Innovative Strategies to Keep Aging Workforce Healthy

Singapore’s Story

Eunice Yong
Covering Deputy Director
Workplace Health Department
Health Promotion Board
Keeping Singapore Healthy

WHY THE NEED?
## Singapore’s Workforce

Source: Department of Statistics

<table>
<thead>
<tr>
<th>Workforce Statistics (2012)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population ('000)</td>
<td>5,312.4</td>
</tr>
<tr>
<td>Resident population ('000)</td>
<td>3,818.2</td>
</tr>
<tr>
<td>Employment ('000)</td>
<td>3,357.6</td>
</tr>
<tr>
<td>Unemployment rate (%)</td>
<td>1.8</td>
</tr>
</tbody>
</table>
Singapore’s Economy

Structure of Singapore Economy by Sectors, 2011

- **Financial & Business Services**: 26%
- **Transport & Communications**: 12%
- **Wholesale & Retail**: 17%
- **Other Services**: 14%
- **Others**: 6%
- **Manufacturing**: 21%
- **Construction**: 4%
- **Services Producing Industries**: 69%
- **Goods Producing Industries**: 25%
- **Others**: 6%

Source: Department of Statistics
Singapore’s population has grown older over the years. The age pyramid shows the population ageing since 2000, with the number of residents in the older age groups increasing significantly. The median age of the resident population rose from 34.0 years in 2000 to 38.4 years in 2012.

Source: Department of Statistics, Apr 2013
Resident Old-Age Support Ratio

Number

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>13.5</td>
</tr>
<tr>
<td>1980</td>
<td>11.3</td>
</tr>
<tr>
<td>1990</td>
<td>10.5</td>
</tr>
<tr>
<td>2000</td>
<td>9</td>
</tr>
<tr>
<td>2010</td>
<td>7.4</td>
</tr>
<tr>
<td>2012</td>
<td>6.7</td>
</tr>
</tbody>
</table>

*Old Age Support Ratio refers to persons aged 20-64 years per elderly aged 65 years & over

Source: Department of Statistics, Apr 2013
### Health Status of Singapore

#### 18-69 years

<table>
<thead>
<tr>
<th>Health Status</th>
<th>Working Population</th>
<th>General Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td>2010</td>
<td>2010</td>
</tr>
<tr>
<td></td>
<td>9.6%</td>
<td>11.3%</td>
</tr>
<tr>
<td>Hypertension</td>
<td>2010</td>
<td>2010</td>
</tr>
<tr>
<td></td>
<td>17.4%</td>
<td>18.9%</td>
</tr>
<tr>
<td>High Cholesterol</td>
<td>2010</td>
<td>2010</td>
</tr>
<tr>
<td></td>
<td>17.7%</td>
<td>17.4%</td>
</tr>
<tr>
<td>Obese</td>
<td>2010</td>
<td>2010</td>
</tr>
<tr>
<td></td>
<td>10.3%</td>
<td>10.8%</td>
</tr>
<tr>
<td>Daily Smoking</td>
<td>2010</td>
<td>2010</td>
</tr>
<tr>
<td></td>
<td>16.1%</td>
<td>14.3%</td>
</tr>
<tr>
<td>Regular Alcohol Drinking</td>
<td>2010</td>
<td>2010</td>
</tr>
<tr>
<td></td>
<td>3.1%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Exercise</td>
<td>2010</td>
<td>2010</td>
</tr>
<tr>
<td></td>
<td>15.6%</td>
<td>19.0%</td>
</tr>
</tbody>
</table>

#### 40-69 years

<table>
<thead>
<tr>
<th>Health Status</th>
<th>Working Population</th>
<th>General Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes Regular Screening</td>
<td>2010</td>
<td>2010</td>
</tr>
<tr>
<td></td>
<td>63.1%</td>
<td>63.5%</td>
</tr>
<tr>
<td>Blood Cholesterol Regular Screening</td>
<td>2010</td>
<td>2010</td>
</tr>
<tr>
<td></td>
<td>64.8%</td>
<td>61.2%</td>
</tr>
<tr>
<td>Blood Pressure Regular Screening</td>
<td>2010</td>
<td>2010</td>
</tr>
<tr>
<td></td>
<td>72.1%</td>
<td>70.8%</td>
</tr>
</tbody>
</table>

Source: MOH, National Health Survey 2010
Specific causes of Disease Burden

- Diabetes mellitus: 10.9%
- Ischaemic heart disease: 10.2%
- Stroke: 7.1%
- Anxiety & depression: 6.1%
- Lung cancer: 3.7%
- Alzheimer’s disease & other dementias: 2.9%
- Lower respiratory tract infections: 2.7%
- Colon & rectum cancer: 2.7%
- Breast cancer: 2.6%
- Schizophrenia: 2.6%
- Osteoarthritis: 2.5%
- Adult-onset hearing loss: 2.5%
- Self-inflicted injuries: 2.2%
- Vision disorders: 2.2%
- COPD: 1.8%

48% of DALYs

- Exercise & Move
- Eat Healthier
- Mental well-being
- Don’t Smoke
- Appropriate/Timely screening

A new perspective for Singapore?

**Productivity-led Growth** as the cornerstone of Singapore’s Economic Strategies

*From the traditional ...*

- Healthy Workplaces
- Good Health of Employees
- Firm-level performance and productivity improves

Developing the **Singaporean Core** in our workforce
A new perspective for Singapore?

**Productivity-led Growth** as the cornerstone of Singapore’s Economic Strategies

Towards a more elegant approach...

Healthy Workplaces → Firm-level performance and productivity improves → Good Health of Employees

Through adopting “quality” HR and Org. Development work practices

Developing the **Singaporean Core** in our workforce
Recent Legislation Changes

• Expanded Workplace Safety and Health Act to **all workplaces in 2011**
  – Previously was the Factories Act

• Introduction of the Re-employment Act in 2012, **extended working life from 62 to 65**
  – 1 of 2 criteria is health
Keeping Singapore Healthy

WHAT DID WE DO?
Upstream Work is Vital

• **Schools**
  – **Knowledge**: Health education is part of school curricula
  – **Environment**: Canteens aren’t allowed sugared/soft drinks → healthier canteens and food options
  – **Policy**: Physical activity time is part of school curricula
  – **Services**: Immunization, health and dental checks are regularly conducted by HPB’s School Health Services (all primary & secondary public schools)
Healthier Choice as the Default

- **Community & Living Space**
  - Accessibility and affordability of health promotion and screening services at residential areas
  - Engagement with other public agencies to enhance active living through urban planning, choice architecture for healthier options as part of daily lifestyle. For example,
    - Healthier hawker food/ canteens/ industry formulation of healthier food products
    - Active urban design (subway stations to promote stairs walking)
    - Park connectors and recreational spaces for inter-generation interactions
    - Tobacco control via legislation, smoking bans in public/residential areas
**Vision:** Healthy Living for Everyone, Everywhere, Everytime

**Mission:** Build community health promoting ecosystems and catalyze healthy living through consultation with and capacity building of communities

**HEALTH PROMOTING TOUCH POINTS**
– Making it Easier for Residents to Live Healthily

- Healthier Hawker Centres & Coffeeshops
- Health Promoting Mall
- Walking Trails
- Health Promoting Community Club (CC) & Residents’ Corners (RC)

**HEALTH PROMOTION PROGRAMMES**
– Empowering Residents to Live Healthily

- Physical Activity Sessions
- Health Screening
- Supermarket Trails
- Health Ambassadors in action

**Enablers**
Building Strategic and Sustainable Partnerships with 3Ps Partners

- Policies & Guidelines
- Research & Innovations
- Incentives & Recognition
- Co-creation
- Ambassadors and Advocates
- Capacity Building & Empowerment

**Addressing HPB’s Priority Areas & Target Segments in the Community**

- Obesity (Physical Activity & Nutrition)
- Smoking Control
- Mental Health
- Screening & Chronic Conditions
Making Healthier Ingredients Pervasive
Collaborating with Food Industry
More Singaporeans are eating out

* Eating out refers to eating at hawker centres, food courts, coffee shop stalls, restaurants or coffee houses as the usual meal venue

Source: National Nutrition Survey, Singapore 2004 and 2010
People

Point of Purchase

Seriously Yummy, Surprisingly Healthier
I offer WHOLE-GRAIN NOODLES

I use healthier oil and brown rice
Public Sector Collaboration
SMOKE-FREE LIVING BEGINS WITH YOU
BE A PART OF THE BLUE RIBBON SMOKE-FREE MOVEMENT
Blue Ribbon Movement

• Part of the larger WHO initiative to promote smoke-free environment
• Singapore is first in the region to launch Blue Ribbon at national level – 4 Mar 2012
• Recognizes communities and businesses that commit to create and promote a smoke-free environment
Blue Ribbon Movement

• Targeted at businesses such as hawker centres and community such as residential estates

• 2 main criteria:
  ✓ Minimise public exposure to 2nd hand smoke by creating smoke-free environment on a voluntary basis (i.e. voluntarily giving up smoking area or imposing voluntary ban)
  ✓ Advocating for smoke-free living through public education, awareness or cessation programmes.
Worksite as a Key Leverage

- **Workplaces**
  - Organisational support to seed and sustain **health promotion at work**
    - Funding and benchmarking opportunities
      - Tweaked to have **greater focus on NCDs and Mental Health**
      - **More support for SMEs**
    - Monitoring and documenting new measures on ROI (presenteeism)
    - Recent development to develop guidelines on **Total Workplace Safety & Health** that cuts across OSH and Health Promotion
Singapore HEALTH Award

*Helping Employees Achieve Life-Time Health (H.E.A.L.T.H.)*

- Biennial national award to recognise companies with commendable workplace health promotion programmes

**WHP Programme**

- **Physical Activity**
- **Healthy Eating**
- **Smoking Control**
- **Manage Chronic Conditions**
- **Early detection for interventions**
- **Avoiding infections**
- **Organisational Policy**
- **Environmental Intervention**
- **Lifestyles & Personal Health Skills**
- **Mental Well-being**
## Workplace Grants to Support National Priority Conditions

<table>
<thead>
<tr>
<th>Types of Programmes</th>
<th>Principle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight Management Programme</td>
<td>• It is evidenced that targeted interventions are effective and necessary to reverse/reduce at risk conditions of an individual.</td>
</tr>
<tr>
<td>Smoking Cessation Programme</td>
<td>• Structured programme over a minimum 12-week period.</td>
</tr>
<tr>
<td>Chronic Disease Management</td>
<td>• Participants are persons who have the risk factors, unfavourable health practices or conditions needing behavioural changes (i.e. smokers, have chronic disease(s), and overweight).</td>
</tr>
<tr>
<td>- Pre-diabetes</td>
<td>• The targeted intervention programme aims to help them acquire the necessary knowledge and skills to make behavioral changes to better manage their conditions.</td>
</tr>
<tr>
<td>- Diabetes</td>
<td></td>
</tr>
<tr>
<td>- Cholesterol</td>
<td></td>
</tr>
<tr>
<td>- Hypertension</td>
<td></td>
</tr>
</tbody>
</table>
# Workplace Mental Health Solution

## Enablers (Organizational)
1. Workplace Mental Health Grant ($5000)
2. Working Minds Curriculum

## Guidance (Management)
1. Workplace Mental Health Investment Guide
2. Training for Employee Assistance Champions
3. Leadership Engagement

## Supporting Online resources (Employee)
- **Health Mind Hub** which makes available
  1. Self Assessment Tools
  2. Tailored mental health educational and self help resources

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**Affordable + Inclusive + Accessible**
Keeping Singapore Healthy

WHAT DID WE LEARN?
Global Prevalence on Workplace Health Promotion

Workplace Experiences

• Evaluation at Singapore HEALTH Awards in Nov 2012
  – Highest no. of companies awarded = >350,000 workers covered
  – Higher award companies (Platinum/Gold) demonstrated presenteeism cost savings of S$600/staff annually than lower award (Bronze) companies

• Increased workplace health promotion prevalence across last decade (~30% in 1998 to 56% in 2010)
  – Win-win for employers and workers because:
    • Staff engagement, cohesion, branding, wellbeing of workers

• Established partnerships with employer and trade federations to bring health closer to workers
  – Hotel industry to tackle high smoking practices

• Industry capability development for improved programmes
  – Consortium model (and building model) for mental health (and other health promotion) services to SMEs
On-the-Job Work Limitation (Presenteeism)

**Presenteeism** is defined as lost productivity that occurs when employees come to work but are unable to contribute fully due to health conditions.

The **Work Limitations Questionnaire** (WLQ) was developed by Debra Lerner et al. to measure the degree to which health problems interfere with specific aspects of job performance and the productivity impact of the work limitations.

Acknowledgements to Tufts Medical Center, Boston, US, for use of WLQ-SF© in this exercise
# Distribution of Presenteeism

<table>
<thead>
<tr>
<th>Variable</th>
<th>SHA Bronze</th>
<th>SHA Platinum</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=23 companies, n=687 pax</td>
<td>N= 29 companies, n=874 pax</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presenteeism</td>
<td></td>
<td></td>
<td>P&lt;0.0001^</td>
</tr>
<tr>
<td>% at-work productivity loss</td>
<td>6.63% SE 0.18</td>
<td>4.92% SE 0.14</td>
<td></td>
</tr>
<tr>
<td>(relative to a healthy benchmark group)</td>
<td>95%CI (6.28 –6.98)</td>
<td>95%CI (4.64-5.19)</td>
<td></td>
</tr>
<tr>
<td>Levels of Presenteeism</td>
<td></td>
<td></td>
<td>P&lt;0.0001</td>
</tr>
<tr>
<td>None (&lt;5%)</td>
<td>267; 40.1%</td>
<td>489; 57.9%</td>
<td></td>
</tr>
<tr>
<td>Mild (5-10.9%)</td>
<td>292; 43.8%</td>
<td>278; 32.9%</td>
<td></td>
</tr>
<tr>
<td>Moderate (11-16.9%)</td>
<td>88; 13.2%</td>
<td>72; 8.5%</td>
<td></td>
</tr>
<tr>
<td>Severe (&gt;17%)</td>
<td>19; 2.9%</td>
<td>6; 0.7%</td>
<td></td>
</tr>
</tbody>
</table>

^Adjusted for workforce size and heavy/non-heavy sectors

<table>
<thead>
<tr>
<th>Estimated* average on-the-job productivity loss per staff per year (Presenteeism Costs/staff/yr)</th>
<th>SHA Bronze</th>
<th>SHA Platinum</th>
<th>Difference</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$2,421</td>
<td>$1,824</td>
<td>-$597</td>
<td>P&lt;0.0001^</td>
</tr>
</tbody>
</table>

Companies better at organising and practising health promotion saves $600/staff/year!

* Estimated using median monthly income of residents in 2011

Source: HPB, Workplace Health, Nov 2012
Local Case Studies on WHP
Examples of companies that embraced a comprehensive approach on lifestyle behaviours reported results of their efforts:

**UMW Equipment & Engineering**
*(~160 employees)*

Results of their WHP programme between 2004 - 2006:

- 3.7% decrease in smokers
- 2.8% increase in employees who exercise at least twice a week
- 2.4% decrease in employees with a high BMI
- 2.5% decrease in employees with high cholesterol (i.e. >200mg/dL)
- 0.5% employee turnover

**City Developments Limited**
*(~300 employees)*

Results of their WHP programme between 2008 - 2009:

- 8.5% decrease in employees with high blood pressure
- 4.1% drop in employees with high levels of cholesterol
- 11% decrease in average medical cost per employee
- 7.6% drop in overall company-wide medical expenses
Total Workplace Safety and Health

Extent of Total WSH influences

Making it even more “Total”?

SAFETY ISSUES
- Occupational Diseases

HEALTH ISSUES
- General Diseases

ORGANISATIONAL ISSUES
- Health Promotion
- Culture, Management

WORKPLACE ISSUES
- Workplace Safety and Health Officer
- Company Dr / Designated Factory Doctor / Occupational Health Nurse
- Human Resource
- Human Resource

HR, Org Development
- Middle & Senior Mgt

All Workers

Integration of WHP & WSH

GAP in Singapore’s work & health landscape
Management System
Policies, Structures, Processes, Programmes

SAFETY ISSUES
HEALTH ISSUES

Multi-disciplinary Committee / Business Unit
Top Management

Modular WSH & WHP Programmes
According to the specific risks
Fall Prevention, Ergonomics, Weight Loss Programme, Chronic Disease Management

Professionals and Personnel
e.g. WSHO, DWD, OHN, Hygienists, WHP Coordinators, etc

Professionals and Personnel supporting modular programmes may be in-house, out-sourced or combination of both (hybrid)
Phased Approach to TWSH

FY 13

• Develop TWSH guidelines
• Do joint seminars to share TWSH with companies & industry
• Work out how to accommodate content/progs in existing Grants, Awards, industry engagements without major disruptions (i.e. ergonomics in WHP Grant, health screening in WSH Assist; weightage in Awards)
• Test the above to small group of companies & assess companies’ receptiveness and feasibility of TWSH

FY 14 onwards

• From pilot, work out how to develop & position a 1-stop national system for TWSH on content & processes alignment, via:
  • Grants
  • Awards
  • Industry development
  • Capacity training of companies (for sustainability)
  • Evaluation of business case/value creation
  • Customer service processes
  • Public awareness/messaging
  • Cultivation of existing or new partners (i.e.: SNEF, business groups)
• Strategise how to continuously nudge companies towards full practice of TWSH, from whichever stage they are at; using existing levers (i.e. establish good business case, financial support & recognition, legislation, industry prog relevance, employer and worker assocs’ support) or to create new levers
Singapore’s Strategy to Keep Workforce Healthy

Strategies should recognise and embody:

1. Importance to invest in health promotion **early**
   - Induce good Lifelong practices → health benefits & protection in the long run

2. Environmental re-design/review for impact and sustainability; **Choice architecture**

3. Not confined to one setting, but across settings to have traction and population influence
   - Accessibility (should be *intuitively* designed)
   - Affordability (inclusive for all)
Live Long, Live Well