

## SESSION 2: HEALTHCARE DESIGN

**Design  
& Health**  
International Academy for Design and Health

Milano, Italy 11-14 April 2024

# Design & Health

13TH WORLD CONGRESS & EXHIBITION

REVITALIZING HEALTH BY SALUTOGENIC DESIGN

Healthy environment | Healthy people

# *Salutogenic Transformation in Health Care*

David Rakel, MD

Professor & Chair, Dept of Family Medicine & Community Health  
University of Wisconsin-Madison



**POLITECNICO  
MILANO 1863**

DIPARTIMENTO DI ARCHITETTURA,  
INGEGNERIA DELLE COSTRUZIONI  
E AMBIENTE COSTRUITO

MEDIA PARTNER

**Progettare  
per la Sanità**  
Organizzazione, tecnologia, architettura

**edra** | SANITÀ 33

SPONSORS

**Gerflor**

**REair**

**Deerns**

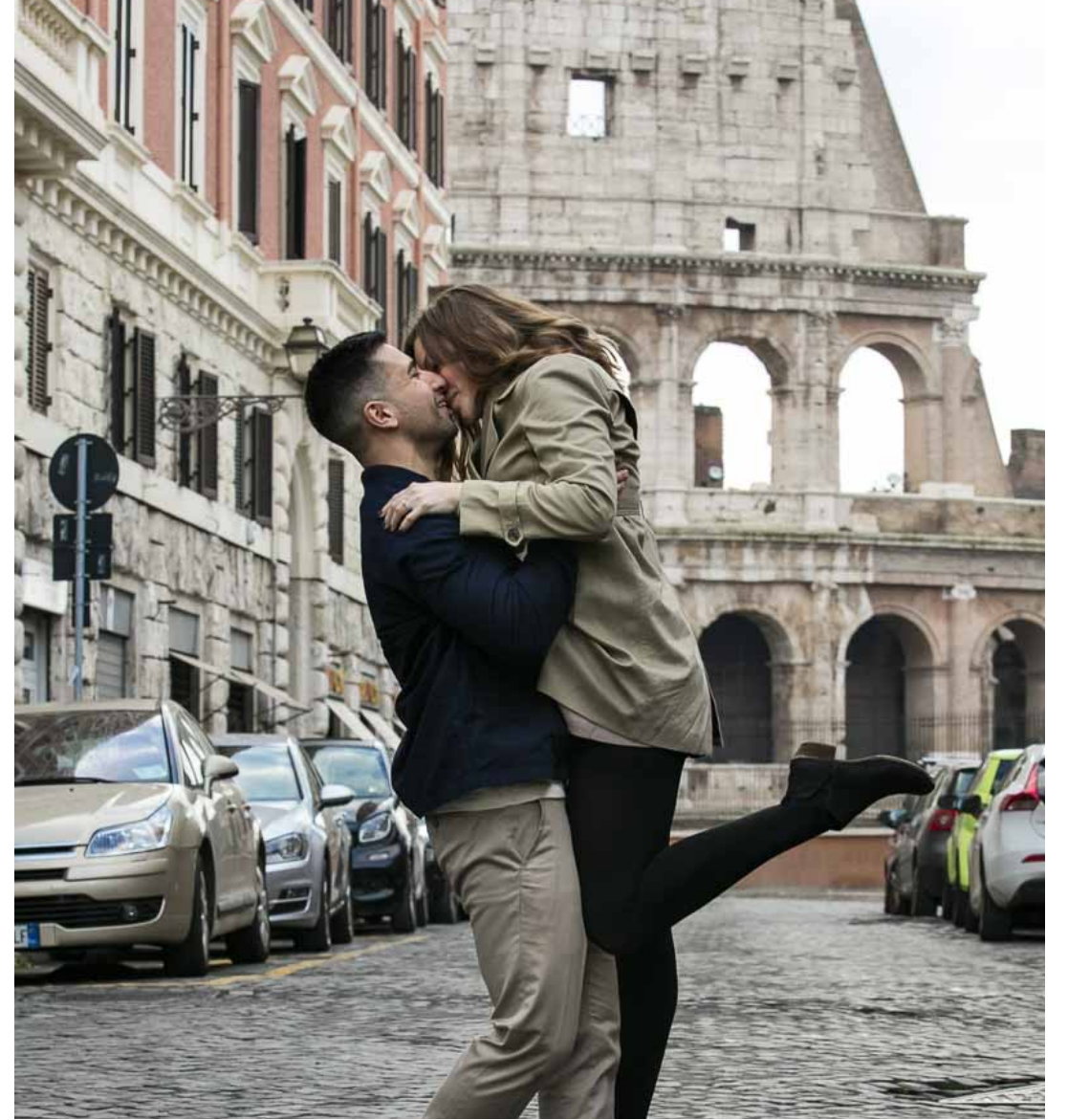
**cneto**  
CENTRO NAZIONALE  
TECNICO  
OPERATIVO

*That to which we give  
attention grows*

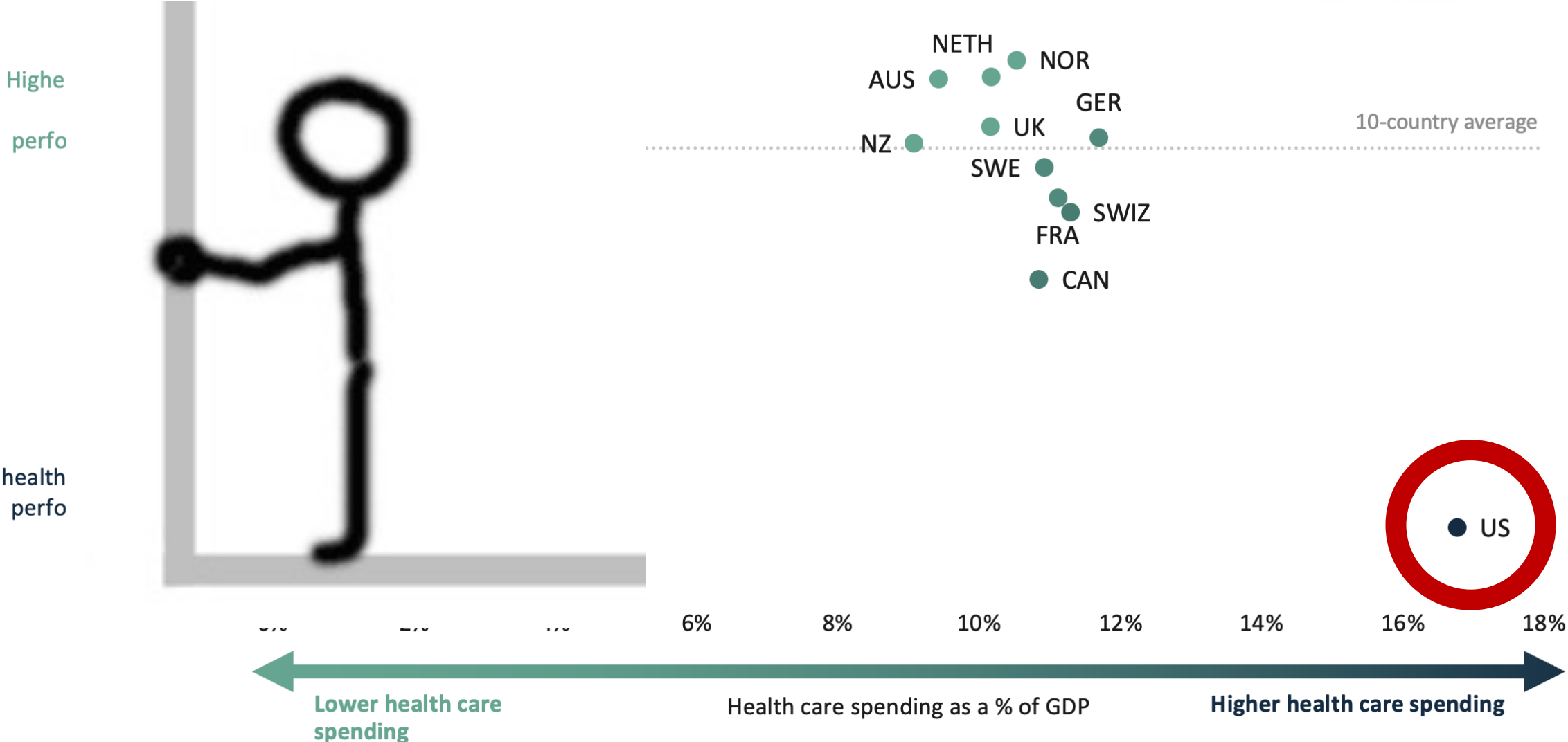
# Italy: Giving attention to Salutogenesis

---





# Health Care System Performance Compared to Spending



Note: Health care spending as a percent of GDP. Performance scores are based on standard deviation calculated from the 10-country average that excludes the US. See How We Conducted This Study for more detail. Data: Spending data are from OECD for the year 2019 (updated in July 2021).

# The Science of Salutogenesis

## Pathogenesis

Reactive

Passive Recipient

Weakness

Expensive

Parts

## Salutogenesis

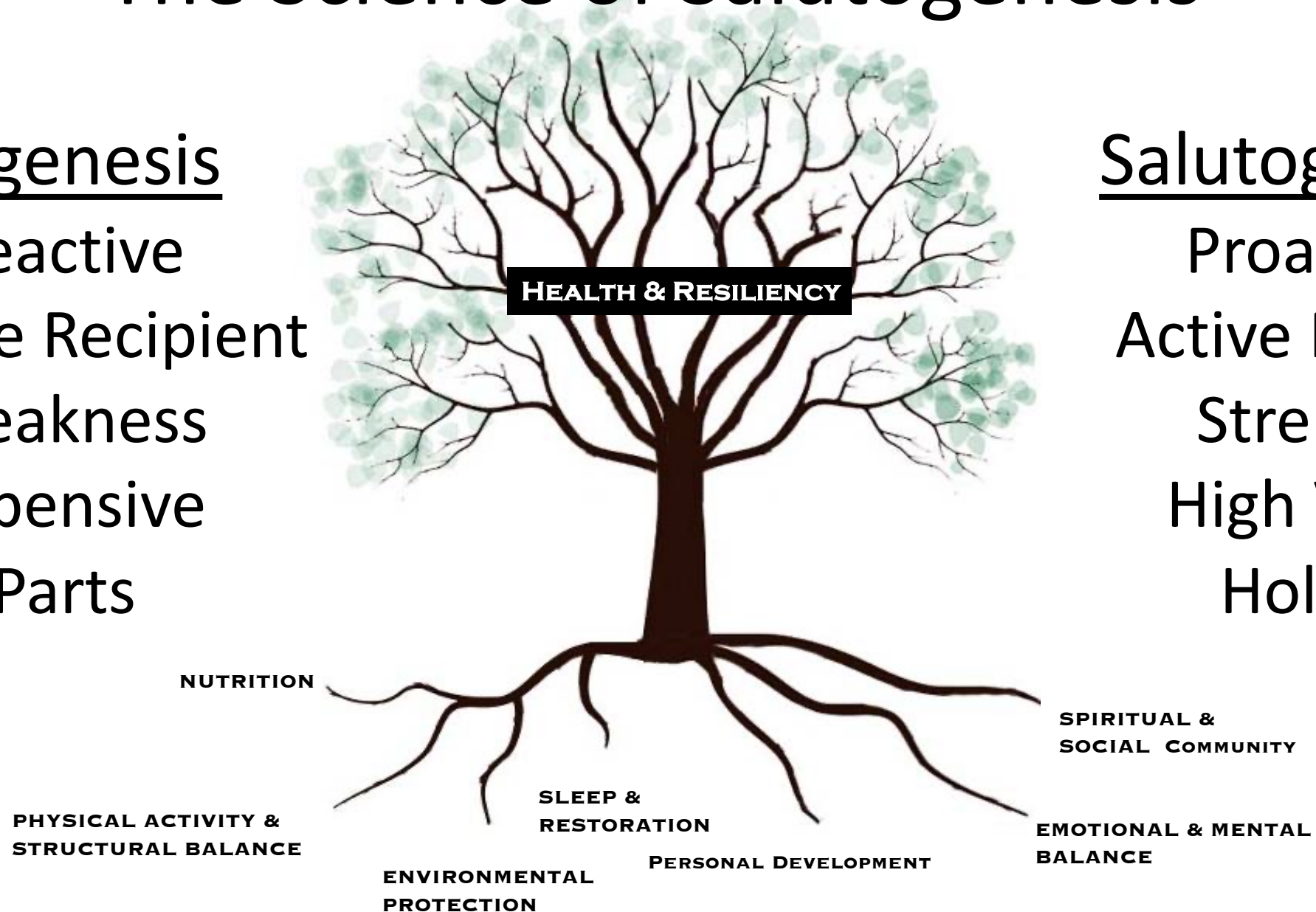
Proactive

Active Partner

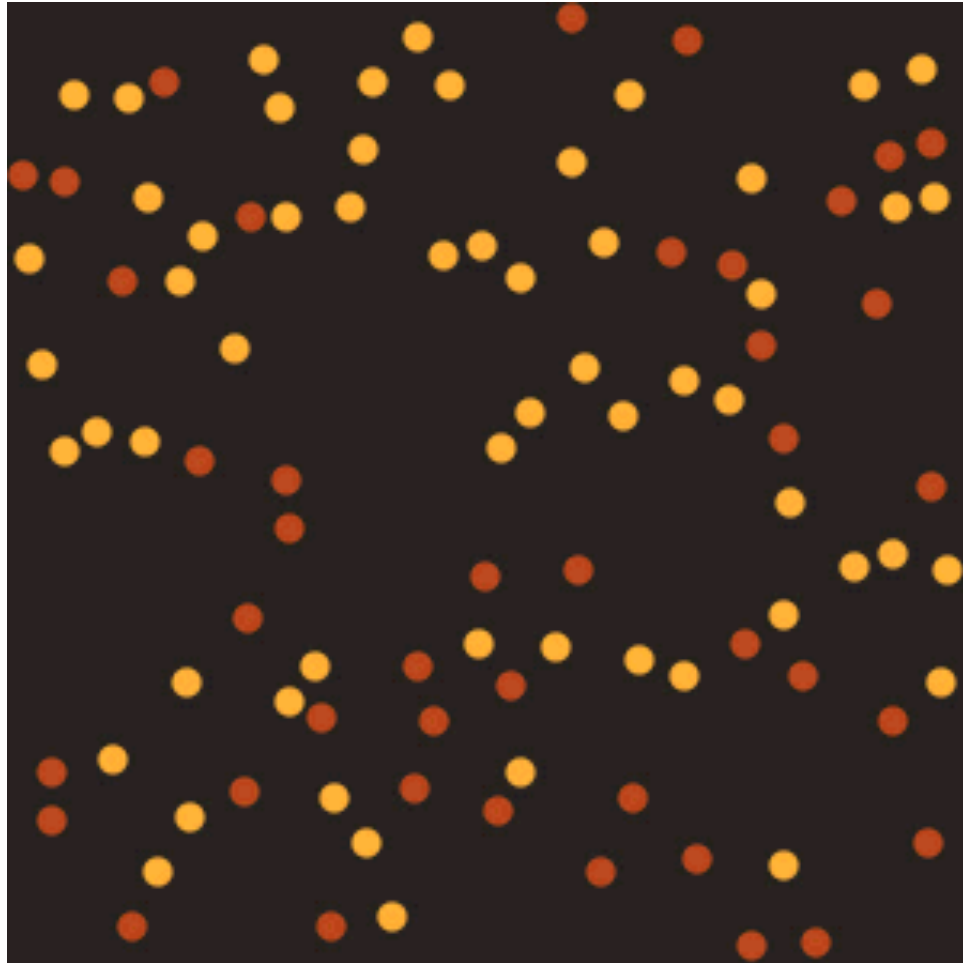
Strength

High Value

Holism



# Entropy



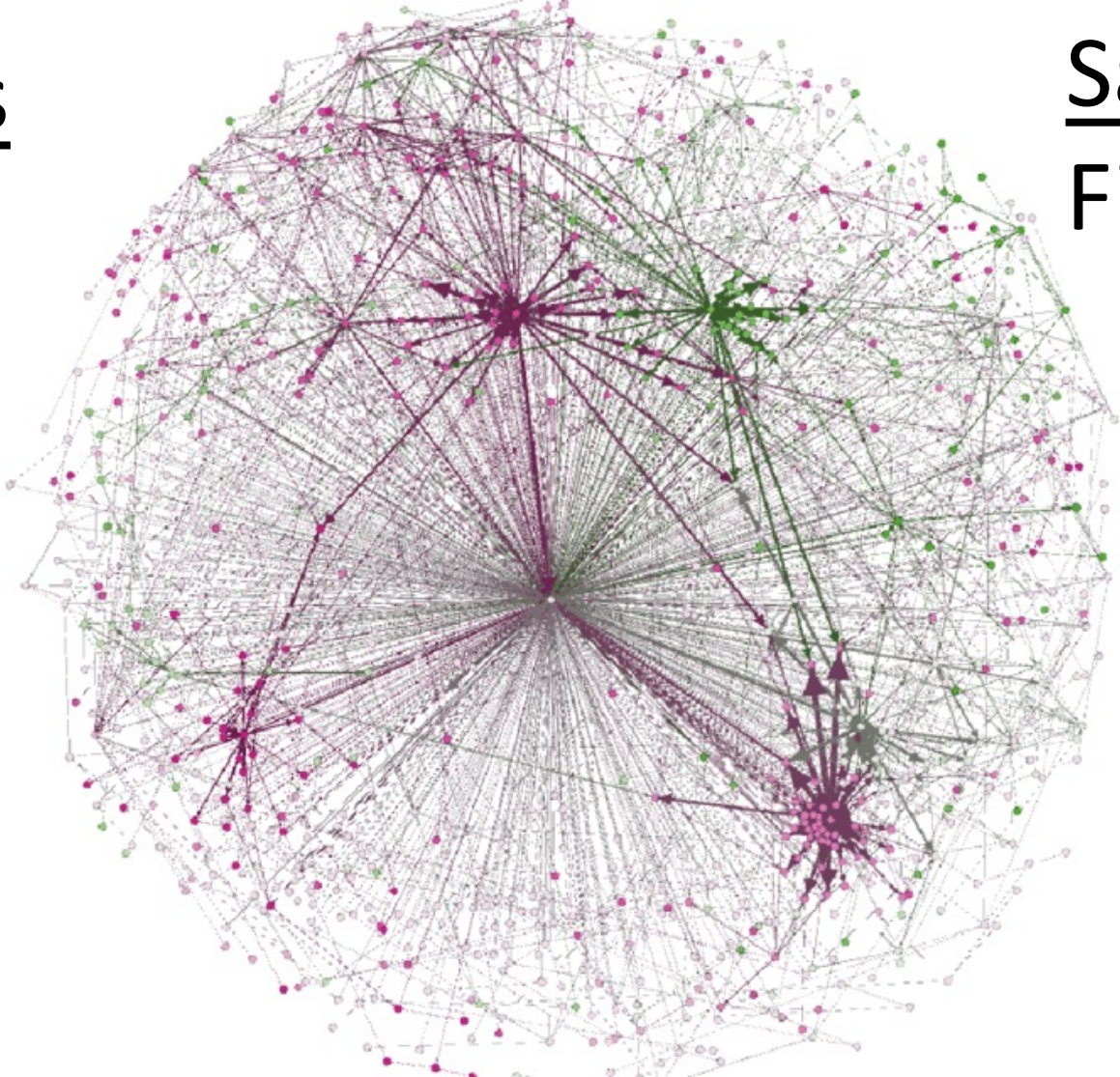
# Systems Science Guides Salutogenic Science

## Pathogenesis

Take This Pill



A Pill



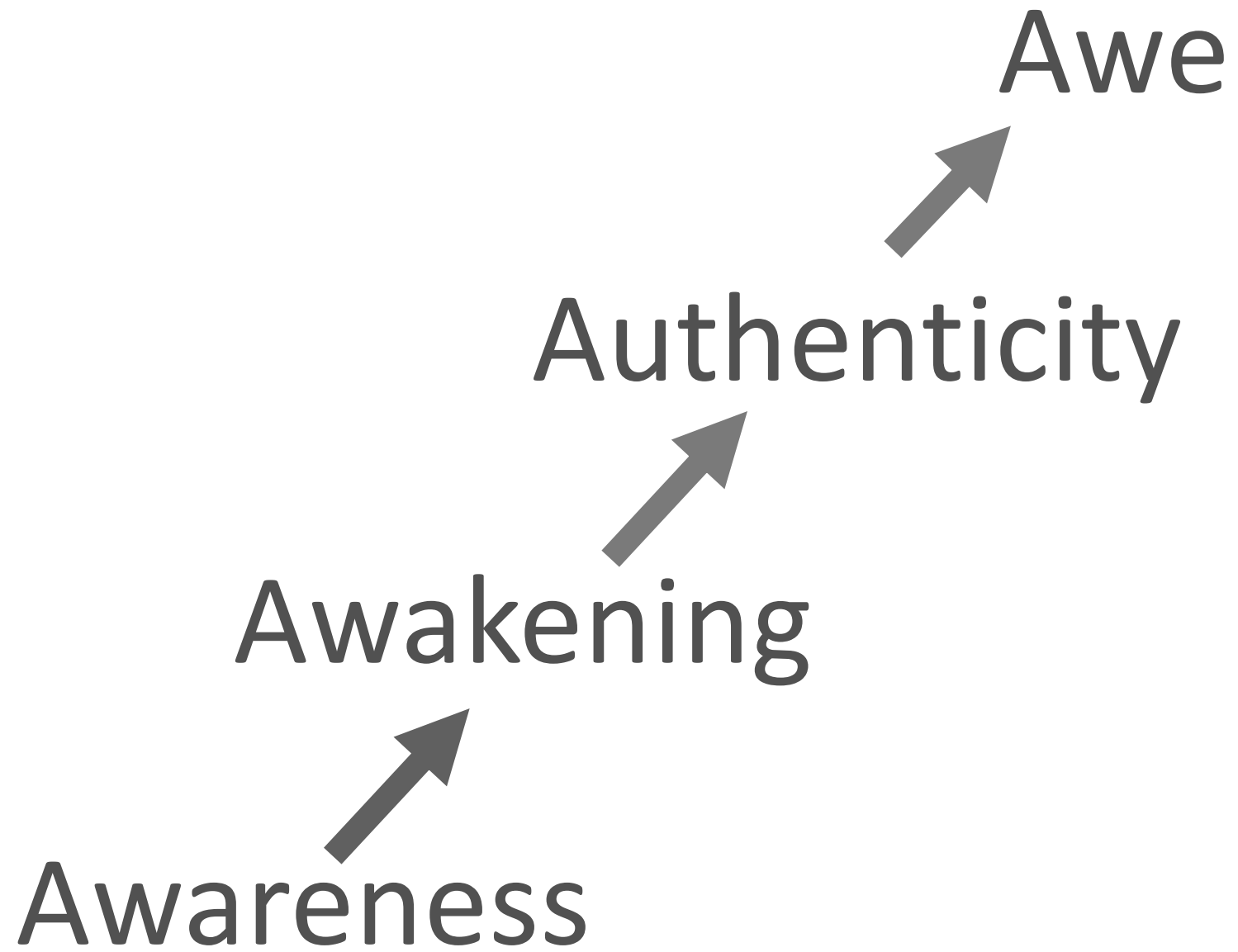
## Salutogenesis

Find this Pattern



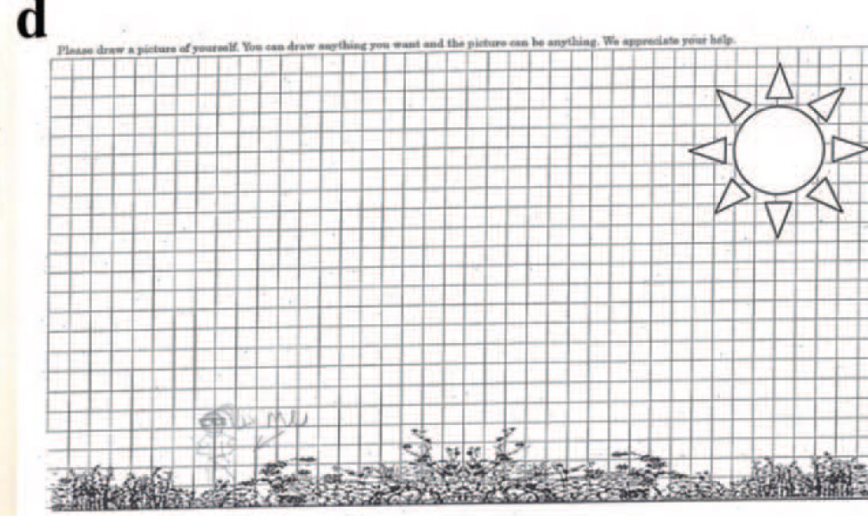
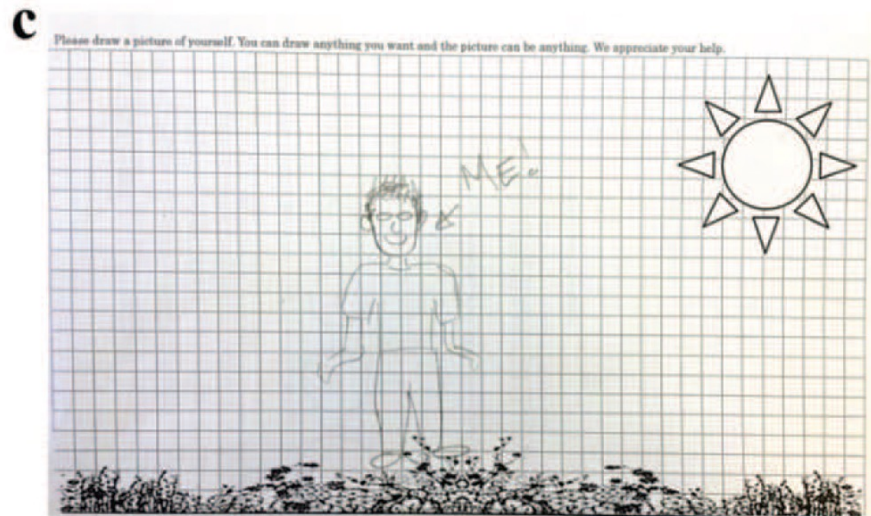
A Process







*Janice*



Bai, Y., et al., *Awe, the diminished self, and collective engagement: Universals and cultural variations in the small self.* *J Pers Soc Psychol*, 2017. **113**(2): p. 185-209.



Unitarian Meeting House  
Madison, Wisconsin



Frank Lloyd Wright  
Constriction to Opening



# The Rose

By Hafiz



*How Did the rose  
Ever open its heart*

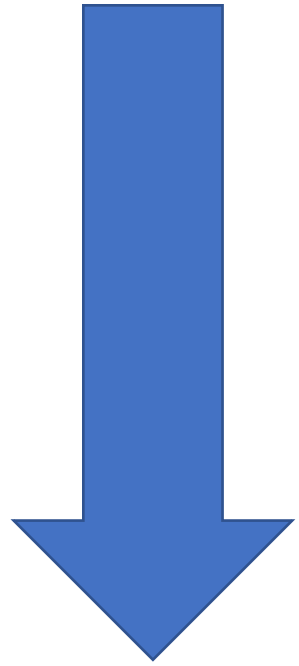
*And give to this world  
All its Beauty?*

*It felt the encouragement of light  
Against its Being,*

*Otherwise,  
We all remain*

*Too Frightened.*

## 3 Steps for a Salutogenic Future....



**Perception** of a caring human...

**Connection** that leads to...

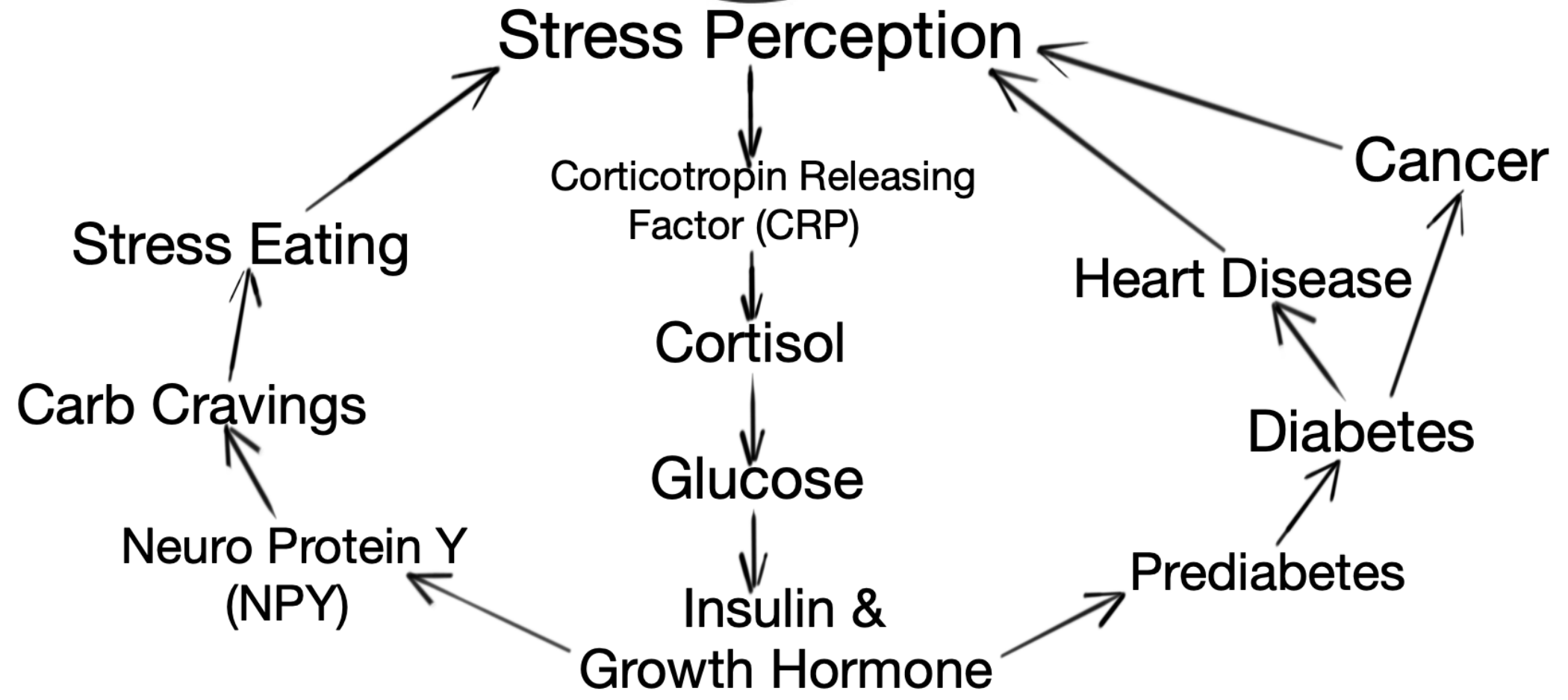
**Transformation**



I am an old man and have  
known a great many troubles,  
and some of them actually  
happened.

-Mark Twain-

# How the non-physical becomes physical...



What word comes to mind?

America? **#1 Guilt**

France? **#1 Celebration**



Rozin, P. et al. Lay American Conceptions of Nutrition.  
*Health Psychology. 15(6);1996*

# Recognize the Conditioned Mind

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*

Which thumb on top?



# Connection...

**Step Two (Connection):**

Be Present and Focus on one thing well

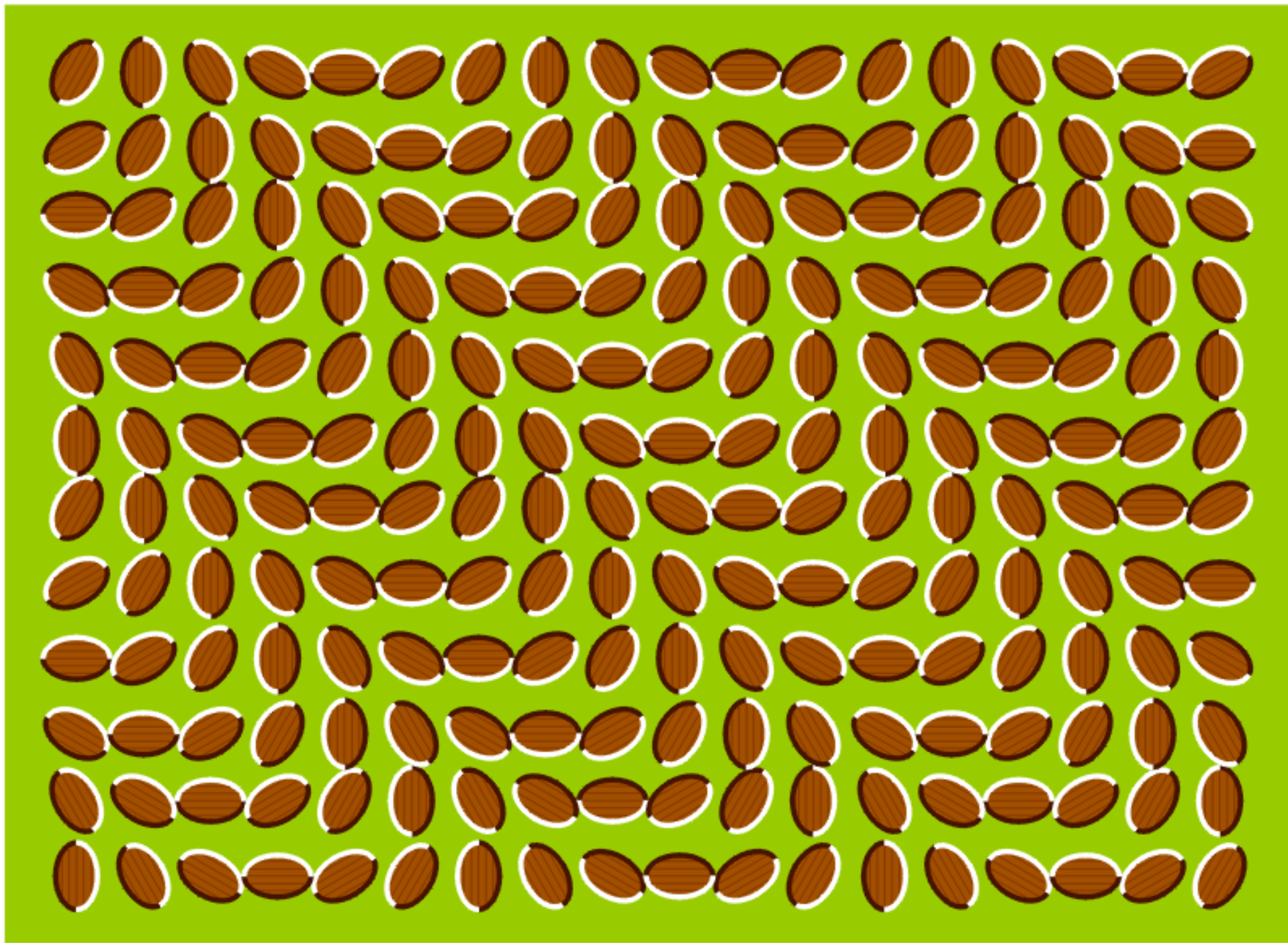
# Mental Health Problems Increasing in our Youth



Social Isolation,  
side by side







# NIH Placebo Research Funding

## The Common Cold

Bruce Barrett MD, PhD = PI

- ✓ Good Doc (Enhanced)
- ✓ Bad Doc (Standard)
- ✓ No Doc (Control)

# PEECE Mnemonic

- Positive Prognosis
- Education
- Empowerment
- Connection
- Empathy

# Effects of Perceived Empathy on the Common Cold

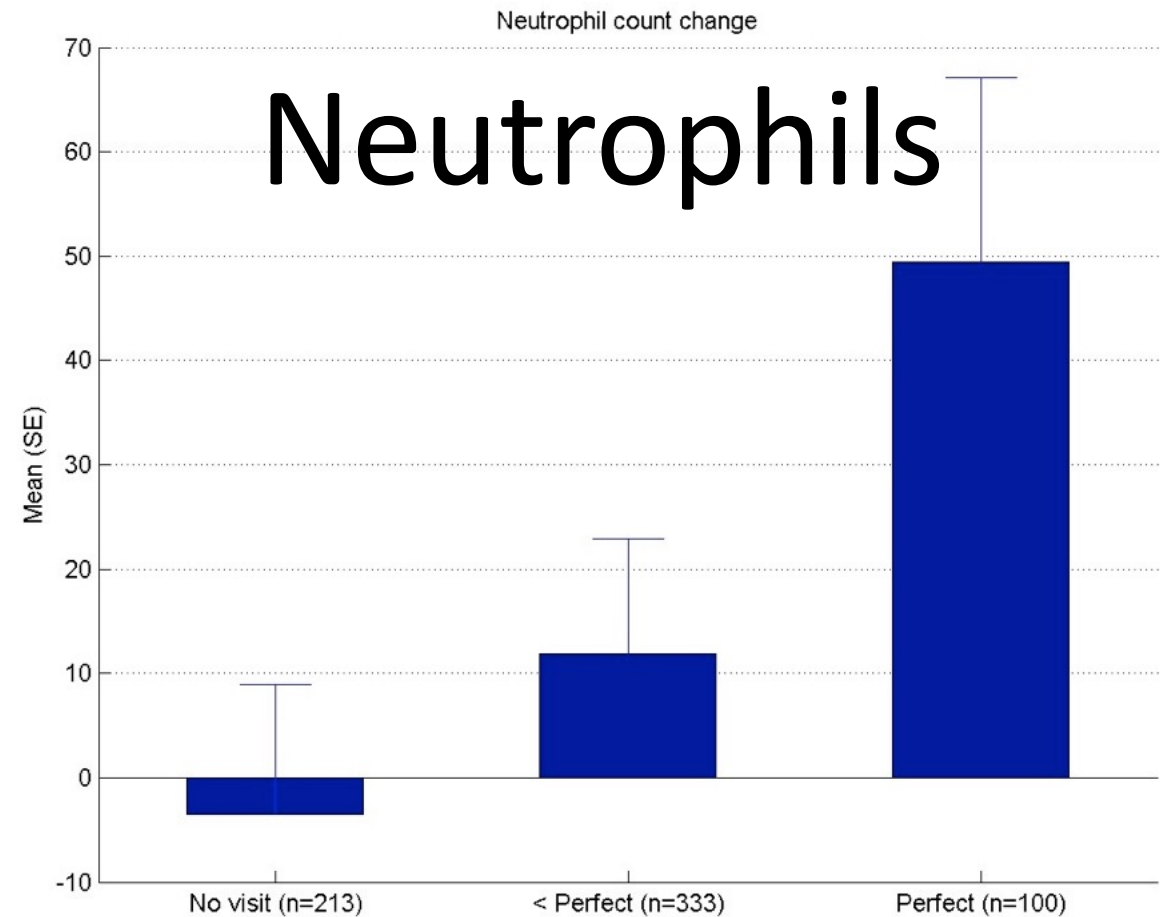
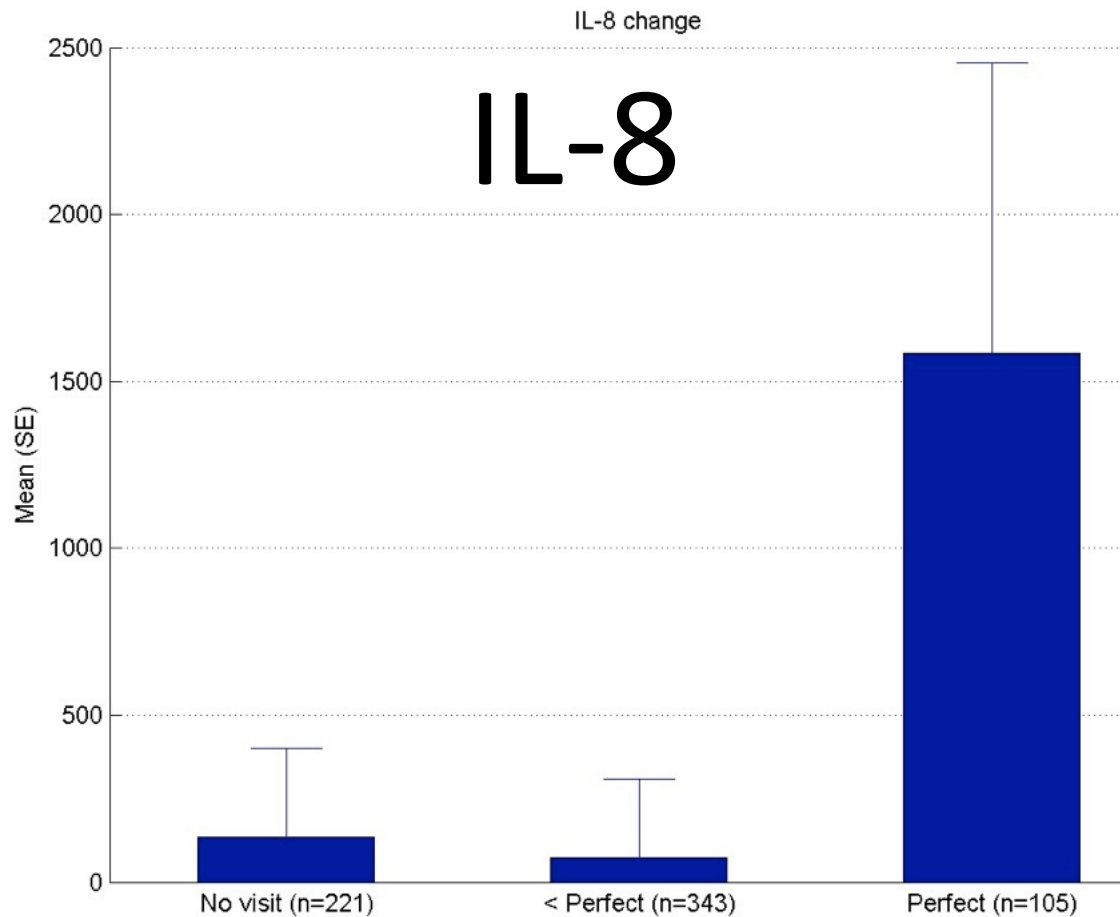
**Empathy  
perception  
reduced  
duration by  
1.11 days**

|          | No Visit  | < Perfect | Perfect   | P Value |
|----------|-----------|-----------|-----------|---------|
| Duration | 6.75 days | 7.0 days  | 5.89 days | 0.003   |
| Severity | 262.19    | 270.58    | 223.38    | 0.04    |

Rakel, Hoeft, Barrett, et al. Fam Med. 2009; 41(7):494-501

Rakel, Barrett, Zhang, et al. Patient Ed & Counseling. 2011; 1-8.

# Perception of Perfect Empathy 50/50 on CARE Score



# Transformation....

**Step Three (Transformation):**

Connect to authentic beauty, self healing  
and a sense of coherence

Connect to authentic beauty and joy







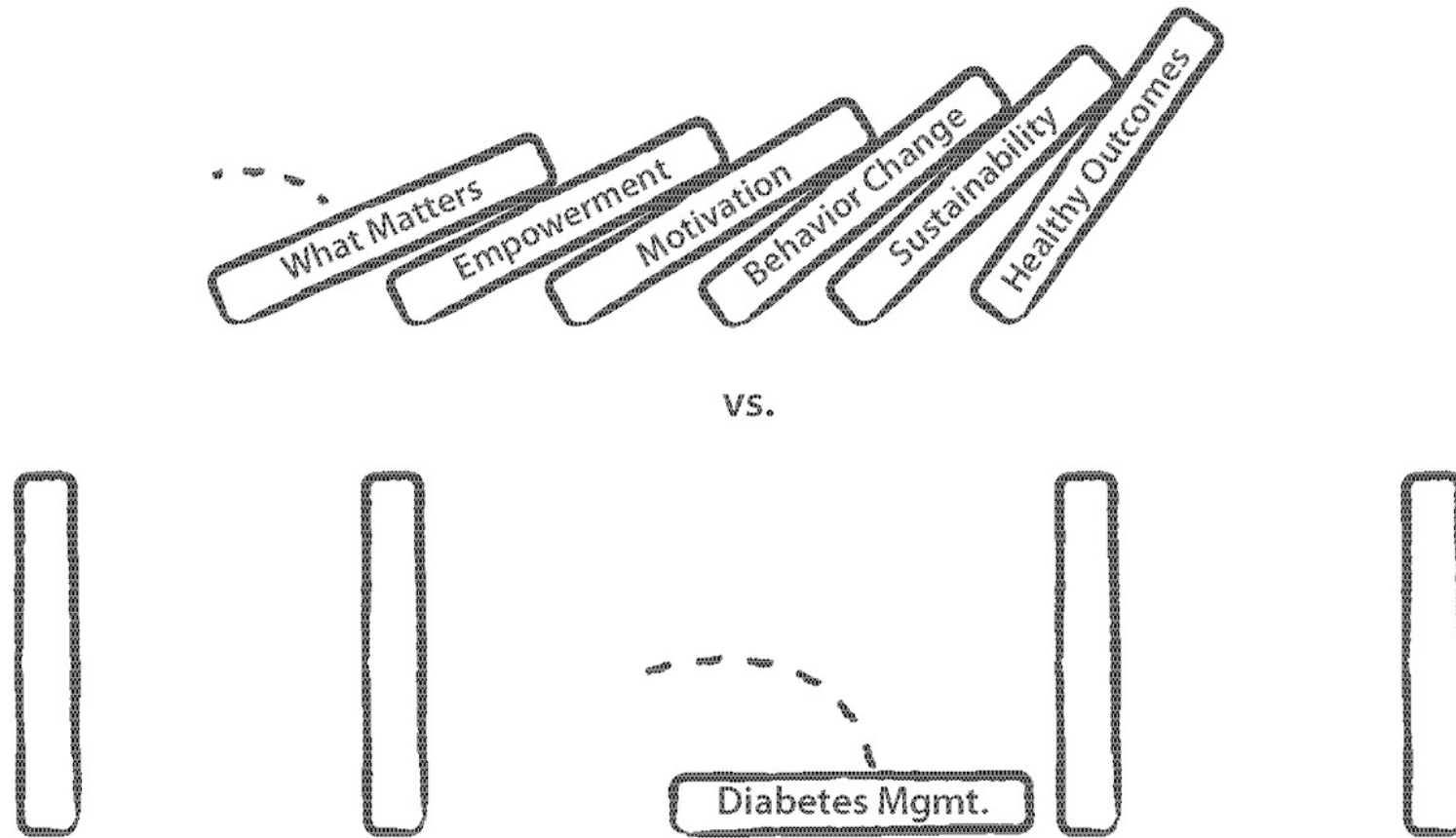


U.S. Department  
of Veterans Affairs



What do you want your health for?

# What Matters and Why?



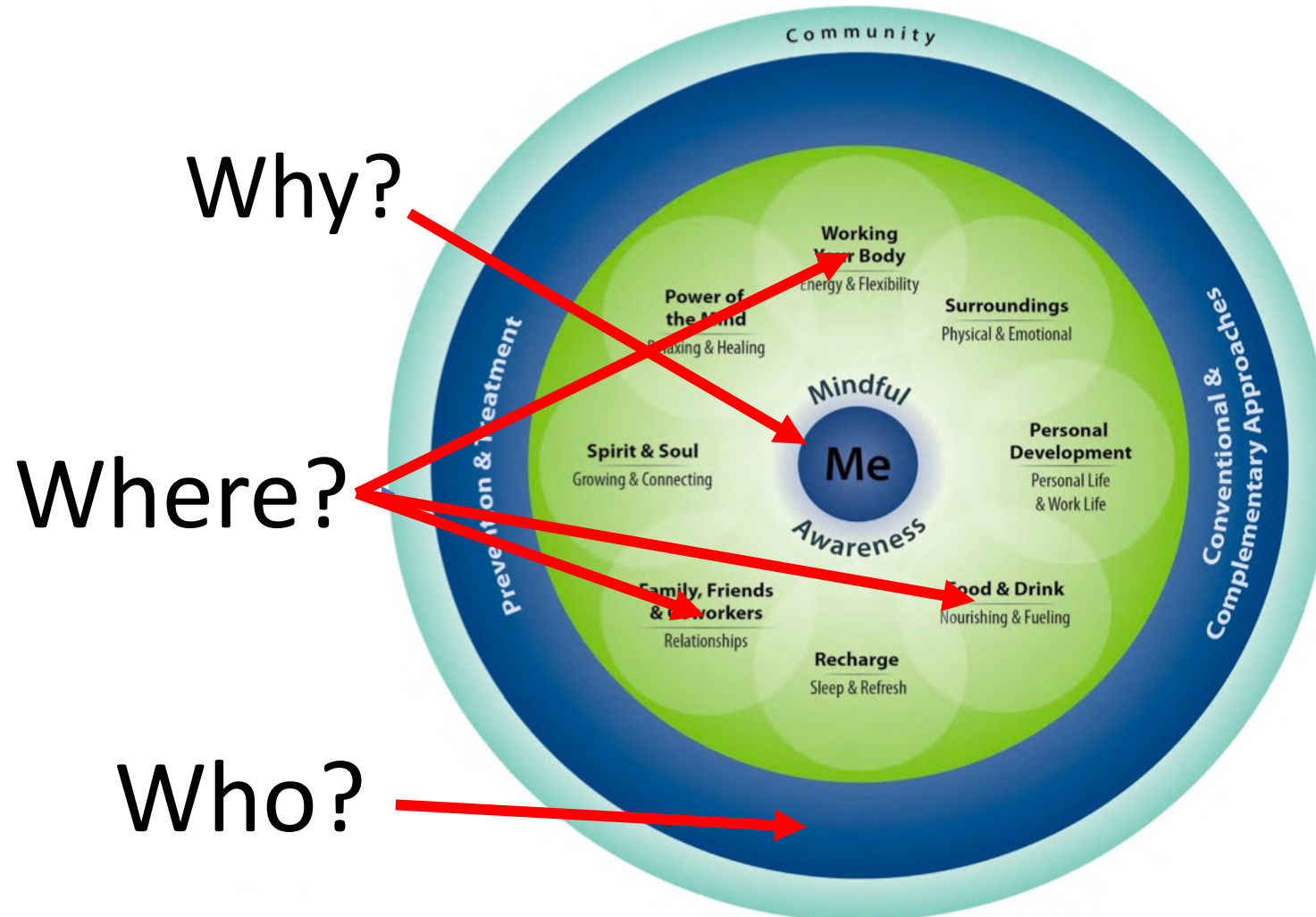
The definition of hell is a place where nothing connects with nothing.

-T.S. Eliot-

# “CIRCLE OF HEALTH”



U.S. Department of Veterans Affairs



# Adding Patient Goals to the top of the Problem List in our Health Record

The screenshot displays a 'Problem List' interface. At the top, there is a blue header bar with the text 'Problem List'. Below this, there is a green plus icon followed by the text 'Create Patient Care Coordination Note'. A search bar contains the text 'patient goal' and a green plus icon followed by the text '+ Add'. Below the search bar, there is a dropdown menu labeled 'Diagnosis' with a downward arrow. The main content area is divided into sections by horizontal lines. The first section is titled 'Patient Goal' and contains a blue arrow followed by the text 'Patient Life Goal: Climb Mt. Kilimanjaro'. The second section is titled 'Cardiovascular' and contains two items: a blue arrow followed by 'Hypertension goal BP (blood pressure) < 120/80' and a blue arrow followed by 'CAD (coronary artery disease)'. Below the 'CAD' item, there is a small icon of a document with a magnifying glass, followed by the text 'Overview MI in 2000' and 'Care Plan: if chest pain develops again, need to call clinic immediately'. The third section is titled 'Endocrine' and contains a blue arrow followed by 'Type 2 diabetes, HbA1C goal < 7%'. Below this item, there is a small icon of a document with a magnifying glass, followed by the text 'Overview diagnosed 11/26/2012 with A1C of 11 and glucose of ~500. Family Hx: father had diabetes'.

**Problem List**

+ Create Patient Care Coordination Note

patient goal + Add

Diagnosis ▼

**Patient Goal**

- ▶ Patient Life Goal: Climb Mt. Kilimanjaro

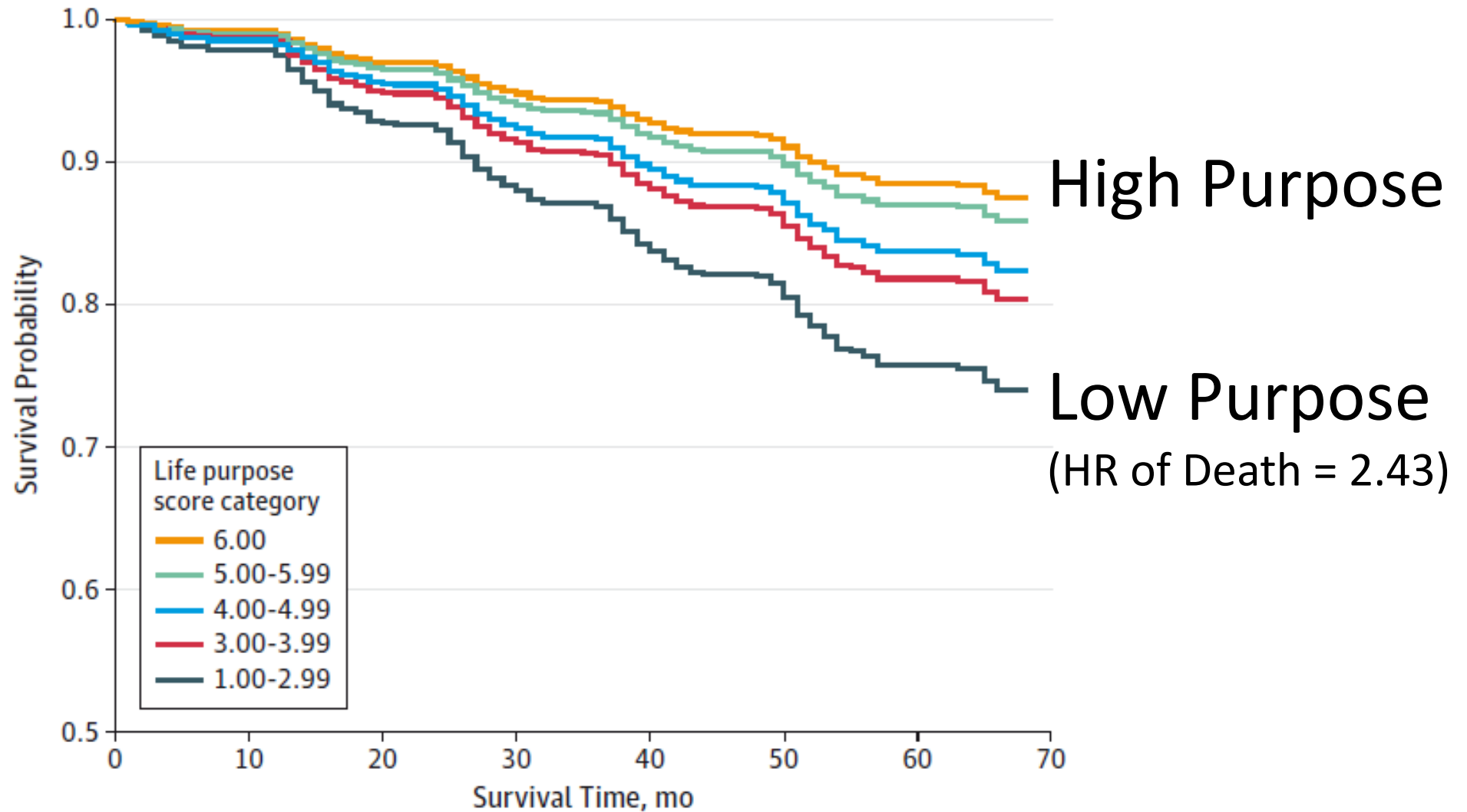
**Cardiovascular**

- ▶ 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

Figure. Survival Curves Illustrating the Association Between Life Purpose and Mortality

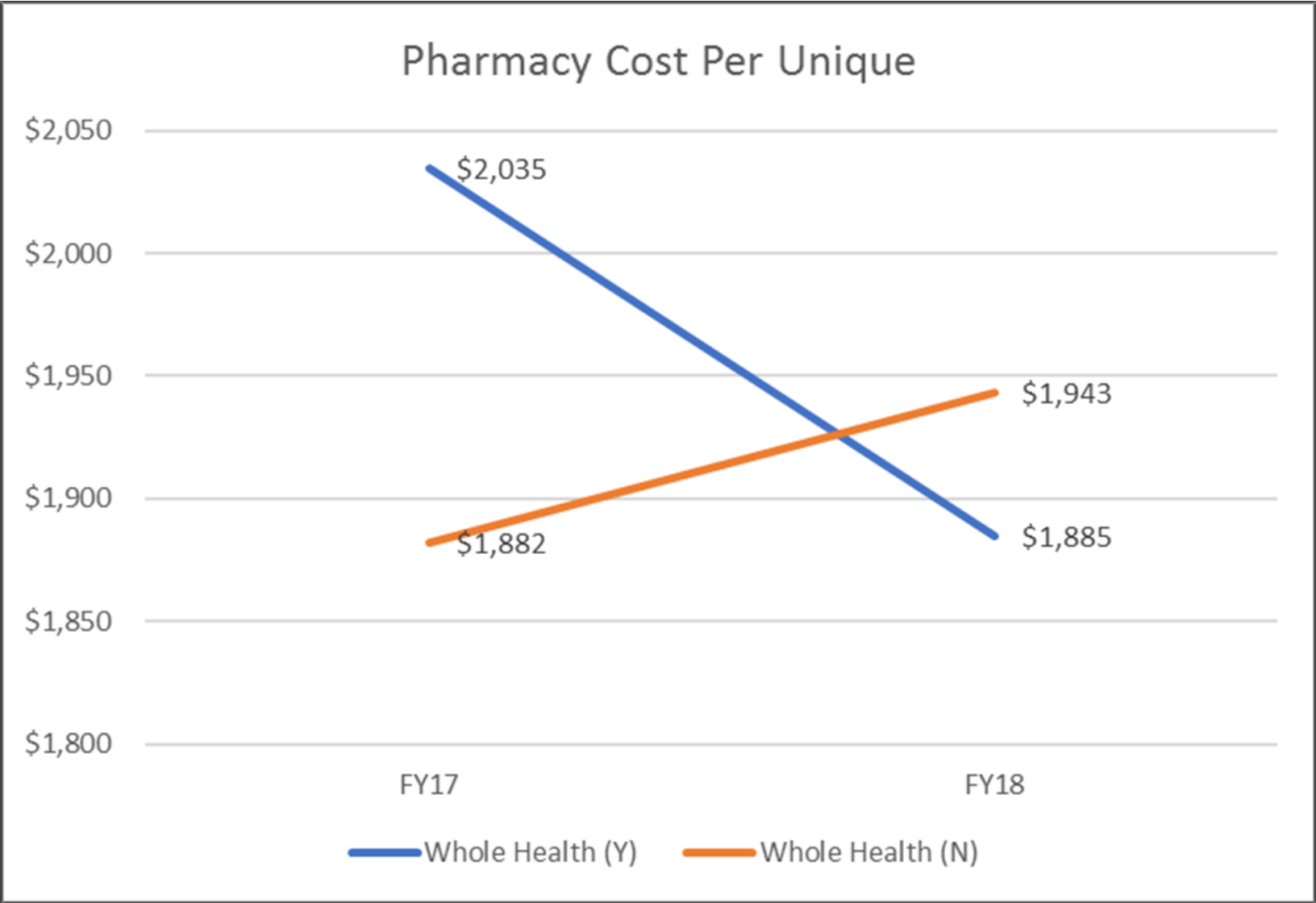


Alimujiang A, et al. Association Between Life Purpose and Mortality Among US Adults Older than 50 Years. JAMA Open. 2(5):2019

# FY 17-18 Total Pharmaceutical Costs/Vet



U.S. Department of Veterans Affairs



WH Cohorts  
FY17 N= 57,459  
FY18 N= 77,009



Artificial Intelligence

And



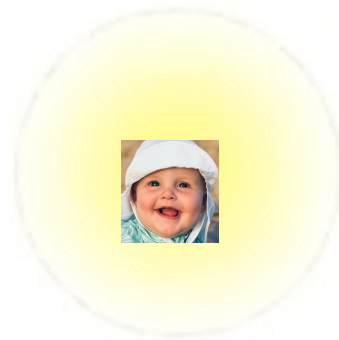
Authentic Intelligence

The most exciting breakthroughs of the 21<sup>st</sup> century will not occur because of technology, but because of an expanding concept of what it means to be human.

-John Naspitt



Salutogenic Science finds a way in.....



Giving Life to Life....

*That to which we  
give attention grows!*