Learning from Delivery System Behavior, Dynamics & Interactions to Advance a Culture of Health

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Learning from Delivery System Behavior, Dynamics & Interactions to Advance a Culture of Health

Glen Mays, PhD, MPH
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How best to align the delivery and financing systems for **medical care**, **public health**, and **community services & supports** to promote **wellbeing and resiliency**, realize **efficiencies** in resource use, and reduce **inequities** in health.
The case for improving delivery system alignments and interactions

Proportional Contribution to Premature Death

- Genetic predisposition: 30%
- Social circumstances: 15%
- Environmental exposure: 5%
- Health care: 10%
- Behavioral patterns: 40%

The case for improving delivery system alignments and interactions

<table>
<thead>
<tr>
<th>Category</th>
<th>Cost to Medicare and Medicaid(^a)</th>
<th>Total cost to US health care(^b)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>Midpoint</td>
</tr>
<tr>
<td>Failures of care delivery</td>
<td>$26</td>
<td>$36</td>
</tr>
<tr>
<td>Failures of care coordination</td>
<td>21</td>
<td>30</td>
</tr>
<tr>
<td>Overtreatment</td>
<td>67</td>
<td>77</td>
</tr>
<tr>
<td>Administrative complexity</td>
<td>16</td>
<td>36</td>
</tr>
<tr>
<td>Pricing failures</td>
<td>36</td>
<td>56</td>
</tr>
<tr>
<td>Subtotal (excluding fraud and abuse)</td>
<td>166</td>
<td>235</td>
</tr>
<tr>
<td>Percentage of total health care spending</td>
<td>6%</td>
<td>9%</td>
</tr>
</tbody>
</table>

\(^a\)Estimated costs for 2011 from the Medicare and Medicaid program.  
\(^b\)Estimated costs for 2011 of all US health care spending.  

http://www.healthaffairs.org/healthpolicybriefs/
Medical Care
- Fragmentation
- Duplication
- Variability in practice
- Limited accessibility
- Episodic and reactive care
- Insensitivity to consumer values & preferences
- Limited targeting of resources to community needs

Social Services & Supports

Public Health
- Fragmentation
- Variability in practice
- Resource constrained
- Limited reach
- Insufficient scale
- Limited public visibility & understanding
- Limited evidence base
- Slow to innovate & adapt

Waste and inefficiency
Inequitable outcomes
Limited population health impact
Connecting social needs, public health functions and medical outcomes

- Unmet social needs have large effects on medical resource use and outcomes

- Most primary care physicians lack confidence in their capacity to address unmet social needs

- Linking people to needed health and social support services is a core public health function that can add health and economic value
Evidence-based prevention & public health strategies reach less than 2/3 of populations at risk:

- Smoking cessation
- Influenza vaccination
- Hypertension control
- Nutrition & physical activity programs
- HIV prevention
- Family planning
- Substance abuse prevention
- Interpersonal violence prevention
- Maternal and infant home visiting for high-risk populations

The case for improving delivery system alignments and interactions
Wide lens: implicated sectors

- Public health
- Medical care: ACOs, PCMCs, ACHs
- Social services & supports
- Education and workforce development
- Housing
- Transportation
- Criminal justice
- Economic development and finance
Overcoming collective action problems across delivery systems & sectors

- Incentive compatibility → public goods
- Concentrated costs & diffuse benefits
- Time lags: costs vs. improvements
- Uncertainties about what works
- Asymmetry in information
- Difficulties measuring progress
- Weak and variable institutions & infrastructure
- Imbalance: resources vs. needs
- Stability & sustainability of funding

Ostrom E. 1994
Learning how to succeed with population health strategies

- Designed to achieve large-scale health improvement: neighborhood, city/county, region
- Target fundamental and often multiple determinants of health
- Mobilize the collective actions of multiple stakeholders in government & private sector

Example research topics

- Population health effects of social systems and services: housing, transportation, child welfare, nutrition, income support, criminal justice

- Spill-over effects of public health & social systems on medical care costs & outcomes

- Novel financing and incentives for system integration: Accountable communities of health, pay-for-success, shared savings, public-private joint ventures

- Novel delivery system approaches for alignment & coordination: navigators, CHWs, community engagement, health IT and HIE
Relevant research areas

- Systems science & network behavior
- Social capital & community resilience
- Health & behavioral economics
- Governance & collective action management
- Social & environmental determinants of health
- Health equity
“Rapid-Learning Systems” for a Culture of Health

In a learning health care system, research influences practice and practice influences research.

1. Evaluate
   - Collect data and analyze results to show what does and does not work.

2. Design
   - Design care and evaluation based on evidence generated here and elsewhere.

3. Implement
   - Apply the plan in pilot and control settings.

4. Adjust
   - Use evidence to influence continual improvement.

5. Disseminate
   - Share results to improve care for everyone.

- Internal
  - Internal and External Scan
  - Identify problems and potentially innovative solutions.

- External
  - Share results to improve care for everyone.
For More Information

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