Optimal Healing Environments: Creating a Culture of Wellness

June 24, 2014  2:00 p.m. Eastern

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Optimal Healing Environments: Shifting from Health Care to Health Creation

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June 24, 2014
To create a flourishing society through the scientific exploration of wellness and whole person healing.
Samueli Institute Uncovers the Science of Healing

THROUGH
- RESEARCH
- INNOVATION
- EDUCATION

FOR
- INDIVIDUALS
- WARFIGHTERS
- SYSTEMS

TO
- Improve Performance
- Reduce Chronic Symptoms
- Enhance Wellness
Our Future is at Risk

- The CDC estimates that 1 in 3 adults born after 2000 will develop Type II diabetes.
- For the first time in 100 years, life expectancy is declining.
The Health of the Nation: Poor Value for Money

Figure 1. There are large differences in life expectancy and health care spending across OECD countries 2008

1. Or latest year available.
Source: OECD Health Data 2010.
SELF-CARE
PERFORMANCE OPTIMIZATION
COMMUNITY WELLNESS
WORLD WIDE WELLBEING

HEALTH-CREATION

HEALTH-CARE

DISEASE MANAGEMENT
DISEASE CARE
**Salutogenesis**: The process through which health and well-being are produced.

**Pathogenesis**: The mechanism by which a disease is caused.

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ILLNESS & DISEASE  

Salutogenesis  

Pathogenesis  

HEALTH & WELL-BEING
Community wellness is a way of life directed at achieving sustainable health, well-being, and socio-economic potential of the community and its members.
OPTIMAL HEALTHY WORKPLACES

Support and stimulate health by addressing the social, psychological, physical, spiritual and behavioral components of health and well-being.

INTERNAL
- PERSONAL INTENTION
- PERSONAL WHOLENESS

INTERPERSONAL
- HEALTHY RELATIONSHIPS
- HEALTHY ORGANIZATIONS

BEHAVIORAL
- HEALTHY LIFESTYLE
- INTEGRATIVE HEALTH PROMOTION

EXTERNAL
- HEALTHY SPACES
- ECOLOGICAL SUSTAINABILITY

MAKING HEALING AS IMPORTANT AS CURING

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Optimal Healthy Workplace

- Ecological Sustainability
- Personal Intention
- Personal Wholeness
- Healthy Relationships
- Healthy Organizations
- Healthy Lifestyles
- Integrative Health Promotion
- Healthy Spaces

- Construct Relevance
- Positive Score
Optimal Healing Environments

Surround the individual with elements that facilitate the innate healing process.

**Internal**
- Healing Intention
- Personal Wholeness

**Interpersonal**
- Healing Relationships
- Healing Organizations

**Behavioral**
- Healthy Lifestyles
- Integrative Care

**External**
- Healing Spaces
- Ecological Sustainability

Making Healing as Important as Curing

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Patient Experience of Care

- Healing Intention
- Ecological sustainability
- Personal Wholeness
- Healing Relationships
- Healing Organizations
- Integrative Medicine
- Healthy Lifestyle

- Total
- IP
- OP
Mission

We combine leading medical practice with ancient healing wisdom, to optimize health and wellness in the whole person – body, mind and spirit.
The Penny George Institute History

- Founded in 2003 through philanthropic donations to promote Health and Wellness and act as a “living lab” for healthcare transformation

- Largest Integrative Health program in the country that is integrated within a health system

- March of 2012, designated an Allina Health Clinical Service Line
  - Prevention and Wellness Service Line
Penny George™ Institute for Health and Healing

- Inpatient (services began 2003)
- Outpatient Clinic (2004)
- LiveWell Fitness Center (2006)
- Integrative Health Research Center (2007)
- Cancer Center Unity Hospital (Oct 2010)
- Healthy Communities Partnership (2012)
- Learning and Development (2013)
- St Francis Hospital (2013)
- New Ulm Medical Center (2014)
- WestHealth Clinic (2014)
• A minimum of 40% of all deaths in US attributed to four behaviors:
  – Poor nutrition
  – Inadequate levels of physical activity
  – Smoking and exposure to tobacco
  – Hazardous drinking

• Only about 5% of the US population lives without an identifiable risk factor

• For the first time ever, children in the US are expected to live shorter lives than their parents
Unsustainable Costs
Unacceptable Outcomes

- 2.5 trillion spent in the current healthcare system (70% of spending) on lifestyle related diseases
- 4.3 trillion by 2023
- 16% of nation’s GDP
- Double the amount of other developed nations
- US ranked 37th in the world in health outcomes
Here are ways in which some key body systems react.

1. **NERVOUS SYSTEM**
   When stressed — physically or psychologically — the body suddenly shifts its energy resources to fighting off the perceived threat. In what is known as the “fight or flight” response, the sympathetic nervous system signals the adrenal glands to release adrenaline and cortisol. These hormones make the heart beat faster, raise blood pressure, change the digestive process and boost glucose levels in the bloodstream. Once the crisis passes, body systems usually return to normal.

2. **MUSCULOSKELETAL SYSTEM**
   Under stress, muscles tense up. The contraction of muscles for extended periods can trigger tension headaches, migraines and various musculoskeletal conditions.

3. **RESPIRATORY SYSTEM**
   Stress can make you breathe harder and cause rapid breathing — or hyperventilation — which can bring on panic attacks in some people.

4. **CARDIOVASCULAR SYSTEM**
   Acute stress — stress that is momentary, such as being stuck in traffic — causes an increase in heart rate and stronger contractions of the heart muscle. Blood vessels that direct blood to the large muscles and to the heart dilate, increasing the amount of blood pumped to those parts of the body. Repeated episodes of acute stress can cause inflammation in the coronary arteries, thought to lead to heart attack.

5. **ENDOCRINE SYSTEM**
   Adrenal glands
   When the body is stressed, the brain sends signals from the hypothalamus, causing the adrenal cortex to produce cortisol and the adrenal medulla to produce epinephrine — sometimes called the “stress hormones.”
   Liver
   When cortisol and epinephrine are released, the liver produces more glucose, a blood sugar that would give you the energy for “fight or flight” in an emergency.

6. **GASTROINTESTINAL SYSTEM**
   Esophagus
   Stress may prompt you to eat much more or much less than you usually do. If you eat more or different foods or increase your use of tobacco or alcohol, you may experience heartburn or acid reflux.
   Stomach
   Your stomach can react with “butterflies” or even nausea or pain. You may vomit if the stress is severe enough.
   Bowels
   Stress can cause digestion and which nutrients to your intestines absorb. It can also affect how quickly food moves through your body. You may find that you have either diarrhea or constipation.

7. **REPRODUCTIVE SYSTEM**
   In men, excess amounts of cortisol produced under stress can affect the normal functioning of the reproductive system.
   Chronic stress can impair testosterone and sperm production and cause impotence.
   In women stress can cause absent or irregular menstrual cycles or more painful periods. It can also reduce sexual desire.

- **70-90%** of all visits to health care are related to stress disorders
North America Makes Up Almost Half of All Global Pharmaceutical Sales

- North America: 47.7%
- Europe: 29.9%
- Japan: 9.3%
- Asia, Africa, and Australia: 8.6%
- Latin America: 4.5%

Source: 2006 data, IMS Health Inc.
The Current Healthcare Model

- Hypertension
- Diabetes
- High Cholesterol
- Cardiovascular Disease
- Kidney Disease
The Penny George Institute Vision

Engaging and Empowering the individual to be the principle change agent for health and healing
Penny George Institute for Health and Healing
Prevention and Wellness Clinical Service Line

Integrative Health
- Outpatient Clinics
- Inpatient Therapies
- Learning and Development

Prevention / Wellness
- Healthy Behavior Programs / Fitness Center
- Community Health Program
- Corporate Wellness
- Technology Solutions

Cross promotion and shared resources

Research
• Overall database includes 12,899 hospital admissions where pre-IM intervention pain > 0 and both pre- and post-intervention pain scores (0-10 verbal scale) were available.

• CMS major diagnostic categories (MDCs) were calculated by dividing ICD-9CM principal diagnoses into several clinical populations.
  • Cardiovascular, Joint Replacement, Oncology.
### Results: Cardiovascular

Pre- to post-IM therapy percent decrease in pain and anxiety scores

<table>
<thead>
<tr>
<th>Any Cardiovascular Disease</th>
<th>Any Treatment</th>
<th>No. Pain Obs</th>
<th>% Decrease in Pain</th>
<th>95% CI</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Any Treatment</td>
<td>5,981</td>
<td>46.5</td>
<td>(45.5 – 47.4)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>No. Anxiety Obs</td>
<td>3,109</td>
<td>54.8</td>
<td>(53.7 – 55.9)</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>
## Results: Joint Replacement

<table>
<thead>
<tr>
<th></th>
<th>No IM Therapy (n=1,696)</th>
<th>IM Therapy (n=2,138)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Length of Stay (standard deviation)</strong></td>
<td>3.5 (2.0)</td>
<td>3.3 (2.2)</td>
<td>0.004</td>
</tr>
</tbody>
</table>
## Results: Joint Replacement

Pre- to post-IM therapy percent decrease in pain scores

<table>
<thead>
<tr>
<th>Any Treatment</th>
<th>No. Pain Obs</th>
<th>% Decrease in Pain</th>
<th>95% CI</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Joint Replacement</td>
<td>2,176</td>
<td>49.9</td>
<td>(47.9 – 51.8)</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>
## Results: Oncology

Pre- to post-IM therapy percent decrease in pain and anxiety scores

<table>
<thead>
<tr>
<th></th>
<th>Any Cancer Site</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Any Treatment</strong></td>
<td></td>
</tr>
<tr>
<td>No. Pain Obs</td>
<td>1,514</td>
</tr>
<tr>
<td>% Decrease in Pain</td>
<td>46.9</td>
</tr>
<tr>
<td>95% CI</td>
<td>(45.1 – 48.6)</td>
</tr>
<tr>
<td>p-value</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>No. Anxiety Obs</td>
<td>1,074</td>
</tr>
<tr>
<td>% Decrease in Anxiety</td>
<td>56.1</td>
</tr>
<tr>
<td>95% CI</td>
<td>(54.3 – 58.0)</td>
</tr>
<tr>
<td>p-value</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>
GOAL:

• To examine whether the effect of pain reduction following an IM session would impact the total cost of the patient's hospitalization.

• We used a statistical technique (multiple regression) to estimate the relationship between a patient's reduction in pain and their total hospital cost.

• We compared this to the patient's cost without accounting for their reduction in pain.

• The result was an average savings of $160 (per hospitalization) for all patients who received an IM session for relief of pain.
Health Exchange in MN

- Blue Print
- Partnered with Blue Cross Blue Shield MN
- Proactively reaches out to those with a BMI>25 or active smokers, engage with a health coach
- Integrative medicine services covered
- Resiliency Training covered
- Cost is most competitive in US
HCP Program Overview

• 13 Hospitals/Health Systems in MN and WI
• Each system received a 3-year grant to address community wellness
• Started in 2012 and rolled out in three cohorts
• Funded by Allina Health via grants administered through the George Family Foundation
• Rainbow Research is performing a program evaluation, focusing on social/organizational changes
Main Strategies

1. Enhance & strengthen local health care systems’ role within local community wellness infrastructure & networks

2. Improve community member wellness by conducting annual screening & education

3. Develop strategies to sustain community health improvement efforts

Short Term Outcomes

- Increased collaboration among health systems & community organizations
- Improved health behaviors
- Implementation of policies & practices that promote wellness

Intermediate Outcomes

- Strengthened integration of health systems’ role in community wellness infrastructure
- Improved health outcomes for community members
- Changes in health system, local business & community policies & systems to support community wellness
- Ongoing healthy system support & involvement in community wellness activities

Long Term Outcome

Improved Community Health

Local health care systems & communities collaborate to support health promotion policies & activities which result in:

- Improved community health
- Enhanced quality of life
- Increased health care affordability
Core components

• Create a continuum of wellness support
• Use baseline screenings to develop a community health index
  - Biometric testing
  - Health risk assessment
• Connect individuals to local resources
• Rescreen every twelve months
• Local program staff
  - Program ambassador – coordinate program activities
  - Wellness care guide – resource to participants and caregivers
## Lives Covered

<table>
<thead>
<tr>
<th>Organization</th>
<th>City, State</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baldwin Area Medical Center</td>
<td>Baldwin, WI</td>
<td>3,957</td>
</tr>
<tr>
<td>Cuyuna Regional Medical Center</td>
<td>Crosby, MN</td>
<td>3,000</td>
</tr>
<tr>
<td>District One Hospital</td>
<td>Faribault, MN</td>
<td>23,352</td>
</tr>
<tr>
<td>FirstLight Health System</td>
<td>Mora, MN</td>
<td>3,571</td>
</tr>
<tr>
<td>Grand Itasca Clinic &amp; Hospital</td>
<td>Grand Rapids, MN</td>
<td>10,869</td>
</tr>
<tr>
<td>Hutchinson Area Health Care</td>
<td>Hutchinson, MN</td>
<td>14,178</td>
</tr>
<tr>
<td>Regina Medical Center</td>
<td>Hastings, MN</td>
<td>22,172</td>
</tr>
<tr>
<td>Rice Memorial Hospital</td>
<td>Willmar, MN</td>
<td>19,610</td>
</tr>
<tr>
<td>Ridgeview Medical Center</td>
<td>Waconia, MN</td>
<td>10,700</td>
</tr>
<tr>
<td>Riverwood Healthcare Center</td>
<td>Aitkin, MN</td>
<td>2,165</td>
</tr>
<tr>
<td>Buffalo Hospital</td>
<td>Buffalo, MN</td>
<td>15,453</td>
</tr>
<tr>
<td>Cambridge Medical Center</td>
<td>Cambridge, MN</td>
<td>8,111</td>
</tr>
<tr>
<td>River Falls Area Hospital</td>
<td>River Falls, WI</td>
<td>15,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>152,138</strong></td>
</tr>
</tbody>
</table>
In general, taking all things into account...

How would you rate your overall health?

- Excellent
- Very good
- Good
- Fair
- Poor

How would you rate your satisfaction and happiness with your life?

- Excellent
- Good
- OK
- Not good
- Terrible
Evaluation Questions

Community Change
1. How are HCP programs engaging and contributing to the community wellness infrastructure in each of their communities?
2. How did HCP program components contribute to improving community wellness?

Community Member Wellness
3. How have screenings and community program components contributed to improving participant health and wellness?

Sustainability
4. How have HCP communities developed and implemented policies, practices and changes to sustain a local community infrastructure?
5. What are lessons learned from this initiative that can inform the health field?
A Differentiator for Allina Health
The Role of Philanthropy
Questions?
Courtney.baechler@allina.com
Question?

Please type your question into the Chat Box or press *6 to unmute your phone line and ask a question