WHO CAN OR WILL BE THE POPULATION HEALTH INTEGRATOR?

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School of Medicine and Public Health

IHI Triple Aim Toronto Ontario
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SUMMARY OF PRESENTATION

• Triple Aim medical care reforms of improving the experience and reducing percapita costs of care are essential and challenging themselves.

• They alone will not produce optimal population health outcomes.
• The third aim of improving population health is even more challenging because it requires a Balanced Investment Portfolio across the other determinants of health like education, income, behaviors, and the physical environment.
• Most of these are outside of traditional medical care control
• It is likely to require a broad multi-sectoral integrator with appropriate financial incentives and resources
• Can Triple Aim organizations be or support this integrator?
The verdict is out but the need is substantial and the opportunity great for promising practices and leadership....
So What is Population Health?

“The health outcomes of a group of individuals, including the distribution of such outcomes within the group”

Kindig and Stoddart, AJPH, 2003
“How much, then, should go for medical care and how much for other programs affecting health, such as pollution control, fluoridation of water, accident prevention and the like.

There is no simple answer, partly because the question has rarely been explicitly asked.”

Victor Fuchs, 1974
Balance of Determinants: Medical Care

Cutler (2006) assumed advances in medical care produced 50% of increased life expectancy 1960-2000

Concluded: “Current increases are associated with a high cost per year of life gained...The current rise in spending should be balanced by attention to health benefits gained.”
Balance of Health Determinants

“...Thus one could question a funding scheme that places so much emphasis on medical care and not on prevention”

- McGinnis 2002
America’s State Health Rankings

- Clinical Care  21%
- Personal Behaviors  36%
- Public Health Policies  18%
- Community Environment 25%
“at present we but vaguely understand the relative magnitude of the coefficients on the independent variables that would inform specific policies rather than broad directions”.

Stoddart 1996
### ALL STATES CAN IMPROVE SINCE NO STATE IS #1 IN ALL DETERMINANTS

**America’s Health Rankings 2008**

<table>
<thead>
<tr>
<th></th>
<th>Massachusetts #6</th>
<th>Minnesota #4</th>
<th>Vermont #1</th>
<th>Wisconsin #17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking</td>
<td>4</td>
<td>5</td>
<td>12</td>
<td>24</td>
</tr>
<tr>
<td>Obesity</td>
<td>2</td>
<td>24</td>
<td>6</td>
<td>18</td>
</tr>
<tr>
<td>HS Graduation</td>
<td>22</td>
<td>6</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Uninsured</td>
<td>1</td>
<td>4</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>Immunization</td>
<td>8</td>
<td>7</td>
<td>29</td>
<td>31</td>
</tr>
</tbody>
</table>

*
How Healthy Could A State Be?

“NonModifiable” Variables

• Race
• Age
• Gender
• Rural/Urban
• Immigrant

“Modifiable” Variables

• Uninsured
• Education level
• Income
• Employment
• Living Alone
• Activity level
• Smoking
• Obesity
“The fundamental assertion of this book is that population health improvement will not be achieved until appropriate financial incentives are designed for this outcome.”

Kindig 1997
“Redirecting resources means redirecting someone’s income…most students of population health cannot confidently answer the question… Well, where would you put the money?”

Evans and Stoddart, 2003
IF I WERE CZAR, AND HAD TO WORK WITH EXISTING RESOURCES

I would take the 25% of health care expenditures that are thought to be ineffective ($500 Billion), and reallocate as below:

- $100 Billion
- $100 Billion
- $300 Billion

- Uninsured
- Education
- Prevention

$100 Billion

$300 Billion
What Works? Policies and Programs to Improve Wisconsin’s Health

Drivers of Health
- Health Behaviors
- Social & Physical Environment
- Health Care & Public Health Systems

Health Outcomes
- Reduce preventable illness and disability
- Reduce preventable death
- Reduce health disparities

June 2009

http://www.pophealth.wisc.edu/uwphi/pha/healthiestState.htm
A BALANCED INVESTMENT PORTFOLIO

Governmental public health
- Environmental contamination
- Education
- Healthy child development
- Housing
- Social connectedness

Spending
- Income and poverty
- Employment

Health care
- Access
- Quality
- Costs

Nutrition
- Smoking
- Substance abuse
- Driving
- Physical activity
- Accidents
- Violence
- Risky sexual behavior

Social and physical environment

Health

Health Disparity

Genetics

Individual behaviors
## A Multi-Sectoral Approach

### Physical Activity and Nutrition

<table>
<thead>
<tr>
<th>PROGRAM ($) OR POLICY</th>
<th>Strength of Evidence</th>
<th>Potential Population Reach</th>
<th>Government</th>
<th>Education</th>
<th>Health care</th>
<th>Business</th>
<th>Community Organizations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase access to healthy food options</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Allocate funding to expand WIC and Senior Farmers’ Market Nutrition Programs</td>
<td>3</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Make water available; promote consumption</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Allocate funding to use electronic methods of payment at farmers’ markets</td>
<td>2</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modify vending machine options to increase healthy beverage choices</td>
<td>2</td>
<td></td>
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<tr>
<td>Increase availability of fruits &amp; vegetables, nutritious options</td>
<td>2</td>
<td></td>
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<td></td>
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<tr>
<td>Ensure on-site cafeterias follow healthy cooking practices</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Offer healthy foods at meetings, conferences, and catered events</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Farm-to-school programs</td>
<td>2</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Prohibit the sale of (non-nutritious) food for school fund-raising activities</td>
<td>2</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Tax credits for locating farmers’ markets/farm stands in lower-income neighborhoods</td>
<td>2</td>
<td></td>
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</table>
The *County Health Rankings*: Mobilizing Action Toward Community Health

A collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin
The County Health Rankings

Building on America’s Health Rankings which ranks the health of the 50 states, the University of Wisconsin began ranking the health of Wisconsin’s counties in 2003.
## Health behaviors (30%)

<table>
<thead>
<tr>
<th>Focus Area</th>
<th>Measure</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco use (10%)</td>
<td>Smoking rate</td>
<td>BRFSS</td>
</tr>
<tr>
<td>Diet &amp; exercise (10%)</td>
<td>Obesity rate</td>
<td>BRFSS</td>
</tr>
<tr>
<td>Alcohol use (5%)</td>
<td>Binge drinking rate</td>
<td>BRFSS</td>
</tr>
<tr>
<td></td>
<td>Deaths due to motor vehicle crashes</td>
<td>Vital Statistics, NCHS</td>
</tr>
<tr>
<td>Sexual behavior (5%)</td>
<td>Sexually transmitted disease rate</td>
<td>Centers for Disease Control and Prevention (CDC), National Center for Hepatitis, HIV, STD, and TB Prevention</td>
</tr>
<tr>
<td></td>
<td>Teen birth rate</td>
<td>Vital Statistics, NCHS</td>
</tr>
</tbody>
</table>
Mobilize through County Health Rankings

County Health Rankings → Media attention → Broad community engagement

Local health officers use report → Evidence-based health programs and policies implemented → Improved health outcomes
Action

- County Health Rankings
- Media attention
- Local health officers use report
- Broad community engagement
- Evidence-based health programs and policies implemented
- Improved health outcomes
Action depends on stage of readiness in the county
A Pay-for-Population Health Performance System

David A. Kindig, MD, PhD
SOLID PARTNERSHIPS AND REAL RESOURCES

“What is required is a coordinated effort across determinants between the public and private sectors, as well as financial resources and incentives to make it work”.
WHO CAN OR WILL BE THE POPULATION HEALTH INTEGRATOR?
Population Health Integration
A Super- Integrator?  
A Health Outcomes Trust?
• Who will step up and assume this role?
• Can different integrator models work in different communities?
• Can healthcare organizations integrate this broadly?
• Can Accountable Care Organizations generate “shared savings” to become Accountable Health Communities?
• Can Triple Aim organizations use political capital to leverage needed investment from other sectors?
THE POPULATION HEALTH AND INTEGRATOR QUESTION IS.....

"What is the optimal balance of investments (e.g., dollars, time, policies).....

in the multiple determinants of health (e.g., behavior, environment, socioeconomic status, medical care, genetics.....
THE POPULATION HEALTH AND INTEGRATOR QUESTION IS.....

…..over the life course…. that
will maximize overall health
outcomes …and minimize
health inequities at the
population level?”

Kindig/Milbank 2007
“My question is: Are we making an impact?”
For more information

www.pophealth.wisc.edu/uwphi/pha/healthiestState.htm
www.pophealth.wisc.edu/uwphi/research/wi_county_rankings.htm


www.pophealth.wisc.edu/uwphi/research/healthy/opportunities.pdf

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Deaths/1000,000 from a 1% effect

<table>
<thead>
<tr>
<th>Category</th>
<th>Effect</th>
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<tbody>
<tr>
<td>% Uninsured</td>
<td>7.8</td>
</tr>
<tr>
<td>% Living Alone</td>
<td>7.2</td>
</tr>
<tr>
<td>% High School Grad</td>
<td>-3.9</td>
</tr>
<tr>
<td>% College Grad</td>
<td>-2.7</td>
</tr>
<tr>
<td>% Unemployed</td>
<td>2.0</td>
</tr>
<tr>
<td>Med Family Income</td>
<td>-1.9</td>
</tr>
<tr>
<td>% Smoking</td>
<td>1.7</td>
</tr>
<tr>
<td>% Physical Inactivity</td>
<td>1.3</td>
</tr>
</tbody>
</table>
OUTCOMES

Mortality

Health Related Quality of Life

Mean

Disparity

Race/Ethnicity

SES

Geography

Gender

Determinants

Medical Care

Individual Behavior

Social Environment

Physical Environment

Genetics

Specific Policies and Interventions
<table>
<thead>
<tr>
<th>Phase</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td>Debate, acceptance and research</td>
</tr>
<tr>
<td>(1997-2000)</td>
<td></td>
</tr>
<tr>
<td>Phase 2</td>
<td>Outcome based payment for integrated health delivery systems</td>
</tr>
<tr>
<td>(2001-10)</td>
<td></td>
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<tr>
<td>Phase 3</td>
<td>Incorporating the non medical determinants and sectors</td>
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<tr>
<td>(2011-20)</td>
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<tr>
<td>Focus Area</td>
<td>Measure</td>
</tr>
<tr>
<td>----------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td><strong>Education (10%)</strong></td>
<td>High school graduation rate</td>
</tr>
<tr>
<td></td>
<td>Adults with college degree</td>
</tr>
<tr>
<td><strong>Employment (10%)</strong></td>
<td>Unemployment rate</td>
</tr>
<tr>
<td><strong>Income (10%)</strong></td>
<td>Children in poverty</td>
</tr>
<tr>
<td></td>
<td>Income inequality</td>
</tr>
<tr>
<td><strong>Family &amp; social support (5%)</strong></td>
<td>Social/emotional support</td>
</tr>
<tr>
<td></td>
<td>Single-parent households</td>
</tr>
<tr>
<td><strong>Community safety (5%)</strong></td>
<td>Violent crime rate or Homicide death rate</td>
</tr>
</tbody>
</table>