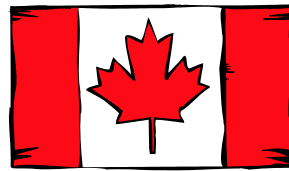


Canadian Healthcare: Delivery & Opportunities for Collaboration



***Care Continuum Alliance
The Forum 11- International Symposium
September 6, 2011***



Agenda

Healthcare in Canada:

- Overview of public & workplace (private) systems
- What have we learned about healthy workplaces?

Case studies :

- Workplace (Private) sector- Cardiovascular initiative
- Public Health System- diabetes, CVD, hypertension

Looking ahead:

- Emerging trends
- Opportunities for public-private collaboration
- Opportunities for global employer approach to health/wellness (Canada and elsewhere)

where are we now?

where are we going?

Overview of Canadian Healthcare System

Total health spend in Canada: CDN \$191.6bln (2010) ¹

- **70% public** (institutional care 47%; physicians 19%; drugs 9%; public health 9%)
- **30% private** (other professionals excl. physicians 35%; drugs 34%; institutional care 18%)

Public Health System

- Canada Health Act- Federal legislation for publicly funded health care
 - Objective: *“To protect, promote and restore the physical and mental well-being of residents of Canada and to facilitate reasonable access to health services without financial or other barriers.”*²
 - Act sets out criteria for provinces /territories to receive full federal funding :
 - **Public Administration**
 - **Comprehensiveness:** must cover all insured (i.e. medically necessary) health services
 - **Universality**
 - **Portability**
 - **Accessibility:** “reasonable” access to covered services, unimpeded by charges
- Provinces/territories administer health services in accordance with above criteria (but under this broad umbrella coverage varies between jurisdictions)
- Core services- doctors fees, hospitalization surgery, some outpatient, drugs in hospital, drugs outside hospital for age 65+ and social assistance
- **System geared to treatment- much talk but little action on prevention; Public Health- (awareness and prevention) represents 9% of total public health spend¹**

Overview of Canadian Healthcare System

Workplace (Private)

- Mostly provided through employers, associations, etc.
- Drugs- most provinces for under age 65 (administered outside hospital)
- Can supplement certain services covered under public (e.g. pay Semi-private/private hospital – ward covered by public)
- Wellness/prevention
- Paramedical services
- Executive medicals
- Little coordination with public system; duplication of effort
- For the most part, private plans cannot “jump the queue”; however, this is beginning to change in some jurisdictions

What have we learned about healthy workplaces?

Background

- Evolution of workplace health promotion (WHP) understanding:



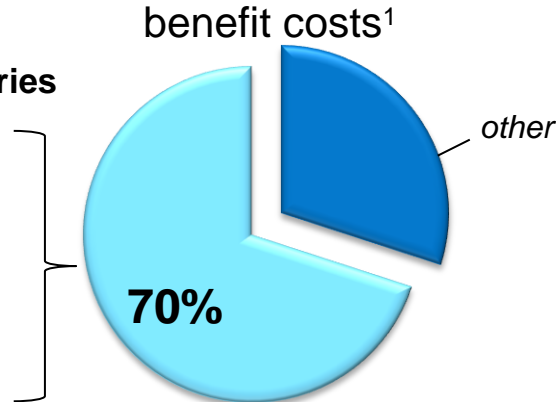
- *How are these inputs to employee health being managed?*
- Review the biomedical literature and other publicly available sources of information, identify:
 - best practices
 - key clinical
 - humanistic and
 - economic outcomes measured in WHP evaluation

General Results

these conditions
are *preventable*
or *modifiable*
through
behavioural
changes

Disease categories

cardiovascular,
musculoskeletal,
respiratory,
digestive,
cancer,
stress.



- Canadian Workplace Health Promotion (WHP) programs primarily targeted conditions that, if unmanaged, can lead to chronic disease, yet...**disease management – absent from the peer reviewed literature..**

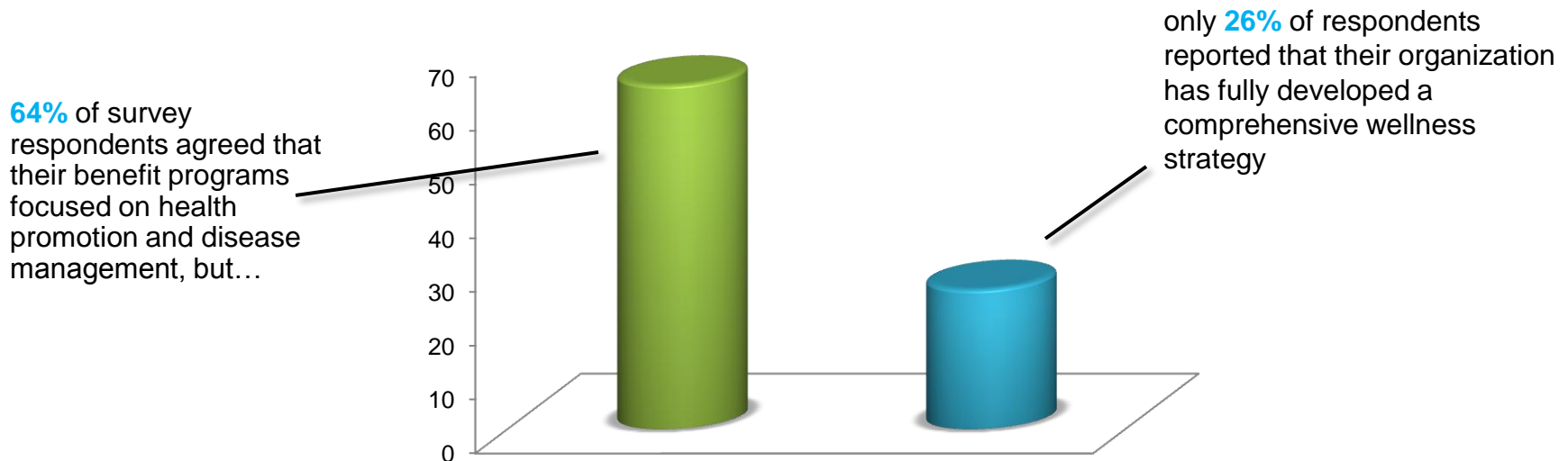
Implications for organizations 1: Chronic disease represents an increasing proportion of benefits spend; cost of Age-Related Chronic Conditions increased from 43.1% of plan spend in 2008 to 44.5% in 2009 – **DESPITE** major generic launches in a number of classes , e.g. blood pressure (Cubic Health benchmarks, 2010)

Implications for organizations 2: Employers and their vendors will need greater focus on disease **management** as well as prevention in order to achieve effective, sustainable benefits cost management

1. Public Health Agency of Canada. Active living at work - Trends & impact: the basis for investment decisions. 2007. <http://www.phac-aspc.gc.ca/alw-val/trends-tendances/index-eng.php>

Workplace Wellness Programs in Canada

- Increasing focus among employers on employee health and well-being
 - much of the focus has been on education to modify personal health practices
 - studies report that—to be truly effective—a workplace wellness program must consider appropriate organizational and policy changes
- 2010 Conference Board of Canada Survey (N=255 medium and large organizations across Canada):¹



Components of WHP Programs Offered in Canada

- The most commonly offered elements of WHP initiatives among Canadian employers include:
 - employee assistance programs: 94-97%
 - CPR/first aid training: 84%
 - flu shots/immunizations: 78-83%
 - The least commonly offered components:
 - on-site medical care: 19-21%
 - 24 hour nurse line: 22%
 - fitness counselling: 17-22%
 - There is variability in the types of components offered in different regions of Canada
- often offered as stand alone measures not strategically incorporated as part of a comprehensive WHP approach
 - conclusive evidence on the impact of EAP on performance is needed

Program Evaluation

- Lack of robust data collection in the area of employee health
- The literature describes a number of reasons for this:
 - many managers simply accept that healthier employees are more productive
 - employee health not consistently managed or monitored by health professionals
 - human resources professionals may not receive training necessary to interpret and manage employee health and wellness
 - resources/tools available
- Program evaluation is a key component of long-term success; however detailed measures of WHP program impact on health risks, employee productivity and costs are often not collected

Data on employee health/well-being is typically gathered using a macro perspective which is difficult to reconcile with the more granular employee engagement/productivity data

Case studies
Workplace (private)
Public health system

Workplace (Private) - Tune Up Your Heart

- TUYH: cardiovascular initiative designed to improve CVD risk profile of DaimlerChrysler Canada Inc. (DCCI) employees¹
- Objective of study report:
 - *Evaluation* of impact of TUYH on employee health and economic outcomes for DCCI
- Study details:
 - 18 month cohort study
 - voluntary participation
 - Participants screened and stratified into 3 CVD risk categories

CVD risk assessment considered:

- blood pressure
- total cholesterol (TC)
 - HDL-C
- smoking status
- physical activity level
 - diabetes
 - age
- family history

1. Chung M, et al. Worksite health promotion: the value of the Tune Up Your Heart program. *Popul Health Manag.* 2009 Dec;12(6):297-304.

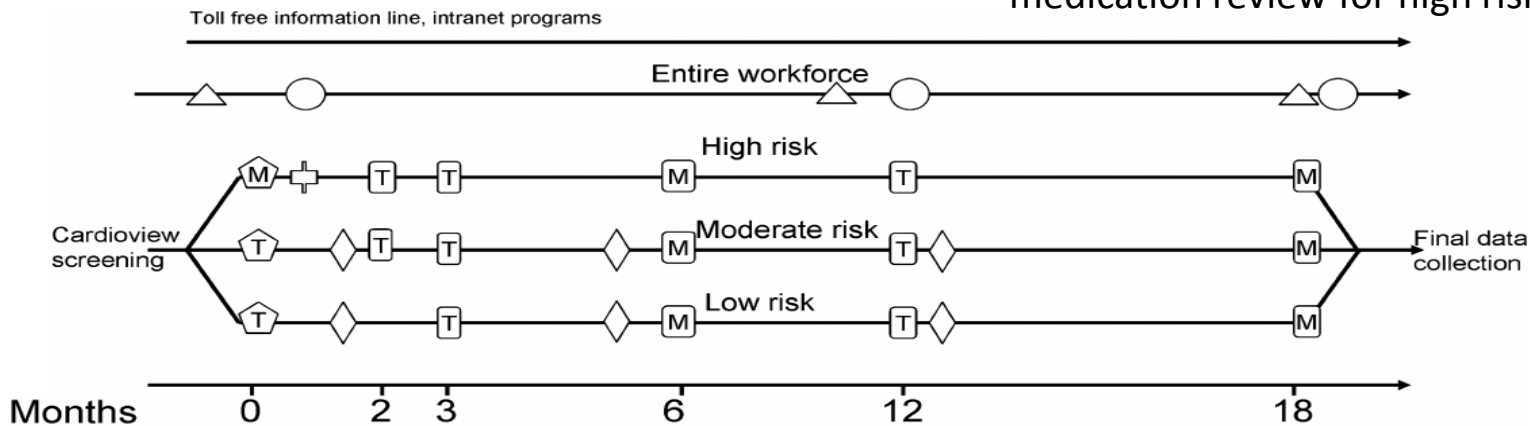
TUYH: Intervention

Sensitization & Education entire workforce (N=13,629)

- information newsletters, seminars
- toll free CVD info line
- BMI calculator

Intervention intervention group (N=343)

- targeted education/contact with nurse for goal setting
- progress meetings and small group sessions for moderate and high risk groups
- medication review for high risk group



Legend

- | | |
|--|----------------------------|
| Contact with registered nurse (meeting [M] or telephone [T]) | In plant education session |
| Progress report (meeting [M] or telephone [T]) | Newsletter |
| Patient group meeting | Medication review |

TUYH: Results 1

- Health Outcomes
 - relative risk reduction of 12.7% ($P=.0113$) for average CVD risk
 - significant decrease in all components of risk measured: average systolic blood pressure, average diastolic blood pressure, TC/HDL-C ratio, BMI
 - improvement in reported outcomes:
 - physical activity level: increased from 0.5% to 57% attaining pre specified level
 - smoking: decreased by 14%
 - good diet (Canada Food Guide): increased from 0.3% to 49%
 - improvement of risk profile – movement across risk classes:

<i>Risk class</i>	<i>Number of participants</i>	
	<i>Pre</i>	<i>Post</i>
Low	235	244
Moderate	74	74
High	34	25

TUYH: Results 2

- Economic Outcomes
 - modeled annual per capita costs were based on historical data
 - based on per capita costs, the observed movement across risk categories for members of the intervention group would result in the following savings:

	Intervention group (Can\$)	Entire workforce (Can\$)
Life insurance	42	973
Casual absence	59	1,368
Short-term disability	49	1,149
Long-term disability	61	1,424
Prescription drugs	582	13,549
Total	793	18,461

TUYH: Conclusions

- Despite certain limitations
 - no long term follow up
 - economic data modeled
- Participants demonstrated a significant reduction in average CVD risk
 - TUYH used a personalized intervention to help achieve behavior modification
 - targeting high risk employees is key; HRA needed to identify those at risk
- TUYH was projected to generate cost savings for DCCI
 - modest economic benefit in the short term, full value to be realized over the long term
 - principal challenge is employee retention to realize full potential



Public Health System – Chronic Disease Management in Alberta

- Alberta has a single payer, publicly funded health system
 - Annual expenditure \$14bn (2010)
 - Population 3.7m
- An integrated information system was developed and implemented in Calgary and Edmonton
- Key features of the system are:
 - Flexibility and ease of configuration
 - Adaptive - as guidelines and data requirements change
 - Integration with data sources from across the region
 - **Emphasis on sharing a minimum data set**
 - Support for use of Canadian Diabetes Association Guidelines

Summary screen

Clinical Documents (All) 15:07 07-Sep-2007

Showing all documents View By Category Look For Status All Clear

Help Home Logout

Common Date Title Author

Favourites

- Dynamic Patient Summary
- Chronic Disease Summary
- Anatomic Pathology (10/10)
- Blood Bank (15/15)
- Blood Gases (62/62)
- Blood Products (30/30)
- Chemistry (1675/1675)
- Coagulation (191/191)
- Cytogenetics (2/2)
- Drug Levels (14/14)
- Fluids (20/20)
- Hematology (298/298)
- Immunology (10/10)
- Microbiology (208/208)
- Other (13/13)

Recently Viewed Patients

- List 1
- List 2
- List 3
- List 4

Searches

Patient Lists

- Concerto
- Messaging
- BIRT

Alberta Netcare

Care Co-ordination

Responsible Physician : JONES, DR. PETER
 Follow Up Scheduled : Yes
 Follow Up Date : 24-Sep-2007
 Follow Up Type/Reason : Telephone

Co-Morbidities / Complications

- Depression 05-Sep-2007
- Foot Disorder 07-Aug-2007
- Sexual Dysfunction 04-Aug-2007
- Obesity 12-Apr-2006
- Hypertension 24-Feb-2006
- Lung Transplant 16-Aug-2004
- Retinopathy 05-May-2003
- Gestational Diabetes 22-Dec-2000

Medications

Diamicon 1 time a day	10 mg	02-MAR-2006	Take as supplemented	Oral blood glucose lowering drugs (A10B)
gliclazide 3 times a day	12 mg	02-JAN-2006	No refills	Oral blood glucose lowering drugs (A10B)
Tenormin 1 time every month	225 ug	05-MAY-2007	Research on Medication	Antihypertensive/Renal Medications (C02)
Atenolol 2 times every 2 weeks	125 ug	02-MAY-2004		Antihypertensive/Renal Medications (C02)

Markers Of Disease Progression

A1C

Hemoglobin A1C (HBA1C) : 6.3 % 05-DEC-2005 08:46 **High**

Blood Glucose

Glucose, fasting : 5.6 mmol/L 16-APR-2007 08:29
 Glucose, random : 7.6 mmol/L 19-AUG-2003 10:55

Creatinine

Creatinine : 159 umol/L 16-APR-2007 08:29 **High**
 Calculated GFR : 40 mL/min/1.73m2 16-APR-2007 08:29 **Low**

Lipids

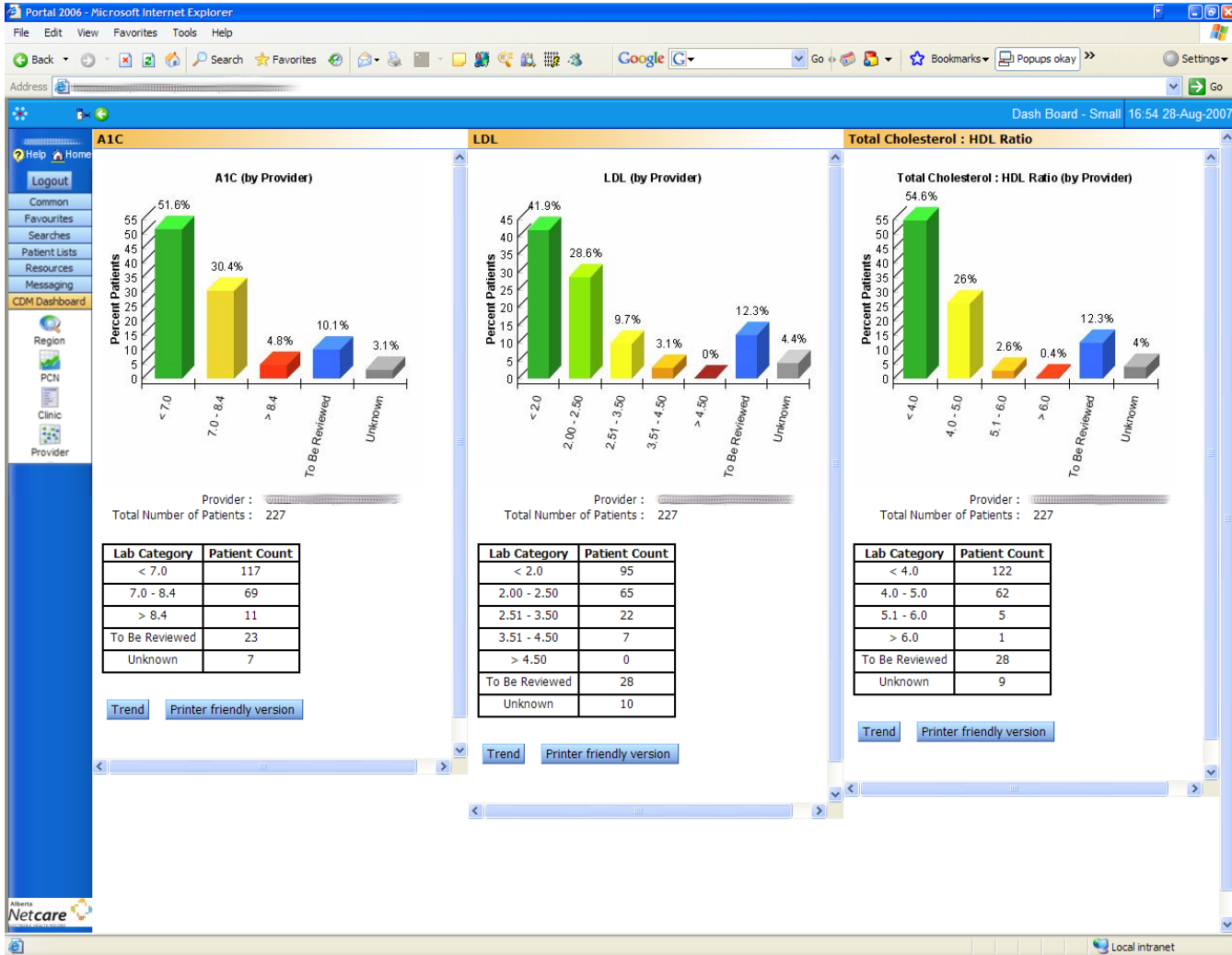
LDL Cholesterol : 2.15 mmol/L 07-SEP-2006 09:02
 Triglyceride : 1.67 mmol/L 07-SEP-2006 09:02
 Total Chol/HDL Ratio : 3.5 07-SEP-2006 09:02
 Cholesterol : 4.06 mmol/L 07-SEP-2006 09:02

Microalbumin

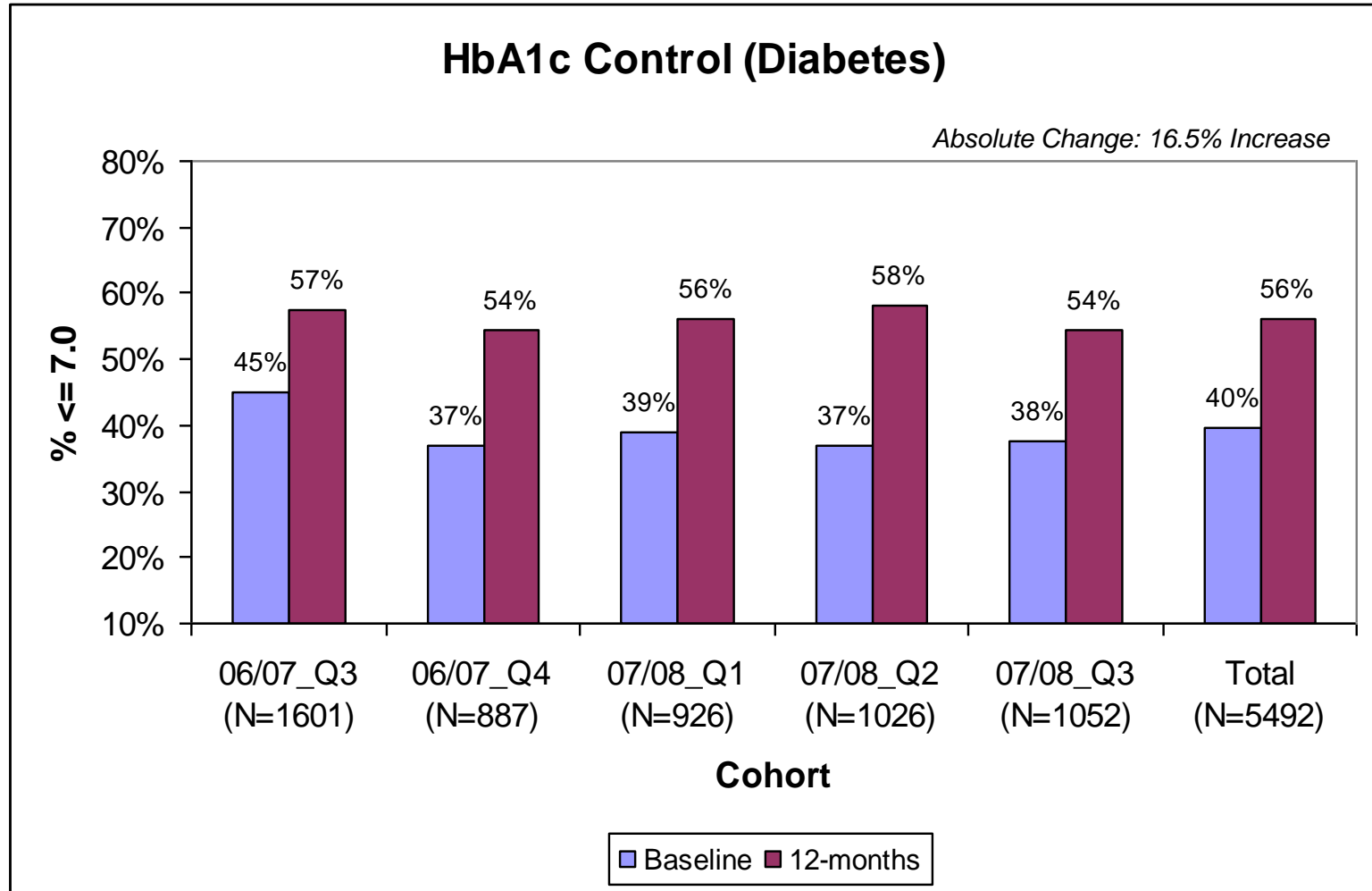
Albumin/creatinine : 42.31 mg/mmol 21-JUL-2003 03:40 **High**

Characteristics Relevant To Condition

Dashboard reporting



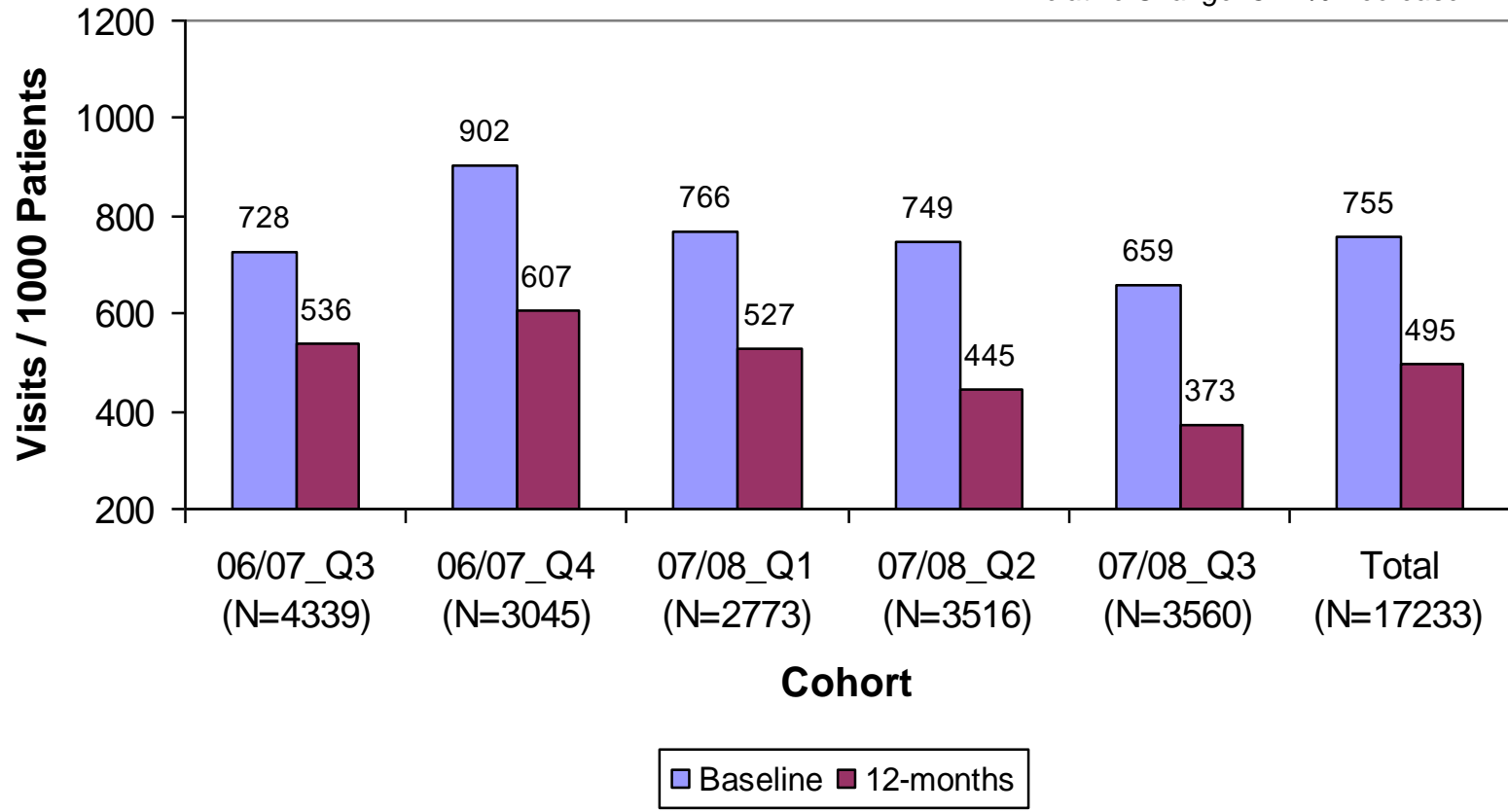
16.5% reduction in A1c



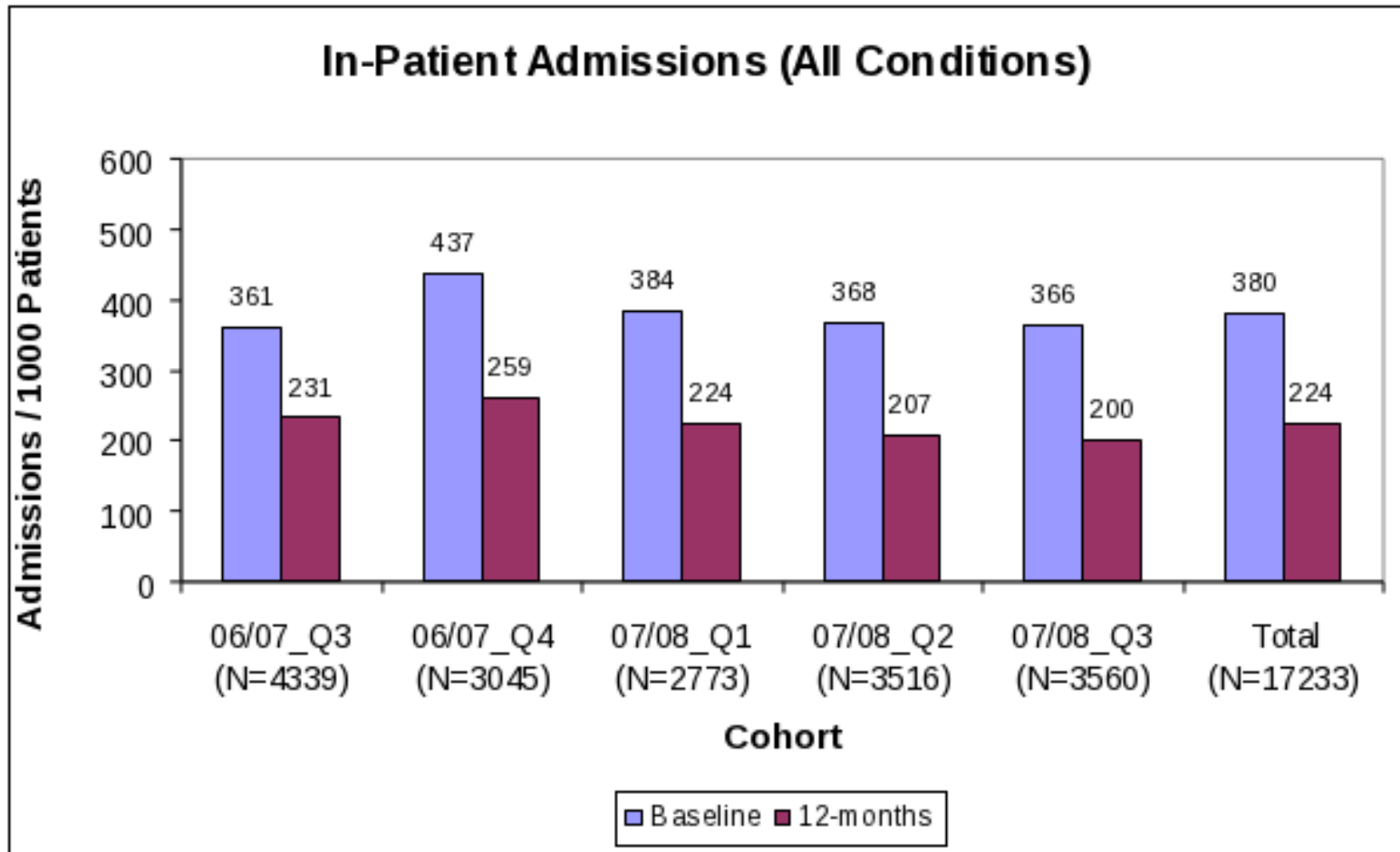
34% reduction in ER visits

Emergency Department Admissions (All Conditions)

Relative Change: 34.4% Decrease

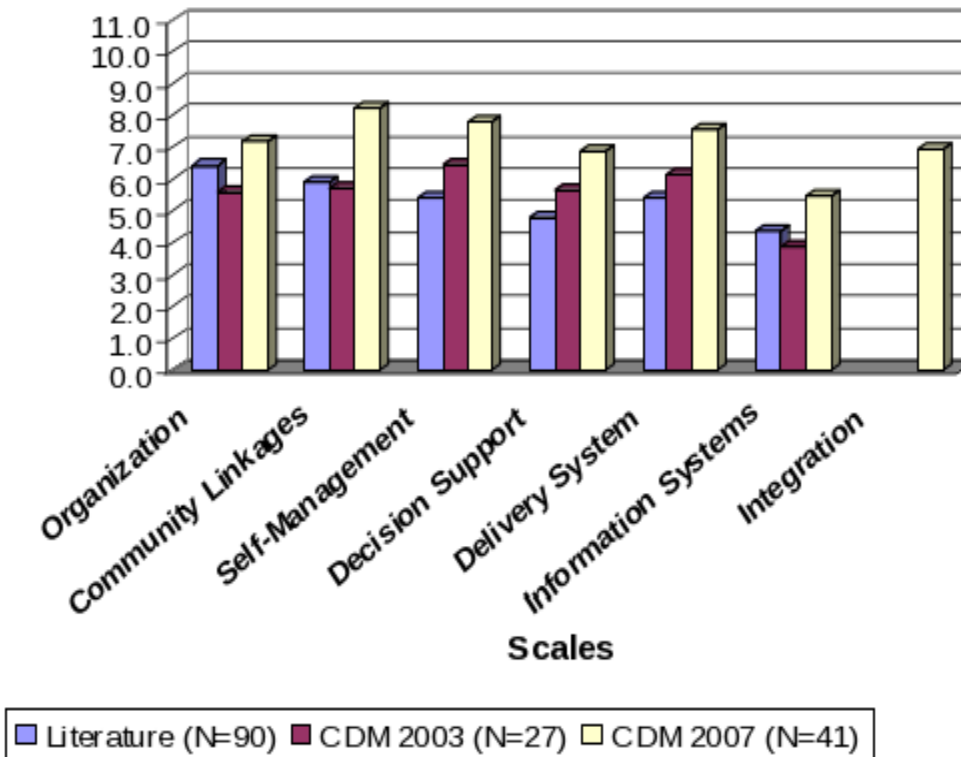


41% Reduction in In-Patient Admissions



Provider positive assessments

Assessment of Chronic Illness Care (Providers)



Outcomes

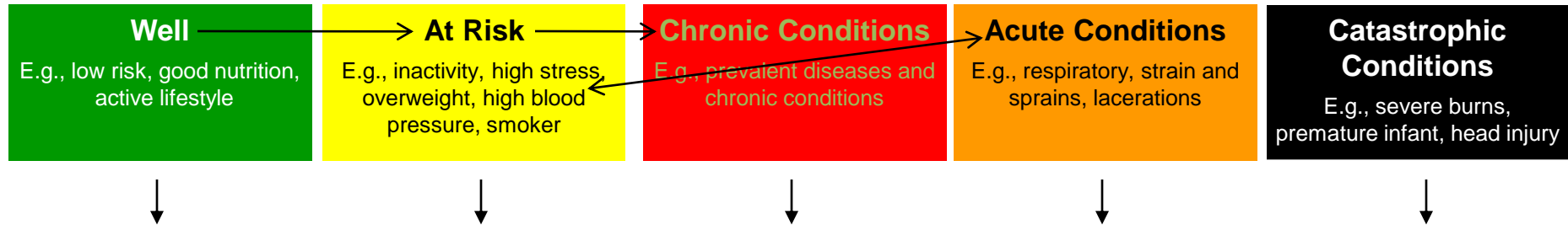
- Overall results from the program (based on repeated longitudinal cohort analysis) were extremely positive with good improvements in clinical indicators and huge improvements in ER visits and hospital admissions
- A likely explanation for the significantly greater improvement in ER and hospital admissions compared to the improvements in metabolic parameters is that being on a systematic program of care conferred additional benefits for patients over and above the core clinical measures
- Providers have become progressively more involved as the system has proven its value and given progressively more positive assessments
- Providers are aware that some form of performance based funding is likely in the relatively near term future. Giving providers the tools that can improve the quality of their population management is an important first step in this direction; furthermore, this type of approach fits with the world view of clinicians.

Looking ahead ...

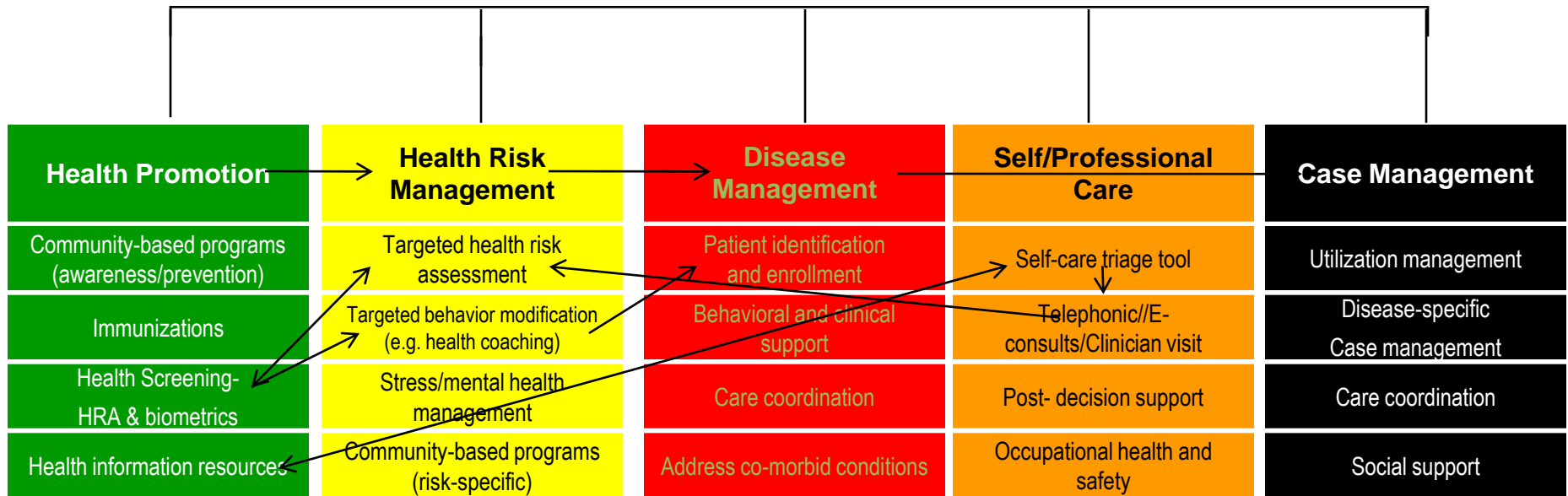
Public-private opportunities

- “Whole Patient” case management protocol
 - Align public & private interventions; stream the right patient to the right intervention
 - Initial emphasis on “low hanging fruit” (e.g. physicians could view data captured in the workplace; physicians could prescribe workplace resources for the patient;
 - Track all individual patient activity (i.e. use common identifier such as Medicare ID) within bounds of confidentiality requirements;
 - aggregate reporting to key public & private stakeholders
- Common evaluation methodology
 - Establish key patient metrics
 - Correlate back to the whole patient
 - Establish key public health system and private (employer) metrics
- Avoid duplication of services (e.g. screening)
- Leverage healthcare IT innovation
- Leverage all healthcare stakeholders – and “teachable/actionable moments (e.g. Rx fill-counseling on side effects, importance of adherence))

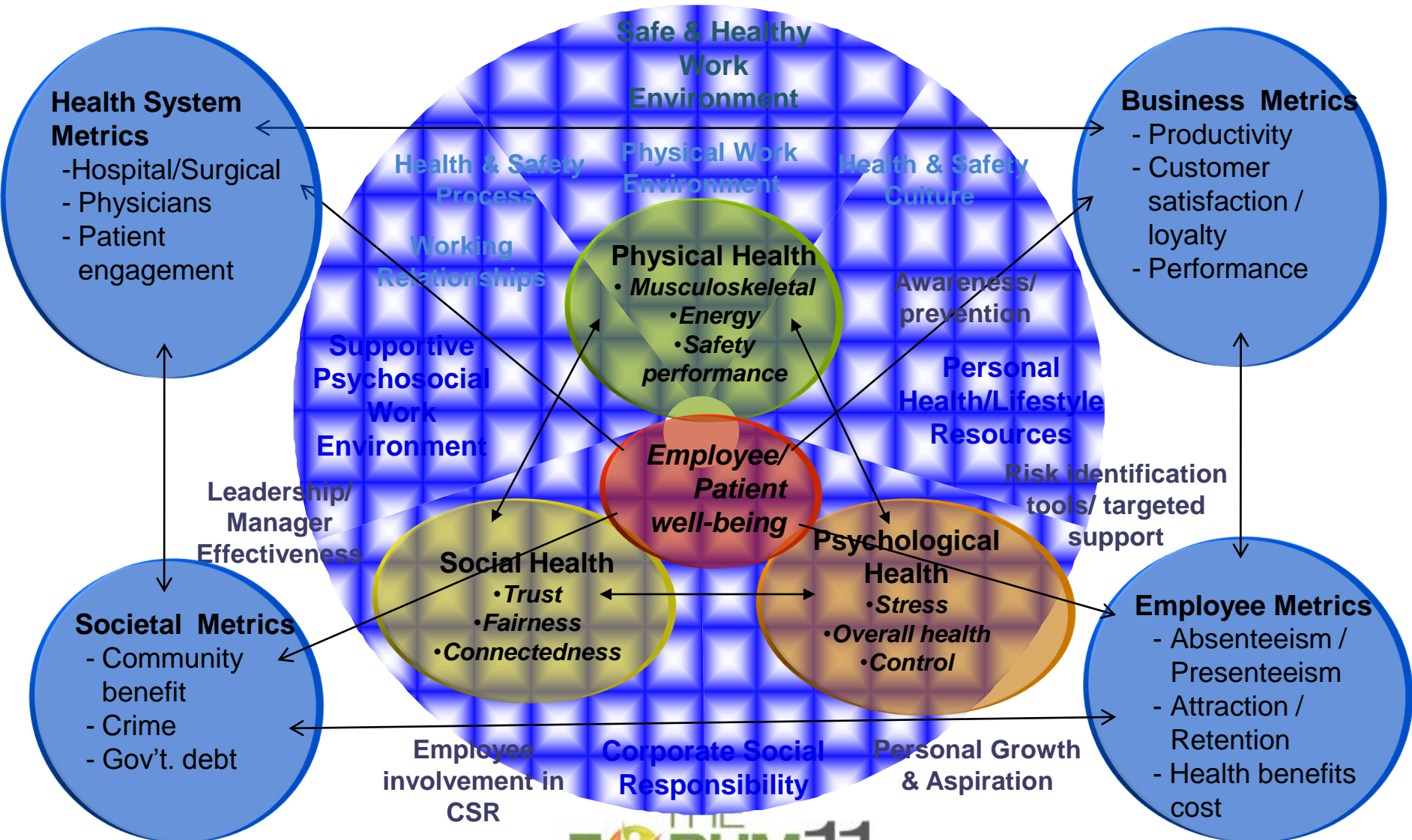
Public/ Private Healthcare Collaboration – A Planning Framework



Opportunities for Integrated Prevention/Care Management Interventions



Public / Private Healthcare Collaboration- an Outcomes Framework



Defining a Healthy Workplace - new

Safe & Healthy Work Environment

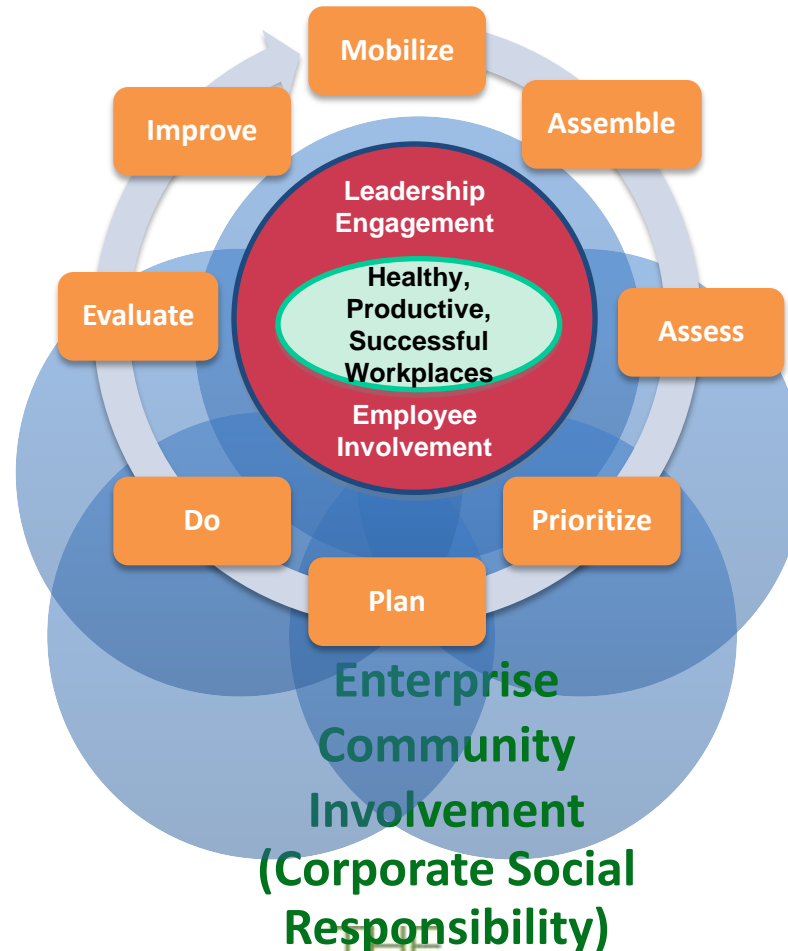
Adapted from World Health
Organization, 2010

Supportive Psychosocial Work Environment

Workplace Health (new): A healthy workplace is one in which workers and managers collaborate to use a **continual improvement process** to protect and promote the health, safety and well-being of all workers and the sustainability of the workplace by considering the following, based on identified needs:

- health and safety concerns in the **physical work environment**
- health, safety and well-being concerns in the **psychosocial work environment**, including organization of work and workplace culture
- **personal health resources** in the workplace; and
- ways of **participating in the community** to improve the health of workers, their families and other members of the community.

Personal Health / Lifestyle Resources



Defining a Healthy Workplace

Safe & healthy work environment includes:

- *Physical work environment: structure, air, machinery, furniture, products, chemicals, materials and production processes in the workplace¹*
- **Process Elements**
 - Ergonomics
 - Emergency response
 - Injury prevention
 - Disability case management
 - Environmental practices
- **Culture Elements**
 - Assessing impact of work culture on health & safety performance
 - Supervision
 - Empowerment
 - Teamwork
 - Workload
 - Harassment/bullying prevention & management

¹Healthy workplaces: a model for action- For employers, workers, policy-makers and practitioners, WHO 2010
http://www.who.int/occupational_health/publications/healthy_workplaces_model.pdf

Defining a Healthy Workplace

Personal Health / Lifestyle Resources include:

- *The health services, information, resources, opportunities, flexibility and otherwise supportive environment an enterprise provides to workers to support or motivate their efforts to improve or maintain healthy personal lifestyles, as well as to monitor and support their physical and mental health¹*
- Awareness / prevention, risk identification / prioritization, and targeted support
- Disease management

¹Healthy workplaces: a model for action- For employers, workers, policy-makers and practitioners, WHO 2010
http://www.who.int/occupational_health/publications/healthy_workplaces_model.pdf

Defining a Healthy Workplace

Supportive psychosocial work environment includes:

- *Organizational culture as well as attitudes, values, beliefs and daily practices in the enterprise that affect the mental and physical well-being of employees¹*
- Enshrining importance of employees in org. mission/vision/strategy
 - Effectively communicating this both internally & externally
 - Developing policies that reflect this
- Management practices; *walking the talk!* – making people policies “real”
- Understanding employee drivers, attitudes and perceptions
- Work flexibility; work-life balance
- “Fair work conditions” :
 - Work demands are reasonable
 - Input/decision making is maximized
 - Feedback & recognition are adequate

Job Satisfaction 😊 >
Job Stress ☹️

¹Healthy workplaces: a model for action- For employers, workers, policy-makers and practitioners, WHO 2010

http://www.who.int/occupational_health/publications/healthy_workplaces_model.pdf

Defining a Healthy Workplace

Corporate Social Responsibility (CSR) includes:

- *The activities in which an enterprise might engage, or expertise and resources it might provide, to support the social and physical wellbeing of a community in which it operates. This particularly includes factors affecting the physical and mental health, safety and well-being of workers and their families¹*
- Examples
 - Supporting community health awareness/prevention campaigns/initiatives
 - Environmental awareness/practices
 - Providing leadership, expertise and support related to comprehensive workplace health to other businesses

Implications for organizations: *providing opportunities for employees to participate in CSR activities (e.g. Habitat for Humanity) can enhance employee engagement in addition to supporting the organization's CSR strategy and benefitting the community*

¹Healthy workplaces: a model for action- For employers, workers, policy-makers and practitioners, WHO 2010
http://www.who.int/occupational_health/publications/healthy_workplaces_model.pdf

Measuring Healthy Workplace Outcomes- Global Opportunities

Traditional Business Case

- **Well-being-Absenteeism link:** Actual work time lost for personal reasons increased from 7.4 days per worker in 1997 to 9.7 days in 2006 – *Statistics Canada 2007*
- **Wellness Program-Sick Days link:** Dow Chemical - Of those who participated in moderate or intense weight management intervention, the average number of lost work days due to illness decreased from 3.9 days in 2006 to 3.4 days in 2007 - *Emory University Rollins School of Public Health, 2009*

Emerging Business Case

- **Wellness-Retention-Employee Performance link:** 45% of Americans would stay at their jobs longer because of wellness programs; 40% felt encouraged to work harder and perform better; 26% missed fewer days of work by participating in wellness - *The Principal Financial Group , Well-Being Index, 2009*
- **Employee Health- Employee Performance link:** 53% of Canadians report a substantial productivity drop for days when their personal health affects job performance- and even the top 47% experience up to a 20% performance decline – *Towers Watson, 2011*

Measuring Healthy Workplace Outcomes- Global Opportunities

Emerging Business Case (cont'd.)

- **Engagement-Absenteeism link:** High-engagement organizations: 6.38 absenteeism days/year per employee; lower engagement organizations: 12.89 days - *Best Employers in Canada, Hewitt 2009*
- **Engagement – Business Performance link:** Organizations with high employee engagement experienced 13.7% net income **growth** vs. 3.8% **decline** for low-engagement organizations— *Towers Watson, 12-month study across 50 global organizations, 2010*
- **Health- Productivity- Business Performance link:** Companies with the most effective health & productivity programs have 11% higher workforce productivity and 28% higher shareholder returns over a 5-year period, *Towers Watson 2009/2010 Staying @ Work Report*
- **Engagement -Well-being-CSR link:** 53% of employees would take a pay cut to work for an employer with a reputation for caring about employees and the community – *Kelly Services survey (7,000 employees), 2009*

Emerging Trends & Opportunities

- **Better measurement tools:** More effective ability to target areas of greatest likely outcomes
- **Better wellness offerings but cluttered market:** Both private and public
- **Heightened employer emphasis on disease management:** Natural link with public system
- **Employer coalitions:** Similar to US dynamic (e.g. Towers Watson Rx Collaborative)
- **More strategic approach:** Employee health/well-being integrated into org. strategy
- **Workplace health common standards/awards:** similar across organizations & geographies
- **Demand for multi-stakeholder /vendor collaboration:** Opportunity for more global plays
- **Link workplace health and public health system**
 - Programmatic: link prevention (employer) and disease mgmt.(public) ; leverage healthcare IT
 - Measurement: link impact of workplace health on public health system utilization
 - Can help provide business case for healthy workplace government incentives

Healthy Workplace – Global Opportunities

The Stakeholder	Outcomes They Care About
■ HR	■ ↑ Engagement, ↓ Health costs
■ Occupational Health	■ ↑ Employee Health, ↓ Absenteeism/disability
■ Finance	■ ↑ Positive ROI, ↑ Profitability
■ Oper ■ Sales ■ Exec ■ Labo	<p data-bbox="241 566 1682 953">Implications for organizations: There is a need – and an opportunity to create a greater sense of urgency around the “total patient” and secure buy-in to take action IF WE CAN 1) better quantify all health-related costs; 2) benchmark vs. other organizations/jurisdictions, 3) link to broader organizational performance measures, and 4) measure impact of healthier employees on public health system utilization/outcomes</p>
■ Health Service Vendors	■ ↔ Stable costs, ↑ plan sponsor/member satisfaction, sales & customer retention
■ Government	■ ↑ Population health, Labour productivity ■ ↓ healthcare cost trend
■ Community	■ ↑ Contribution to community benefit; improved community well-being

Conclusion

- **The good news:** Considerably greater business and governmental emphasis on the importance of employee/patient health and well-being
- **The challenge/opportunity:** Health cost trend (public and private) not sustainable; better coordination of resources needed; heightened emphasis on evaluation and generating outcomes; employee/patient health indicators increasingly linked to key employer and public health system metrics;

Stakeholders therefore need to think more broadly and break down old silos

- **Caution:** Health resources, programs & initiatives that do not demonstrably enhance key workplace and/or public health system outcomes will become superfluous

Your Turn - Questions to Consider

- **Public/private collaboration on health/wellness/prevention strategies:**
 - **Have employers in the audience worked with public health systems?**
 - **Have public health providers in the audience collaborated with employers?**
- **Are you aware of public and/or private health systems that require an individual to be accountable for his/her health?**
- **Do you think public and/or private health systems should require an individual to be accountable for his/her health?**
- **Based on today's discussion, do you think there are opportunities to develop a Global (i.e. multinational) health/wellness/prevention strategy for your organization?**

Questions?

- Sharon Welner
 - Sharon_Welner@biomedcom.org
- Chris Hobson
 - Chris.Hobson@orionhealth.com
- Allan Smofsky
 - Allan@smofskyworkplacehealth.com

