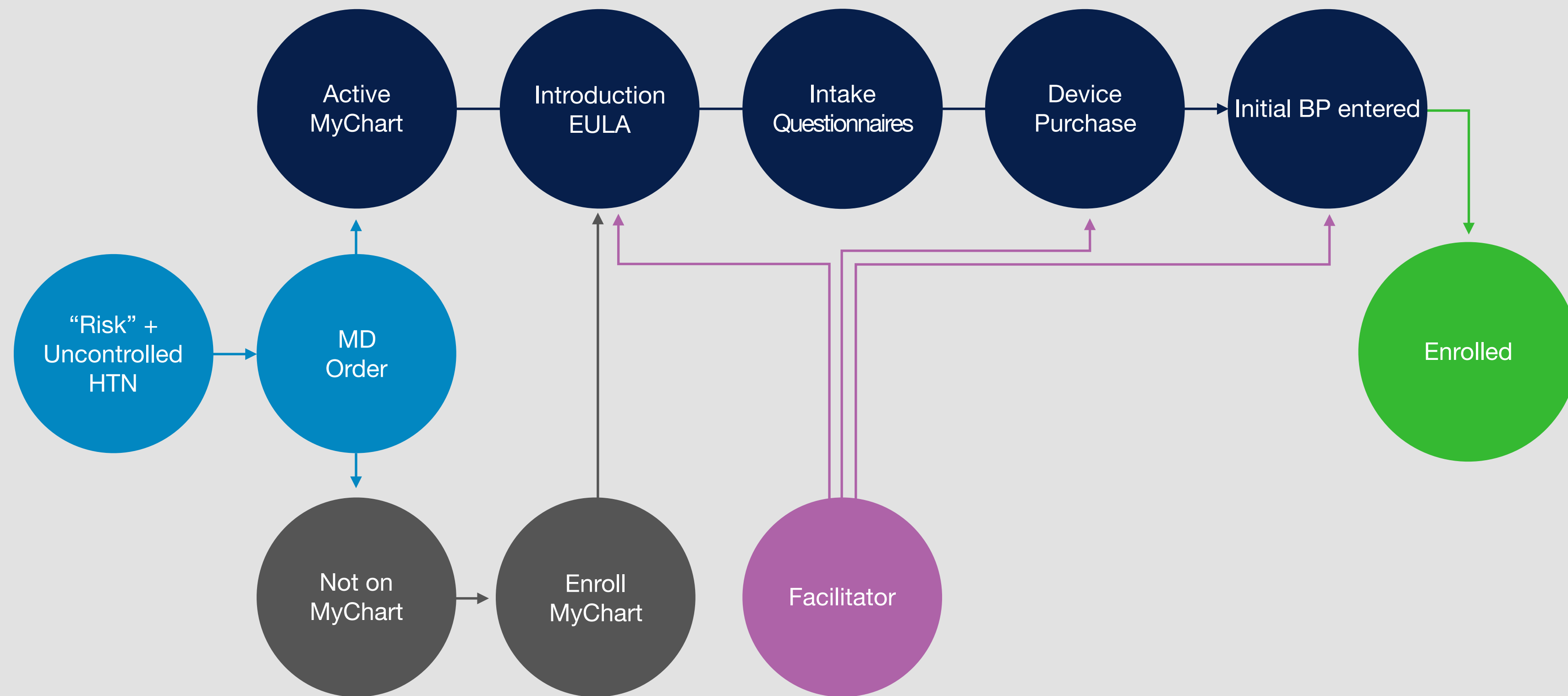
Real-time analytics are performed and stratify patients into risk groups

Start managing your healthcare on a tablet or smartphone. Ask us for your tablet or smartphone.



Hypertension Enrollment

Start enrollment



Hypertension Enrollment

Start enrollment

EULA sets expectations

- Data is not reviewed real time
- Patients instructed as to what to do when data suggests a possible problem
- If an emergency, call MD, go to ER, call 911
- If result seems inappropriate, repeat measurement
- Data collection requirements
- Do not allow others to use your account

Patient Characterization

Onboarding

Dietary analysis

Medication adherence

Living circumstances

Medication affordability

Social network

Caregiver support

Depression

Patient activation measure

Physical activity index

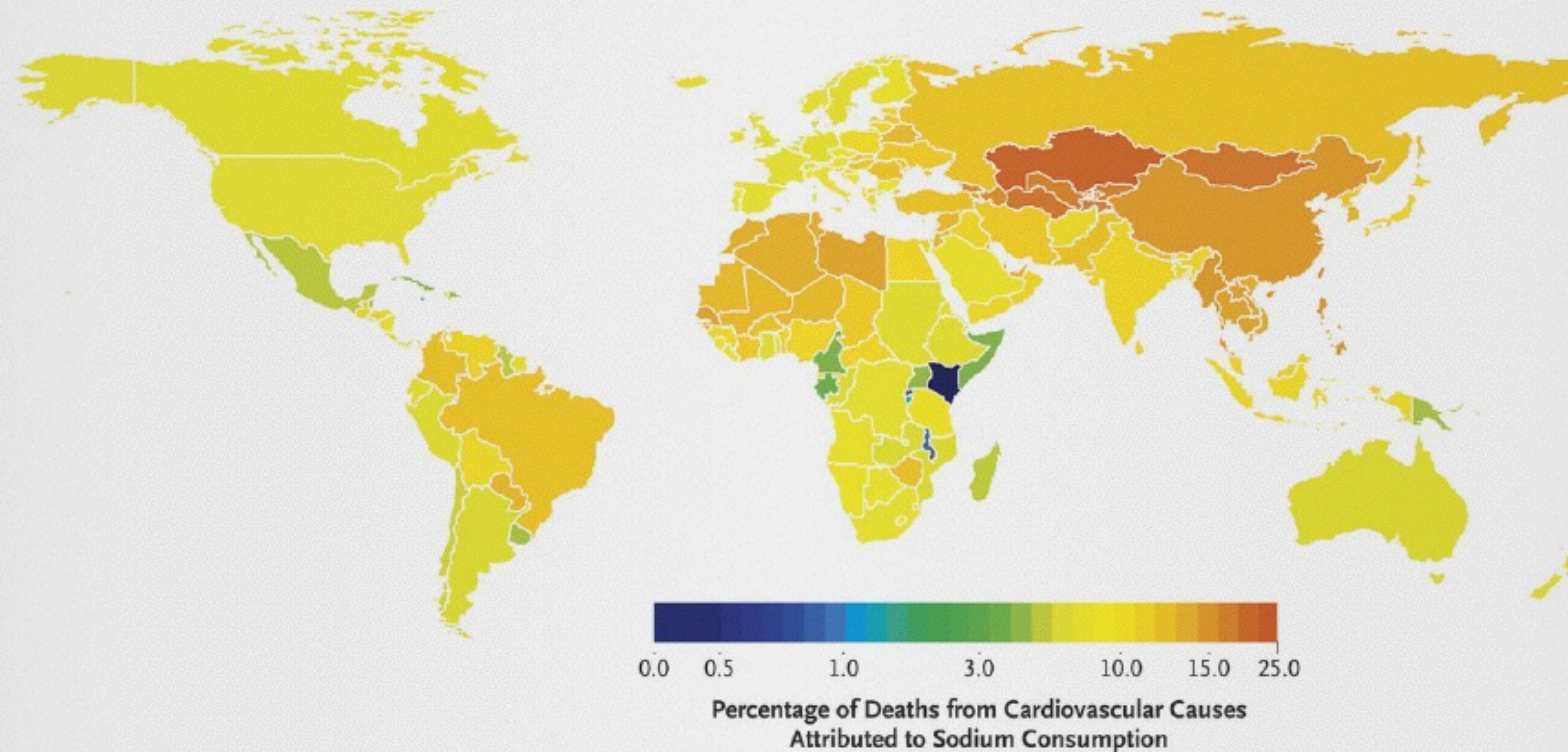
Health literacy

Transportation issues

Access to care

Proportion of Deaths from Cardiovascular Disease Attributed to Sodium Consumption

Excess sodium consumption account for more than 20% of CV deaths
in people under age 70 in East and South-East Asia





Goals of the IPU in Chronic Disease Management

1. Use evidence-based guidelines to achieve disease-based targets (including a focus on lifestyle)
2. Increase patient activation

Patient Online Resources

Hypertension Digital Medicine Program

Already Signed Up? Login to your MyOchsner Account to View Your Progress

Interested in Signing Up? Login to your MyOchsner Account to Begin Onboarding

Interested in Signing Up but don't have a MyOchsner Account? Register today!

High Blood Pressure

High blood pressure, also called hypertension, occurs when the pressure inside your arteries is higher than it should be. One in three American adults has high blood pressure, and if not controlled, it can cause damage to your eyes, brain, heart, blood vessels and kidney. As a result, high blood pressure is one of the leading causes of heart attack, stroke and death. High blood pressure has no warning signs or symptoms, so monitoring your blood pressure is very important because it is the only way we can know for sure if it is under good control.

A New Approach to Treating High Blood Pressure

For decades, high blood pressure has been treated in the doctor's office. Most patients will have anywhere from 2-4 doctor visits per year and the blood pressure information obtained on those visits form the basis for further treatment decisions. This method has several problems:

1. A small number of blood pressure readings.
2. A long period between readings for adjustments in medicine to take place (e.g. needed changes in medication or dosing).
3. What has been called "White Coat Hypertension." This can occur in some individuals due to anxiety in coming to the doctor's office, thus leading to false high blood pressure readings.

A recent study from the Journal of the American Medical Association (JAMA) showed that monitoring blood pressure from home using a wireless blood pressure monitor resulted in more patients reaching their blood pressure goal than the standard doctor's office method. This was done using specially trained pharmacists who received the blood pressure readings automatically and called patients with any needed changes to their therapy. Patients had a high satisfaction rating for the program overall, and the resulting better blood pressure reading would lead to less strokes and heart attacks in the future.

The Ochsner Hypertension Digital Medicine Program

The Ochsner Hypertension Digital Medicine Program operates the same way. We enroll patients who need to control their high blood pressure. Patients will receive in-depth education on high blood pressure and the lifestyle changes they can make to improve their blood pressure. In addition, specially trained pharmacists receive the blood pressure readings and use this and other data to make treatment changes or medication adjustments as needed to insure good blood pressure control. Pharmacists follow the most current evidence-based guidelines to treat high blood pressure (Eighth Joint National Committee Guideline, JNC8).

Blood Pressure Medications

Taking your medicines as prescribed is important for a healthy blood pressure and keeping you healthy.

Taking medicines as prescribed can help you keep a healthy blood pressure

Many medicines treat high blood pressure. Your healthcare provider might have you take 1 or more medicines to control your blood pressure. Here's what to do to make sure your blood pressure medicines work best for you:

- ✓ Take them as directed
- ✓ Take them even if you do not think they are working
- ✓ Take them even if you do not feel sick
- ✓ Tell your healthcare provider about any side effects or other concerns
- ✓ Tell your healthcare provider or pharmacist if you start taking any other prescriptions or over-the-counter medicines or dietary supplements
- ✓ Tell your healthcare provider if you can't pay for your medicine

Remember that high blood pressure is a lifelong condition, so even when you feel well, keep taking your medicine.

Tips to follow regarding your medication:

1. Be sure to take your blood pressure medicine every day
2. Write it down. Make a wall chart with the names of your medicines, the dose, and the time of day you need to take them.
3. Get a pill box. Purchase a pill box that has the days of the week and times of day. Fill the pill box at the beginning of the week to help you keep track. Links to inexpensive pill boxes:
 - <http://www.walgreens.com/store/c/pill-organizers/ID=361563-5er3>
 - <http://www.walmart.com/ip/Apex-Twice-A-Day-Pill-Organizer/14089469>
4. Download a medication reminder app to your smartphone.
 - iPhone users: <https://itunes.apple.com/us/app/pill-reminder-by-drugs.com/id453359236?mt=8>
 - Android users: <https://play.google.com/store/apps/details?id=com.montanosoftware.dosecast&hl=en>
5. Ask for help. Tell family and friends about your medicine schedule so they can help remind you.
6. Set a daily routine. Combine your medicines with something you do at regular times like brushing your teeth or eating breakfast or dinner. Taking your medicines at the right time can become a good habit.
7. Take it with you. Remember to take your medicines with you when you are away from home. Bring enough of your medicine with you when you go on trips. Always put them in your carry-on luggage.
8. Refill your prescriptions on time. Reorder your prescriptions ahead of time to make sure that you never run out.

Getting to Your Ideal Blood Pressure

Make controlling your blood pressure your goal.

Medicines and medicines that can help you quit smoking.

Whole grains, and other foods.

the DASH diet.

should limit alcohol intake to 1 beer, a 4-ounce glass of wine,

presses, your blood pressure will be overweight, and above 30 your weight by 5 to 10 percent, lose weight, cut back on lower-calorie foods. If you

to get started. Even small pressure as well as reducing attack and stroke. For all with your doctor before

number) by an average of 4- year exercise also helps you reduces the risk of falls as well

muscle atrophy

View A-Z Navigation

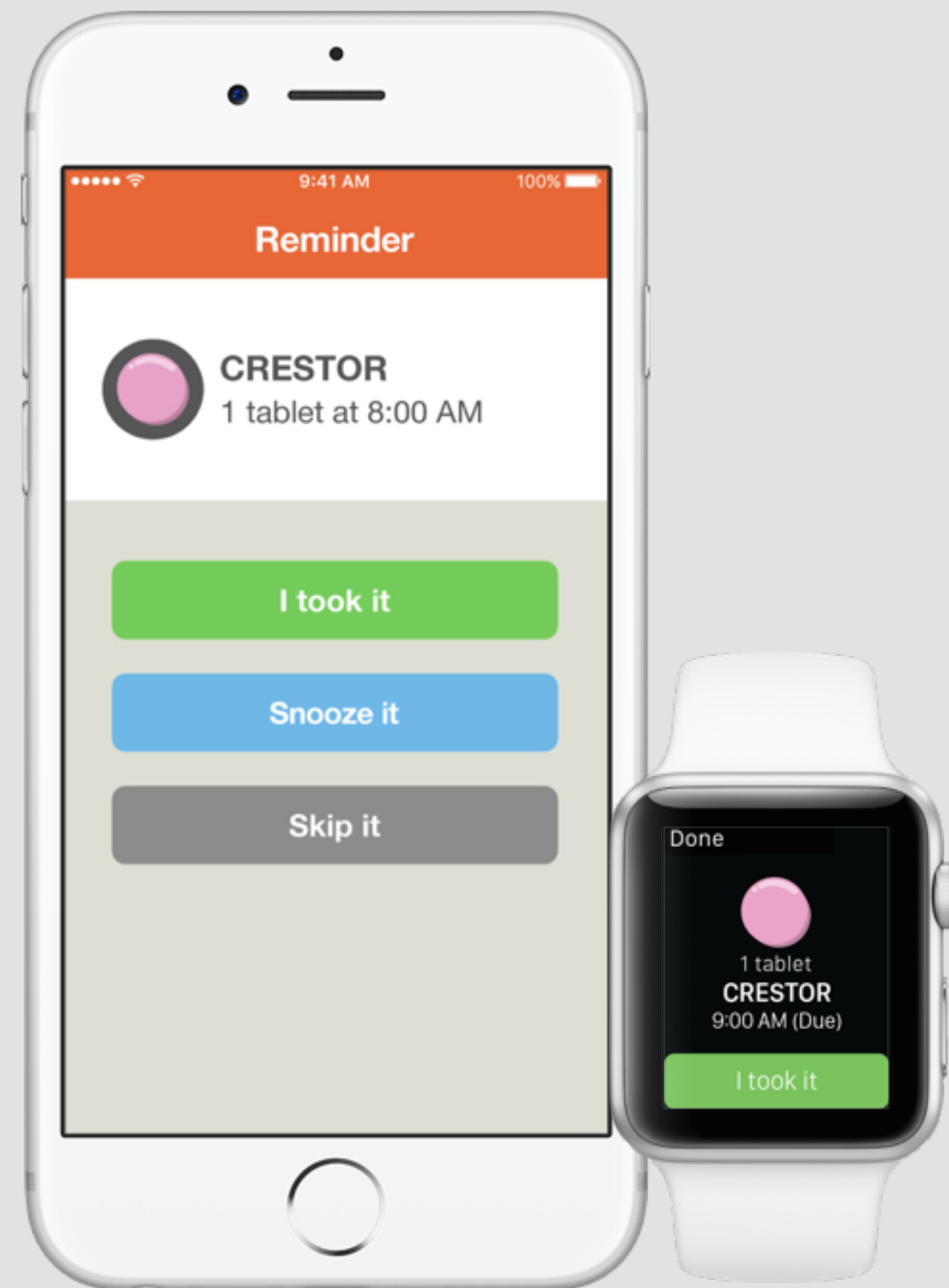
HYPERTENSION DIGITAL MEDICINE PROGRAM

- Hypertension Digital Medicine Program
- Your Ideal Blood Pressure
- Getting to Your Ideal Blood Pressure
- Blood Pressure Medications
- Exercise and Your Blood Pressure
- Program Requirements
- Resources and Videos
- Benefits to You

QUICK RESOURCES

- Find a Doctor
- Find a Location
- Careers

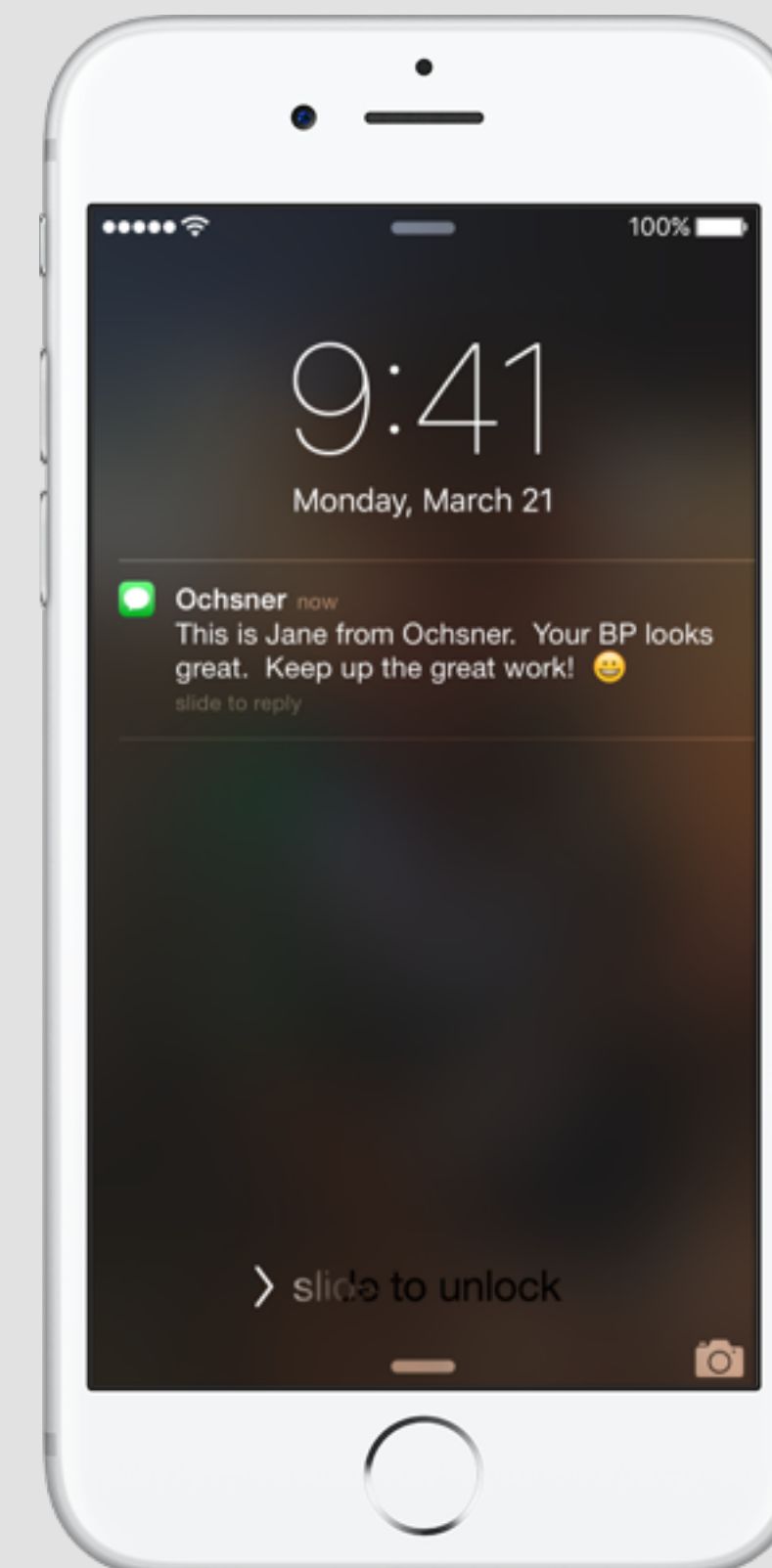
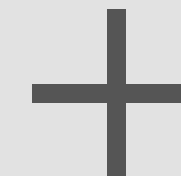
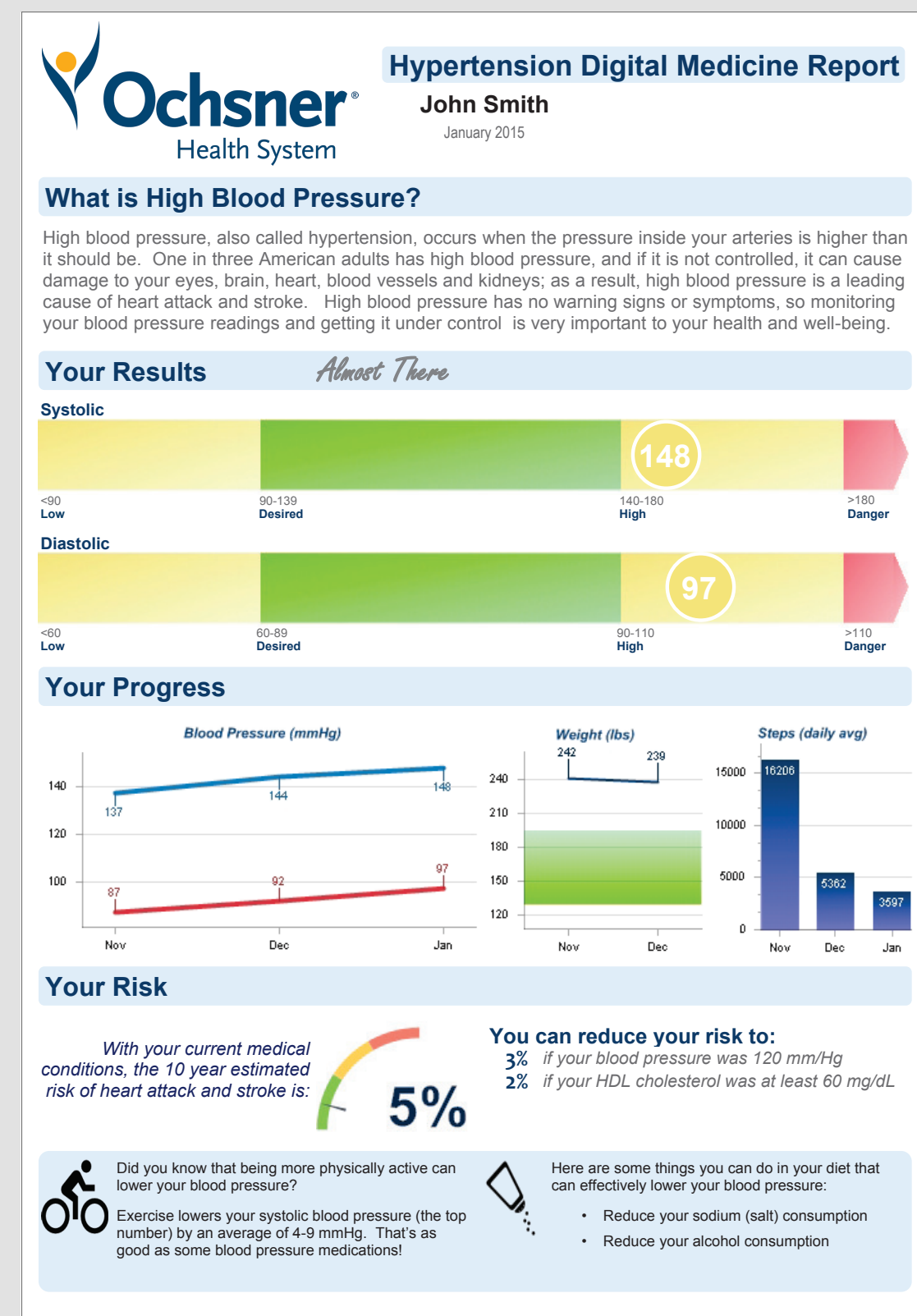
Medication Reminders



Automated Patient Feedback

Patients receive a monthly report card

As well as encouragement



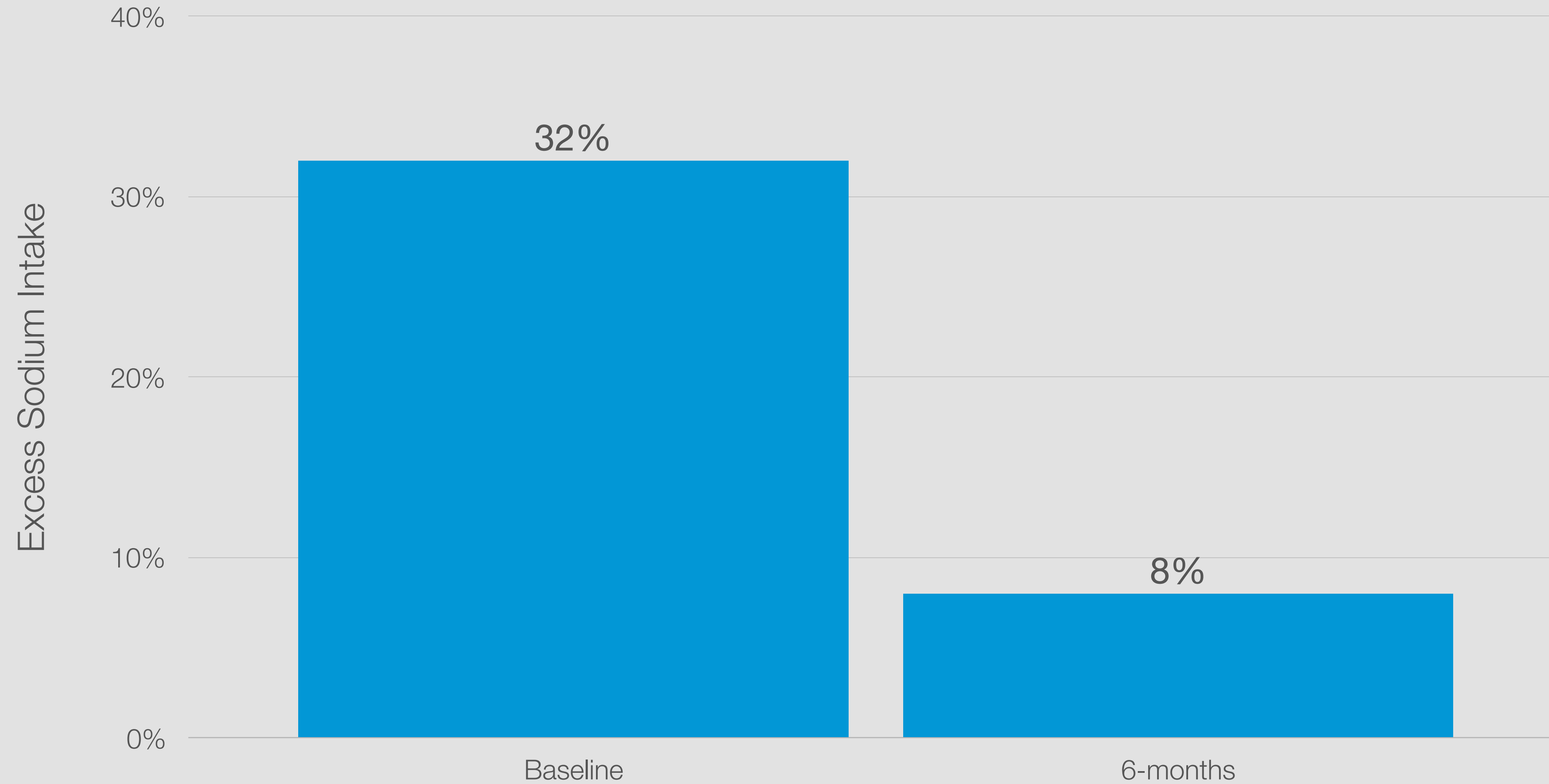
Outcomes

Blood pressure control

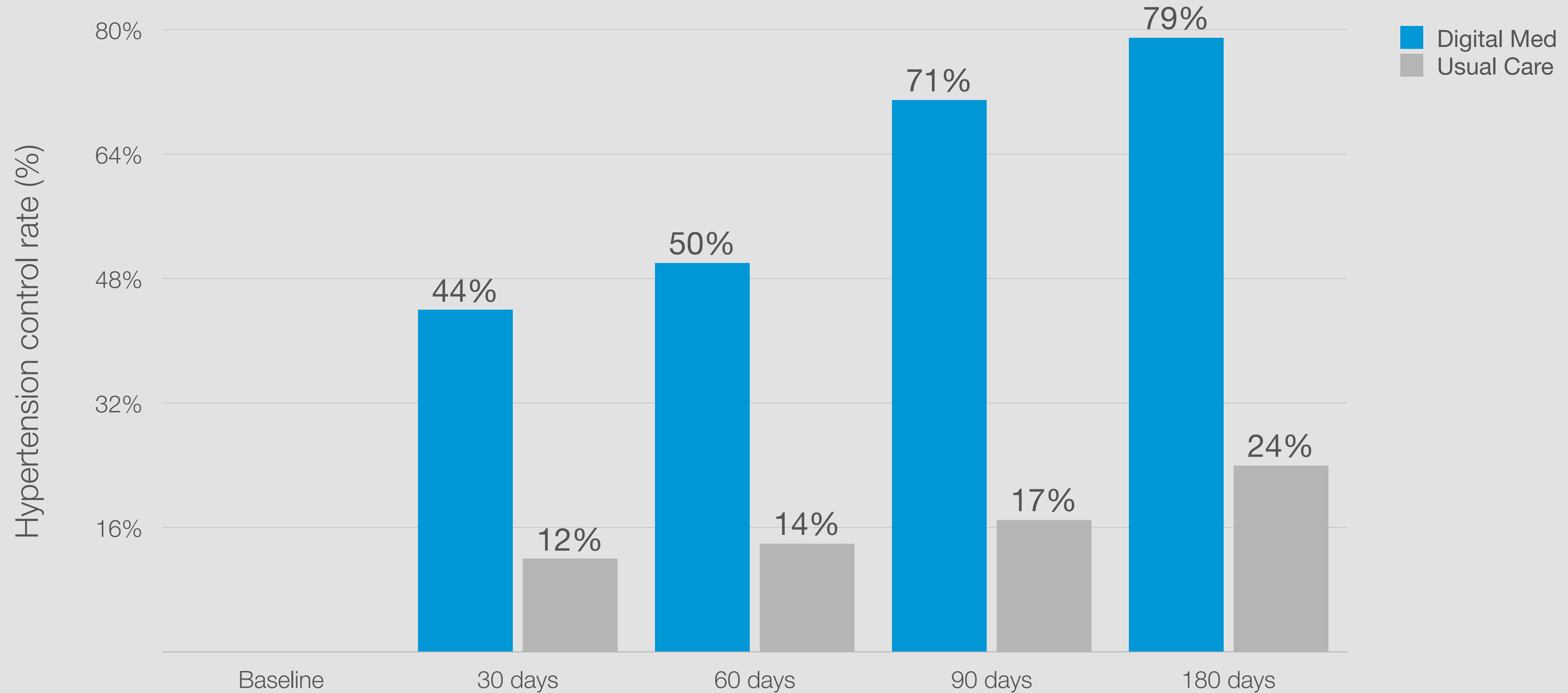
Patient satisfaction

Patient activation

Reduction in Sodium Consumption

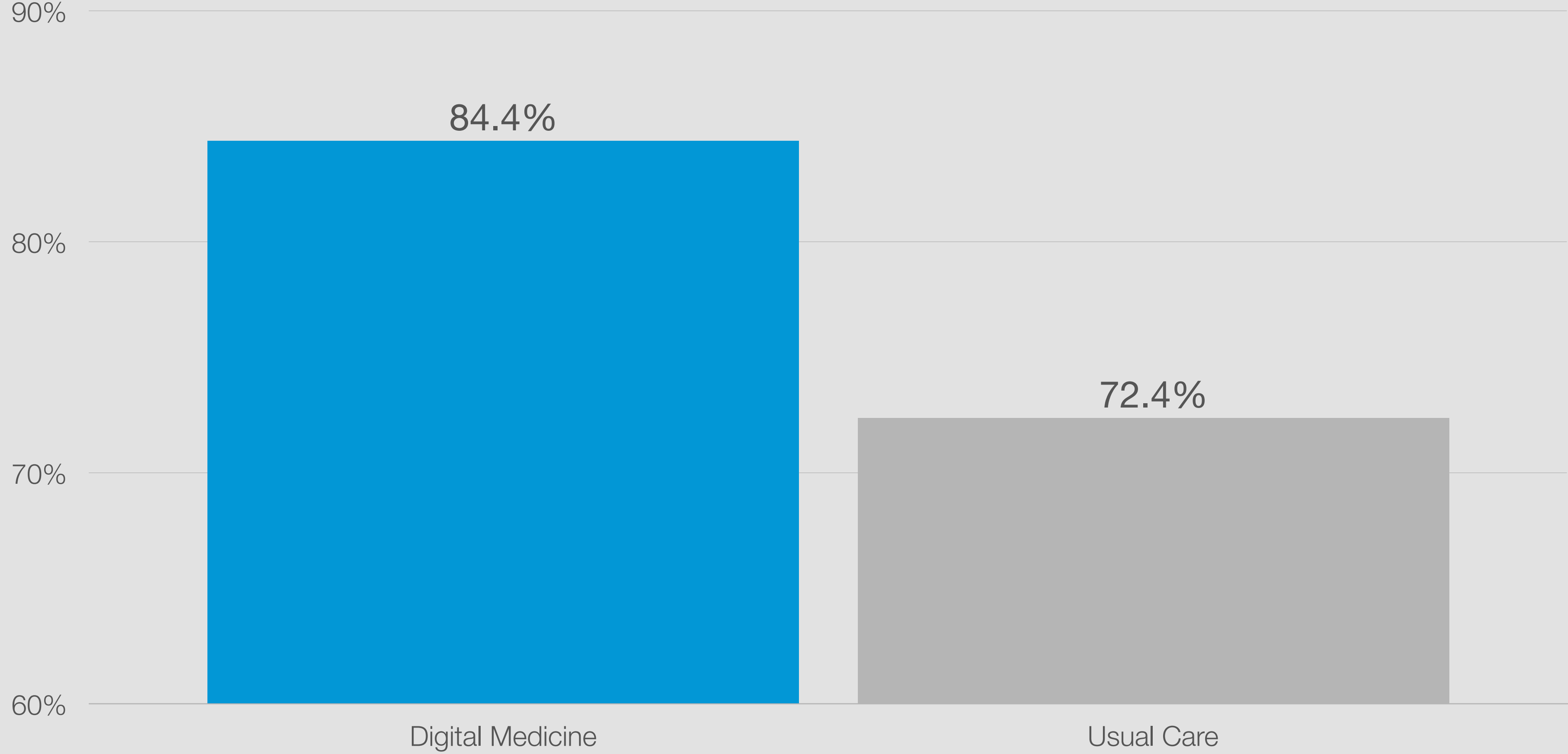


Patients Achieving Goal BP



Patient-Level Outcomes

Overall satisfaction



$p < 0.001$

Patient-Level Outcomes

Overall satisfaction

“Physician/care team has encouraged me to be actively involved with my health and wellness”

“I feel empowered to manage my health”

“Recommend Ochsner to friends and family”

“Health improved over last year”

“Educational information on managing my health was helpful”

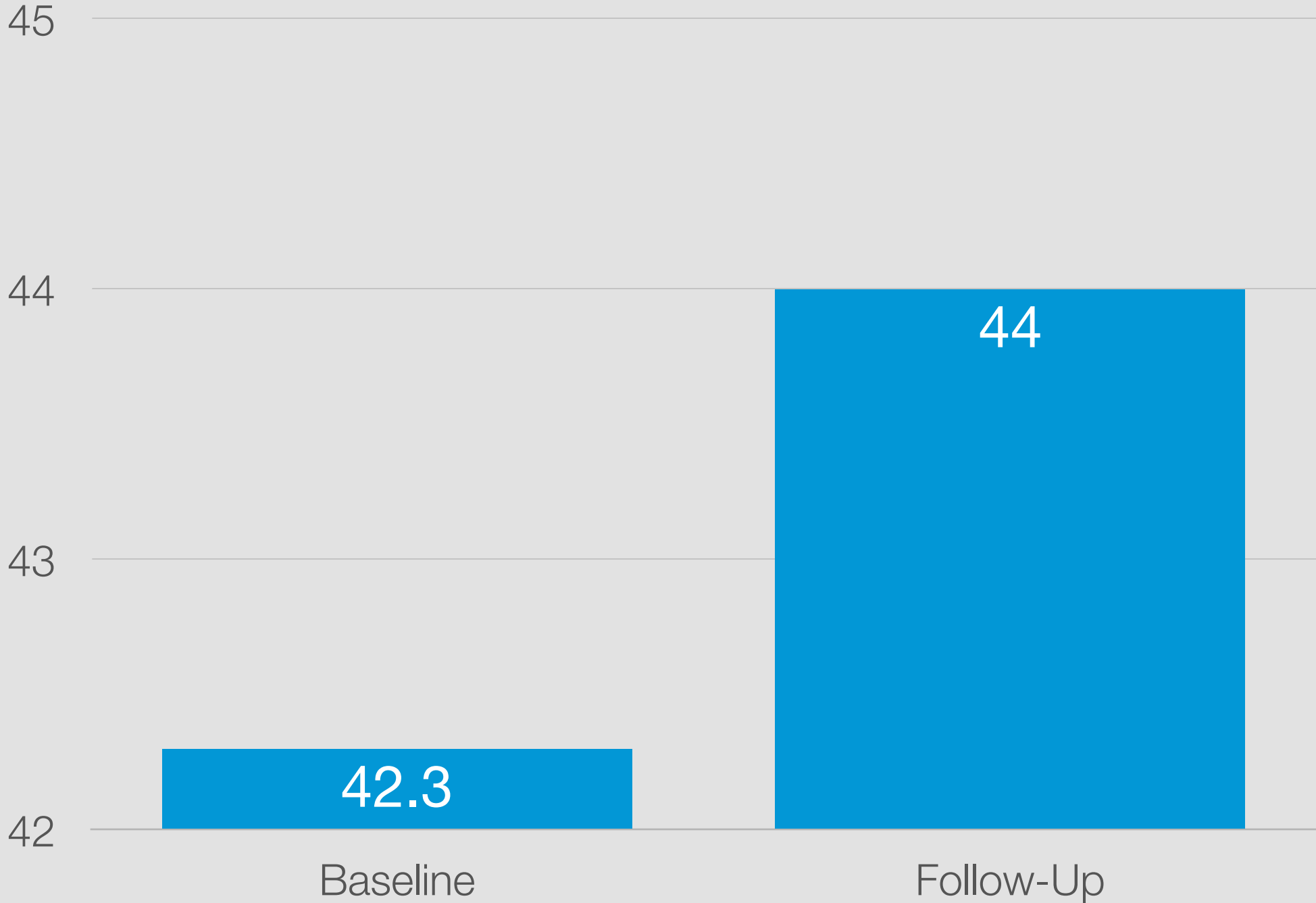
“Physician/care team spent enough time with me”

“I had enough time to ask all my questions”

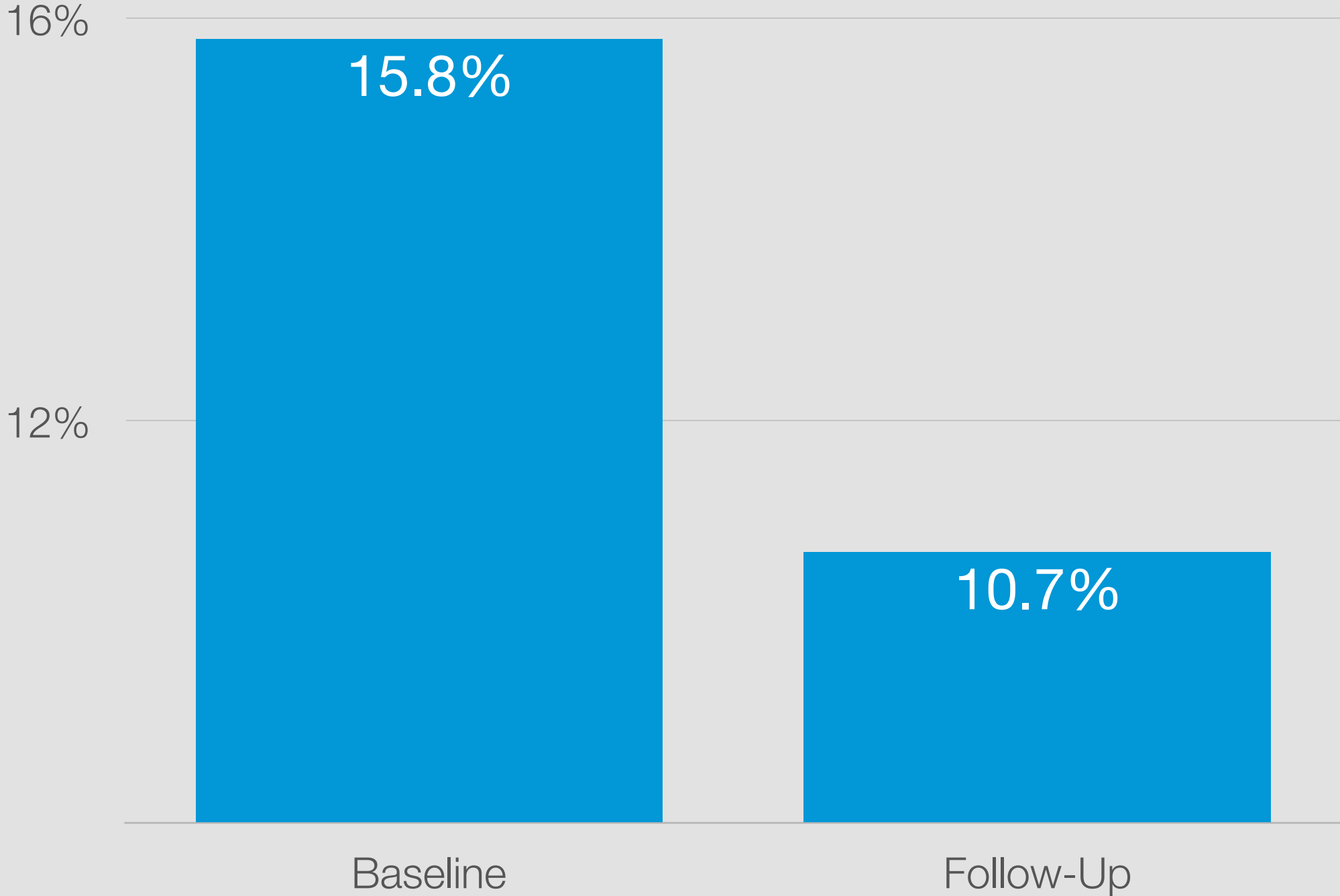
Patient-level Outcomes

Activation

Mean Patient Activation



% Low Patient Activation



p<0.05

Summary

Health systems typically operate in only 10% of the health-determinant pie

Modest interventions impacting timely communication, social and behavioral factors, yield impressive benefits in chronic disease outcomes

Digital tools enabling multiple streams of communication and patient interactions are cost-effective in managing chronic disease

Thank You!

