THE STATE OF HEALTH IN KANSAS:
WHERE WE LIVE MATTERS

June 28, 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

MARATHON

• Measuring health and population health
• How are we doing?
• Examples of health inequities
• (Re)emerging issues relevant to you
• Population Health, Population Health Management and Community Health
• What can we do?
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)**

- Italy: $3,352
- U.K.: $4,125
- Japan: $4,269
- Australia: $4,289
- Canada: $4,613
- France: $4,530
- Germany: $5,353
- Sweden: $5,266
- Switzerland: $9,507
- United States: $3,763
- OECD Average: $3,763

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

© 2018 Peter G. Peterson Foundation
Life expectancy at Birth and Health Spending per Capita, 2015 (or nearest year)

Particularly perplexing

IF

HEALTH = HEALTHCARE
What Determines Health?

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

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

Expected Age of Deaths for 50 years olds (Years)

Adapted from Brookings Institution
EDUCATION & HEALTH

OUTCOMES: LIFE EXPECTANCY

HEALTH SERVICES AND SOCIAL SERVICES EXPENDITURE BY COUNTRY
EXAMPLES OF SOCIAL SERVICES EXPENDITURES

- Support for older adults
- Survival, disability and sickness cash benefits
- Family support (incl. childcare, child welfare)
- Employment and unemployment services
- Housing
HOW DO WE MEASURE “HEALTH” IN A COMMUNITY?
United Health Foundation
Health Ranking for Kansas

1991
8th Best

2018
27th Best
County Health Rankings

34 public domain measures of important dimensions of health

RWJF and University of Wisconsin Madison: www.countyhealthrankings.org/about-project/background
Health Outcomes – 2019

Rank 1-26  Rank 27-51  Rank 52-76  Rank 77-102  Not Ranked
The Fallacy of Averages: Disparities and Inequities in Health
Local Life Expectancies by Income

- New York City
- San Francisco
- Dallas
- Detroit

Life Expectancy at Age 40 (race-adjusted)

Bottom 5%  Median Income  Top 5%

Household Income

Chetty, et.al., JAMA published online April 10, 2016
Inequality and mental health

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

<table>
<thead>
<tr>
<th>Income 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
## 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>
Infant Mortality Rate in Kansas, by Race/Ethnicity, 1996-2015

Source: KDHE
In the past couple of decades, better prevention and treatment have produced gains against heart disease, the nation’s No. 1 killer. The biggest improvements occurred in large cities, thanks to lower smoking rates, widespread cholesterol-lowering drugs and better emergency care, among other factors.

Source: Institute for Health Metrics and Evaluation, University of Washington

HEALTH ISSUES IN RURAL AREAS

- Older
- Poorer
- More likely to be overweight or obese,
- Sicker
- Higher injury rates
- Higher smoking rates
- Higher rates of uninsurance
- Higher rates of suicide
- Higher rates of opioid misuse
HEALTH ASSETS IN RURAL AREAS

• Individual assets:
  – Civic and community engagement, resilience, entrepreneurship, connections

• Organizational assets ("local anchors")
  – Faith- and community-based, schools, local businesses

• Community assets (externally controlled)
  – Branched institutions, hospitals, natural resources

• Cultural assets
  – Culture, history, core values, families, pride, independence, deep connections
(Re)Emerging Issues that May Affect your Strategic Planning
(RE) EMERGING ISSUES

• Tobacco use
• Demographic changes
• Mental and behavioral health
• Income and wealth inequalities
• Public health modernization
(Re)Emerging Issues

TOBACCO USE
SMOKING PREVALENCE BY INCOME

Source: KDHE, 2016 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.

SEVENBURG AB, CAUGHEY RY, REES VNK, CO NOLLY GN. STOREFRONT CIGARETTE ADVERTISING DIFFERS BY COMMUNITY DEMOGRAPHIC PROFILE. AM J HEALTH PROMOT. 2019; 34(6): E26-E37. (2-3X INCREASE)


TOBACCO USE AND MENTAL ILLNESS

Source: National Survey on Drug Use and Health, 2016
REFLECTION - What is your organization doing to reduce the impact of tobacco use?
(Re)Emerging Issues

DEMOGRAPHIC CHANGES
DEMOGRAPHIC CHANGES

1. 82 counties in KS lost population
Population Change (%) for All Kansans by County, Between 2000 and 2016

Source: KHI analysis of data from the National Center for Health Statistics’ (NCHS) April 1, 2000 bridged-race population estimates and the NCHS’s June 2017 Vintage July 1, 2016 bridged-race population estimates.
1. 82 counties in KS lost population
2. 93 counties in KS lost NH white population
Population Change (%) for Non-Hispanic White Kansans by County, Between 2000 and 2016

Source: KHI analysis of data from the National Center for Health Statistics’ (NCHS) April 1, 2000 bridged-race population estimates and the NCHS’s June 2017 Vintage July 1, 2016 bridged-race population estimates.
1. 82 counties in KS lost population
2. 93 counties in KS lost \textit{NH white} population
3. All counties in KS gained “\textit{minority}” population
Population Change (%) for All Minorities by County, Between 2000 and 2016

Source: KHI analysis of data from the National Center for Health Statistics’ (NCHS) April 1, 2000 bridged-race population estimates and the NCHS’s June 2017 Vintage July 1, 2016 bridged-race population estimates.
1. 82 counties in KS lost population
2. 93 counties in KS lost NH white population
3. All counties in KS gained “minority” population
4. Population growth will be 4x greater for age >65
Population Projections by Age Group in Kansas, 2016-2066

REFLECTION - How do these changes affect or will affect your mission, strategies, operations?
(Re)Emerging Issues

THE MENTAL AND BEHAVIORAL HEALTH CRISIS
# Health Issues Snapshot

<table>
<thead>
<tr>
<th>Health Issue</th>
<th>Data &amp; Information about Each Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Improve health literacy</td>
<td>• Ranked #2 during town hall meetings</td>
</tr>
<tr>
<td>b. Care coordination</td>
<td>• Ranked in top 8 issues during town hall meetings</td>
</tr>
<tr>
<td>c. State ID (easier to get)</td>
<td>• 6.4% of respondents at the town hall meeting cited this issue.</td>
</tr>
<tr>
<td></td>
<td>• ID is needed to access most medical services.</td>
</tr>
<tr>
<td>d. Preventive services</td>
<td>• Primary care physicians rate: 70/100,000 vs 76/100,000 state wide.</td>
</tr>
<tr>
<td></td>
<td>• Access to care score is Good (US News &amp; World Report).</td>
</tr>
<tr>
<td>e. Access to mental health</td>
<td>• Ranked #1 during town hall meetings</td>
</tr>
<tr>
<td></td>
<td>• Also ranked among top items that survey respondents need information about and struggle with.</td>
</tr>
<tr>
<td></td>
<td>• Depression among the Medicare population is 23.1% compared with 17.8% for KS as a whole.</td>
</tr>
</tbody>
</table>
Americans are the unhappiest they’ve ever been, U.N. report finds. An ‘epidemic of addictions’ could be to blame.
Number of children going to ER with suicidal thoughts, attempts doubles, study finds

By Dr. Edith Bracho-Sanchez, CNN

Updated 11:37 AM ET, Mon April 8, 2019
Prevalence of not receiving care in children with mental health disorders

B, State-level prevalence presented as quartiles of children with a mental health disorder not receiving needed treatment or counseling from a mental health professional (weighted estimate, 7.7 million).

Source: JAMA Pediatrics April 2019 Volume 173, Number 4
78 CHAs/CHNAs and CHIPs reviewed mentioned behavioral health-related issues

However, about half of the reports did not prioritize behavioral health for further action.

Low community capacity (e.g., skills, knowledge, resources) number one reason for not prioritizing these concerns for further action.
REFLECTION - How does the behavioral health crisis affect your mission, strategies, operations?
(Re)Emerging Issues

INCOME AND WEALTH INEQUALITIES
Kansas Health Institute
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.’


Note: 2016 dollars.
Health Equity or.....
“Health Equity?”
REFLECTION: How does the growing wealth inequality affect your mission, strategies, operations?
(Re)Emerging Issues

PUBLIC HEALTH MODERNIZATION
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"

**GENERAL MORTALITY**

**INFECTIOUS AND COMMUNICABLE DISEASES**

**Tuberculosis**

Only 186 deaths with a rate of 9.8 per 100,000 population makes 1950 another record low mortality year for that disease. This 1950 tuberculosis death rate represents a 13.3% reduction from the rate of the previous year. The significance of the remarkable Kansas tuberculosis record can best be seen by referring to Chart IV, which depicts the tuberculosis death rate trends in Kansas for the last thirty-five years. From this graph it is apparent that the 1950 death rate is one-sixth of that for 1918; one-fourth of the 1928 rate, and one-third of the 1936 rate. Progress in the last decade has continued as shown by the 50% reduction in tuberculosis mortality within the last eight years.

**Chart IV**

**TUBERCULOSIS DEATH RATES**

**KANSAS, 1916 - 1950**
THE KANSAS PUBLIC HEALTH SYSTEM

- Decentralized system (local control)
- 105 counties
- 100 local health departments
  - 2 multicounty departments
- Most governed by Board of County Commissioners serving as Local Boards of Health
PUBLIC HEALTH AS CHIEF HEALTH STRATEGIST

- Less direct care—more policy
- Convening
- Diverse sectors
- Emerging needs & populations
- Upstream focus
- Real-time and new data
How can a health system like yours leverage the role of public health to achieve your mission?
GETTING ENGAGED IN POPULATION HEALTH
POPULATION HEALTH, COMMUNITY HEALTH AND POPULATION HEALTH MANAGEMENT

Source: American Hospital Association, 2018 Population Health Survey
Population Health Management

- Improve clinical health outcomes
- Focuses on the defined group of individuals (patients)
- Includes:
  - Risk stratification
  - Care coordination
  - Disease care management

Source: American Hospital Association, 2018 Population Health Survey.
Community Health

Non-clinical approaches for improving health

Address social, behavioral economic, environmental determinants in the geographically defined population

Disparities. Inequities

Underlying Determinants of Health

- Discrimination, Stress & Trauma
- Food Security & Access to Nutritious Food
- Income & Employment
- Housing
- Environmental Quality
- Neighborhood Health & Community Environment
- Health Care
- Education
- Transportation

Source: American Hospital Association, 2018 Population Health Survey.
POPULATION HEALTH MANAGEMENT VS COMMUNITY HEALTH: WHAT APPROACH DO YOU WANT TO TAKE AS A HEALTH SYSTEM?
JUST BECAUSE YOU WORK ON POPULATION HEALTH MANAGEMENT IT DOES NOT MEAN YOU ARE ADDRESSING THE SOCIAL DETERMINANTS OF HEALTH IN THE COMMUNITY
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): Diet and Exercise, Family and Social Support

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

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...
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 2007).

**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. (Am J Public Health. 2018;108:649-651. doi:10.2105/AJPH.2018.304343)

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.1 Case conferences develop shared understanding, create common management plans, address social determinants of health, and facilitate referrals and care coordination.2 Case conferences have been widely applied internationally, with promising effectiveness.3

INTERVENTION

Eikenazi Health initiated case conferencing in its primary care practice to better address the needs of patients with challenging issues. Part of the Marion County Public Health Corporation, Eikenazi Health is the public hospital system serving the underrepresented and indigent populations of Indianapolis and has a 315-bed hospital. Also, Eikenazi Health is a federally qualified health center with 20 sites and nearly 1 million outpatient visits annually. Composition varies by site, but, in addition to a physician and nurses, teams may include physician assistants, medical assistants, clinical social workers, dietitians, 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 at a designated weekly time.

With such diverse representation of professionals engaged in focused 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 Public Health 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 unmet 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 at a point of integration and cross-sector collaboration between health care providers and public health professionals. Specifically, we sought to rapid effect.
Women-Inspired Neighborhood (WIN) Network: Detroit

The Detroit Regional Infant Mortality Reduction Task Force was formed in 2008 after the CEOs of the four major health systems serving Detroit (Detroit Medical Center, Henry Ford Health System, Oakwood Healthcare, and St. John Providence Health System), alarmed by persistently high infant mortality rates in the region and gaping health disparities, committed their organizations to find lasting, collaborative solutions.
Infant Mortality Rate in Kansas, by Race/Ethnicity, 1996-2015

Infant Mortality Rate (per 1,000 Live Births)

Year


Infant Mortality Rate (per 1,000 Live Births)

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
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?

You can connect with me at: gpezzino@khi.org