Paths to Population Health: The Imperative to Stay Upstream

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Population Health
(Kindig and Stoddard)

Patterns of health determinants over the life course

Health outcomes and their distribution in a population

Policies and interventions at individual and societal levels
Social Ecological Model of Health Determinants

- Public Policy
- Community (cultural values, norms)
- Organizational (environment, ethos)
- Interpersonal (social network)
- Individual (knowledge, attitude, skills)
Johan Peter Frank, (German Physician) *The People’s Misery: Mother of Diseases, 1790*

“...The diseases caused by the poverty of the people and by the lack of all goods of life are exceedingly numerous.”
Conflation of a number of different fields of inquiry and practice

- Population health
- Public health
- Preventive medicine
- Population medicine
- **Population health management**
- Precision medicine
- Precision health/precision public health
Cursory review reveals 63 universities/medical schools in U.S. have colleges, departments, degree programs in population health, population medicine, or population health mgmt

Thomas Jefferson University College of Population Health

- Population health seeks to create conditions that promote health, prevent adverse events and improve outcomes
- 4 pillars of population health:
  - Chronic disease care management
  - Health care quality and safety
  - Health care policy/regulation/incentives
  - Public health system (two-way relationship)
University of Alabama MS in Population Health Sciences:

- Population health: interdisciplinary field that integrates clinical care and public health practices to prevent, reduce and manage human disease... involves a patient-centered approach and incorporates a value-based health care system.

Themes

- Includes concepts of public health & community engagement
- About training, workforce, research and services /products
- Population health is **big business**— growth in services and products for population health management at patient level
- Focus of interventions/policy primarily **downstream** at individual level
Population Health Management

- Quality compliance measurement
- Patient cost and utilization
- Pharmaceutical utilization optimization
- Predictive modeling to stratify population
- Network management
- Provider alignment and verification analysis

CMS Shared Savings • Commercial ACO • FTC Clinically Integrated Networks
Medicalization: Process by which non-medical, social issues become viewed as medical problems or individual pathologies

- Focuses on sickness more than health
- Gives medical and clinical experts the authority to treat problems within boundaries of medical expertise/practice
- Often creates new clinical services and/or business services/products
- Focuses resources and attention downstream
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Population Health Management
Implications for Population Health Research and Policy

- Denominator shrinkage

- Conflation:
  - Population health and population health management
  - Health inequities and health care inequities

- Framing of problems, focus of research, targets of policy and interventions, and resource allocation is focused downstream

- Ignores or is timid about macro-level factors (including policy) that create population health problems and inequities

- When downstream efforts do not solve the problem: Reinforces notions that marginalized and disenfranchised subpopulations and problems they face are intractable
3. Do you ever eat less than you feel you should because there is not enough food? □ Yes or □ No

4. Do you need a job or other steady source of income? □ Yes or □ No

5. Are you worried that in the next few months, you may not have safe housing that you own, rent or share? □ Yes or □ No

6. In the past year, have you had a hard time paying your utility company bills? □ Yes or □ No

7. Does getting child care make it hard for you to work, go to school or study? □ Yes or □ No

8. Do you think completing more education or training, like earning a high school diploma, going to college, or learning a trade, would be helpful for you? □ Yes or □ No

9. Do you need a dependable way to get to work or school and your appointments? □ Yes or □ No

10. Do you need household supplies? For example, clothing, shoes, blankets, mattresses, diapers, toothpaste, and shampoo. □ Yes or □ No

11. If you take medication, are you not taking it because it is too expensive? □ Yes or □ No

12. Do you need help finding or paying for care for loved ones? For example, child care or day care for an older adult. □ Yes or □ No

13. Do you ever feel unsafe in your home or neighborhood? □ Yes or □ No

14. Would you like to receive assistance with any of these needs?
**SDOH Screening in Clinical Settings**

**PROS**
- Recognizes SDOHs play large role in determining health.
- **Clinicians need to understand social situations/contexts of patients for optimal care.**
- Standard set of social and behavioral metrics can and should be captured for all patients in EHR.
- **Accountable Health Communities:** collaboration models between health care and community organizations/services.

**CONS**
- **Medicalizes** social factors that create health and disparities.
- Detects adverse exposures and conditions that require resources well **beyond clinical care**.
- Screening without capacity to ensure linkage to appropriate interventions and resources is **ineffective** and **unethical**.
- Creates unfulfilled expectations and **further mistrust of system**.
- Will likely **divert resources** away from upstream interventions.
Super-Utilizer Interventions

Super-utilizers

5% of patients = More than 50% of healthcare costs

EMERGENCY DEPARTMENT

KEEP CALM AND REMEMBER
REGRESSION TO THE MEAN
“Health care system has the money” = looking for keys under the lamppost
Health Care System Cannot Solve the Fundamental Causes of Health Inequity

- U.S. life expectancy ranks 35th in the world and is declining
- 40% of U.S. children live below or close to the poverty line
  - Black children 4 times as likely to live in poverty than white kids
- Social disparities in high school graduation rates
- Racial wealth inequality
- High rates of mental health problems/suicide among LGBTQ youth
- High rates of sexual assault and violence across life course
- Public policy is not a savior -- it the root, fundamental cause of many social and health inequities
Population Health: Physical, mental and social well-being of an entire population

Patterns of health determinants over the life course (independent variables)

Health outcomes and their distribution in a population (dependent variables)

Policies and interventions that contribute to both good health and health inequities

Upstream

Downstream
The Imperative for Upstream Paths to Population Health
The medicalization of population health as “population health management” has brought some new attention to social determinants of health and health equity.

It has also steered total population health efforts towards a downstream path that is becoming bigger and better groomed but not heading towards fundamental change.

This path needs some critical re-evaluation and redirection.

Otherwise, as Sharfstein laments, “we may find ourselves awash in population health efforts, without meaningful progress in the health of our population.”