WHAT DRIVES OUR HEALTH?

Reinventing public health in the era of social determinants

Council on the Future of Public Health in Kansas
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Hello,

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OVERVIEW

1. Drivers of Health – ever-changing vision!
2. What will public health in Kansas look like in 10 years?

PUBLIC HEALTH, BACK THEN...

• Health problems, mostly acute, infectious
• Confined to one locality, slow spread
• Population traveled less between cities
"ONLY 186 DEATHS FROM TB"

KANSAS VITAL STATISTICS

provisional summary for 1950
and summary for DECEMBER

Kansas Health Institute

WHAT DO PEOPLE DIE FROM?

• The “immediate cause” model:

Health  →  Disease  →  Death
1900
- Pneumonia
- Tuberculosis
- Diarrhea

2010
- Heart Disease
- Cancer
- Stroke

Our 21st Century Public Health Problem

Leading Causes of Death*
United States, 2000
- Heart Disease
- Cancer
- Stroke
- Chronic lower respiratory disease
- Unintentional injuries
- Diabetes
- Pneumonia/influenza
- Alzheimer's disease
- Kidney disease

Actual Causes of Death†
United States, 2000
- Tobacco
- Poor diet/Physical inactivity
- Alcohol consumption
- Microbial agents (e.g., influenza, pneumonia)
- Toxic agents (e.g., pollutants, asbestos)
- Motor vehicles
- Firearms
- Sexual behavior
- Illicit drug use

WHAT DO PEOPLE DIE FROM?

- The “actual cause” model:

  Health → Lifestyles → Disease → Death

THE ROOT CAUSES

- Why do people maintain unhealthy lifestyles?
- What drives individual decisions about personal health?
- Are there other factors that affect health outcomes?
WHAT DETERMINES HEALTH?
A CURRENT VIEW

- Genetics: 20%
- Health Care: 20%
- Social, Environmental, Behavioral Factors: 60%

Source: Bradley & Taylor, *The American Healthcare Paradox*
EDUCATION

EDUCATION & HEALTH OUTCOMES:

LIFE EXPECTANCY

PATHWAYS FROM EDUCATION TO HEALTH

- Better knowledge => healthy lifestyles
- Better jobs
  - Income, housing, access to health care, living environment
- Better attitude
  - Coping mechanisms
  - Sense of control
  - Problem solving

POVERTY
INCOME & HEALTH OUTCOMES: LIFE EXPECTANCY

Life Expectancy For Men Born in 1950 By Level of Income

Expected Age of Deaths for 50 years olds (Years)

87.2
14 years
73.6

WHERE YOU LIVE MATTERS
(Especially if you are poor...)

### GEOGRAPHICAL DISPARITIES IN KANSAS

<table>
<thead>
<tr>
<th>Measure</th>
<th>Kansas</th>
<th>Worst County Value</th>
<th>Best County Value</th>
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<tbody>
<tr>
<td>Adult Smoking</td>
<td>17%</td>
<td>23% Wyandotte</td>
<td>13% Johnson</td>
</tr>
<tr>
<td>STIs (cases per 100,000)</td>
<td>381.6</td>
<td>704.5 Wyandotte</td>
<td>62.0 Greenwood</td>
</tr>
<tr>
<td>Teen Birth rate (births per 1,000 females ages 15-19)</td>
<td>38</td>
<td>88 Seward</td>
<td>12 Douglas</td>
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<tr>
<td>Children with single parent</td>
<td>29%</td>
<td>48% Wyandotte</td>
<td>1% Scott</td>
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</table>

Source: County Health Rankings, 2016

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**How Does POVERTY Affect Health?**
SMOKING PREVALENCE BY ANNUAL HOUSEHOLD INCOME – KANSAS, 2014

![Bar chart showing smoking prevalence by annual household income in Kansas, 2014.](chart.png)

Source: KDHE, 2014 Kansas BRFSS

WHY DO LOW-INCOME PEOPLE SMOKE MORE?

Aggressive marketing in low-income neighborhoods
- 3x as many brand ads
- Cheaper cigarettes, more retailers, larger ads
Less access to tobacco cessation programs

Social norm and peer pressure
  • Smoking more common and acceptable

Stress management
  • Being poor is hard!
  • Exposure to violence
  • Childhood adversity
PERCENTAGE OF U.S. ADULTS WITH SERIOUS PSYCHOLOGICAL DISTRESS, BY INCOME

Source: CDC/NCHS, National Health Interview Survey, 2009–2013
WHAT DO PEOPLE DIE FROM?

- The “social determinants” model:

```
Health  Lifestyles  Disease  Death
```

Social Determinants:
- Income
- Education

What is the ROLE of Health Departments?
EVOLUTION OF PUBLIC HEALTH FRAMEWORK

• **1988:** IOM releases “The Future of Public Health”
  – U.S. public health system in state of “disarray”
  – Defined three core functions of public health
    • Assessment
    • Policy development
    • Assurance

• **1994:**
  – CDC releases list of 10 essential public health services

• **2003:** IOM releases “The Future of the Public’s Health”
  – Explore national voluntary accreditation for PH departments

• **2012:** IOM releases “For the Public’s Health: Investing in a Healthier Future”
  – Define minimum package of PH services
    (Foundational Public Health Services)
EXAMPLE OF TASKS

Policy Development/Support

- Ability to serve as a primary and expert resource for establishing, maintaining, and developing basic public health policy recommendations that are evidence-based, grounded in law, and legally defensible. This ability includes researching, analyzing, costing out, and articulating the impact of such policies and rules where appropriate, as well as the ability to organize support for these policies and rules and place them before an entity with the legal authority to adopt them.

- Ability to effectively inform and influence policies being considered by other governmental and non-governmental agencies within your jurisdiction that can improve the physical, environmental, social, and economic conditions affecting health but are beyond the immediate scope or authority of the governmental public health department.
THE EVOLVING ROLE OF PUBLIC HEALTH

• Address immediate causes:
  • Individual prevention (e.g., immunizations, STD dx and tx)

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  • Community health education
  • Policies that affect behaviors
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- Address lifestyles:
  - Community health education
  - Policies that affect behaviors
- Address social determinants:
  - ?

SECTORS THAT IMPACT HEALTH DRIVERS

- Energy
- Transportation
- Agriculture
- Education
- Business
- Health
- Public Health and Health Care
REINVENTING PUBLIC HEALTH

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ENHANCED LEADERSHIP & WORKFORCE

- Make PH the “Chief Health Strategist”
  - mobilizing community action to affect health determinants beyond the direct reach of one agency

Adapted from: AJPH April 2016, Vol 106, No. 4: 621-622
NEW PARTNERS

- Elected leaders
- Business
- Hospitals
- Education
- Law enforcement
- General public
- “Make the case”: Why does it matter to YOU to have a healthy community?

EXAMPLES OF FUNDING STRUCTURE FOR LOCAL HEALTH DEPARTMENTS

<table>
<thead>
<tr>
<th>Source</th>
<th>Pawnee</th>
<th>Franklin</th>
<th>Coffey</th>
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<tbody>
<tr>
<td>Fees</td>
<td>47%</td>
<td>40%</td>
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<td>Local Tax</td>
<td>23%</td>
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<td>52%</td>
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<tr>
<td>State &amp; Federal Grant</td>
<td>23%</td>
<td>24%</td>
<td>8%</td>
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<tr>
<td>Private Foundation</td>
<td>7%</td>
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EXTINCTION...

...OR ADAPTATION?