Population-Based Health and Health Promotion in Rural

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A focus on rural population health helps health professionals and rural communities understand the burden and the causes of the leading health problems in a community – not just the leading health concerns – and develop strategies for improvement.
Webinar Objectives

1. Trace the trends in the leading health problems, as well as their causes, over the past 100 years and determine where rural population health sits now.

2. Describe a model of population health that answers what are the leading rural health problems in U.S. and what are the major causes (determinants) of these rural health problems?

3. Explore available assessment tools and resources that can be used to develop effective programs and policies to address rural population health problems.

4. Provide examples of current rural population health issues with a focus on the shifting health care paradigm in the U.S. and opportunities for significant changes that can improve rural population health.
Leading Causes of Death in U.S.

• Over last 100 years changes in public health and health care have led to dramatic changes in causes of death and in life expectancy by more than 30 years.

• Infant mortality has declined from 150/1,000 live births in 1900 to 6.9/1,000 in 2005.

• Many people attribute most of this gain to advances in public health.
Leading Causes of Death in U.S.

- Early in 20th century - improvements in sanitation and control of infectious diseases
- By mid 20th century chronic diseases were the leading causes of death
- Four eras of the leading causes of death:
  1. Environmental causes
  2. Health care
  3. Health behaviors
  4. Social and economic factors
Era of Environmental Disease

• Unhealthy environments nearly 1/3 of all deaths.
• Laws and regulations focused on improving the health of the environment dramatic reductions in communicable diseases and maternal and infant mortality.
• Chronic diseases became the next focus as leading causes of death.
Era of Expanding Health Care

• By 1950 heart disease and cancer were the leading causes of death in the U.S.
• The focus of intervention began to shift to healthcare services for the treatment of diseases.
• By 1970 extensive and expensive healthcare systems were in place, underpinned by health insurance systems.
Era of Lifestyle & Health Risk Behaviors

• In the 1970s we began to focus on identifying the causes of chronic diseases, such as tobacco use, diet, etc.

• Canadian report in 1974 was first modern government document to say the emphasis on healthcare was insufficient to improve population health and suggest a new framework of 1) human biology, 2) environment, 3) lifestyle and 4) healthcare organization.
Leading Causes of Death in the U.S. 2000

<table>
<thead>
<tr>
<th>Cause of Death</th>
<th>No. of Deaths</th>
<th>Death Rate per 100,000 Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart disease</td>
<td>710,760</td>
<td>258.2</td>
</tr>
<tr>
<td>Malignant neoplasm</td>
<td>553,091</td>
<td>200.9</td>
</tr>
<tr>
<td>Cerebrovascular disease</td>
<td>167,661</td>
<td>60.9</td>
</tr>
<tr>
<td>Chronic lower respiratory tract disease</td>
<td>122,009</td>
<td>44.3</td>
</tr>
<tr>
<td>Unintentional injuries</td>
<td>97,900</td>
<td>35.6</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>69,301</td>
<td>25.2</td>
</tr>
<tr>
<td>Influenza and pneumonia</td>
<td>65,313</td>
<td>23.7</td>
</tr>
<tr>
<td>Alzheimer disease</td>
<td>49,558</td>
<td>18</td>
</tr>
<tr>
<td>Nephritis, nephrotic syndrome, and nephrosis</td>
<td>37,251</td>
<td>13.5</td>
</tr>
<tr>
<td>Septicemia</td>
<td>31,224</td>
<td>11.3</td>
</tr>
<tr>
<td>Other</td>
<td>499,283</td>
<td>181.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,403,351</strong></td>
<td><strong>873.1</strong></td>
</tr>
</tbody>
</table>
### Era of Lifestyle & Health Risk Behaviors

#### Actual Causes of Death in the U.S. 1990 & 2000

<table>
<thead>
<tr>
<th>Actual Cause</th>
<th>No. (%) in 1990*</th>
<th>No. (%) in 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco</td>
<td>400,000 (19)</td>
<td>435,000 (18.1)</td>
</tr>
<tr>
<td>Poor diet and physical inactivity</td>
<td>300,000 (14)</td>
<td>400,000 (16.6)</td>
</tr>
<tr>
<td>Alcohol consumption</td>
<td>100,000 (5)</td>
<td>85,000 (3.5)</td>
</tr>
<tr>
<td>Microbial agents</td>
<td>90,000 (4)</td>
<td>75,000 (3.1)</td>
</tr>
<tr>
<td>Toxic agents</td>
<td>60,000 (3)</td>
<td>55,000 (2.3)</td>
</tr>
<tr>
<td>Motor vehicle</td>
<td>25,000 (1)</td>
<td>43,000 (1.8)</td>
</tr>
<tr>
<td>Firearms</td>
<td>35,000 (2)</td>
<td>29,000 (1.2)</td>
</tr>
<tr>
<td>Sexual behavior</td>
<td>30,000 (1)</td>
<td>20,000 (0.8)</td>
</tr>
<tr>
<td>Illicit drug use</td>
<td>20,000 (&lt;1)</td>
<td>17,000 (0.7)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,060,000 (50)</strong></td>
<td><strong>1,159,000 (48.2)</strong></td>
</tr>
</tbody>
</table>
Era of Lifestyle & Health Risk Behaviors

• In the 1980s, telephone surveys emerged as a feasible method for assessing the prevalence of health risk behaviors.
• 1984 CDC started the state-based Behavioral Risk Factor Surveillance System (BRFSS)
• Standardized questionnaire over time provides ability to compare and contrast health of communities.
2000 brought a focus farther “upstream” on predisposing behavioral and other factors.

IOM report on *The Future of the Public’s Health in the 21st Century*.

Underlying (upstream) factors have important effects on health.
Social Determinants of Health

• Race & ethnicity
• Geography
• Social networks and social support
• Work conditions
• Social capital
• Economic inequality
High-poverty nonmetro counties increased in number between 2000 and 2007-11

Note: Values for 2000 are based on the Decennial Census; those for 2007-2011 are based on the American Community Survey (ACS).
Social Determinants of Health

Socioeconomic status

— Income
— Education
— Occupation

Relative Risk of CHD Death in Different Grades by Risk Factors (Age-Standardized)

Education Level Impact on Health

• Level of education may be as important as medical care and other factors in improving health.

• 2005 mortality rate for adults in U.S.
  – Some education beyond HS = 206/100,000
  – Only HS = ± 412/100,000
  – Less than HS = ± 618/100,000

• More education = fewer disabilities and better physical functioning.
• Correcting educational disparities more important than medical advances.
• Reduction in mortality rates of 1% to 3% for each additional year of schooling.
• Is this how we might improve rural population health?
A Model for Population Health

http://www.countyhealthrankings.org/our-approach
Population-Based Health & Health Promotion in Rural Areas

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Why it is important to understand assessing the dynamics of the changing health care environment...

Performance measures and reimbursements are changing for hospitals and other systems of care.
Health system changes present opportunities to better assess and address various health issues of the population.

For rural areas, this presents unique possibilities to acquire health information to address health promotion.

Opportunities to educate/re-educate those with health insurance, or newly acquired health insurance, on how to utilize Wellness benefits and Preventive Health Screenings. Preventive Services Covered Under the Affordable Care Act

www.HHS.gov/healthcare
For rural and frontier areas, your organization can be a conduit of data or drive a collaborative assessment effort that is needed for health promotion efforts locally.
How would you address the health of populations?
Population health definitions vary..

Ensure that you establish a commonly understood definition with partners within your target area.
The hospital environment has been preparing for the Triple Aim.
The Triple Aim is a framework developed by the Institute for Healthcare Improvement that describes an approach to optimizing health system performance.

Improving the patient experience of care (including quality and satisfaction);
Improving the health of populations; and
Reducing the per capita cost of health care.
Population Health Measures per Institute of Healthcare Improvement

- Health and Functional Status
- Risk Status-Composite Health Risk Appraisal Score
- Disease Burden-Incidence and/or prevalence of major chronic conditions
- Mortality: Life Expectancy; Years of Potential Life Loss
Consider using a Community Health definition as more commonly understood among local agencies and partners.
Decide what standardized benchmarks reflect your areas’ needs and consider incorporating county health rankings data—Robert Wood Johnson Foundation

countyhealthrankings.org
Utilize evidence-based data that allows programming to reflect area needs, is measurable and comparable to recognized standards and considers new models of rural community health care.
How do we acquire this data?
Several tools and products are easily available…

1. Critical Access Hospitals perform Community Needs Assessments every three years;

2. Rural Health Works ([ruralhealthworks.org](http://ruralhealthworks.org)) provides tools and templates for assessments;

3. Community Health Needs Assessments ([chda.org](http://chda.org));
National Association of County and City Health Officials

Definition of an Ideal Community Health Assessment

A community health assessment is a process that uses quantitative and qualitative methods to systematically collect and analyze data to understand health within a specific community.

An ideal assessment includes information on risk factors, quality of life, mortality, morbidity, community assets, forces of change, social determinants of health and health inequity, and information on how well the public health system provides essential services.
Community health assessment data inform community decision-making, the prioritization of health problems, and the development, implementation, and evaluation of community health improvement plans.
Medical care accounts for less than 25% of a population’s health status. Other factors, including genetics, social circumstances, environmental conditions, and behavior, have significantly more impact on health. These factors drive the social determinants of health.
Healthy People 2020 highlights the importance of addressing the social determinants of health by including “Create social and physical environments that promote good health for all” as one of the four overarching goals for the decade.  

The Social Determinants of Health topic area within Healthy People 2020 is designed to identify ways to create social and physical environments that promote good health for all.

Reference article: “Addressing the Social Determinants of Health through the Alameda County, California, Place Matters Policy Initiative”; Public Health Reports/2013 Supplement 3/Volume 128
Rural Population Health & Health Promotion

Opportunities to Explore

Organize in your communities to develop networks concerned with population health;
Identify assessment tools and data to drive decision-making;
Assist in distilling data and information for relevance and impact;
Ensure rigor in applying benchmarks and rankings;
Track changes;
Engage on policy issues and advocacy.
Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has.

Margaret Mead