THE STATE OF HEALTH IN KANSAS:
WHERE WE LIVE MATTERS

May 8, 2019
HELLO,

I AM GIANFRANCO PEZZINO, M.D., M.P.H.

I am a Senior Fellow at the Kansas Health Institute. You can connect with me at: gpezzino@khi.org
TODAY’S PROGRAM

• Measuring health and population health
• How are we doing?
• Examples of health inequities
• Future developments
ABOUT BREAD, RETAINERS AND ITALY
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United States per capita healthcare spending is more than twice the average of other developed countries.

**Healthcare Costs per Capita (Dollars)**

<table>
<thead>
<tr>
<th>Country</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy</td>
<td>$3,352</td>
</tr>
<tr>
<td>U.K.</td>
<td>$4,125</td>
</tr>
<tr>
<td>Japan</td>
<td>$4,269</td>
</tr>
<tr>
<td>Australia</td>
<td>$4,289</td>
</tr>
<tr>
<td>Canada</td>
<td>$4,613</td>
</tr>
<tr>
<td>France</td>
<td>$4,530</td>
</tr>
<tr>
<td>Germany</td>
<td>$5,353</td>
</tr>
<tr>
<td>Sweden</td>
<td>$5,266</td>
</tr>
<tr>
<td>Switzerland</td>
<td>$9,507</td>
</tr>
<tr>
<td>OECD Average</td>
<td>$3,763</td>
</tr>
</tbody>
</table>


**Note:** Data are for 2015 or latest available. Chart uses purchasing power parities to convert data into U.S. dollars.

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Life expectancy at Birth and Health Spending per Capita, 2015 (or nearest year)

Particularly perplexing

**IF**

**HEALTH = HEALTHCARE**
What Determines Health?

Source: Bradley & Taylor, The American Healthcare Paradox
THE POVERTY CYCLE

Socioeconomic Status

Job Opportunities

College Affordability & Accessibility
INCOME & HEALTH OUTCOMES:
LIFE EXPECTANCY

Life Expectancy For Men Born in 1950 By Level of Income

- Top 10% Income: 87.2 years
- Bottom 10% Income: 73.6 years

Expected Age of Deaths for 50 years olds (Years)

Adapted from Brookings Institution
EDUCATION & HEALTH OUTCOMES: LIFE EXPECTANCY

Poor physical environment

Access to food

Stress

Smoking

Air pollution

Poor housing
HOW DO WE MEASURE “HEALTH” IN A COMMUNITY?
United Health Foundation
Health Ranking for Kansas

1991: 8th Best
2018: 27th Best
Kansas

2019 County Health Rankings Report

A collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute.
County Health Rankings

34 public domain measures of important dimensions of health

RWJF and University of Wisconsin Madison: www.countyhealthrankings.org/about-project/background
The Fallacy of Averages: Disparities and Inequities in Health
## CHR Disparities in Kansas, 2019

<table>
<thead>
<tr>
<th>Measure</th>
<th>Kansas</th>
<th>Worst County Value</th>
<th>Best County Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult Smoking</td>
<td>17%</td>
<td>23%</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wyandotte</td>
<td>Johnson</td>
</tr>
<tr>
<td>STIs (Chlamydia)</td>
<td>417.6</td>
<td>804.3</td>
<td>78.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wyandotte</td>
<td>Nemaha</td>
</tr>
<tr>
<td>Teen Birth Rate</td>
<td>28</td>
<td>68</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Geary</td>
<td>Douglas</td>
</tr>
<tr>
<td>Children with Single Parent</td>
<td>29%</td>
<td>47%</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Morton</td>
<td>Scott</td>
</tr>
</tbody>
</table>
Is a county the right unit to measure health?
Infant Mortality Rate in Kansas, by Race/Ethnicity, 1996-2015

Source: KDHE
Family Income

Median Family Income by census tract
Shawnee County, KS
ACS 2016, 5-Year Estimates

Current smoking among adults aged ≥18 years by census tract, Topeka, KS, 2014

Income is one of the drivers of health. Income provides reinfluence decisions:
food, housing, education, etc. In County, the median income is $46,000 (95% CI, $42,158).


Per cent (%)
11.4 - 14.4
14.5 - 17.3
17.4 - 20.2
20.3 - 23.2
23.3 - 26.5
26.6 - 30.2
30.3 - 34.6
34.7 - 48.7

City boundary

Classification
Jenks natural breaks (J classes) based on data for all 500 census tracts. Legend depicts only those data classes within this map extent.

Census tracts with population less than 50 were excluded from the map.

Data sources:
Mental health not good for ≥14 days among adults aged ≥18 years by census tract, Wichita, KS, 2016

 Classification: Jenks natural breaks (9 classes) based on data for all 500 cities’ census tracts. Legend depicts only those data classes within this map extent.

 Census tracts with population less than 50 were excluded from the map.
Inequality and mental health

Adults with “serious psychological distress,” by income relative to federal poverty level

<table>
<thead>
<tr>
<th>Income Relative to Federal Poverty Level</th>
<th>Weighted Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 100%</td>
<td>8.7%</td>
</tr>
<tr>
<td>100% to less than 200%</td>
<td>5.1%</td>
</tr>
<tr>
<td>200% to less than 400%</td>
<td>2.7%</td>
</tr>
<tr>
<td>400% or more</td>
<td>1.2%</td>
</tr>
</tbody>
</table>

Sources: CDC/NCHS, National Health Interview Survey, 2009-13

THE HUFFINGTON POST
SMOKING PREVALENCE BY INCOME, KANSAS, 2017

Source: CDC, 2017 Kansas BRFSS
Tobacco use is not an equal opportunity killer. Smoking disproportionately affects those most in need such as the poor, the homeless, racial minorities, LGBTQ persons, and those suffering from mental illness and substance use disorders.

There are up to 10x more tobacco ads in black neighborhoods than in other neighborhoods.


People with Mental Illness Smoke 40% of Cigarettes

Figure 1. Any Mental Illness (AMI) or Substance Use Disorder (SUD) in the Past Year among Adults Aged 18 or Older: 2009 to 2011

- No AMI or SUD: 75.2%
- AMI Only: 16.1%
- SUD Only: 4.9%
- AMI and SUD: 3.8%

Figure 2. Percentage of Cigarettes Smoked in the Past Month among Adults Aged 18 or Older, by Any Mental Illness (AMI) or Substance Use Disorder (SUD) in the Past Year: 2009 to 2011

- No AMI or SUD: 60.4%
- AMI Only: 21.4%
- SUD Only: 8.7%
- AMI and SUD: 9.5%

Source: 2009 to 2011 National Surveys on Drug Use and Health (NSDUHs). NSDUH is an annual survey sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA). The survey collects data by administering questionnaires to a representative sample of the population through face-to-face interviews at their places of residence.

The Data Spotlight may be copied without permission. Citation of the source is appreciated. Find this report and those on similar topics online at http://www.samhsa.gov/data/.
INCOME AND WEALTH INEQUALITIES
Life expectancy is longer in more equal rich countries

Health and social problems are worse in more unequal US states

THE MAIN ARGUMENT

All people are healthier if they live in a more equal society
No man is an island entire of itself; every man is a piece of the continent, a part of the main

John Donne,
MEDITATION XVII, 1624
Disney’s CEO made 1,424 times as much as his employees. An heir to the Disney fortune thinks that’s ‘insane.’

Abigail Disney is turning heads for speaking out about the pay taken home by Bob Iger, the CEO of the company that bears her name. (David Edwards/Jordan Strauss/Invision/AP)


Note: 2016 dollars.
“Health Equity or.....
Health Equity?
GOOD NEWS!

There are interventions to address factors that affect health
Policies & Programs

Policies and programs that can improve health

filtered by "Health Care"

118 results

Activity programs for older adults

Offer group educational, social, or physical activities that promote social interactions, regular attendance, and community involvement among older adults

Evidence Rating: Scientifically Supported
Health Factor(s): Social and Community Engagement

Advocacy for victims of intimate partner violence

Work to empower victims of intimate partner violence, help them with safety plans, and link them with community services (e.g., legal, housing, financial advice, emergency shelter, etc.)

Evidence Rating: Insufficient Evidence
Health Factor(s): Community Safety

Alcohol brief interventions

Provide information and increase motivation to change or prevent problematic alcohol consumption in a short session; also called alcohol education
Behavioral health primary care integration

Integrating behavioral health into primary care practice brings mental health and/or substance abuse screenings and treatments into a primary care setting. These efforts can include coordination between primary care providers, case managers or behavioral health consultants, and mental health specialists (e.g., psychiatrists), and often require training and redefinition or realignment of staff roles (SAMHSA-HRSA Integrate, CG-Mental health). Telehealth tools such as electronic health records (EHRs), text messaging, mobile applications (apps), and online therapies may be used to support integration (Raney 2017). Mental health conditions and substance abuse issues often occur with other chronic medical conditions; patients with severe conditions are referred to specialty care (SAMHSA-HRSA Integrate).

Expected Beneficial Outcomes (Rated)

- Improved mental health
- Increased adherence to treatment
- Improved quality of life
- Increased patient engagement
- Increased patient satisfaction

Other Potential Beneficial Outcomes

- Reduced drug and alcohol use

Evidence of Effectiveness

There is strong evidence that integrating behavioral health into primary care practice improves mental health (Asarnow 2015, Cully 2017, ICER-Tice 2015, Cochrane-Bower 2011), especially depression symptoms (ICER-Tice 2015, CG-Mental...
Mental health benefits legislation regulates health insurance to increase access to mental health services, including treatment for substance use disorders. Parity, a key part of most mental health benefits legislation, stipulates that health insurance plans do not impose greater restrictions for mental health coverage than for physical health coverage (CG-Mental health).

Expected Beneficial Outcomes (Rated)

- Increased access to mental health services
- Increased substance use disorder treatment

Other Potential Beneficial Outcomes

- Improved mental health
- Reduced suicide

Evidence of Effectiveness

There is strong evidence that mental health benefits legislation that includes parity requirements increases appropriate utilization of mental health services (CG-Mental health) and increases substance use disorder treatment (Friedman 2017,
Case-managed care for community-dwelling frail elders

In a case management model, health professionals, often nurses, manage multiple aspects of patients’ long-term care (LTC), including status assessment, monitoring, advocacy, care planning, and linkage to services, as well as transmission of information to and between care providers. Case managers often care for frail elderly patients who live independently. Frail elderly patients often have complex health needs that require care from multiple providers, and are at increased risk of adverse outcomes from conditions that could be prevented with early detection and treatment (Eklund 2009).

Expected Beneficial Outcomes (Rated)

- Reduced nursing home use
- Reduced hospital utilization
- Improved day-to-day functioning

Other Potential Beneficial Outcomes

- Improved health outcomes
- Increased patient satisfaction
- Increased caregiver satisfaction
- Improved mental health
- Improved cognitive function
System Collaboration Through Case Conferences for At-Risk and Vulnerable Populations

In case conferences, health care providers work together to identify and address patients’ complex social and medical needs. Public health nurses from the local health department joined case conference teams at federally qualified health center primary care sites to foster cross-sector collaboration, integration, and mutual learning. Public health nurse participation resulted in frequent referrals to local health department services, greater awareness of public health capabilities, and potential policy interventions to address social determinants of health. (J. Public Health Manag. Pract. 2016; 108:649-651, doi:10.1097/PHH.0000000000000343)

To foster cross-sector collaboration, public health nurses joined existing primary care case conference teams. Case conferences are collaborative team meetings during which providers trained in medicine, behavioral health, and social services identify and address patients’ social, financial, legal, and medical needs. Case conferences develop shared understanding, create consensus on management plans, address social determinants of health, and facilitate referrals and care coordination. Case conferences have been widely applied internationally, with promising effectiveness.

INTERVENTION

Ekahema Health initiated case conferencing in its primary care practices to better address the needs of patients with challenging issues. Part of the Marion County Health & Hospital Corporation, Ekahema Health is the public hospital serving the uninsured and indigent populations of Indianapolis and has a 315-bed hospital. Also, Ekahema Health is a federally qualified health center with 10 sites and nearly 1 million outpatient visits annually. Composition varies by site, but, in addition to a physician and nurse, teams may include physician assistants, medical assistants, clinical social workers, dieticians, and geriatric care representatives. Activities include a review of the patient, identification of relevant patient goals, information sharing, discussion, and action items. If appropriate, the team may attempt to speak with the patient or a caregiver by phone during the conference. Any member of the health care team can nominate a patient for discussion at a case conference, which typically occurs on a designated weekly basis.

With such diverse representation of professionals engaged in problem-solving activities, case conferences present a unique opportunity to foster cross-sector collaboration, integration, and learning. We introduced public health nurses from the Marion County Public Health Department into case conference teams at three clinic sites. Also part of the Marion County Health & Hospital Corporation, the Marion County Public Health Department is the largest local health department in the state. The public health nurses were fully participating members of the case conferences; they reviewed patient history, shared knowledge, and formulated action items.

PLACE AND TIME


PERSON

Patients (adult and pediatric) included in case conferences were high risk and had complex psychosocial needs and were drawn from predominantly urban and lower-income communities.

PURPOSE

We introduced local public health nurses into the case conference team to explore the activity as a point of integration and cross-sector collaboration between health care providers and public health professionals. Specifically, we sought to identify

ABOUT THE AUTHORS

Jennifer R. Votz, PhD, MPH, Virginia Gaines, MD, Lisa E. Harris, MD, Dennis P. Watson, PhD, Nir Mansharamani, PhD, MPH, Paul Hekerson, DNP, FAACHE

DOI: 10.1097/PHH.0000000000000343
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Promising policies to shrink wealth inequality and racial wealth gaps

Federal asset-building subsidies disproportionately benefit high-income families that need them the least. Here are six recommendations that could help reduce wealth inequality and racial wealth disparities:

- Limit the mortgage interest tax deduction and use the revenues to provide a credit for first-time homebuyers.
- Establish automatic savings in retirement plans.
- Reduce reliance on student loans while supporting success in postsecondary education.
- Offer universal children’s savings accounts.
- Reform safety net program asset tests, which can act as barriers to saving among low-income families.
- Provide subsidies to promote emergency savings, such as those linked to tax time.

By more efficiently and equitably promoting saving and asset building, more people will have the tools to protect their families in tough times and invest in themselves and their children.

*Source: The Urban Institute, 2019*
Infant Mortality Rate in Kansas, by Race/Ethnicity, 1996-2015

- Kansas
- KS, Non-Hispanic White
- KS, Non-Hispanic Black
- KS, Hispanic (Any Race)

Source: KDHE
CAN YOU MENTION THREE INTERVENTIONS THAT CAN DECREASE INFANT MORTALITY?
The Effect of an Increased Minimum Wage on Infant Mortality and Birth Weight

Kelli A. Komro, PhD, MPH, Melvin D. Livingston, PhD, Sara Markowitz, PhD, and Alexander C. Wagenaar, PhD

Objectives. To investigate the effects of state minimum wage laws on low birth weight and infant mortality in the United States.

Methods. We estimated the effects of state-level minimum wage laws using a difference-in-differences approach on rates of low birth weight (< 2500 g) and postneonatal mortality (28–364 days) by state and month from 1980 through 2011. All models included state and year fixed effects as well as state-specific covariates.

Results. Across all models, a dollar increase in the minimum wage above the federal level was associated with a 1% to 2% decrease in low birth weight births and a 4% decrease in postneonatal mortality.

Conclusions. If all states in 2014 had increased their minimum wages by 1 dollar, there would likely have been 2790 fewer low birth weight births and 518 fewer postneonatal deaths for the year. (Am J Public Health. 2016;106:1514–1516. doi: 10.2105/AJPH.2016.303268)

wages are associated with reduced rates of low birth weight infants and infant mortality.10

METHODS

The main independent variable is the state-level minimum wage for each of the 50 states by month from 1980 through 2011 on the basis of the effective date (not passage date) of legislative bills passed by legislatures and signed into law by state governors and then codified into statutory records. In cases in which 1 law includes
VACCINES REDUCED MANY INFECTIOUS DISEASES

Ten Great Public Health Achievements --- United States, 2001--2010

Weekly
May 20, 2011 / 60(19);619-623

During the 20th century, life expectancy at birth among U.S. residents increased by 62%, from 47.3 years in 1900 to 76.3 in 2000, and improvements in population health status were observed at every stage of life (1). In 1999, MMWR published a series of reports highlighting public health achievements that contributed to those improvements. This report assesses advances in public health during the first 10 years of the 21st century. Health scientists at CDC were asked to nominate noteworthy public health achievements that occurred in the United States during 2001--2010. On the basis of nominations, 10 achievements, not ranked in any order, have been summarized in this report.

Vaccine-Preventable Diseases

The past decade has seen substantial declines in cases, hospitalizations, deaths, and health-care costs associated with vaccine-preventable diseases (i.e., rotavirus, quadrivalent meningococcal conjugate, herpes zoster, pneumococcal conjugate, and human papillomavirus vaccines; diphtheria, and acellular pertussis vaccine for adults and adolescents) were introduced, bringing to 17 the number of diseases included in the immunization policy. A recent economic analysis indicated that vaccination of each U.S. birth cohort with the current childhood immunization schedule would save approximately 42,000 deaths and 20 million cases of disease, with net savings of nearly $14 billion in direct costs and $69 billion in total societal costs.
Policy is the vaccine that can create resilience against chronic disease and social determinants of health
“Medicine is a social science, and politics is nothing more than medicine on a large scale.”
— Rudolf Virchow, 1821-1902
THANK YOU

Any questions?

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