

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

**Healthy
Caribbean
Conference**

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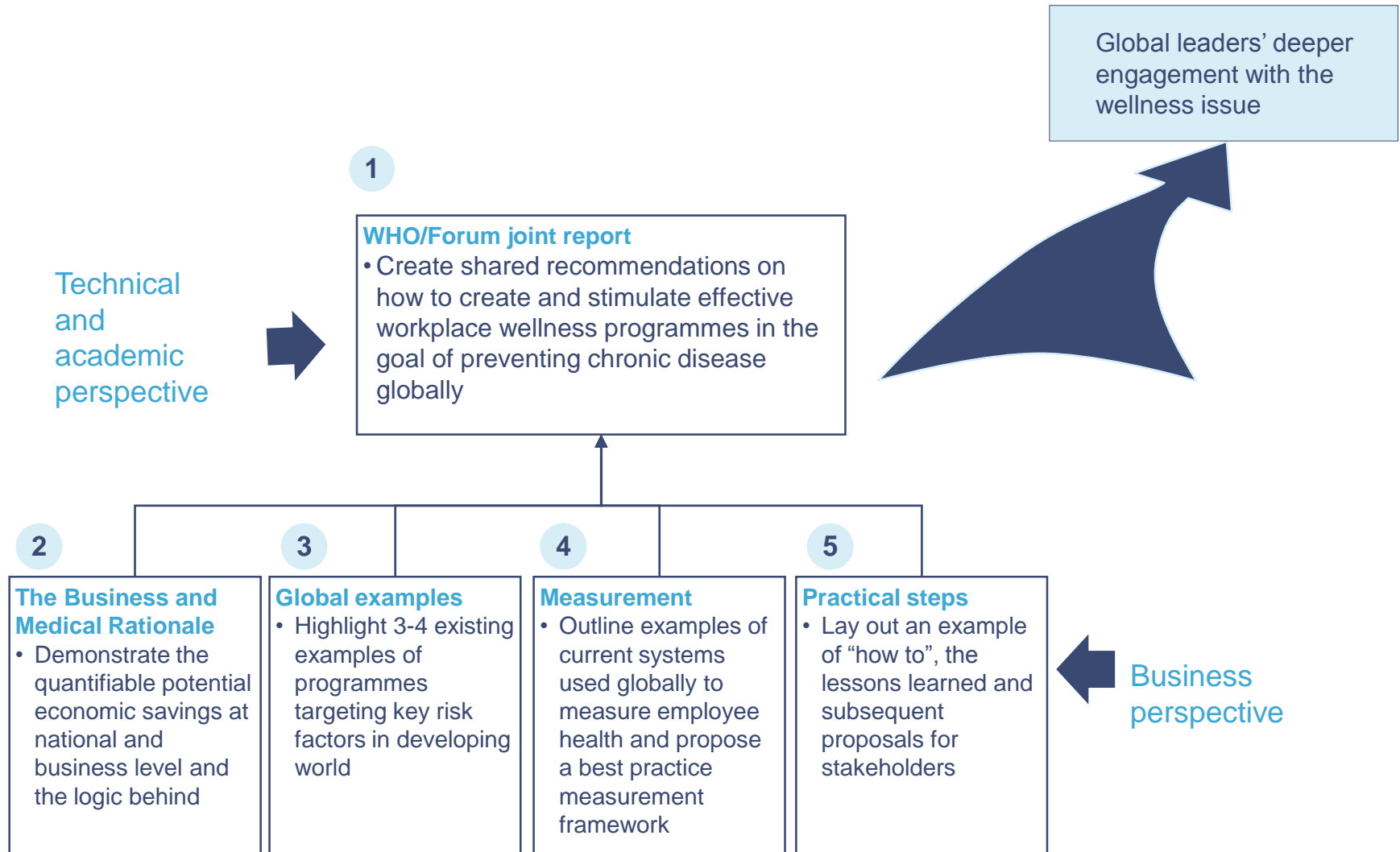
Agenda/Contents

- 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

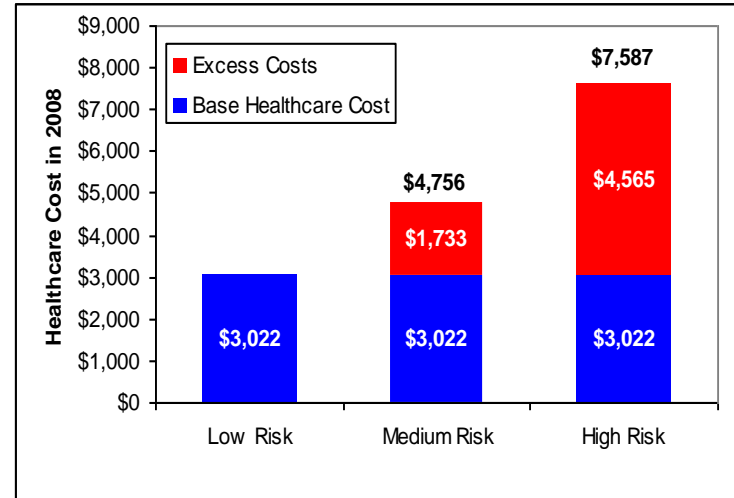
WEF Working Towards Wellness 2007-2008



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



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

Co-Morbidities	Prevalence	
	Metabolic Syndrome	Non-Metabolic Syndrome
Diabetes	18%	2%
Coronary artery disease	15%	4%
Hypertension	48%	13%
Stroke	2%	1%

Source: "Metabolic Syndrome and Employer-Sponsored Medical Benefit: An Actuarial Analysis", Kathryn Fitch et al, Milliman, March 2006

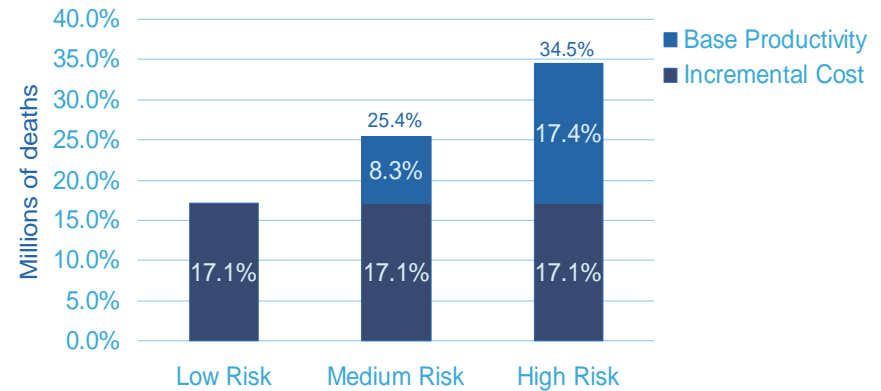
Source: PricewaterhouseCoopers 2008 - World Economic Forum Working Towards Wellness Business Rationale

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

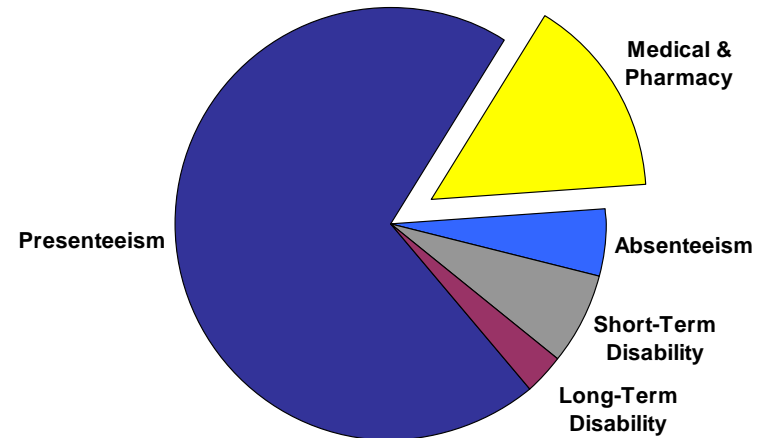
Source: PricewaterhouseCoopers 2008 - World Economic Forum Working Towards Wellness Business Rationale

Lost Productivity Related to Health Risks



Source: PricewaterhouseCoopers synthesis and the projections of Burton, Edington et al, JOEM 47(8); Tsai et al, JOEM 47(8); and Yen, private communication, HMRC 2001

Costs Associated with Health Risk



Source: "A Practical Approach to Occupational and Environmental Medicine," by Dee Edington and Wayne Burton, in Health and Productivity, by Robert J. McCunney, Little, Brown, 2003

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

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.

Condition / Issue¹	Current Impacted (thousands)	Current² Deaths (thousands)	Projected Deaths in 2030 (thousands)
Asthma	300,000	255	360
Cancer ³	277,400	7,600	11,400
Cardiovascular Disease ³	638,750	17,500	23,300
Chronic Obstructive Pulmonary Disease (COPD)	80,000	3,000	5,700
Diabetes	180,000	1,100	2,200
<i>Selected Chronic Conditions</i>	<i>1,476,150</i>	<i>29,455</i>	<i>42,960</i>
<i>HIV/AIDS</i>	<i>39,500</i>	<i>2,900</i>	<i>6,500</i>
<i>Global Warming Health Issues</i>	<i>5,500</i>	<i>166</i>	<i>332</i>
(1) Source: World Health Organization, http://www.who.int/mediacentre/factsheets/en			
(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

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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

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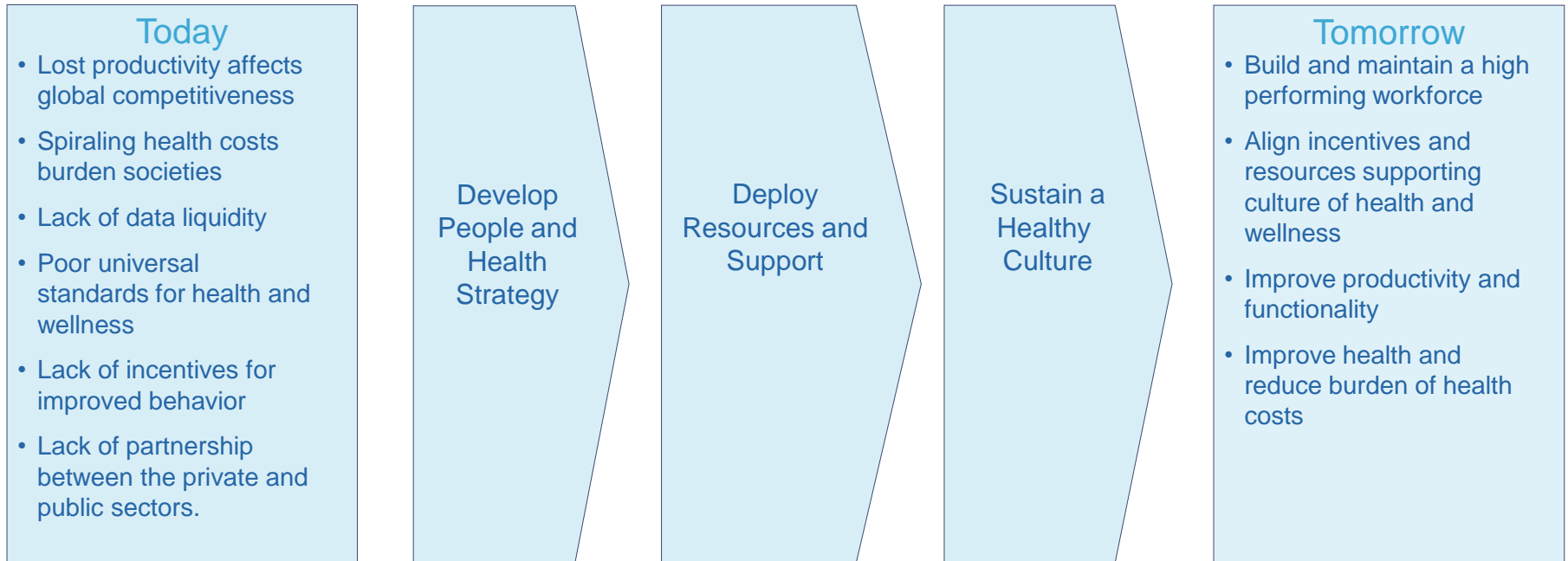
Global Examples

- **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

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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.



Defining the Strategy / Executing and Sustaining the Solution

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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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