



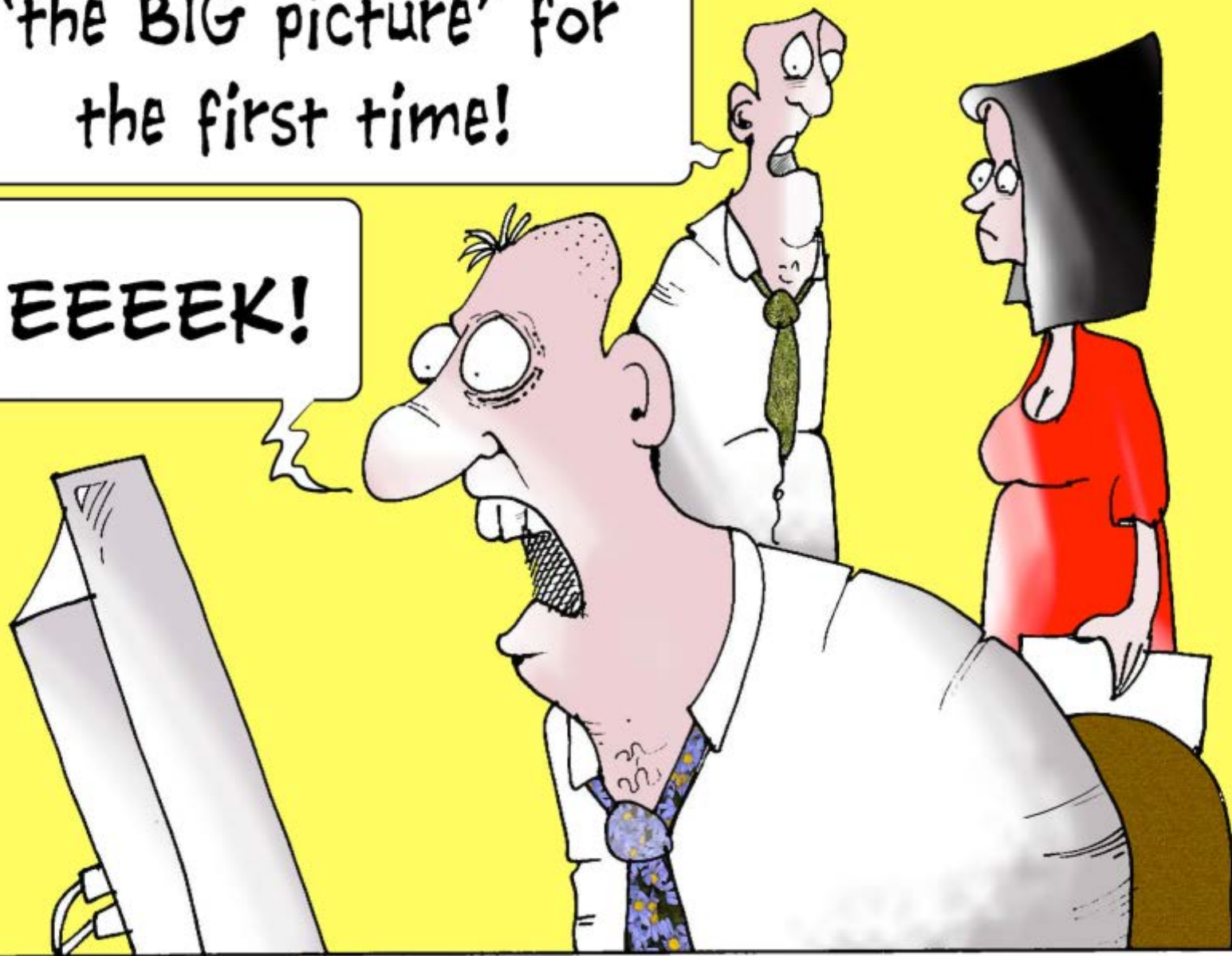
Attending to the Whole Population

a population health roundtable

June 29, 2016

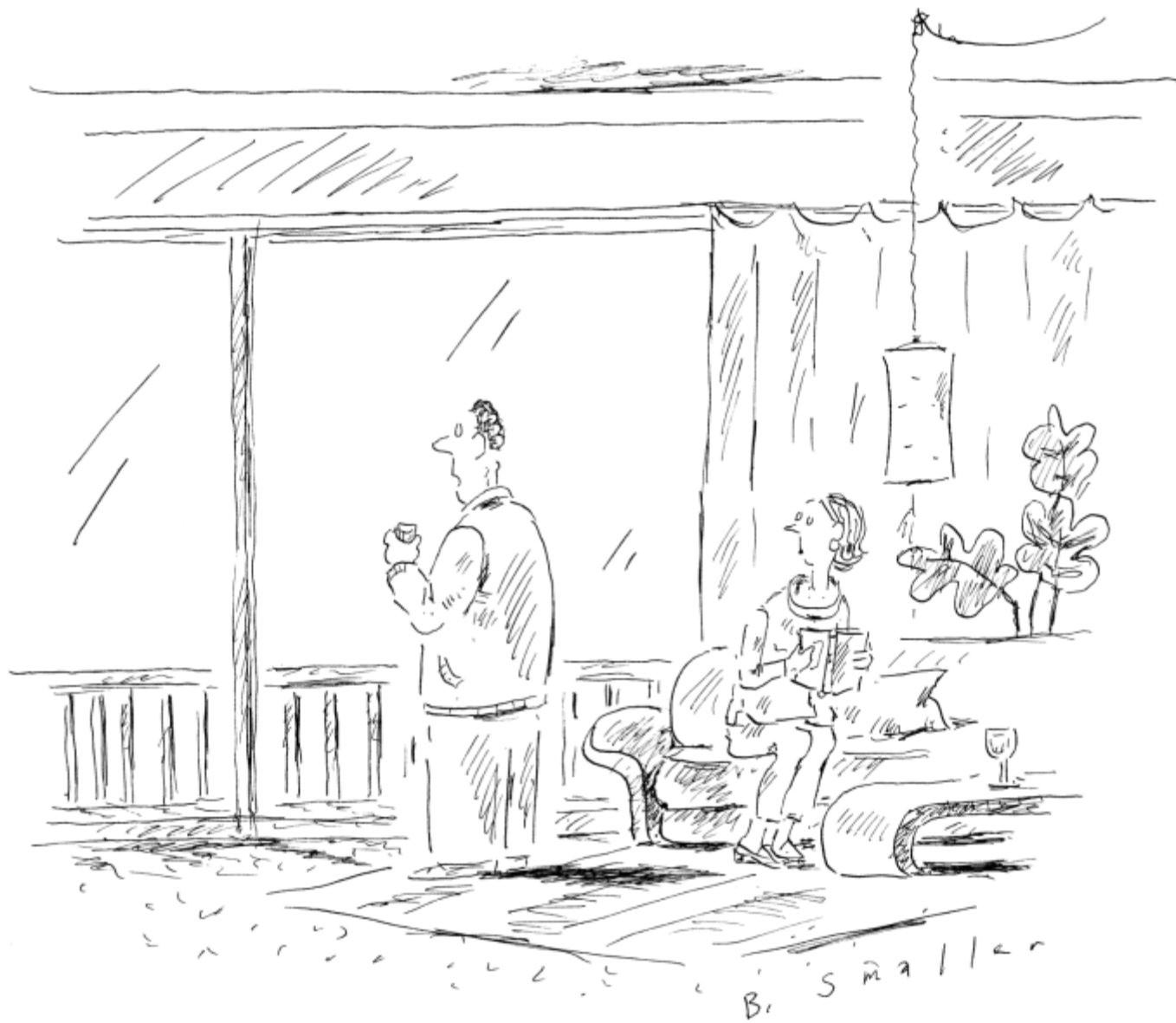
I think he's just seen
'the BIG picture' for
the first time!

EEEEK!



WHO definition of 'health'

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity



"Am I a happy man or just an asymptomatic one?"



Population Health

...the health outcomes of a group of individuals, including the distribution of such outcomes within the group.

These groups are often geographic populations such as nations or communities, but can also be other groups such as employees, ethnic groups, disabled persons, prisoners, or any other defined group

Kindig and Stoddart, 2003



Population Health

“...our national and local goals are improving overall health *and* reducing disparities...”

A common assumption is that improving overall population health also reduces gaps by race, socioeconomic status, and geography, but this is not always the case.”

Kindig, 2015, Health Affairs Blog, Project HOPE: The People to People Health Foundation

- **1st WAVE: Building the Foundation**

- De-institutionalization
(Getting people into the community)
- Expanding Network of Providers
- Creating CBH (Administrative Infrastructure)
- Creating the Department & a single payor system

- **2nd WAVE: Transformation Decade**

- Improving quality of life (recovery, resilience, self-determination)
(Helping people to be a part of the community)
- Creating Learning Organization

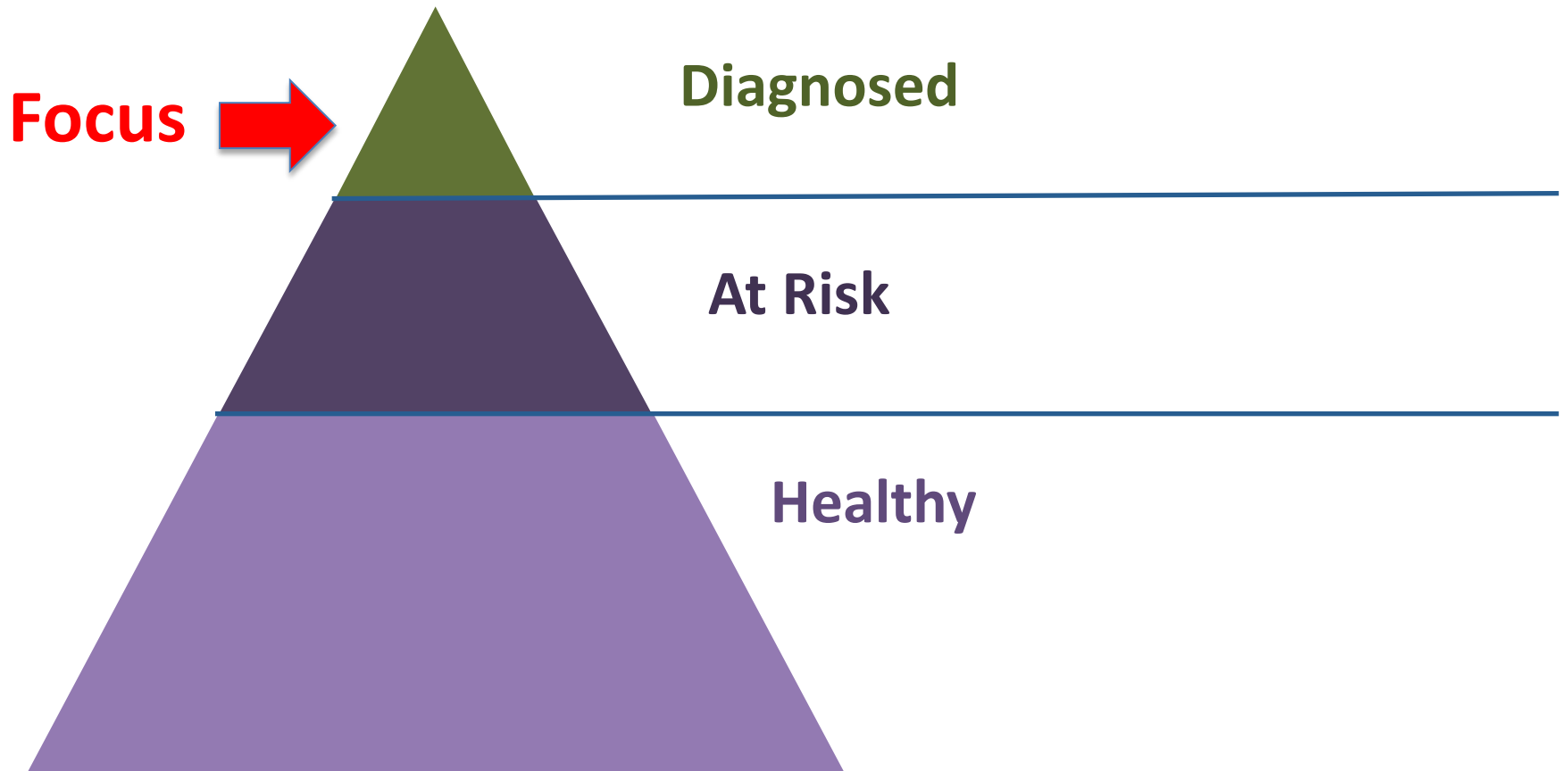
- **3rd WAVE: Population Health**

- Promoting Health & Wellness for the population
(Promoting healthy Communities)
- Single unifying framework for all services and populations
- Reaching everyone
- Efficiency and Effectiveness

Population Health: DBHIDS

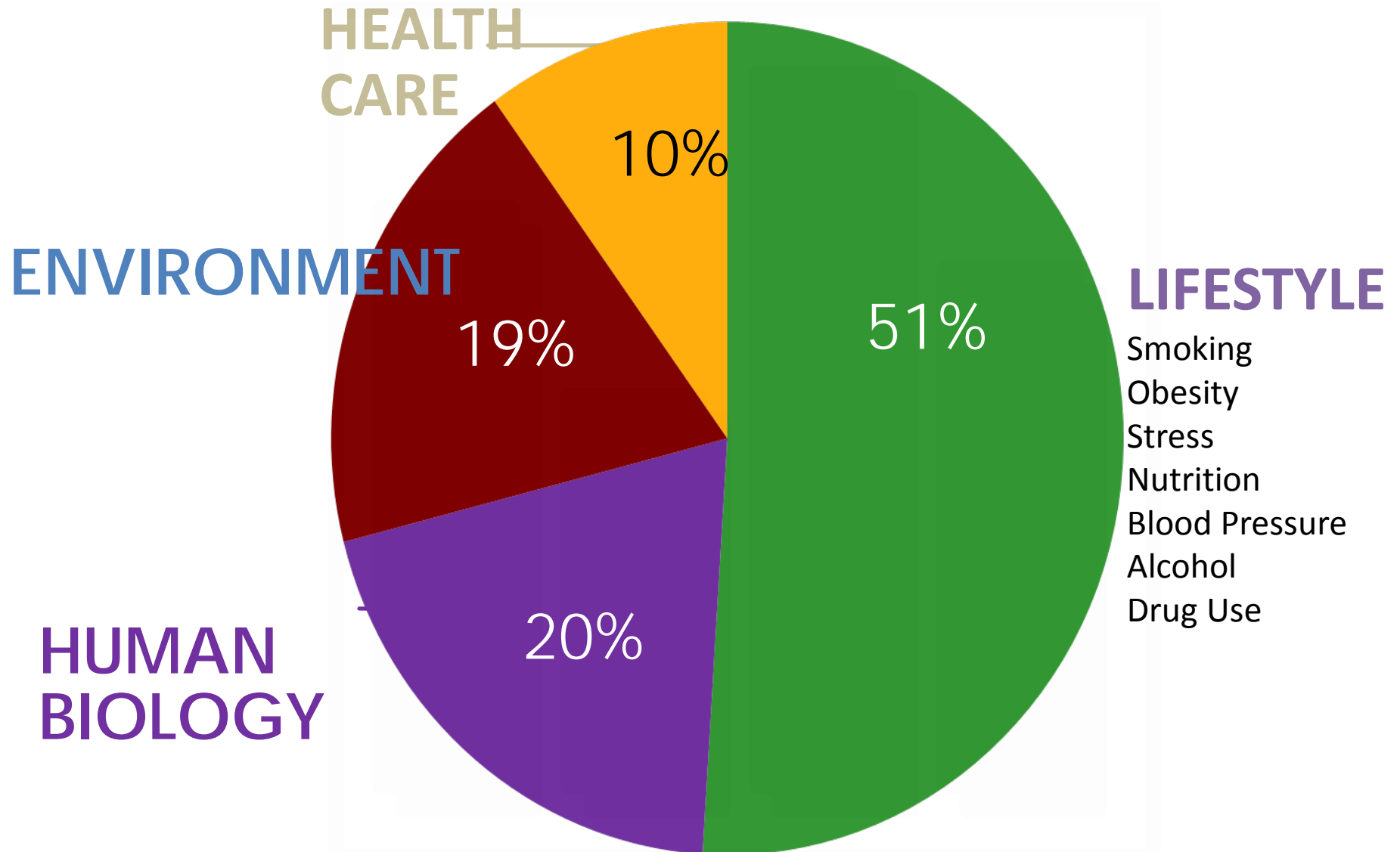
“...through community-level interventions and services, population approaches help to create communities in which every member—not just those who seek out health services— can thrive.”

Our Current Healthcare Approach





Factors that Influence Health Status

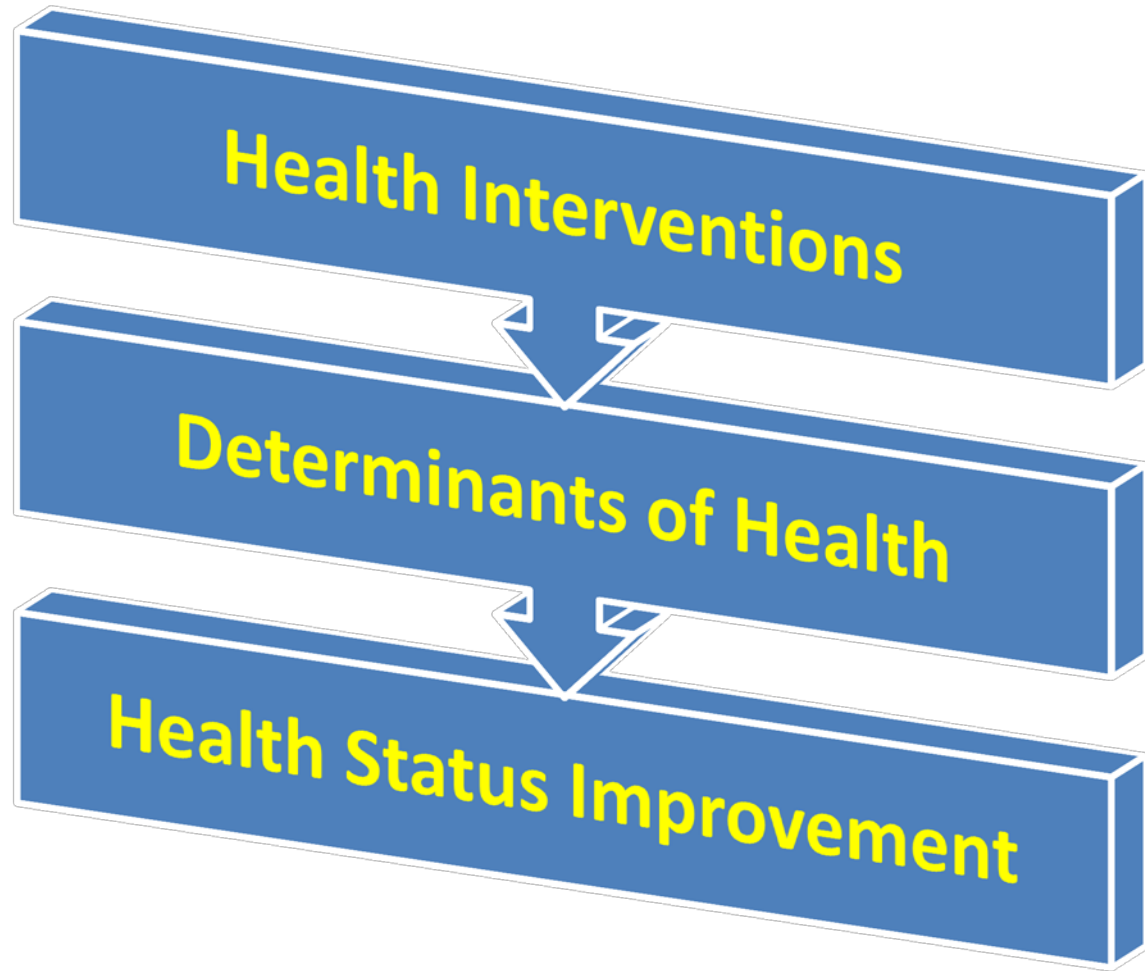


The 5 Principles Needed for a Population Health Approach



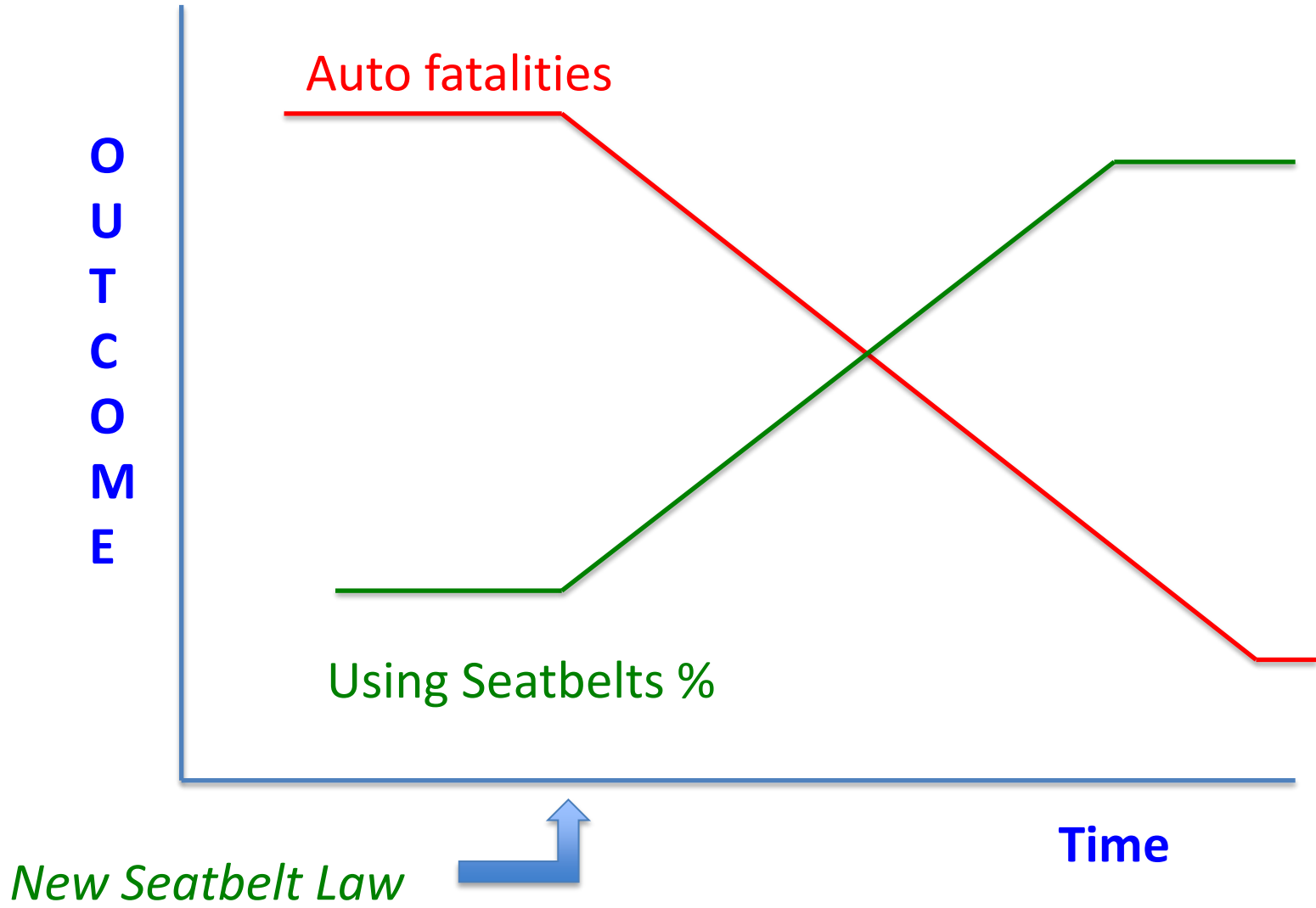
1. Attend to the whole population
2. Promote health, wellness, and self determination
3. Provide prevention and early interventions
4. Address the social determinants of health
5. Empower individuals and communities to keep themselves healthy

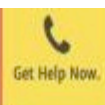
Population Health: Dr. Fabius



Health Interventions

- ✧ **CREATE TAXES (tobacco, ETOH)**
- ✧ **CREATE LAWS (seatbelts, helmets, 'health in all policies')**
- ✧ **CREATE MEDICAL BREAKTHROUGHS (vaccines, prenatal testing)**
- ✧ **CREATE SAFER WORKPLACES (OSHA)**





Help Yourself, Help Others®

Mental Health First Aid »

Learn to identify, understand, and respond to signs of behavioral health challenges or crises.

Behavioral Health Screening »

If you feel sad, anxious or stressed, this screening tool can help you decide if you need further help.

Calendar »

Find awareness events, screenings or trainings, post your own event to the calendar, or request event support from DBHIDS.

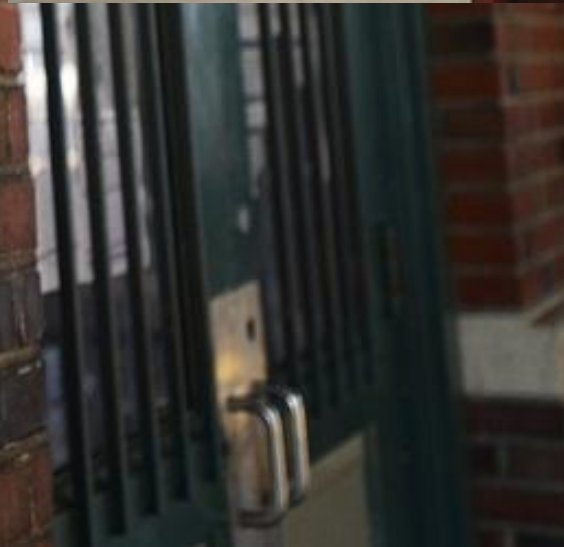
Blog »

Thoughts and updates from Dr. Arthur C. Evans, Jr., Commissioner of DBHIDS and staff.

The Philadelphia Department of Behavioral Health and Intellectual disability Services (DBHIDS) offers these tools and resources for everyone seeking to support and improve the mental health and well-being of themselves or those they care about.

Wellness Corner





“In Ohio, Kenney team finds an 'awesome' school plan.”

www.philly.com 11/15



Conventional School Model

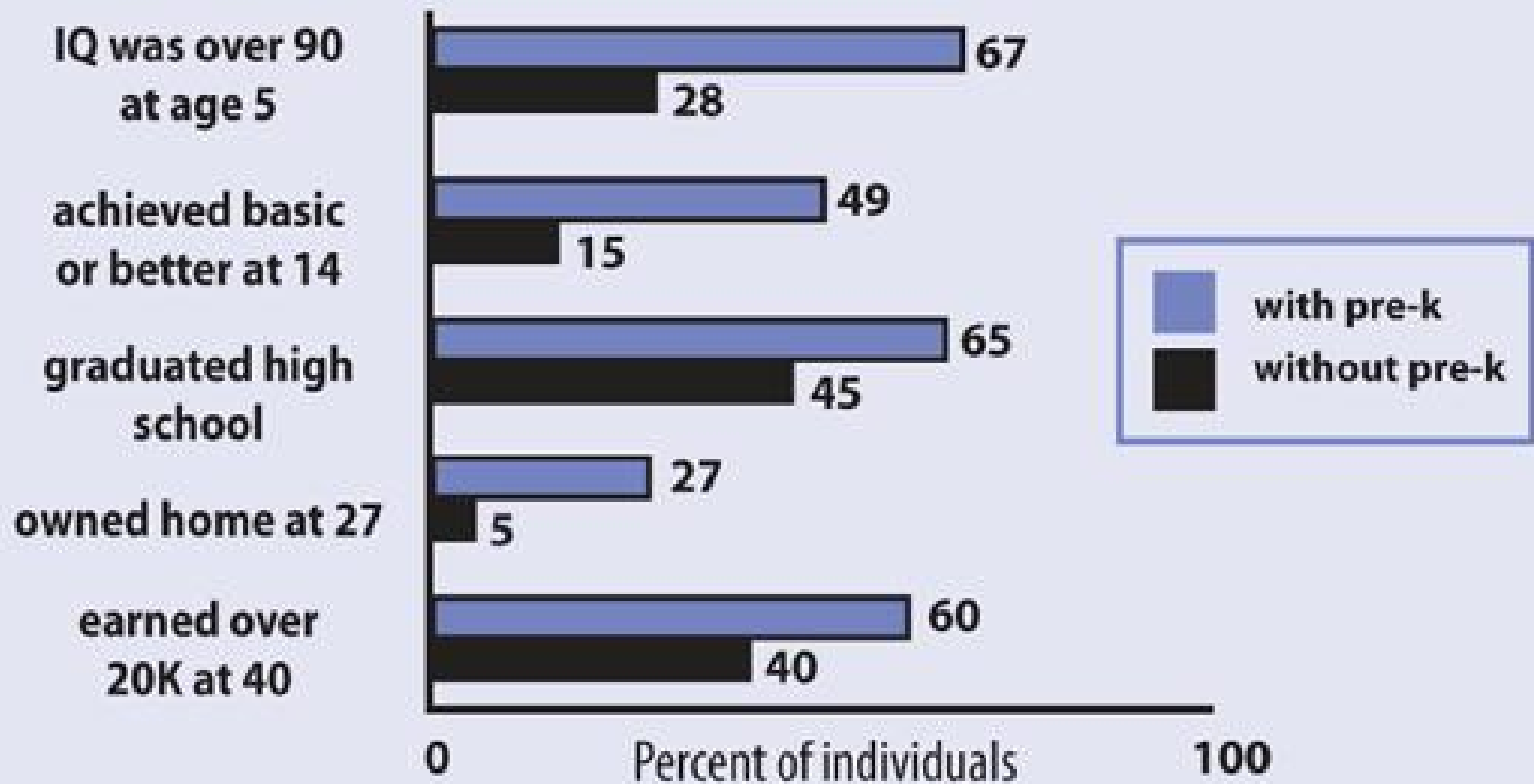


Community Schools

**Academics
Youth Development
Health and Social Services
Family engagement and support
Community development**

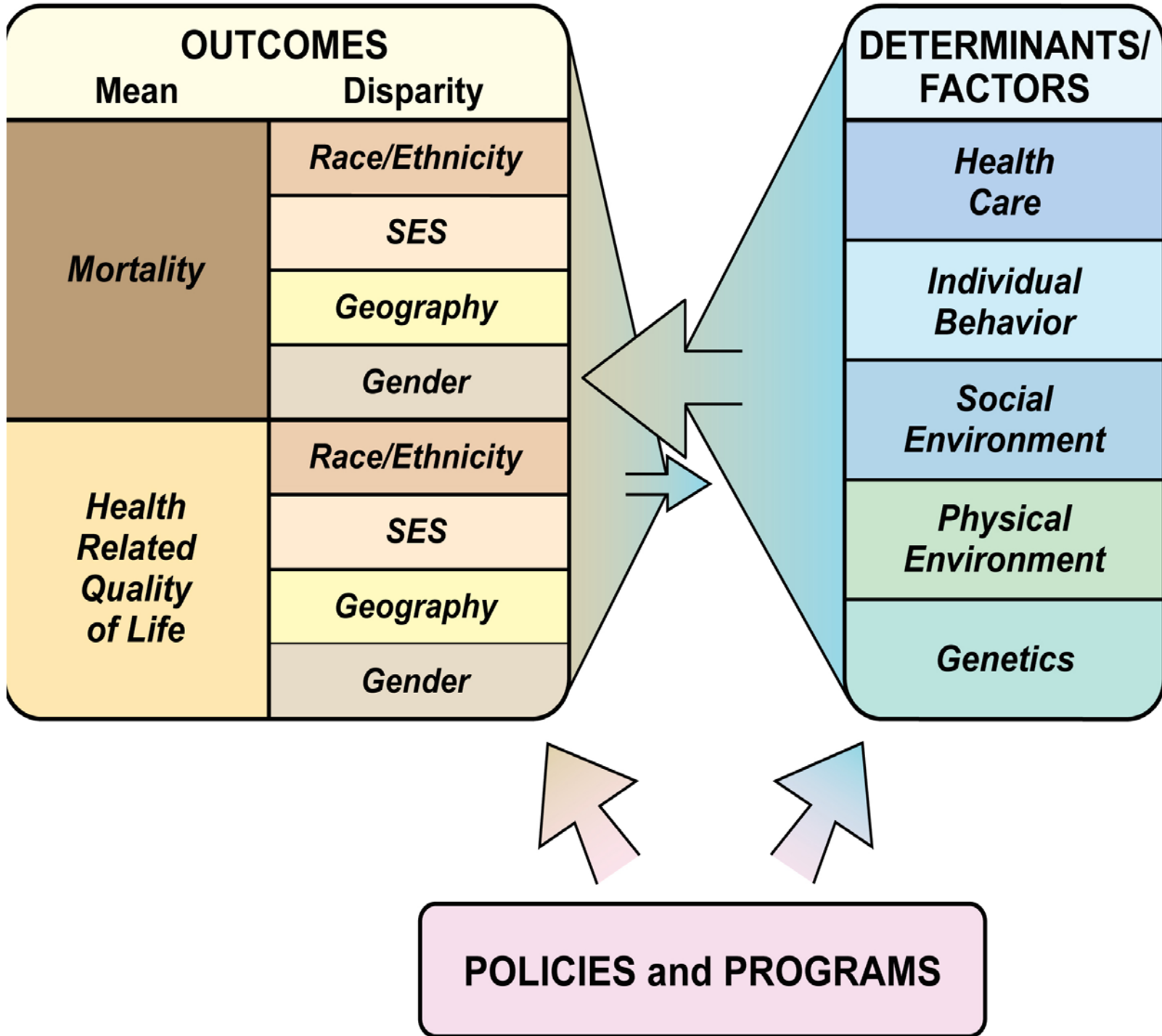
Community Schools

Pre-K is a gift that keeps on giving



SOURCE: The High/Scope Perry Preschool Study Through Age 40, Summary, Conclusions, and Frequently Asked Questions, November 2004

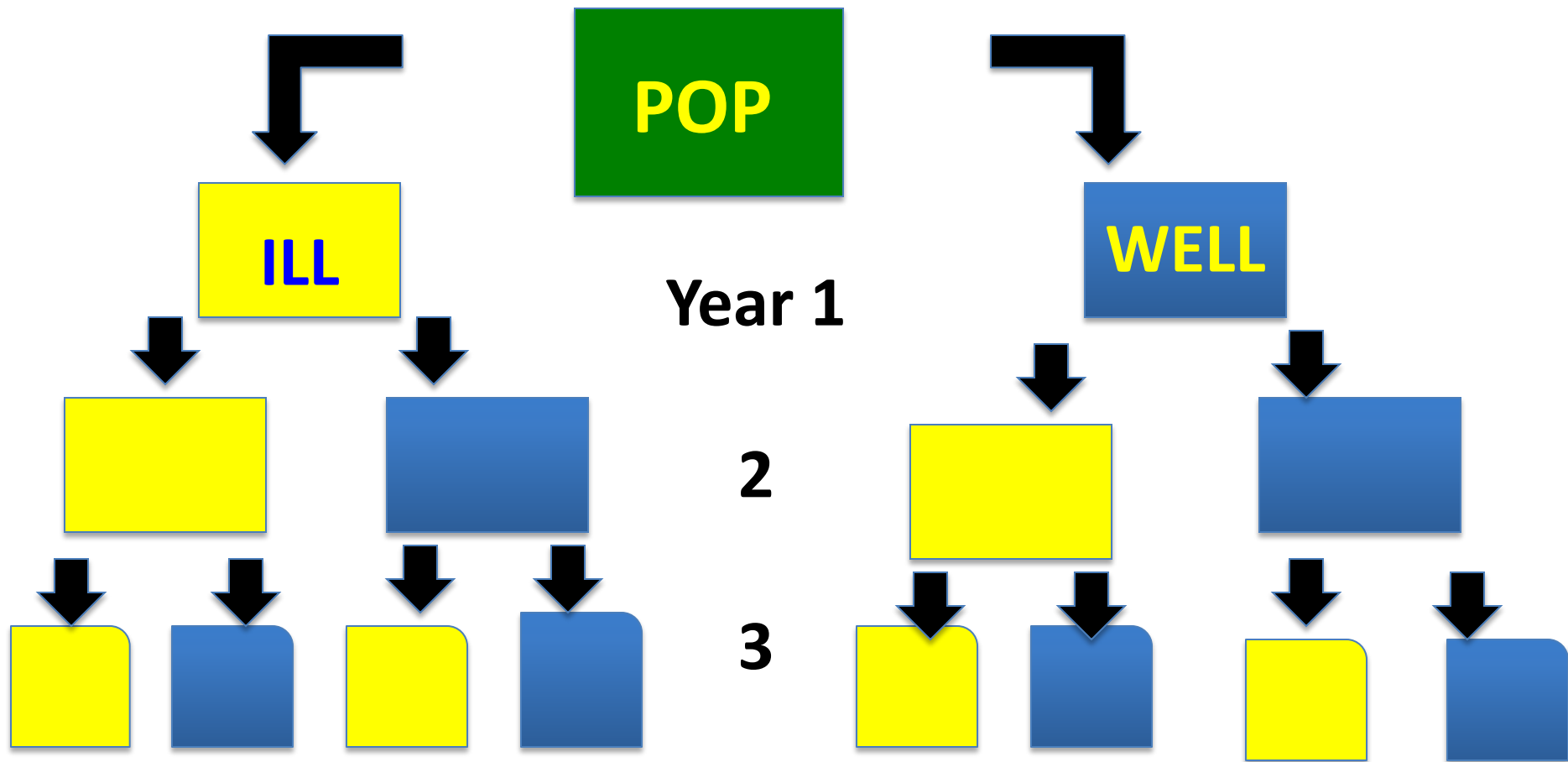
ts of Health



Optimal Lifestyle Metric (OLM)

- ✧ BEING PHYSICALLY ACTIVE
- ✧ NOT SMOKING
- ✧ 5 FRUITS & VEGETABLES/DAY
- ✧ ALCOHOL IN MODERATION

**CDC: 80% of heart disease,
80% of Type 2 diabetes,
40% of cancer preventable **if**....**



**Why disease management needs to
give way to population health**

“The Child is father of the Man.”

Wordsworth





Adverse Childhood Experiences

- The ‘ACE Study’ : Kaiser Permanente and CDC
- Recruited > 17,000 participants in mid-90s, asked about 10 types of childhood trauma

Physical abuse

Emotional abuse

Sexual abuse

Household substance abuse

Parental separation/divorce

Physical neglect

Emotional neglect

Mother treated violently

Household mental illness

Incarcerated household member

Adverse Childhood Experiences

(Original study)

- Over 50% had at least one ACE
- 25% had experienced two or more ACEs
- Dose-response relationship between ACE scores and both risky health behaviors and poor health outcomes

Health Behaviors

2-4 x Smoking

2-4 x STD

Substance abuse

Obesity

Promiscuity

Health Outcomes

Depression

Cardiovascular disease

COPD

Cancer

Liver disease, etc

Philadelphia Urban ACE Study

- **Funded by RWJ Foundation, conducted by Public Health Management Corp (PHMC) for the Institute for Safe Families**
- **Surveyed almost 2,000 Philadelphians in 2012-13**
- **Added five additional “urban ACE indicators”**

Witnessed violence

Felt discrimination (racism)

Unsafe neighborhood

Experienced bullying

Lived in foster care

Philadelphia Urban ACE Study

- Higher prevalence of ACEs than previous studies, especially emotional & physical abuse
- Almost 40% experienced ≥ 4 ACEs
- ~ 35% grew up with substance abuse in household

Urban Indicators

- 40.5% witnessed violence
- 34.5% experienced racial/ethnic discrimination
 - 27.3% felt unsafe in their neighborhood
 - 8% experienced bullying
 - 2.5% spent time in foster care

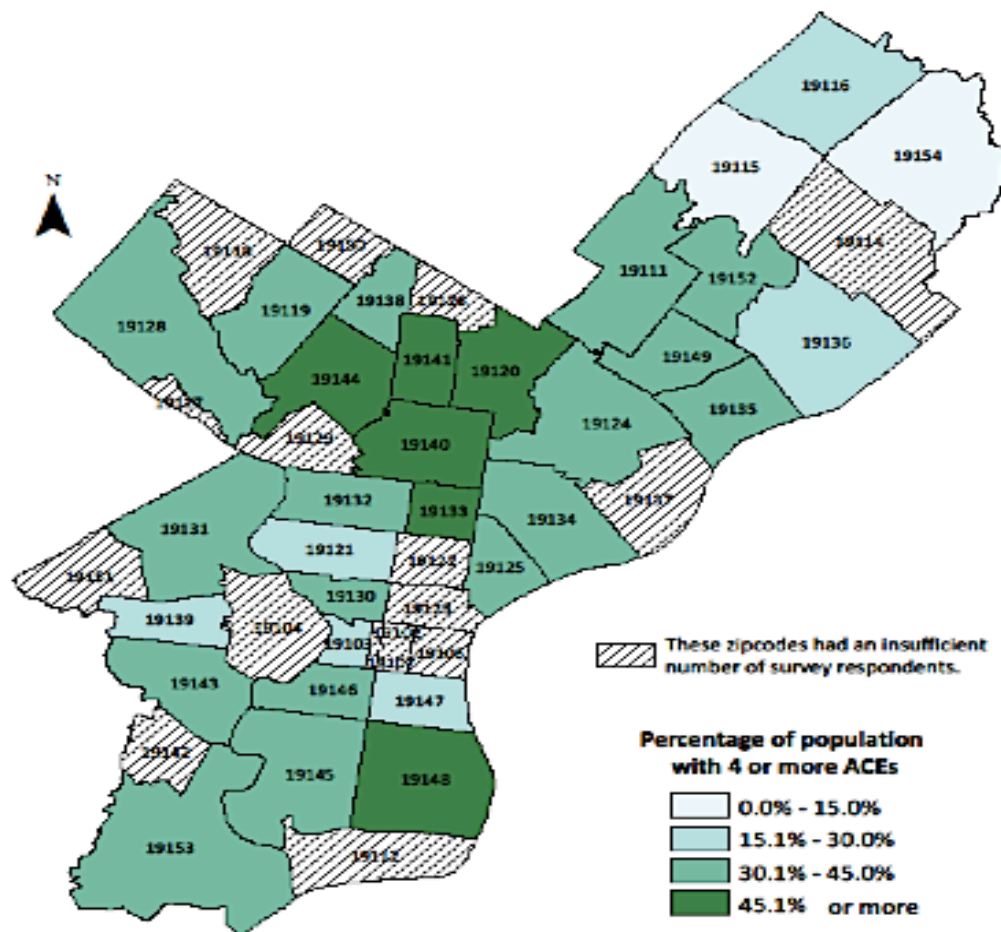
ACEs in PHL vs. Original Kaiser Sample

	PHL Sample (N=1,784)	Kaiser Sample (N=17,337)	BRFSS, 2010 PA Sample (N=5,646)
Standard ACE Indicators			
Emotional abuse [†]	33.2%	10.6%	30.8%
Physical abuse* [†]	35.0%	28.3%	13.2%
Sexual abuse* [†]	16.2%	20.7%	9.7%
Physical neglect*	19.1%	14.8%	Not measured
Emotional neglect*	7.7%	9.9%	Not measured
Substance using household member*	34.8%	26.9%	20.7%
Mentally ill household member*	24.1%	19.4%	15.1%
Witnessed domestic violence* [†]	17.9%	12.7%	14.0%
Incarcerated household member*	12.9%	4.7%	4.6%
Urban ACE Indicators			
Witnessed violence	40.5%	Not measured	Not measured
Felt discrimination	34.5%	Not measured	Not measured
Unsafe neighborhood	27.3%	Not measured	Not measured
Experienced Bullying	7.9%	Not measured	Not measured
Lived in foster care	2.5%	Not measured	Not measured





Figure 3. Percentage of Population with Four or More ACEs by Zipcode, Philadelphia Urban ACE Survey, 2013



Prepared by The Research and Evaluation Group at PHMC



ACES in Philadelphia

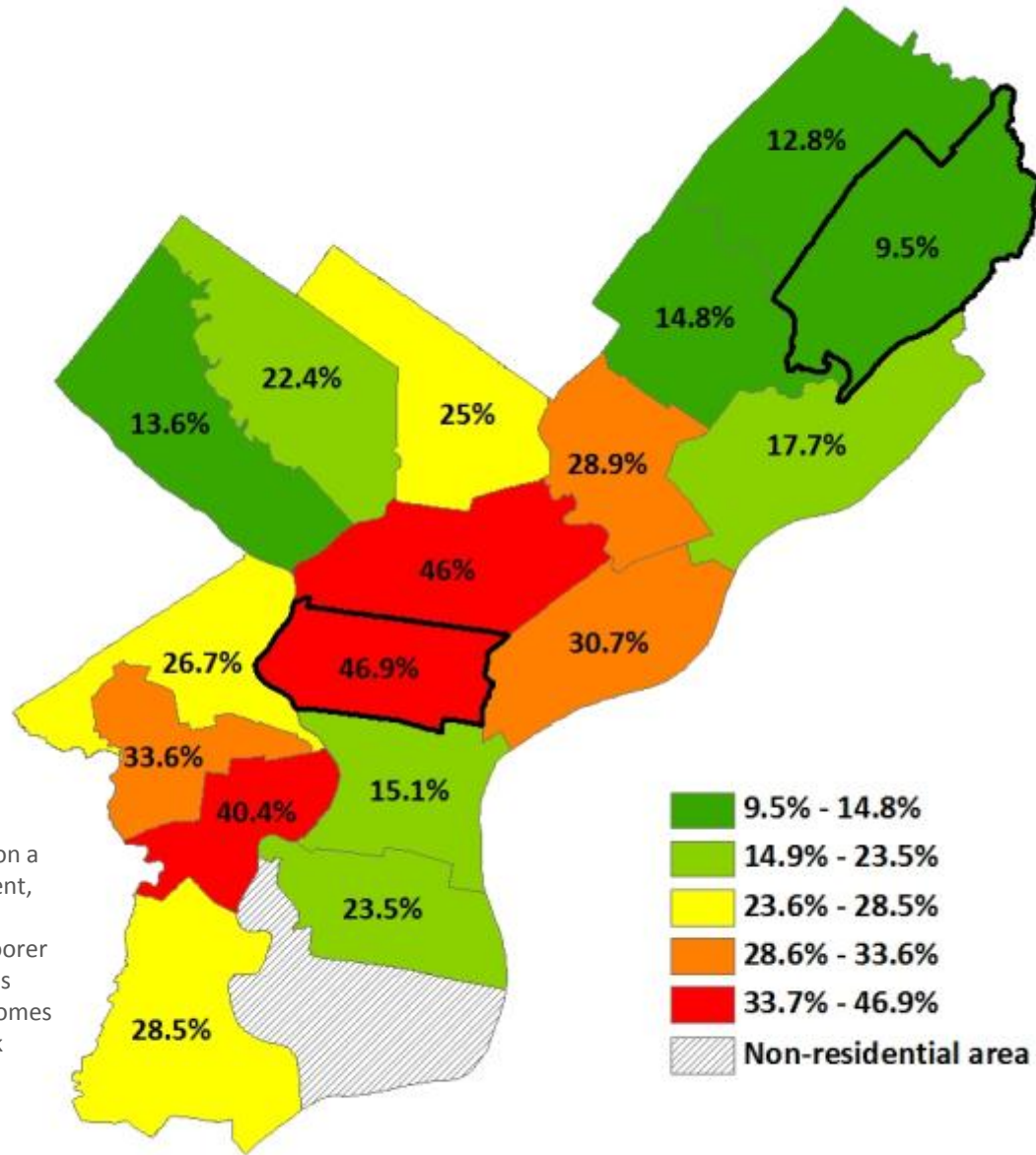
Among those with >4 ACEs, increased number of:

- multiple sexual partners
- suicide attempts
- substance abuse

>4 reported ACEs also correlated to poor health outcomes which include higher rates of

- Cancer
- Diabetes
- Severe Obesity
- Asthma

Living in poverty



Planning districts are depicted on a green-yellow-orange-red gradient, with green indicating better outcomes and red indicating poorer outcomes. The planning districts with the best and poorest outcomes are also highlighted with a thick black border.

Source: American Community Survey, 2009-2013

Conclusions

- ACEs are prevalent in PHL
 - 81% of participants experienced ≥ 1 ACE indicator
 - 68% experienced ≥ 1 of the Standard ACE indicators
 - 58% experienced ≥ 1 of the newly established Urban ACE indicators
 - 45% experienced at least one Standard and at least one Urban indicator
- Future work needs to explore how ACEs vary by gender, race and zip code



Implication of Phila Urban ACE Study

“The findings from this study suggest the need for services that address the unique environmental stressors experienced in urban neighborhoods to mitigate their impact on individuals and prevent ACEs.”

Philadelphia Urban ACE Report, 2013

Social Determinants of Health

Those elements of social structure most closely shown to affect health and illness, including:

INCOME INEQUALITY

FOOD SECURITY

HOUSING QUALITY

SOCIAL STATUS

NEIGHBORHOOD CONDITION

EMPLOYMENT OPPORTUNITY

DISCRIMINATION

CULTURAL NORMS

SOCIAL EXCLUSION

POLITICAL MARGINALIZ'N

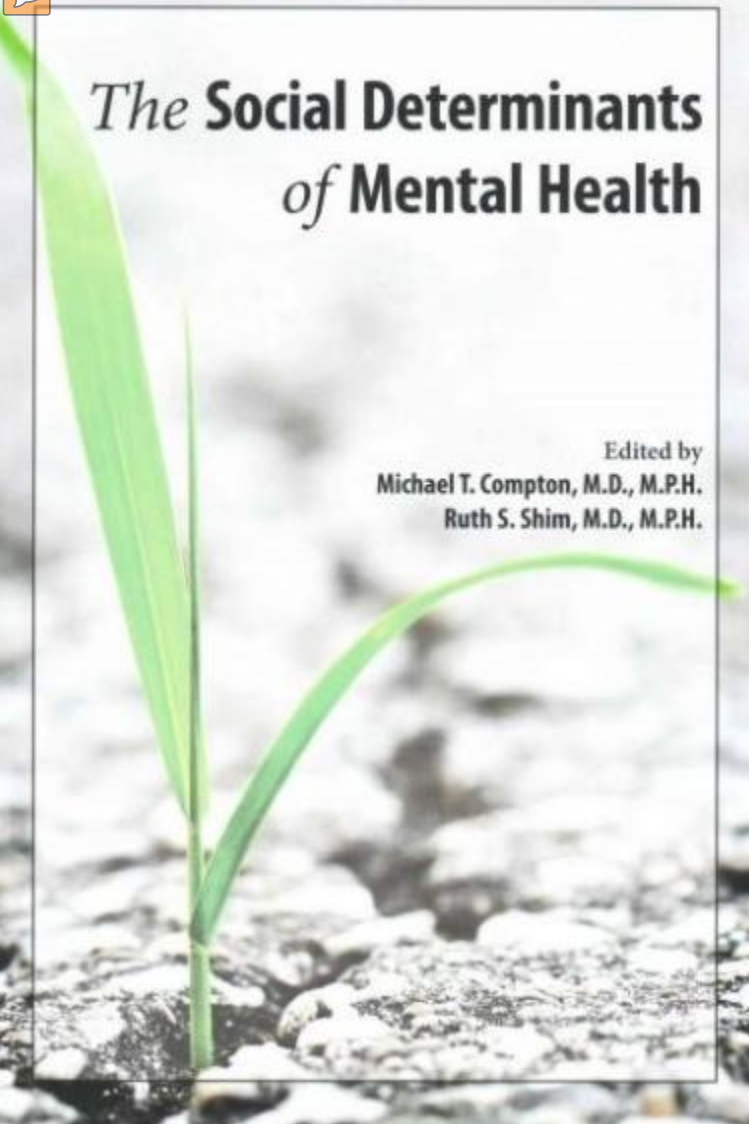
PHYSICAL ISOLATION

PUBLIC SERVICE SYSTEMS

“While comprehensive action across the life course is needed, there is a considerable evidence base and scientific consensus that action to give every child the best possible start in life will generate the greatest societal and mental health benefits... action needs to be...proportionate to disadvantage in order to level the social gradient and successfully reduce inequalities in mental disorders.”

WHO, 2014





The **Social Determinants of Mental Health**

Edited by
Michael T. Compton, M.D., M.P.H.
Ruth S. Shim, M.D., M.P.H.

“Although social determinants of health, or fundamental causes, or causes of the causes, might appear to be quite far upstream compared with the more proximal risk factors that they create, they set the stage for poor mental health, and indeed mental illnesses and substance use disorders, in individuals and communities.”

Compton and Shim, 2015

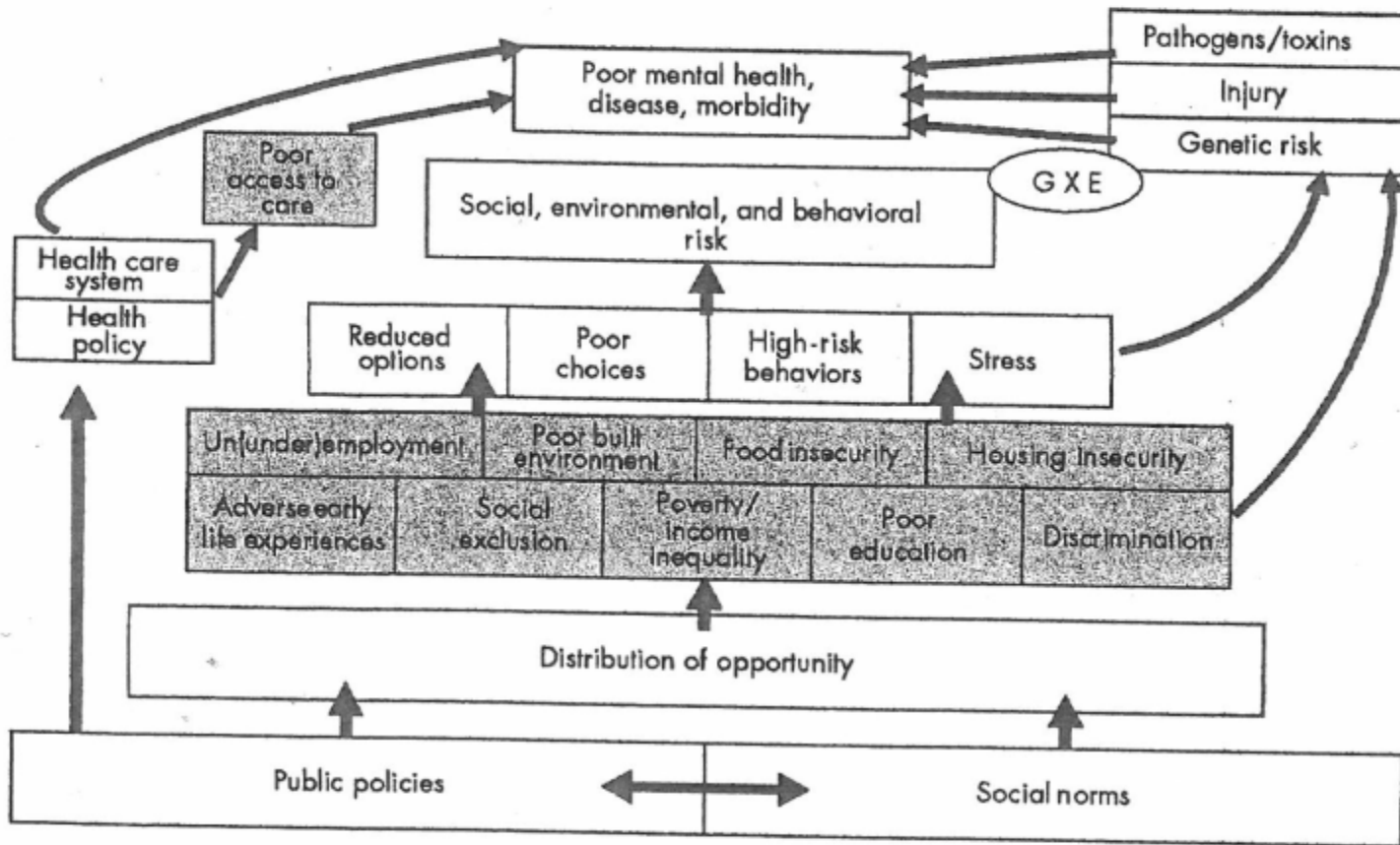


FIGURE 1-1. Framework for understanding the social determinants of mental health.

G × E = gene-by-environment interaction.

Public Policies and Social Norms

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graph TD; A[Public Policies and Social Norms] --> B[Unequal Distribution of Opportunity]; B --> C[Social Determinants of Health]; C --> D[Increased Risk Factors]; D --> E[Poorer Health Outcomes];
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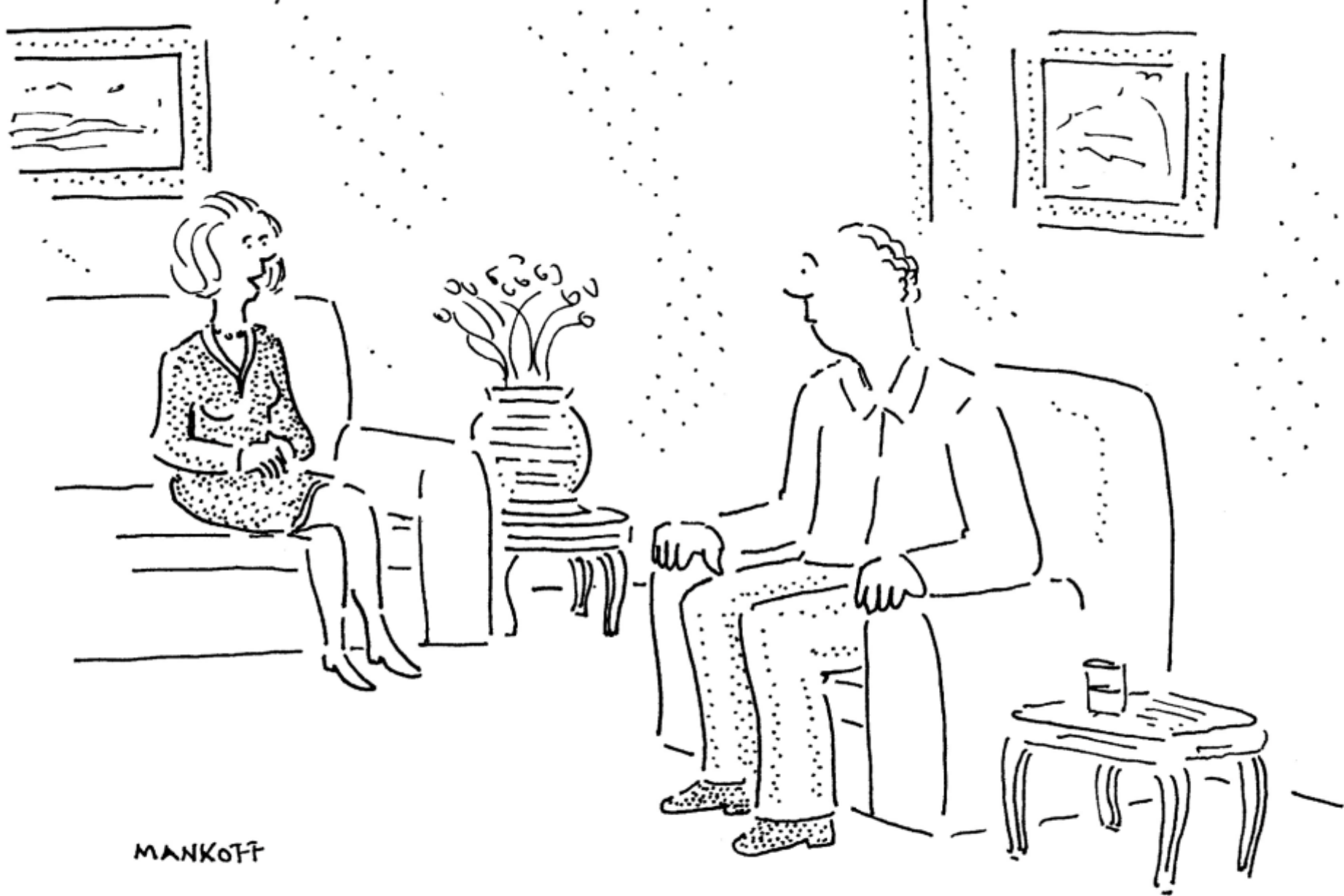
The diagram is a vertical flowchart with five blue rectangular boxes, each containing a text element. The boxes are arranged in a descending staircase pattern from top-left to bottom-right. Each box is connected to the one below it by a light blue downward-pointing arrow. The text in each box is in a bold, yellow font.

Unequal Distribution of Opportunity

Social Determinants of Health

Increased Risk Factors

Poorer Health Outcomes



"Instead of waiting for the next big thing to transform our lives, why don't we give it a shot ourselves?"

And now, the roundtable...