PwC/ Health Research Institute - Potential resource in tackling the Chronic Disease Epidemic

Healthy Caribbean Conference
October 18th, 2008

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Agenda/Contents

• PwC/ Health Research Institute (HRI)
• World Economic Forum (WEF)
• Economic Rationale for Health and Wellness
  - Healthcare costs
  - Productivity
  - Human Capital
  - Sustainability
• Potential Gaps and Solutions
• Global examples
• PwC/HRI Approach
PwC/ Health Research Institute (HRI)

• Dedicated global healthcare research
  - leading-edge intelligence, perspective, and analysis
  - supports decision-making and strategy development for the private and public sector
  - leverages diverse PwC experience and background within the health industries

• Publications are used by
  - policy makers
  - business
  - healthcare thought-leaders
  - major media e.g. CNN

• Strategic partner with the World Economic Forum
  - implement strategies to promote workplace wellness and stem the tide of chronic disease.
  - particular focus on developing countries
WHO/Forum joint report
• Create shared recommendations on how to create and stimulate effective workplace wellness programmes in the goal of preventing chronic disease globally

The Business and Medical Rationale
• Demonstrate the quantifiable potential economic savings at national and business level and the logic behind

Global examples
• Highlight 3-4 existing examples of programmes targeting key risk factors in developing world

Measurement
• Outline examples of current systems used globally to measure employee health and propose a best practice measurement framework

Practical steps
• Lay out an example of “how to”, the lessons learned and subsequent proposals for stakeholders

Global leaders' deeper engagement with the wellness issue

Technical and academic perspective

Business perspective
Economic Case for Wellness

Healthcare Costs

- Chronic disease which is largely preventable is increasing burden on individuals and social programmes
  - Impact on health systems, taxes and costs of coverage
- The risk factors that lead to chronic disease are cumulative, as are the costs associated with them.
  - Metabolic syndrome, which includes a combination of obesity and other health risks, is associated with a two to nine times higher prevalence of chronic diseases.
- In the US, people with chronic disease account for more than 75% of the nation’s US$ 2 trillion in medical spending.

### Est. 2008 US Healthcare Costs by Number of Health Risks

<table>
<thead>
<tr>
<th>Health Risk</th>
<th>Excess Costs</th>
<th>Base Healthcare Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Risk</td>
<td>$3,022</td>
<td>$3,022</td>
</tr>
<tr>
<td>Medium Risk</td>
<td>$4,756</td>
<td>$1,733</td>
</tr>
<tr>
<td>High Risk</td>
<td>$7,587</td>
<td>$4,565</td>
</tr>
</tbody>
</table>

Source: PricewaterhouseCoopers projection of Edington Excess Health Costs 2003, personal communication

<table>
<thead>
<tr>
<th>Co-Morbidities</th>
<th>Prevalence Metabolic Syndrome</th>
<th>Prevalence Non-Metabolic Syndrome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td>18%</td>
<td>2%</td>
</tr>
<tr>
<td>Coronary artery disease</td>
<td>15%</td>
<td>4%</td>
</tr>
<tr>
<td>Hypertension</td>
<td>48%</td>
<td>13%</td>
</tr>
<tr>
<td>Stroke</td>
<td>2%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Source: “Metabolic Syndrome and Employer-Sponsored Medical Benefit: An Actuarial Analysis”, Kathryn Fitch et al, Milliman, March 2006
Economic Case for Wellness

Productivity

- Productivity losses associated with poor health risks are as much as 400% of cost of treating chronic disease.
- Includes unplanned absences, reduced workplace effectiveness, increased accidents and negative impacts on work quality or customer service.
- Studies show that multiple health risk factors multiply the losses in productivity.
- Stress and depression are intertwined with work & life environmental factors in impacting human capital effectiveness.

Source: PricewaterhouseCoopers 2008 - World Economic Forum Working Towards Wellness Business Rationale
Economic Case for Wellness

Human Capital

• Organizations invest an average of $290 in labour costs to generate $1,000 in revenue.
  - Helping employees work longer and have more productive lives, can protect this asset in the face of growing labour shortages globally.
  - An organization that shows that it values its workers is more likely to attract, retain and motivate employees.

• The demand for talented people is increasing, and an ageing workforce is creating an additional drain on organizations’ workforces.
  - Health & wellness is helping some organization distinguish themselves as employers of choice.

“FedEx Mexico has distinguished itself as the “best place to work” in Latin America. It utilizes its workplace wellness efforts to help communicate and reinforce its People First philosophy with its employees.”

Source: PricewaterhouseCoopers 2008 - World Economic Forum Working Towards Wellness Business Rationale
Economic Case for Wellness

Sustainability

- The epidemic of chronic disease is as equally prevalent and preventable as issues such as global warming, infectious diseases, poverty, terrorism, clean water and basic infrastructure.
- As the economic burden of chronic disease grows, it could crowd out monies needed to improve other critical issues such as education and infrastructure.

<table>
<thead>
<tr>
<th>Condition / Issue</th>
<th>Current Impacted (thousands)</th>
<th>Current(^2) Deaths (thousands)</th>
<th>Projected Deaths in 2030 (thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asthma</td>
<td>300,000</td>
<td>255</td>
<td>360</td>
</tr>
<tr>
<td>Cancer(^3)</td>
<td>277,400</td>
<td>7,600</td>
<td>11,400</td>
</tr>
<tr>
<td>Cardiovascular Disease(^3)</td>
<td>638,750</td>
<td>17,500</td>
<td>23,300</td>
</tr>
<tr>
<td>Chronic Obstructive Pulmonary Disease (COPD)</td>
<td>80,000</td>
<td>3,000</td>
<td>5,700</td>
</tr>
<tr>
<td>Diabetes</td>
<td>180,000</td>
<td>1,100</td>
<td>2,200</td>
</tr>
<tr>
<td><strong>Selected Chronic Conditions</strong></td>
<td><strong>1,476,150</strong></td>
<td><strong>29,455</strong></td>
<td><strong>42,960</strong></td>
</tr>
</tbody>
</table>

**HIV/AIDS**

<table>
<thead>
<tr>
<th>HIV/AIDS</th>
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<tbody>
<tr>
<td></td>
<td>39,500</td>
<td>2,900</td>
<td>6,500</td>
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</table>

**Global Warming Health Issues**

<table>
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<tr>
<th>Global Warming Health Issues</th>
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<tbody>
<tr>
<td></td>
<td>5,500</td>
<td>166</td>
<td>332</td>
</tr>
</tbody>
</table>

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(2) *Current* year refers to 2005 for all conditions and 2006 for HIV/AIDS.
(3) Projected impacted numbers estimated based on the average multiplier of chronic diseases

Source: PricewaterhouseCoopers 2008 - World Economic Forum Working Towards Wellness Business Rationale
Working Towards Wellness
Potential Gaps and Solutions

**Potential Gaps**
- Lack of incentives for “upstream” behavior
- Lack of data liquidity
- Lack of common definitions and standards
- Clinicians not viewed as partners.
- Poor environmental factors
- Lack of consideration of genetics
- Lack of partnership between the private and public sector
- Fragmentation of the current infrastructure.

**Proposed Solutions**
- Invest in public health and education
- Reorient care delivery
- Empower and activate patients
- Establish Leadership
- Conduct research
- Create Metrics and Goals
- Create an information infrastructure
- Redesign Incentives
Working Towards Wellness
Global Examples

• World Economic Forum (Case Studies)
  ▪ Brazil, Dow Chemical
  ▪ South Africa, Eskom Holdings
  ▪ South Africa, Discovery
  ▪ Singapore, Becton Dickinson and Company

• PricewaterhouseCoopers (Case Studies)
  ▪ State Government, Victoria, Australia
  ▪ Department of Work and Pensions, United Kingdom
  ▪ Multi-industry Holding Company, Dubai
  ▪ Center for Disease Control, United States
Working Towards Wellness
The Path to a Healthy and Productive Nation

People are the cornerstone to a nation's success. Building and sustaining a culture of health and wellness reaps many rewards for a country and its people.

Today
- Lost productivity affects global competitiveness
- Spiraling health costs burden societies
- Lack of data liquidity
- Poor universal standards for health and wellness
- Lack of incentives for improved behavior
- Lack of partnership between the private and public sectors.

Develop People and Health Strategy
Deploy Resources and Support
Sustain a Healthy Culture

Tomorrow
- Build and maintain a high performing workforce
- Align incentives and resources supporting culture of health and wellness
- Improve productivity and functionality
- Improve health and reduce burden of health costs

Defining the Strategy / Executing and Sustaining the Solution
## Working Towards Wellness
### PwC/ HRI Approach

### Analyze Current Opportunity
- Evaluate health and well-being in the context of the socio-economic factors, culture and sustainability
- Inventory and audit current programs related to health and vitality
  - Include full spectrum of offerings from all areas
  - Integration points
  - Outcomes
    - Successes, failures
    - Cost, return
    - Monitoring
- Profile population
  - HRQ data or model based on demographics
  - Claims
  - Healthy/at risk
  - Chronic
  - Acute/catastrophic
- Report on assessment

### Develop Design Strategy
- Engage stakeholders
- Develop short and long-term strategies
  - Assess opportunities based on culture and population
  - Determine priorities
  - Identify appropriate interventions
- Design change and communication strategies
- Establish multi year plan and objectives
- Determine accountabilities of stakeholders at each level
- Validate strategy

### Implement and Support
- Establish communication strategy
- For each intervention, determine build, buy or collaborate
  - Assess capabilities
  - Evaluate potential partners & best practices
  - Formalize sourcing as appropriate
- Implement interventions, manage key touch points and establish metrics
- Engage, communicate and educate across the community
- Manage and coordinate implementation efforts

### Assess and Improve
- Establish periodic reporting and oversight
- Review metrics including:
  - Participant engagement
  - Population health improvements
  - Costs, gaps and opportunities
  - Absence and productivity
  - Intervention participation rates and impact
- Benchmark against emerging and best practices
- Modify, Refine and Streamline
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