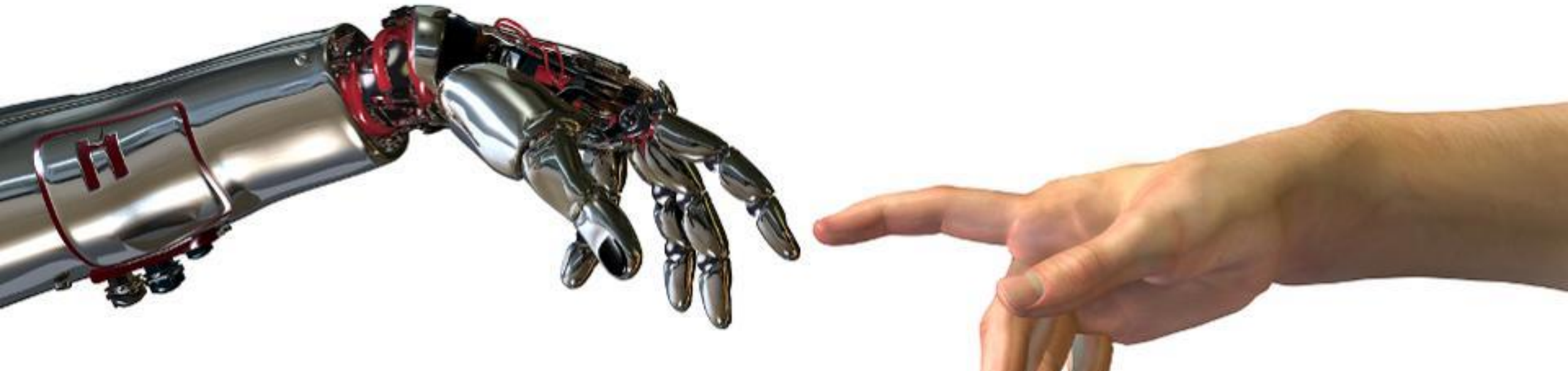


The Medical Clinic of the Future



Department of Family
& Community Medicine

David Rakel



That to which we give attention grows

Fire Payment



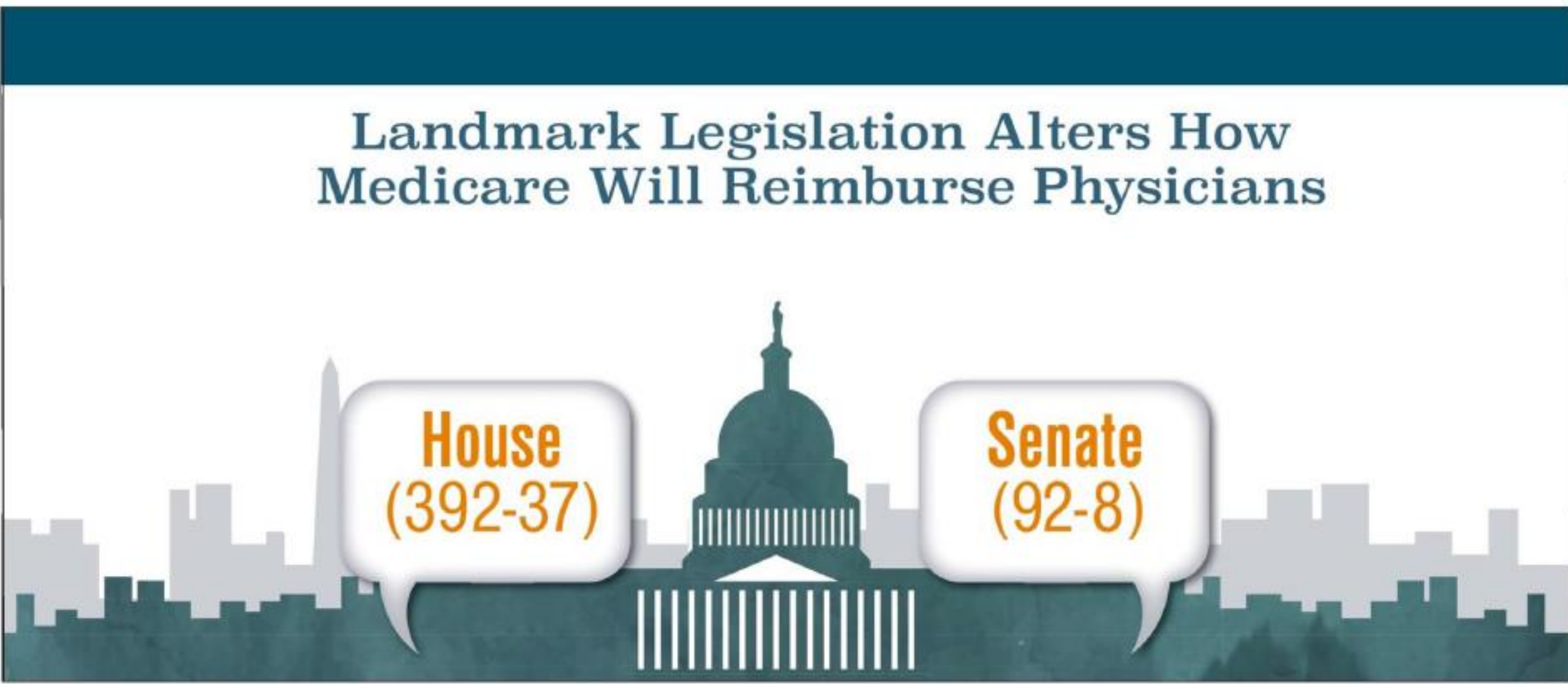
Pay for what we want.....

More health!

$$\text{Value} = \text{Quality} / \text{Cost}$$

MACRA: (**M**edicare **A**ccess and **C**HIP **R**eauthorization **A**ct)

Landmark Legislation Alters How Medicare Will Reimburse Physicians



The graphic features a stylized silhouette of the United States Capitol building in the center. To the left and right of the building are two white speech bubbles with orange text. The background consists of a dark teal base with white vertical lines representing steps, and a light gray skyline of various buildings on either side of the Capitol.

House
(392-37)

Senate
(92-8)

Weighting Progression

	2019	2020	2021
Quality	60%	50%	30%
Cost	0%	10%	30%
Advancing Care Information	25%	25%	25%
Improvement Activities	15%	15%	15%

Any doctor who could be replaced by a computer
should be.

-Warner Slack-

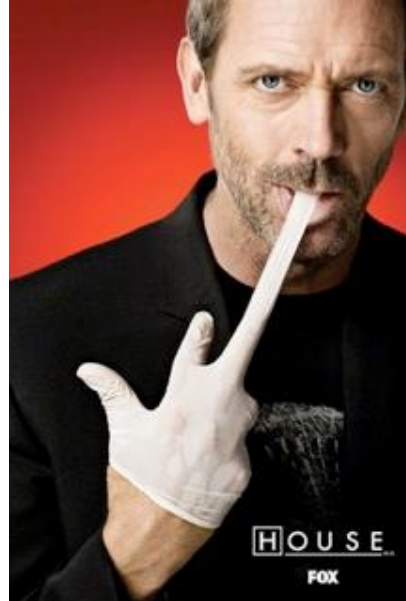
Computer vs Human

1969



Welby, MD
Healing Relationship
Servant, Companion

2009

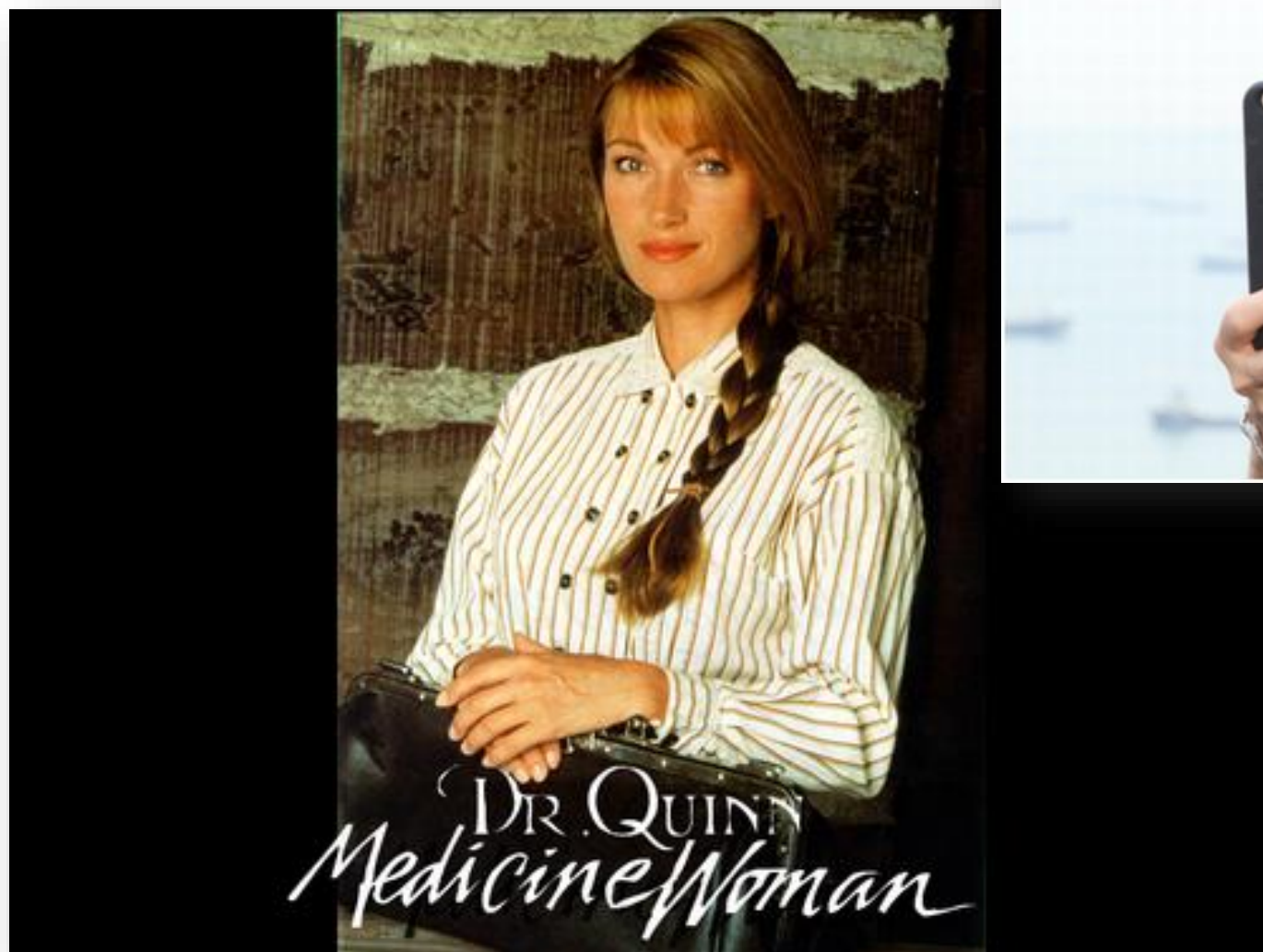


House, MD
Rescue, Technology
Expert, Doer

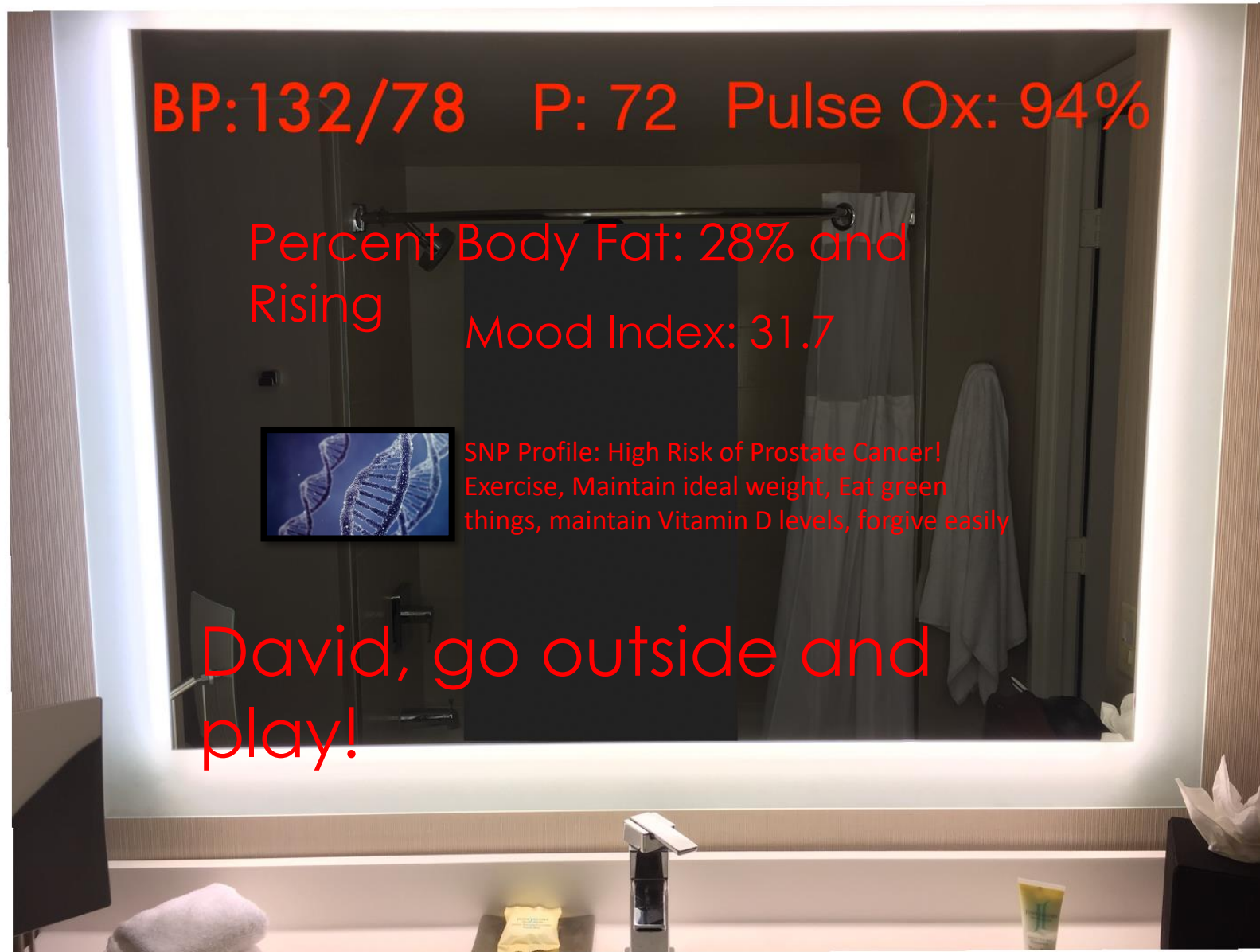
2018



Murphy, MD
Brilliant, Savant,
Autistic



Your Bathroom Mirror



FDA Clears first ECG reader for Apple Watch

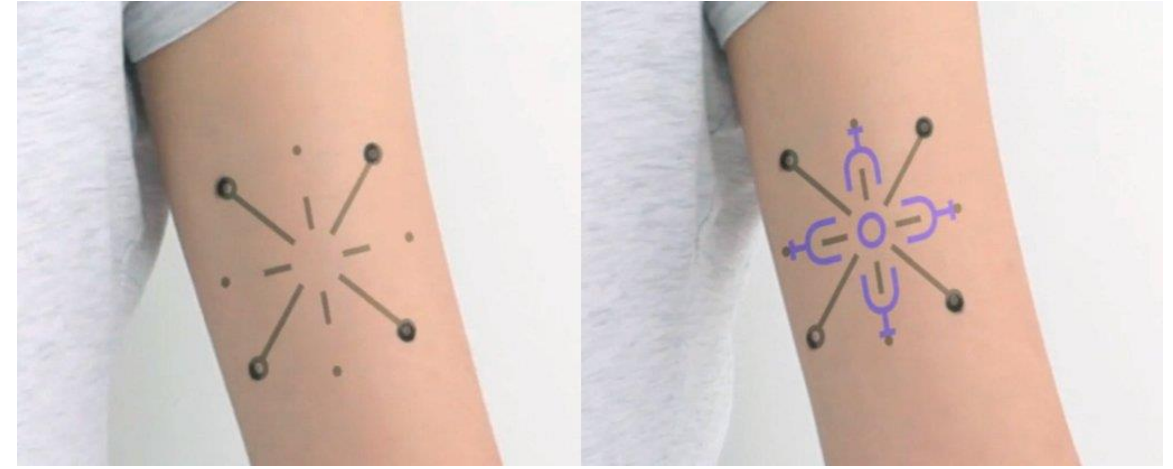
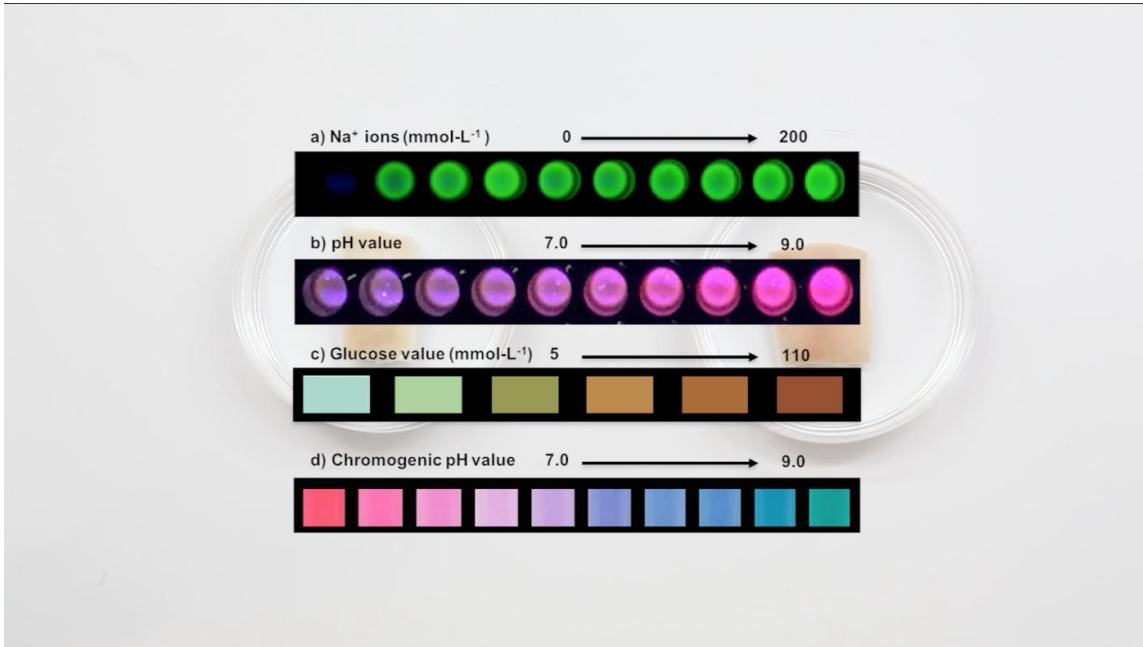




\$74



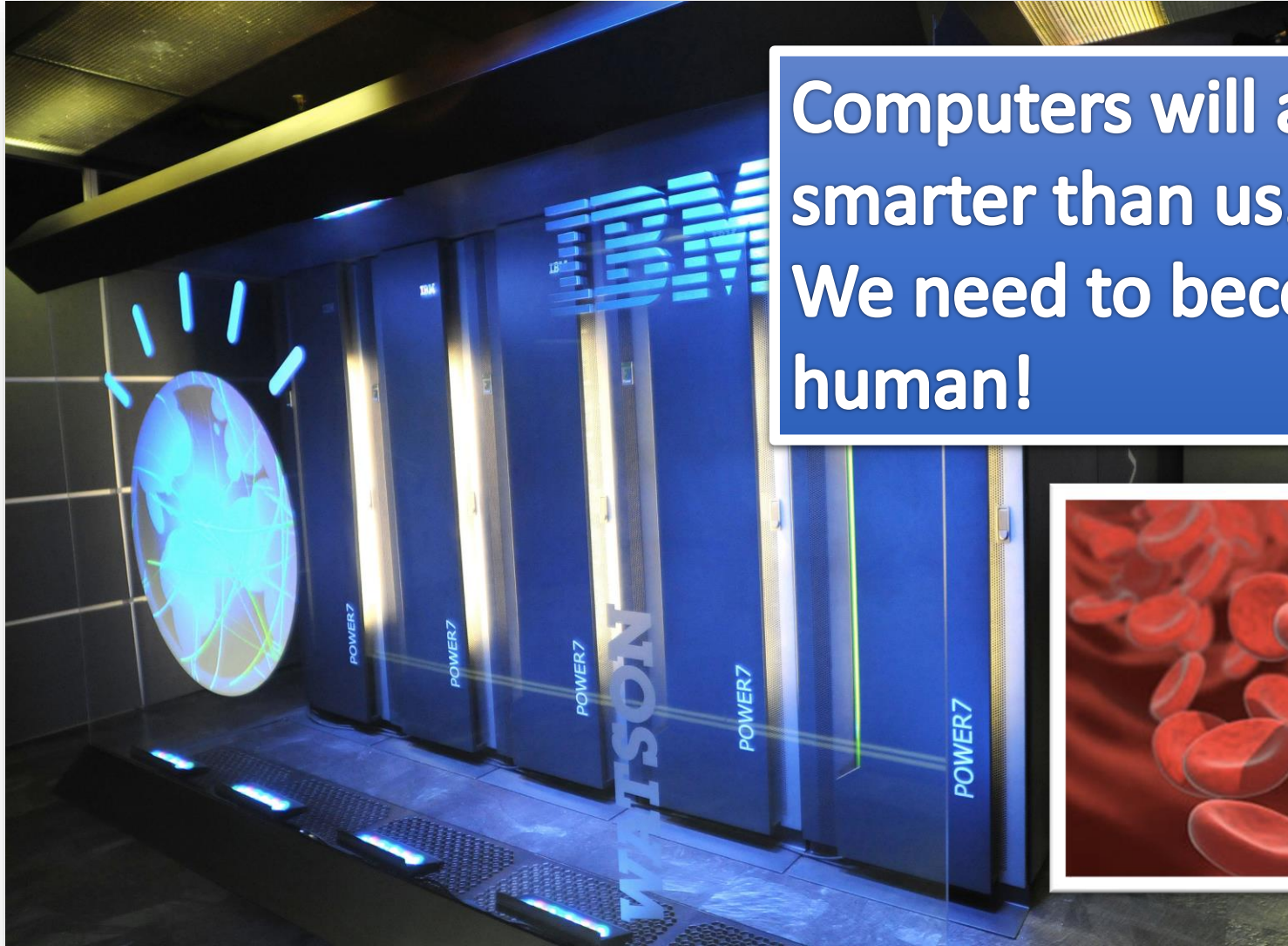
The “Fitbit Condom”



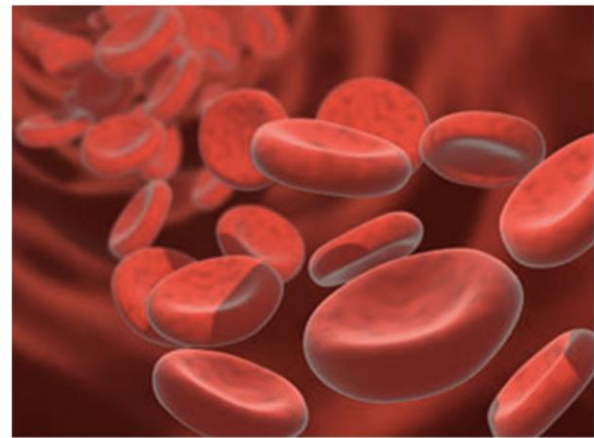
Dermal Abyss: The Bio-Tattoo



City Water, Mauritania, Africa. -Warren Heffron-



Computers will always be
smarter than us.
We need to become more
human!



Perception of Trust

TRUST = INTIMACY x COMPETENCY

Degree of Risk

The Napier Group

Technical
Pathogenesis

Adaptive
Salutogenesis



Human conditioning...

Which thumb on top?



How Many F's?

**FINISHED FILES ARE THE RESULT
OF YEARS OF SCIENTIFIC STUDY
COMBINED WITH THE
EXPERIENCE OF YEARS.**

On Being Sane in Insane Places

8 “sane” people admitted to different psych hospitals



- 4 Psychologists
- 1 Psychiatrist
- 1 Pediatrician
- 1 Painter
- 1 Homemaker

All given the
diagnosis of
Schizophrenia in
remission

Average length of
stay:

19 DAYS
(7-52 days)

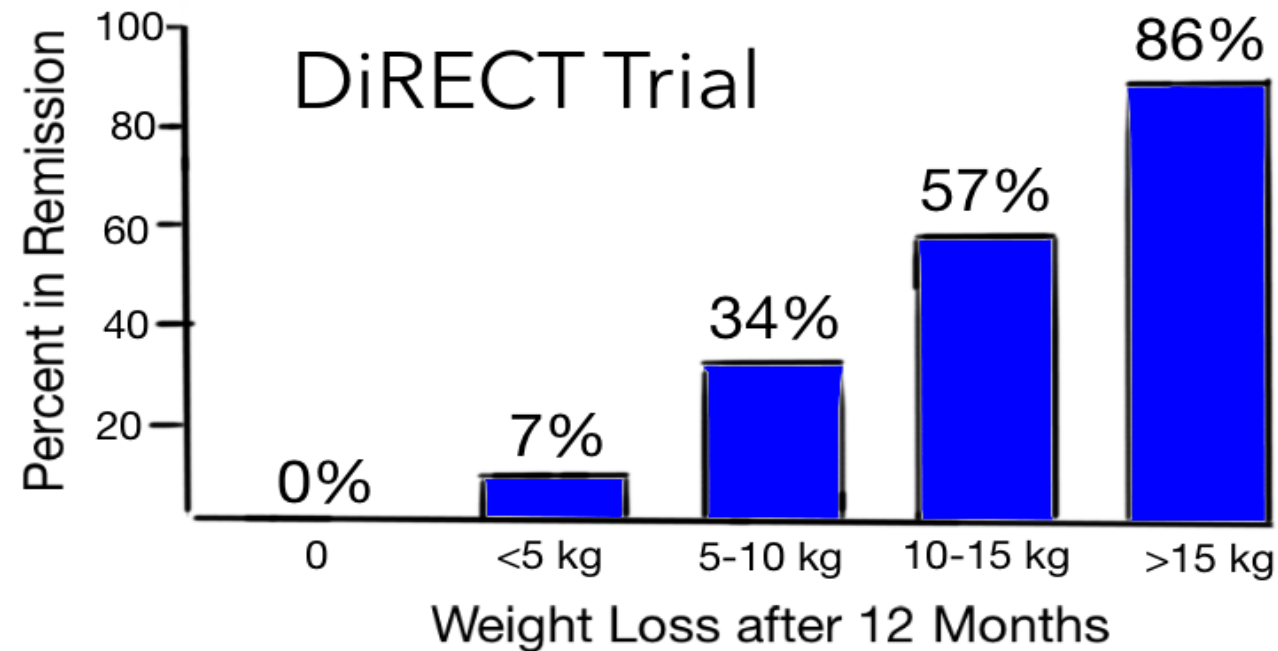
Rosenhan DL, Science Vol. 179, 1973

In 2015, 35.8% of
Americans were
taking 5 or more
medicines.



Qato DM, Wilder J, Schumm LP *et al*. Changes in prescription and over-the-counter medication and dietary supplement use among older adults in the United States, 2005 vs 2011. *JAMA* 2016;176:473–482.

What if we had a therapy that would send 86% of those with type 2 diabetes into remission?

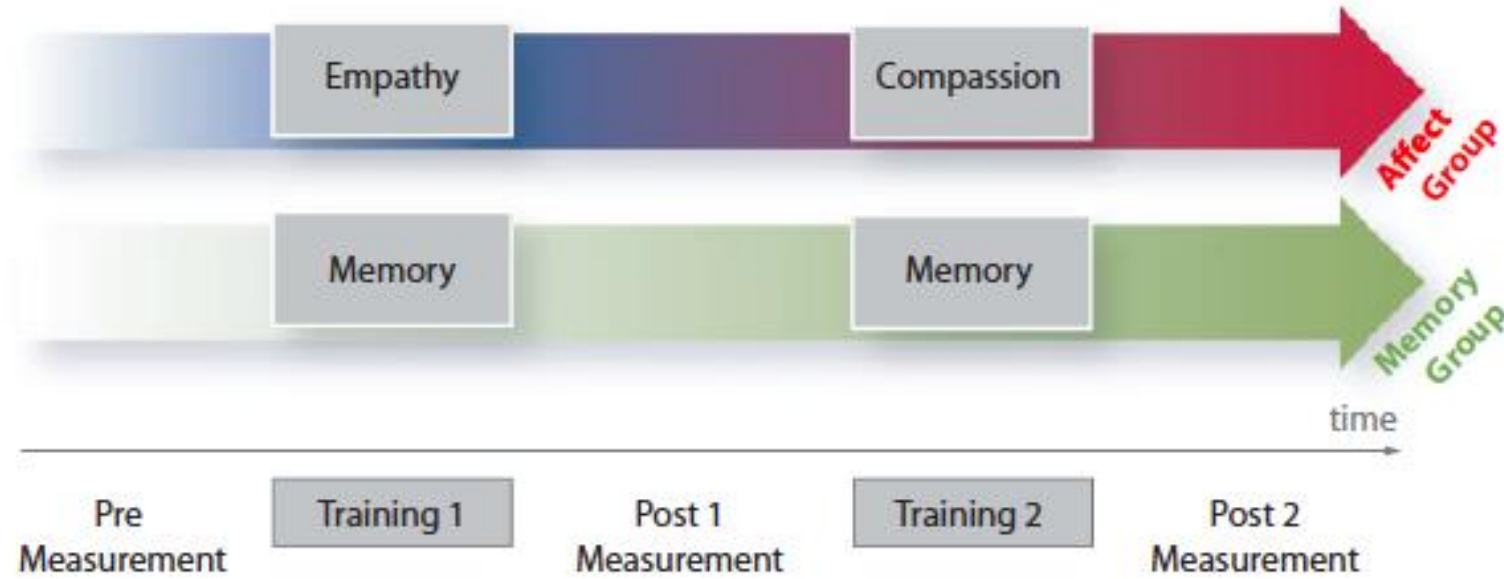


Lean M. et al. Primary care-led weight management for remission of type 2 diabetes (DiRECT): an open-label, cluster-randomized trial. Lancet. Dec 5th, 2017.

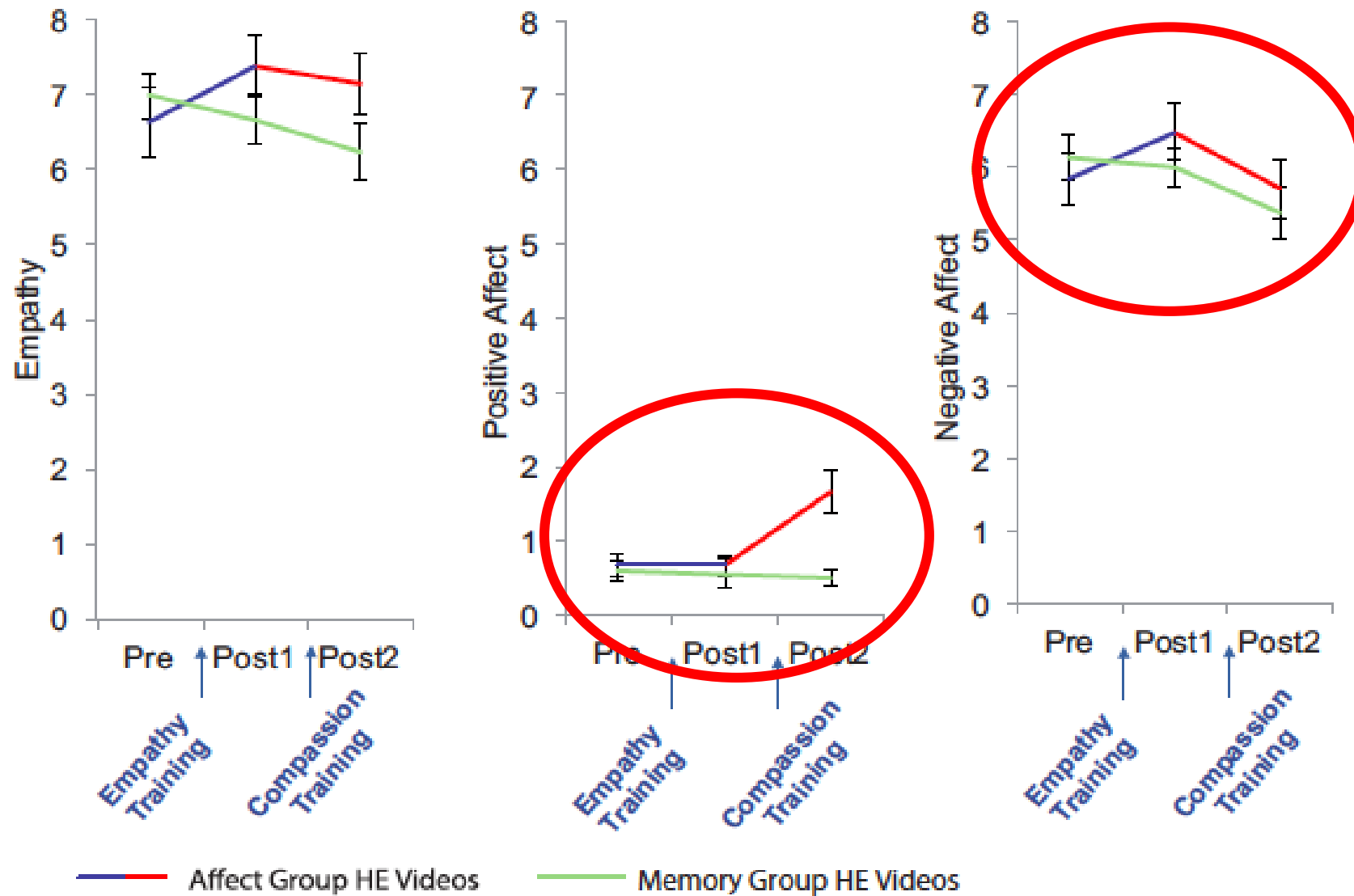
"One of the first duties of the physician is to educate the masses not to take medicine"

-Sir William Osler-

Burnout vs Enlightenment



Klimecki, O.M., et al., *Differential pattern of functional brain plasticity after compassion and empathy training*. Soc Cogn Affect Neurosci, 2014. 9(6): p. 873-9.



Klimecki, O.M., et al., *Differential pattern of functional brain plasticity after compassion and empathy training*. Soc Cogn Affect Neurosci, 2014. 9(6): p. 873-9.

Loving Kindness Meditation
>2500 years old.....

May you be filled with loving-kindness

May you be well

May you be peaceful and at ease

May you be happy

Be ^{NM}
Kind [♥]



How would you feel if you opened up your medical record and saw this list?

The image shows a screenshot of a medical software interface titled "Problem List 15". The list of conditions is organized into two main sections: "Hospital" and "Non-Hospital". The "Hospital" section includes: Diabetes mellitus, type 2; Sleep apnea, On home BIPAP (ASV). His settings, per Apria are as follows: IPAP r auto (room air); Diabetic foot ulcer; Diabetic neuropathy; Abdominal pain; Generalized anxiety disorder; and Sepsis. The "Non-Hospital" section includes: Depressive disorder, not elsewhere classified; History of suicide attempt; Insomnia; Fibromyalgia; Claustrophobia; Dyslipidemia; Heartburn; Dizziness; Poor balance; Arthritis; Stasis dermatitis; Blurry vision; Chronic pain; Dental disease; Memory loss; Hypoxia (highlighted with a mouse cursor); HTR (hypertension); Panic attacks; B12 deficiency; Panic disorder; and Tubular adenoma of colon. At the bottom of the list, there is a checkbox labeled "Mark as Reviewed" which is checked, followed by the text "Reviewed by MD on 10/17/2015". Below this, there is a section header "Medications" with a small icon to its left.

Problem List 15

Hospital

- Diabetes mellitus, type 2
- Sleep apnea, On home BIPAP (ASV). His settings, per Apria are as follows: IPAP r auto (room air).
- Diabetic foot ulcer
- Diabetic neuropathy
- Abdominal pain
- Generalized anxiety disorder
- Sepsis

Non-Hospital

- Depressive disorder, not elsewhere classified
- History of suicide attempt
- Insomnia
- Fibromyalgia
- Claustrophobia
- Dyslipidemia
- Heartburn
- Dizziness
- Poor balance
- Arthritis
- Stasis dermatitis
- Blurry vision
- Chronic pain
- Dental disease
- Memory loss
- Hypoxia
- HTN (hypertension)
- Panic attacks
- B12 deficiency
- Panic disorder
- Tubular adenoma of colon

☒ Mark as Reviewed Reviewed by MD on 10/17/2015

Medications



Wave

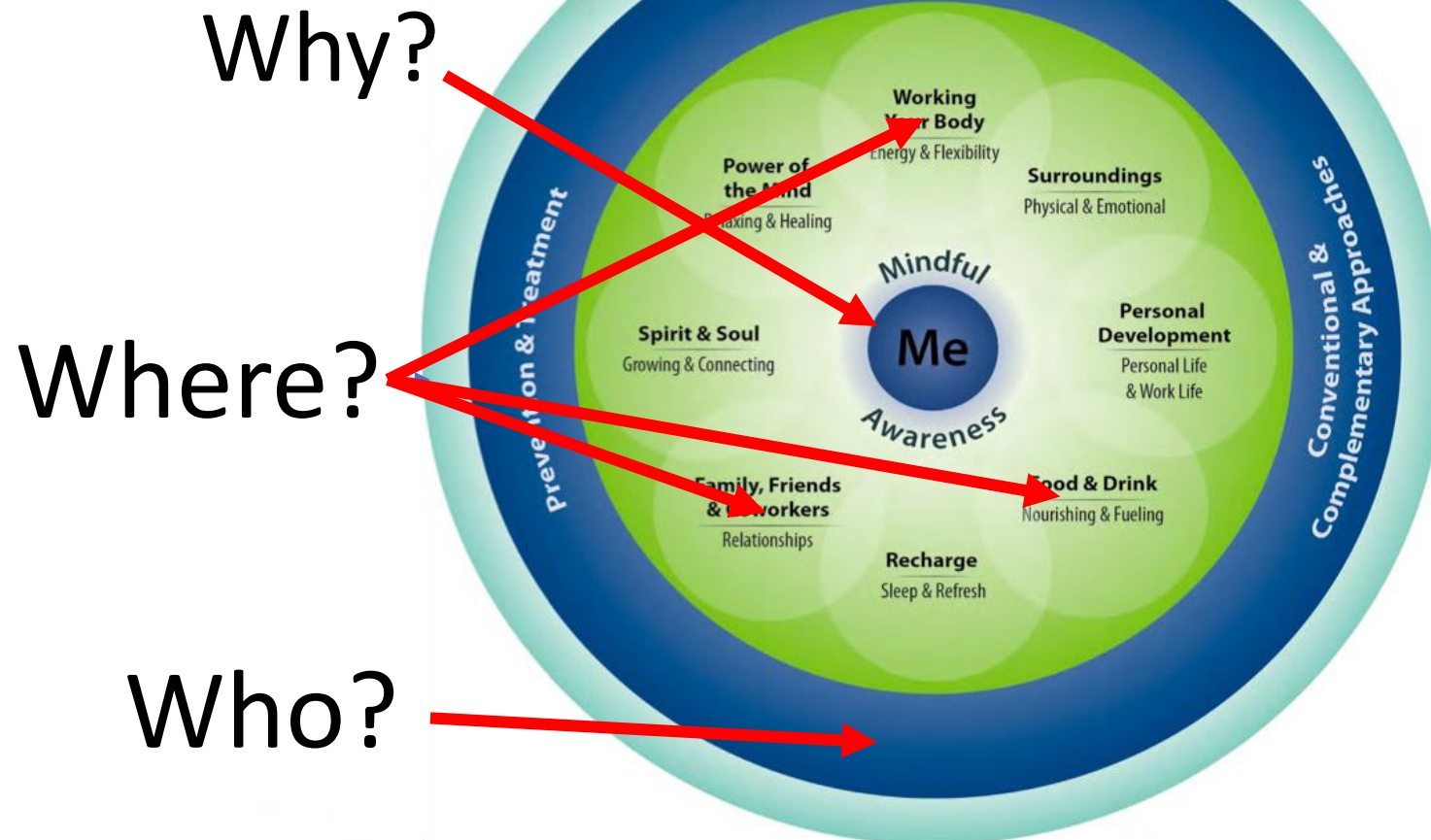


Particle

"CIRCLE OF HEALTH"



U.S. Department
of Veterans Affairs



Three Questions....

Why: Why do you want to be healthy? Or What do you want your health for?

Where: Where do you need to start?

What: What support (professionals: **Who**) do you need to succeed?



What do you want your health for?

You can now add Patient Goals to the EHR at U of Wisconsin (EPIC)

Problem List

 Create Patient Care Coordination Note

 Add

Diagnosis ▾

Patient Goal

- ▶ Patient Life Goal: Climb Mt. Kilimanjaro

Cardiovascular

- ▶ Hypertension goal BP (blood pressure) < 120/80
- ▶ CAD (coronary artery disease)
 -  Overview MI in 2000 Care Plan: • if chest pain develops again, need to call clinic immediately

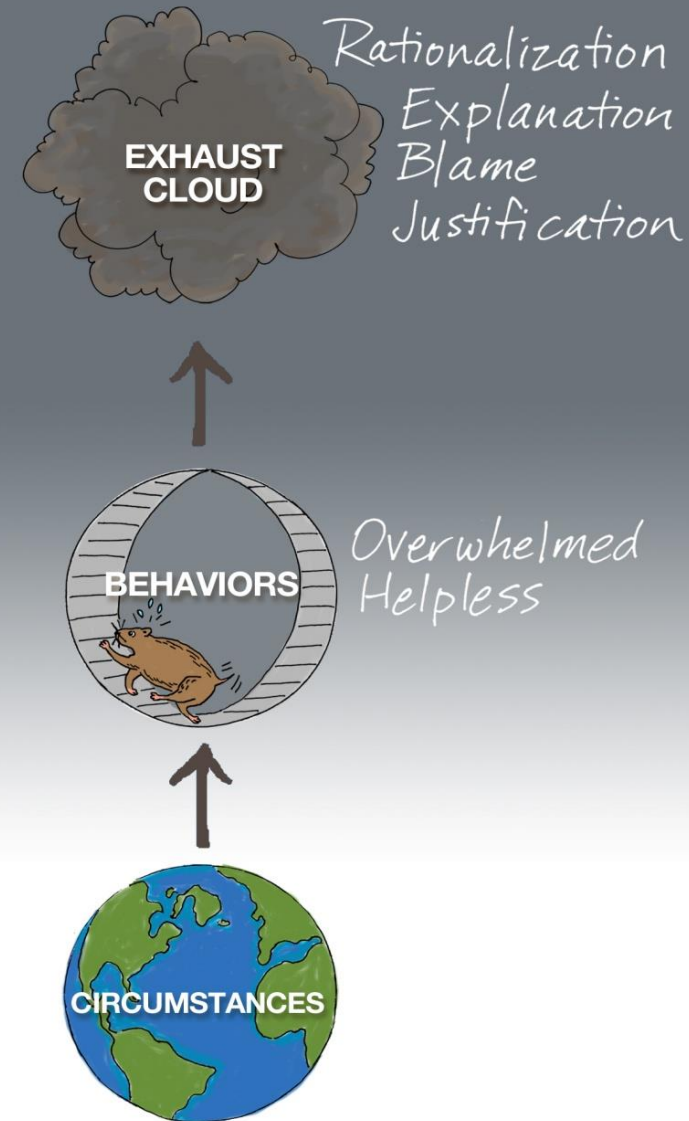
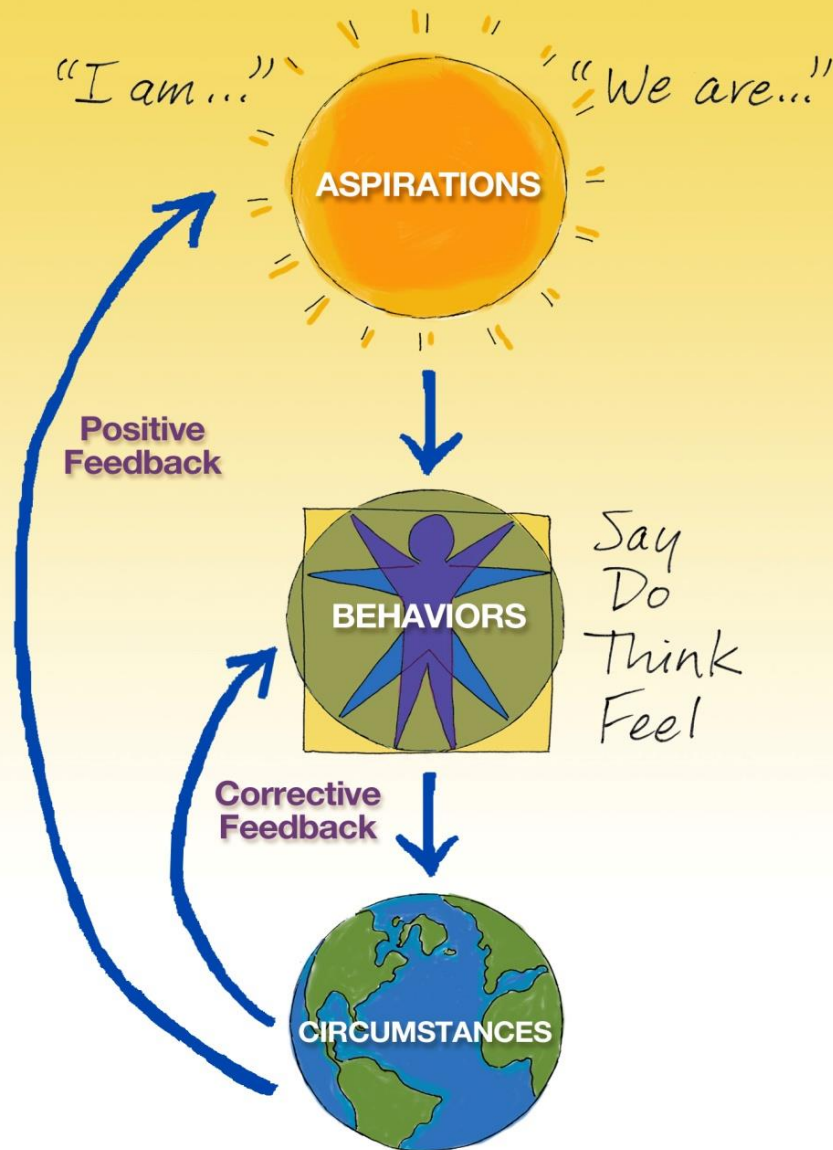
Endocrine

- ▶ Type 2 diabetes, HbA1C goal < 7%
 -  Overview diagnosed 11/26/2012 with A1C of 11 and glucose of ~500. Family Hx: father had diabetes

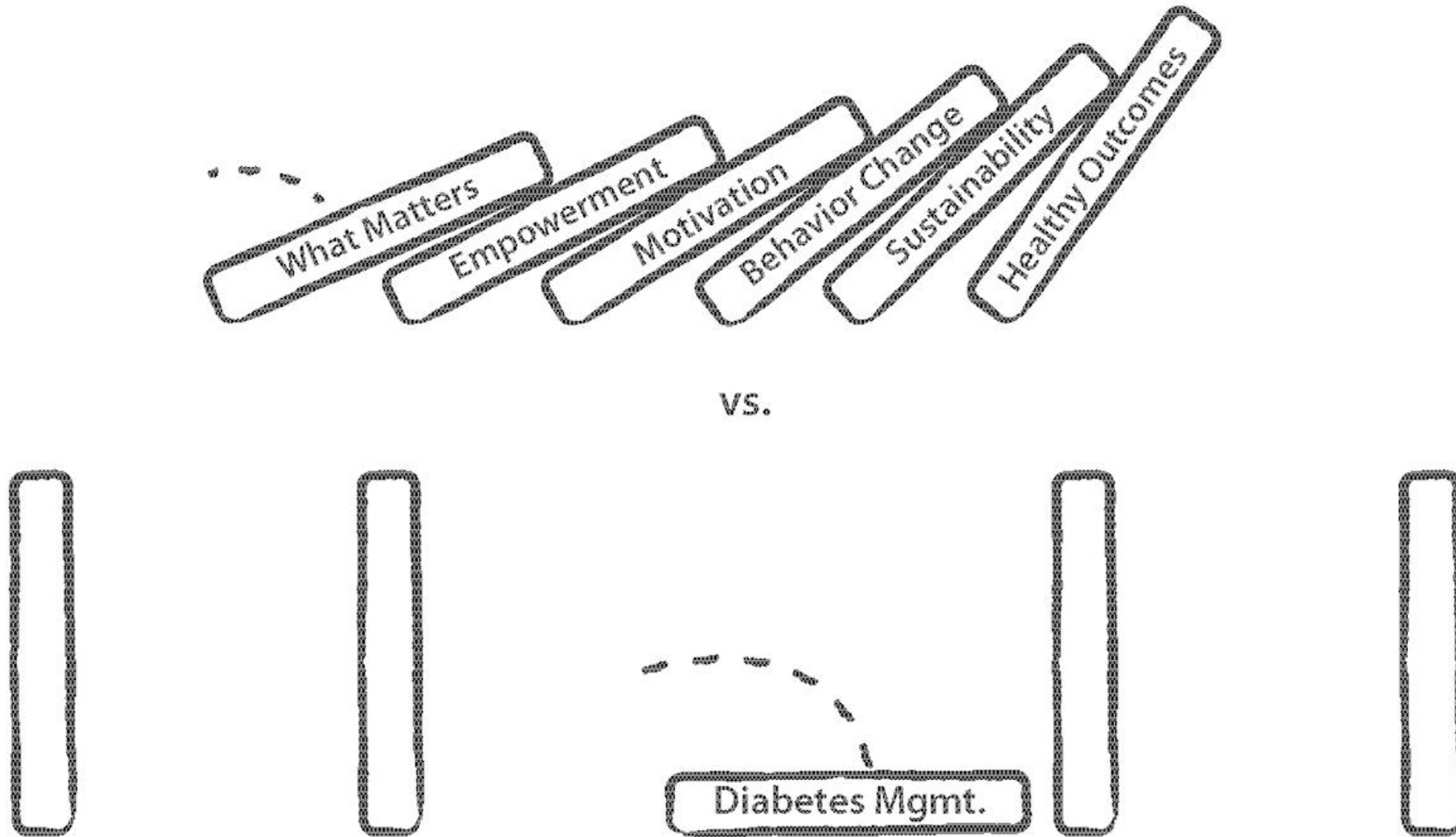
Health

THE ASPIRATIONS MODEL

Disease

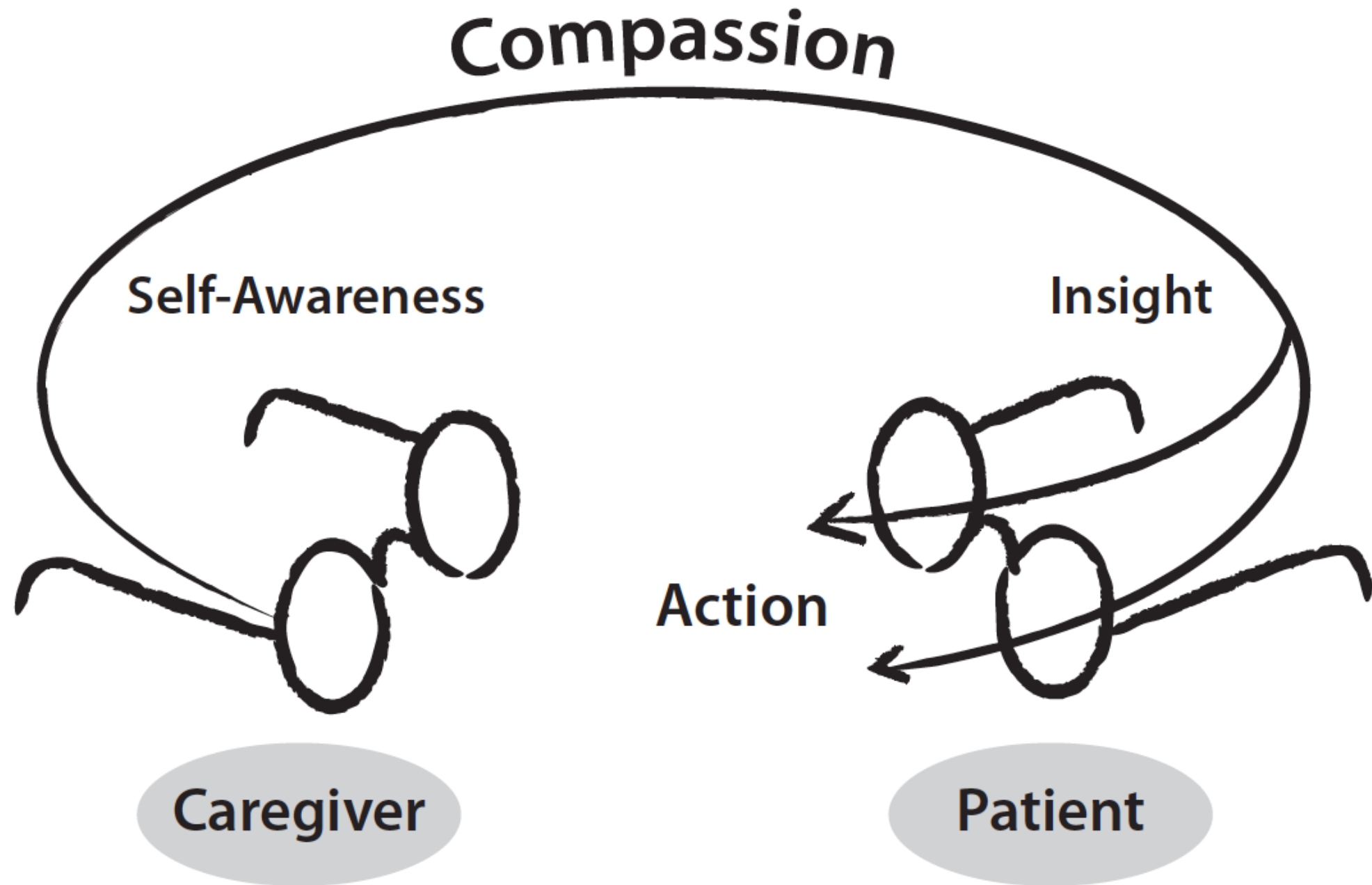


What Matters and Why?



The definition of hell is a place where nothing connects with nothing.

-T.S. Eliot-



That to which you give attention grows

“The treatment of a disease
may be entirely
impersonal;

the care of a patient must
be completely personal.”

Francis Peabody