

**TRIPARTITE**  
**OVERSIGHT**  
**COMMITTEE**  
**ON**  
**WORKPLACE**  
**SAFETY AND HEALTH**

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**2017 – 2020 REPORT**

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# FOREWORD

2020 has been an extraordinary year for us at the workplace.

The COVID-19 pandemic has created new norms in our work environments. Our workforce have adapted to new work-from-home (WFH) norms, while those who have returned to the workplace have also adapted to new safe management measures and business continuity plans. The safety and health of our workforce have become even more important than before.

We have continued to challenge ourselves to innovate, despite the recent challenges brought about by COVID-19. For example, to secure mindshare for Total Workplace Safety and Health (Total WSH), we have strengthened our outreach on digital platforms and re-ignited our partnerships with developers, companies and business owners. Our efforts from 2017 – 2019 focused on adapting and customising effective programmes for workplace safety and health, so as to ensure accessibility and reach to workers.

Some of our new programmes include:

- A new assistance programme to guide companies on the implementation of Total WSH;
- A dynamic Workplace Outreach Wellness (WOW) programme offering a choice of basic and targeted interventions for companies;
- A localised return-on-investment tool to aid Multinational Corporations (MNCs) and Small & Medium Enterprises (SMEs) in monitoring their dollar-stretch from investment in workplace health programmes;
- Expansion of Healthy Workplace Ecosystems (HWEs) beyond businesses and industrial clusters to reach workers in precincts;
- Expansion of mature worker programmes to include Hawker Centres and Heartland Malls in the community; and
- iWorkHealth, a tool to identify workplace stressors, to assist employers in improving the mental well-being of their workers.

We want to bring more customisable programmes to companies, big and small, that impart long-term cost savings and productivity gains in the coming years as our economy recovers from the pandemic. We will also adapt to the changing needs of our workers as they operate in new norms and find their way in the changing workplace environment and economic landscape. We look forward to even more exciting and ground-breaking work from the Committee.

We wish to express our heartfelt appreciation to our employers and unions for collaborating with us to strengthen workplace safety and to protect our workers during this pandemic.

Stay safe and stay well,



**Mr. Zaqq Mohamad**  
Senior Minister of State,  
Ministry of Manpower



**Dr. Amy Khor**  
Former Senior Minister of State,  
Ministry of Health



# INTRODUCTION

Seven in ten Singapore residents are engaged in the workforce. On average, workers in Singapore spend nine hours a day at work. This makes the workplace an ideal setting to promote programmes and initiatives that support safety and health, and benefit a large segment of the population.

The Tripartite Oversight Committee (TOC) was set up in 2014 to help workers achieve well-being by adopting a holistic approach to manage their safety and health. In its first term (2014 – 2017), the TOC raised the awareness of holistic safety and health, impacted the overall health of hard-to-reach mature workers, and increased the adoption of healthier behaviours among workers in business clusters. In its second term (2017 – 2020), the TOC expanded upon the work done in the previous term to incorporate workplace safety and hence was renamed the Tripartite Oversight Committee on Safety and Health. Its three sub-committees drive progress in three key areas, as depicted in Figure 1 below:

TOC SUB-COMMITTEES AND OBJECTIVES	
Sub-Committee 1	<b>Advocating</b> safety and health in all policies at the workplace, especially in high-risk industries
Sub-Committee 2	<b>Promoting</b> health ecosystems for workers in business and other workplace clusters
Sub-Committee 3	<b>Improving</b> health of mature workers in key priority sectors through greater access to safety and health initiatives

Figure 1. TOC sub-committees and objectives. The committee membership and terms of reference of the TOC can be found in the Annex.

## KEY RECOMMENDATIONS FROM 2014 – 2017

In order to achieve more impactful safety and health programmes at work, the TOC has made the following recommendations during the previous term (2014 – 2017), and will continue to incorporate them in this term's programmes and beyond.

- 1. Adopting a worker-centric approach** to reach out to workers from high-risk industries, mature workers and workers in co-located workplaces.
- 2. Ensuring sustainability of projects** by streamlining processes and offerings.
- 3. Building strong business case** for holistic safety and health through strategic partnerships with key leaders.

This report will address how these recommendations have been incorporated into this term through the introduction of safety and health programmes for workers in high-risk industries, creation of healthier and safer environments for professionals, managers, executives and technicians (PMETs) and blue-collar workers, as well as approaches for keeping our mature workers healthy and productive.



# EXECUTIVE SUMMARY

## ACHIEVEMENTS

From October 2017 to October 2020, **more than 853,000 workers** have accessed workplace safety and health programmes, with **more than 224,000 workers** having participated in these programmes.

### Safety and health programmes for workers in high-risk industries



**More than 115,000 employees** have access to **Total Workplace Safety and Health (Total WSH) services**.

Under the newly launched Total WSH programme in July 2019, **more than 4,600 employees** have participated in **Total WSH initiatives**.

### Targeted safety and health interventions for mature workers

**More than 133,000 employees** from **7 sectors** have access to targeted and impactful programmes, with **more than 94,000** having participated in them.



### Healthier and safer environments for PMETs and blue-collar workers

**More than 406,000 employees** within **68 Healthy Workplace Ecosystems (HWEs)** have access to broad-based and impactful programmes, with **more than 90,000** having participated in them.

**More than 198,000 employees** from more than **1,700 companies** have workplace health programmes brought to their doorsteps, with **more than 35,000** having participated in them.

## KEY LEARNINGS



### Catering to specific needs of target worker groups

- Ensuring programmes were customisable for workers of different job nature.
- Conducting rigorous pre- and post- assessments of workers' safety and health allows tailoring of programmes to identified health needs.



### Efficient programme expansion through demand aggregation

Aggregating companies' and workers' demand for safety and health programmes at common worksites or gathering points allows efficient expansion and scaling-up of safety and health programmes.



### Leveraging partnership with key industry players

Forming strategic partnerships with industry leaders, landlords, unions and public agencies enabled safety and health programmes to reach a large number of workers, especially those in hard-to-reach, scattered industries.

## RECOMMENDATIONS



### Breaking new grounds

Venturing into untapped arenas and adapting to emerging economies (e.g. expansions into placemaking, gig economy)



### Expanding the value proposition of Total WSH

Detecting health conditions and health risks and protecting the safety of workers during critical work activities through cross-analysis of safety and health data



### Sustaining reach and impact through partnerships

Strengthening existing partnerships and forming new partnerships (e.g. landlords, unions and hawker associations)



### Transiting into alternate, flexible engagement modalities

Evolving from traditional face-to-face safety and health programme engagement to complementary online/digital platforms and more bite-sized sessions, to adapt to safety and health operational constraints (e.g. during COVID-19)

# IMPACT SUMMARY

## INCREASED IMPACT ON WORKERS' HEALTH, BEHAVIOUR AND SAFETY ACROSS THE TOC TERM

We monitored and evaluated the biometric and behavioural outcomes on workers throughout the course of the programmes, yielding the following results:

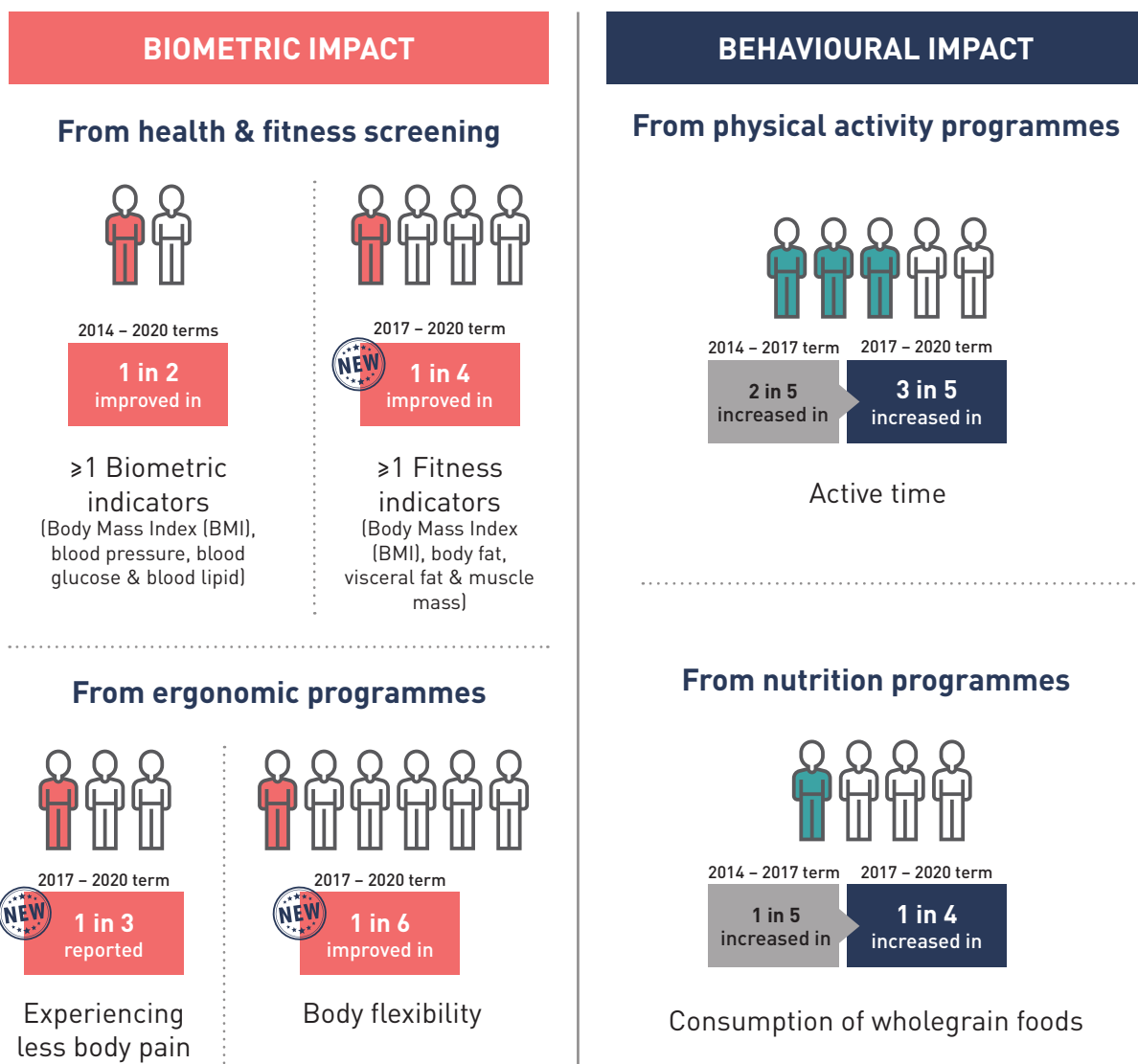


Figure 2. Biometric and behavioural impacts on workers

# TOTAL WSH PROGRAMME

## FOR WORKERS IN HIGH-RISK INDUSTRIES

### Building a Progressive and Pervasive Workplace Safety and Health Culture

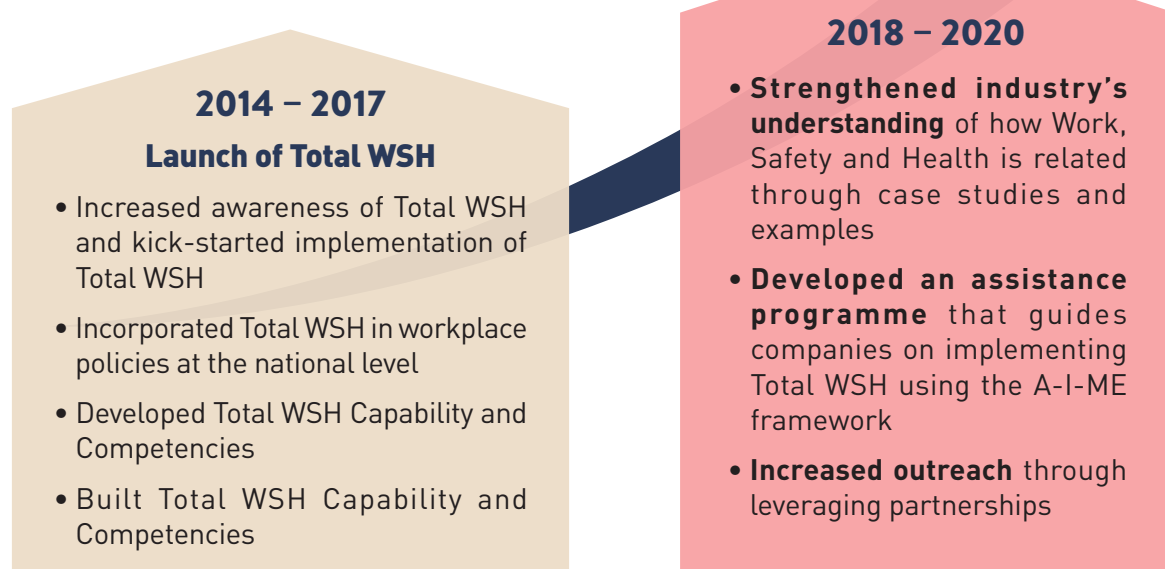


Figure 3. Progress of Total WSH

## THE A-I-ME PROCESS OF THE TOTAL WSH FRAMEWORK



**Assessment:** A safety and health needs diagnosis is to be conducted to identify areas to work on.



**Intervention:** Changes in the workplace or work processes may be implemented to support change with regard to safety and health issues at work. This also includes programme-based solutions such as talks, activities or coaching to address human factors (i.e. health or culture).



**Monitoring and Evaluation:** Through selected metrics, the company can track whether the solutions implemented has resulted in any desired change.

The Total WSH Programme was introduced to the industry in which consultants guided companies through the A-I-ME process and supported companies through funded interventions where eligible.

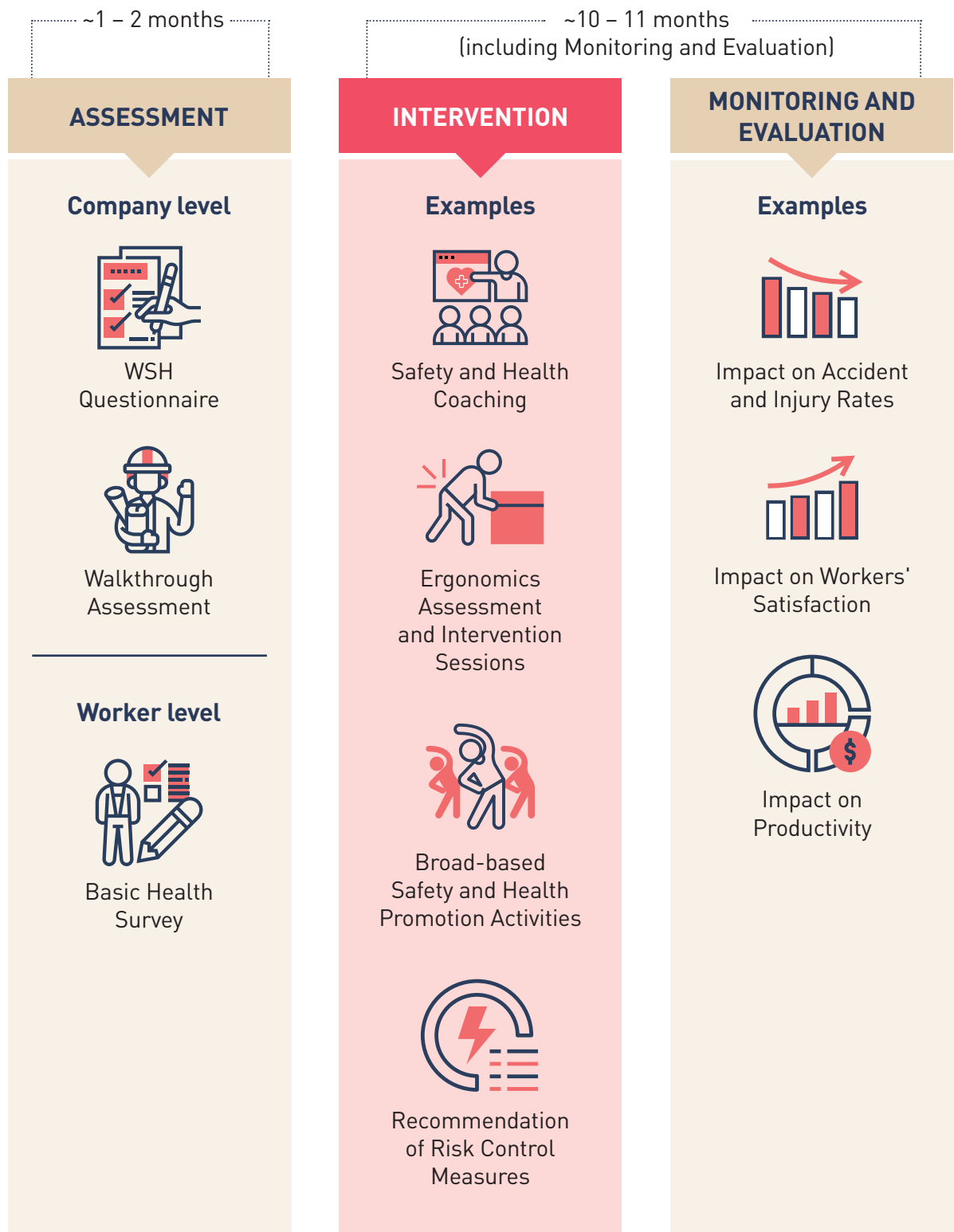


Figure 4. The Total WSH Programme's A-I-ME process

## DIFFERENTIATED APPROACHES TO BRING TOTAL WSH TO WORKERS' DOORSTEPS

The Total WSH programme has brought health and safety programmes to workers' doorsteps through the following approaches:

### DIRECT-TO-COMPANY APPROACH

**Suitable for:** Companies with workforce size of >200

**Case study:** SATS Ltd



### SITE-BASED APPROACH

**Suitable for:** Construction worksites

**Case study:** Thomson-East Coast Line Project



### DEMAND-AGGREGATED APPROACH

**Suitable for:** Companies with workforce size of ≤200

**Case study:** Total WSH Services Centre at Woodlands Industrial Park



Figure 5. Overview of Total WSH outreach approaches



## DIRECT-TO-COMPANY APPROACH

SATS Ltd is a progressive company that values her workers' well-being. With a diverse range of services from gateway to food services, SATS has been looking to improve the safety and health of her staff and saw that the Total WSH Programme would bring customised solutions to their doorsteps. One of the business units that adopted the programme was SATS Air Cargo.

### About SATS Air Cargo:

- SATS subsidiary with a large workforce size above 200

### Workers' roles entail:

- Driving a forklift to transport cargo in the warehouse
- Sorting and carrying parcels / mail
- Transferring them into X-Ray machine for security scanning
- Loading parcels on cargo carts

## Common Issues Found in the Logistics and Transport Sector

1

### Musculoskeletal Issues

- Common to move **very heavy loads**
- When **inappropriate lifting techniques** are used, **shoulder, back and neck injuries could occur**

#### Tips

- Use of vacuum lifting aids, where possible
- Educate workers on:
  - Proper lifting techniques and standing postures
  - Exercises to help stretch and strengthen muscles before / during / after work
  - Pain relief techniques

### SATS Air Cargo's Interventions

**367** workers from SATS Air Cargo went through 6 customised sessions of Ergonomic Coaching Programme conducted by ergonomics specialists



The results showed that the majority of the workers found the coaching sessions useful, and would apply what they had learnt in their daily work.

■ The Ergonomics exercises taught by the nurse are very good. They help me to minimise backaches after work."

**Aung Shwe Lin**

■ It's good that the company arranged for these sessions for the staff. I hope they can come back to teach us again."

**Kong Dong**

**Pre-post pain score:** 32 workers were surveyed on pre- and post- body pain during the first and last sessions respectively. A number of workers reported a reduction in pain in commonly found pain areas of shoulders / upper arms, upper back and lower back.

### Proportion of workers who had lower pain scores in the following body parts

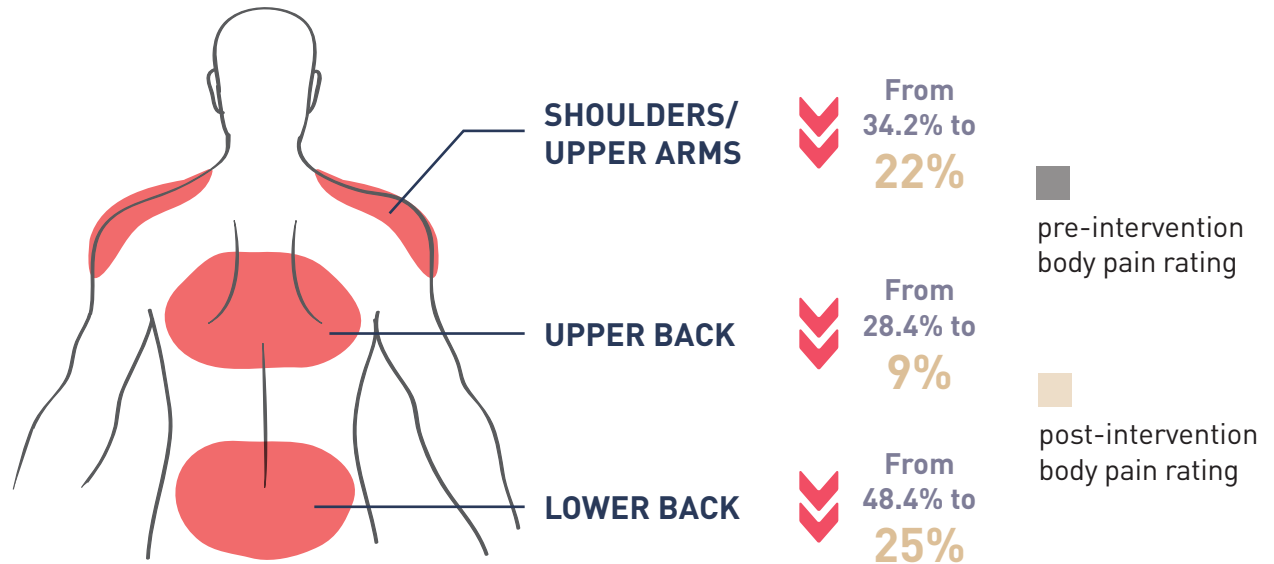


Figure 6. Impact of Total WSH on participants' body pain scores

## 2

### Traffic Management

- High volume of forklift/tractor movement in warehouses where workers are working

#### Personal Health Impact and Job Risks

- If driver loses concentration, falls asleep or has a sudden loss of function e.g. from a heart attack while driving, he / she may collide into people or goods, causing injuries or losses

#### Tips

- Have clear demarcation of zones to keep human traffic away from vehicles, e.g. forklifts and trucks, and have workers comply to these rules
- Raise awareness among forklift drivers on:
  - Important health warning signs and to stop driving if they encounter any signs
  - Importance of health screening
  - Managing chronic diseases

## 3

**Slips, Trips and Falls**

- Slips, trips and falls are common especially in the Logistics and Transport Sector where goods themselves (sometimes spilled goods) or equipment (e.g. pallets) can become hazards
- Severity of fall could vary, depending on how the worker fell and personal factors such as:
  - Agility to break fall and minimise injury
  - Muscle and bone strength

**Tips**

- Ensure improved housekeeping
- Educate workers on good practices pertaining to each task, e.g. when working on roller conveyors, standing on metal plates
- Recommend exercises to train and maintain muscle strength and agility

**SITE-BASED TOTAL WSH APPROACH**

When the Total WSH Programme was first introduced to construction companies, we recognised that there was a need for the Direct-to-Company approach to be adapted. The site-based model was then developed to help benefit more workers.

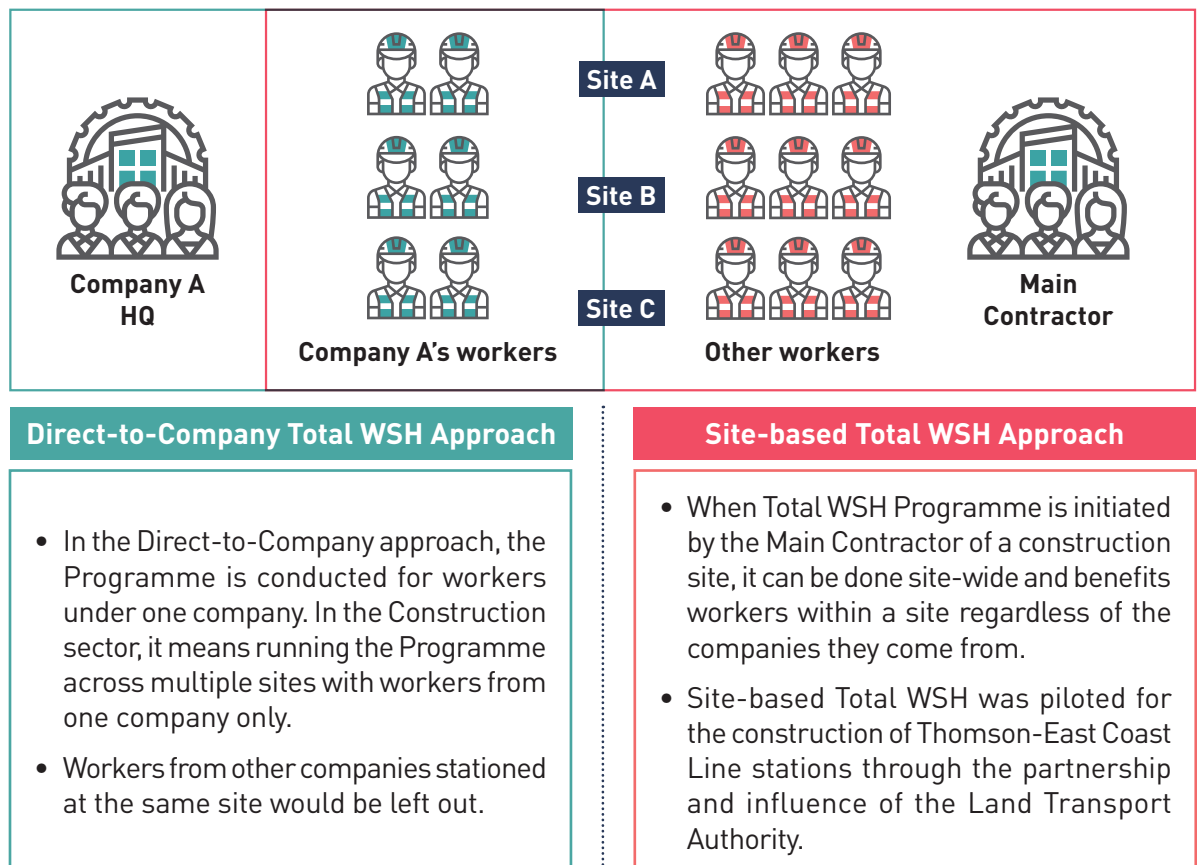
**Difference between Direct-to-Company and Site-based Total WSH Approach**

Figure 7. Difference between Direct-to-Company and Site-based Total WSH approach



## Case Study: How Contractors of the Thomson-East Coast Line Worksites Protected the Safety and Health of Workers

### 1

#### Lifting Operations

Lifting operations are highly safety-critical in nature and have to be coordinated and performed with utmost care and focus, as any mistakes could cause the load to injure people or severely damage buildings. Aside from observing safe work procedures, it is also important that workers are fit and stay focused during such operations.

##### Tips

- Good safety and health practices were implemented, such as maintenance of cranes, a proper lifting plan, frequent checks on lifting gear, a proper Permit-to-Work system and clearly indicating the Safe Working Load on the lifting machine.
- Health monitoring for workers: One of the sites conducted daily blood pressure measurement for crane operators, excavator operators and vehicle drivers to ensure that they were fit to operate the machinery.
- Visual and Behavioural Detection Devices were installed on machinery to provide real-time feedback which helps the operator to stay focused and alert when operating the machinery.
- Safety and Health Coaching was conducted for the workers and machine operators to educate them on how chronic disease symptoms could affect their safety at work, as well as the significance of managing their own health.

### 2

#### Heat Stress

- Construction workers work under the hot sun for prolonged hours. Heat stress can be dangerous, causing harm not just to workers themselves, but possibly even others around them if they are performing safety-critical tasks, such as lifting.
- Heat stress may cause a lifting crew member to lose concentration or become fatigued, thus increasing the risk of lifting accidents due to erroneous judgement and methods of applying their lifting techniques.

##### Tips

- Conducive rest areas with water points were designed and strategically positioned at worksites to make it convenient for workers to stay hydrated and recharge during breaks.
- Workers were taught the importance of hydration during safety and health coaching sessions.

## 3

**Weight Management**

- 46.6% of survey respondents were reported to be overweight or obese in one of the worksites.
- Overweight / obese workers are more susceptible to chronic diseases / health conditions, fall injuries, heat stress injuries and ergonomic injuries.

**Tips**

- **Personalised Safety and Health Coaching** — Workers were coached in:
  - Setting personal health goals and using a step-by-step guide to achieve them
  - The importance of personal health and how it affects work safety sessions
- **Raising awareness through safety and health talks:** Workers were educated on chronic disease risks, how they are associated with high BMI and how to prevent them
- **Conducting of fitness (cardio exercise) classes**

**Leveraging Strong Support from Partners to Reach Large Sites in High-risk Industries****Thomson-East Coast Line Worksites**

Approximately 500 out of 1,200 workers have participated in activities under the Total WSH Programme, with the following outcomes.

**FEEDBACK****T303 – Geotechnical Senior Engineer, Yap Shih Lim**

“The Total Workplace Safety and Health Survey reminded me of my exercise and dietary habits and changed my mindset to adopt a healthier lifestyle. I intend to control my sugar level intake by taking less sugary products and will be maintaining my current exercise regime by jogging every morning. I will take more initiative to highlight any WSH issue I observe at the worksite during the tool box meeting.”

**T303 – Site Engineer, Liu Qian**

“Now I am more conscious of the food I eat every day. I can be healthier by drinking less soft drinks and eating brown rice instead of white rice. I am also increasing my exercise regime from 30 to 120 minutes weekly. When doing site walkabouts, I am more mindful of my surroundings and keep a lookout for hazards.”

**T307 – WSH Manager, S.V. Raj**

“The Total WSH Survey provided an opportunity to raise site personnel’s awareness on health matters that would otherwise be neglected. It created an awareness to:

1. Take reasonable care to protect one’s health;
2. Not engage in bad habits that may affect their health; and
3. Reinforce the mindset that “Health is an everlasting Wealth.”

## DEMAND-AGGREGATED TOTAL WSH APPROACH

A two-year pilot study was conducted to test out the model of demand aggregation through the setting up of a Total WSH Services Centre to serve an estate of SMEs.



- A total of 489 workers from 50 companies of the following job nature were involved in the study:
  - Food Processing
  - Contract Engineering
  - Wholesale and Retail

### INTERVENTION

#### 1 Employer and Top Management

- Create awareness
- Buy-in from management
- bizSAFE Level 1 training

#### 2 Supervisors and Workers

- Vision Zero mindset
- Understanding WSH hazards
- bizSAFE Level 2 training

#### 3 Supervisors and Workers

- Conduct WSH training
- Joint site walkabout
- bizSAFE Level 3 audit

#### 4 Everyone

- Health Screening
- Safety and Health Coaching

Figure 8. Intervention at Total WSH Service Centre



Roadshows to educate companies on Total WSH



In-house training on working-at-heights

### Two-year Pilot Study of Total WSH Services Centre

- A survey of participating companies showed
  - Awareness of the WSH Act improved from **33% to 69%** among respondents
  - All **50** companies obtained bizSAFE 3 certification (i.e. certified to have implemented a proper risk management plan)
  - Attainment of "Excellent" on Work Ability Index (WAI) increased by **11.1%**
  - **62%** employees who went through health coaching showed improvement in  $\geq 1$  biometric measure or lifestyle behaviour (e.g. diabetes control, blood pressure control, prevalence of unsafe behaviour)

The Work Ability Index is a validated scoring tool that assesses the individual work ability of an employee. A person with poor work ability is at risk for reduced work performance and increased work-related disability.



## Examples of Safety Intervention

**Before**

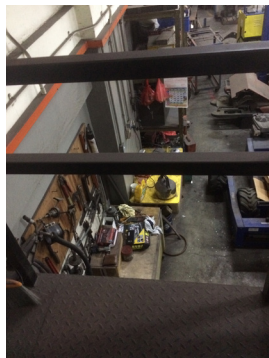


**After**



Hook mounted on the storage rack to secure ladder so as to prevent toppling and improve housekeeping

**Before**



**After**

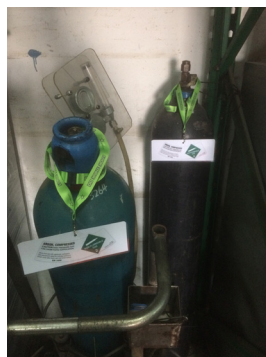


Toe boards installed to prevent objects falling off mezzanine deck

**Before**



**After**



Compressed gas cylinders labelled to identify contents and associated hazards

## POSITIVE FEEDBACK RECEIVED FROM SMES

“A healthier team is a productive team, a place where it is safe to work.

A healthier environment provides an embellishment to the productivity of the team, which in turn helps us reduce the cost of doing business in Singapore.”



**Tessolve**  
Surendra Nathan,  
Country Manager

“This programme has allowed me to notice and understand health issues with regard to our work and personal life.”



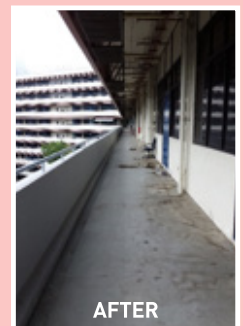
**Skytime  
Hupkee  
Foodstuff  
Pte Ltd**  
Khoo Gek  
Hoong,  
Supervisor

“I will think about Safety First whenever I carry heavy stuff or work in front of the computer for long hours.

This has also made me more conscious of what I am eating.”



**BEFORE**



**AFTER**

**Ho Heng Food & Enterprise Pte Ltd**  
Jody Tay, Admin

# HEALTHIER AND SAFER ENVIRONMENTS

## FOR PMETS AND BLUE-COLLAR WORKERS

Expanding influence through partnerships and aligning value proposition

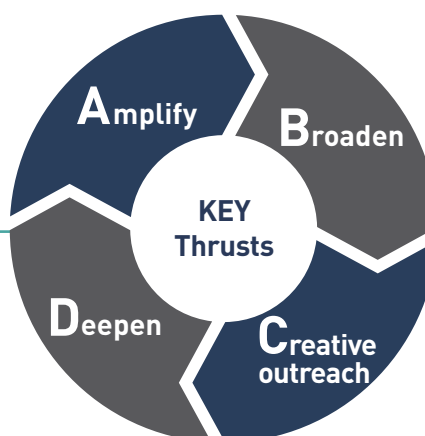


Figure 9. Progress in building healthier and safer environments

### Increasing Our Outreach by Creative Strategies — Our ABCD Outreach Strategy

**AMPLIFY AND SUSTAIN OUTREACH EFFORTS** by creating synergies across national schemes and initiatives

**DEEPEN HEALTH IMPACT** among workers by customising programmes based on health needs and profiles



**BROADEN STRATEGIC PARTNERSHIPS** with business associations to expand business networks and opportunities

**CREATIVE OUTREACH** to SMEs and bigger companies through plug-and-play corporate packages

Figure 10. ABCD outreach strategy

## THREE-PRONGED APPROACHES TO AMPLIFY OUTREACH

We would like to highlight achievements in the following three areas:

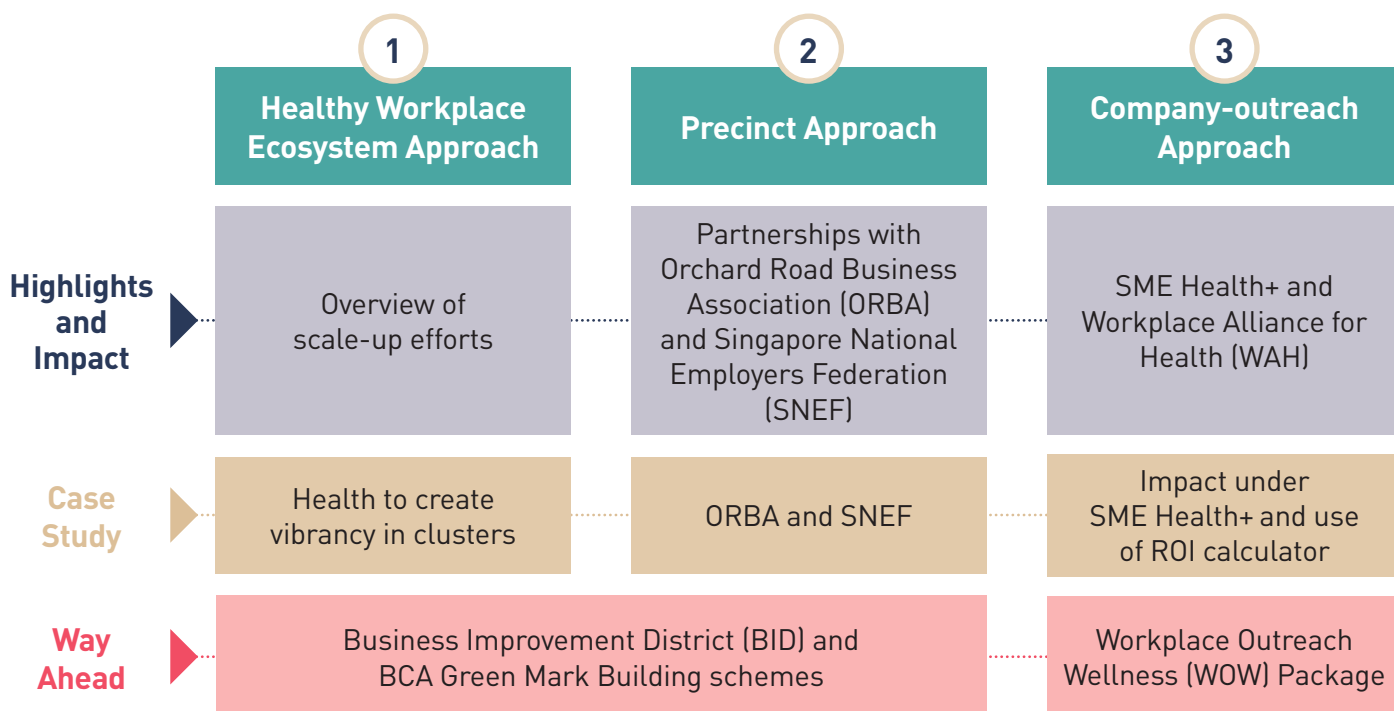


Figure 11. Three-pronged achievements in building healthier and safer environments

## 1. HWE APPROACH

HWE has witnessed positive growth trajectory since the formation of the TOC.

**Over 406,000** workers in nearly 70 HWEs have benefited from the growing movement of HWEs.

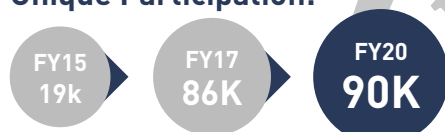
### Number of HWEs :



### Workers' Access :



### Unique Participation:



Around **1.5X** increase in Workers' Access and Cluster Growth during the current TOC term

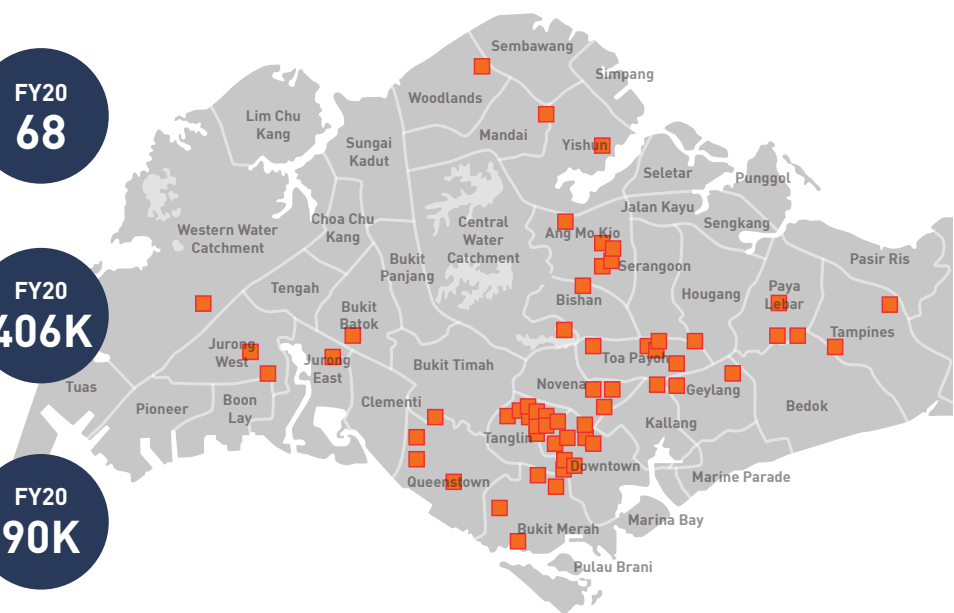


Figure 12. Map of distribution of HWEs across Singapore

## Deepened Health Impact among Workers in HWEs

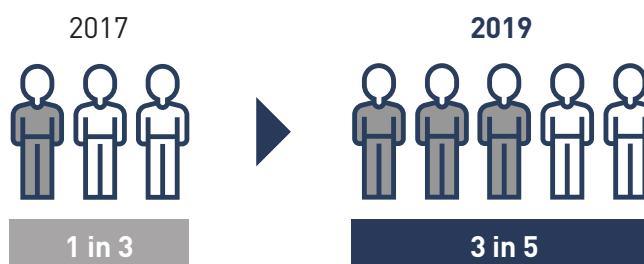
With increased traction of HWE, deepened health impact is observed among workers.

Positive improvement in  $\geq 1$  indicator was observed for post-health screening from 2017 – 2019.

### Biometric Improvement



Positive health behavioural changes were also observed among workers in terms of increased active lifestyle, in  $\geq 1$  indicator from post-health screening.



“Get Fit! Challenge”, a pilot programme comprising weigh-ins, goal settings and interim health coaching observed reductions in BMI and body fat among participants.

### BMI and Body Fat



Among returnees with BMI  $\geq 23$  kg/m<sup>2</sup>



Reduced  $\geq 1$  BMI point (average -1.6 BMI point)

Among returnees with high body fat



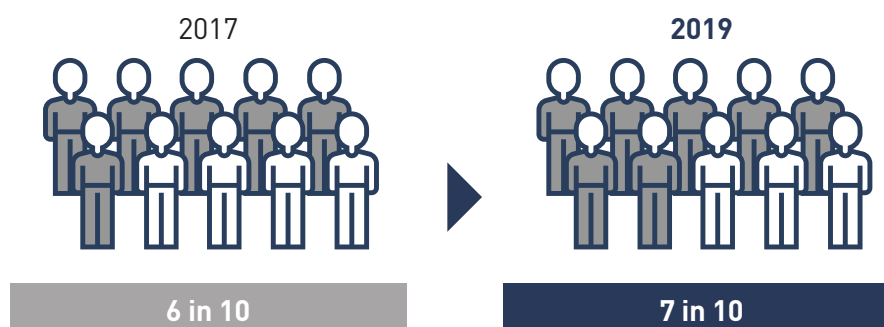
$\geq 2\%$  body fat loss (average -3.35%)

Positive health behavioural changes were also observed among workers in terms of increased active lifestyle.

### Active Time



Conversion from sedentary to active lifestyle





## Case study — City Development Limited (CDL) Converging Health and Green Elements to Create Vibrant Workplaces

Partnership with CDL has seen around **4X** increase in outreach from over **3,000** workers since 2016 to **12,000** workers in 2020.



**CITY  
DEVELOPMENTS  
LIMITED**

### “Building Value for Tomorrow, Today”

World’s Top-Ranked Real Estate Company & Top Singapore Company in 2020 in Global 100 Most Sustainable Corporations in the World

CDL, one of the leading real estate companies worldwide, has been an advocate for tangible business outcomes in its sustainability journey. Integrating health with sustainability, CDL has created more engagement and greater vibrancy in its workplaces.

#### A Key Strategic Approach to Integrate Health with Sustainability for Greater Value Creation

- “**Occupational Health, Safety and Well-being**” was consistently rated by stakeholders as **highly critical** in both 2017 and 2019’s studies during CDL’s Materiality Assessment to identify material risks and opportunities
- **Integrating health elements** with CDL’s **Environmental, Social and Governance (ESG)** Efforts, under Sustainable Development Goals (SDGs)



#### Further Creation of People, Public, Private (3P) Partnership, Advocacy and Green Building Thought Leadership

CDL has achieved key milestones in its sustainability journey, as shown in the following areas:

##### Recognised efforts for building refinement



Republic Plaza was awarded as one of the pioneer awardees for the new **BCA-HPB Green Mark for Healthier Workplaces** in 2019.

##### C-Suite Tenant Engagement



There was advocacy of Sustainability Development Goal (SDG) among 3P leadership teams and communities at the inaugural SDG Challenge in 2018. This showcased the interconnectivity of health and sustainability with like-minded private and Whole-of-Government (WOG) partners.

##### Tangible Business Outcomes

- Among top-ranking real estate companies worldwide
- Among top-ranking local developers in achieving Green Mark developments and office interiors

Note: All pictures were taken before COVID-19.





### Case study — Changi Airport Group (CAG)

#### "Transforming Workplace Health and Strengthening ONE Changi" Mindset for Partners and Workers

Partnership with CAG has seen around **150%** growth from **10,000** workers since 2017 to **15,000** workers in 2020.

Changi Airport Group proactively reaches out to workers within its ONE Changi Family. This includes key airport partners from Immigration and Checkpoints Authority (ICA), Singapore Customs, Airport Police, Ground Handling Service Providers, Auxiliary Services, Housekeeping, Ground Transportation, Retail and F&B. It does this through customised and broad-based programmes for specific workers and service sectors, as well as organisation-wide thematic events, integrating a delightful blend of health elements.

#### A Dual Approach: Curating Accessible Programmes to Reach Workers



#### Customised Programmes

- Ergonomics and pain management
- Customised health coaching and screening
- Fitness and weight management

**Across cleaning, retail, logistics and security sectors**

#### Broad-based Programmes

- Physical activities that promote fun interactions
- Lunchtime workshops to promote healthy living

**For all workers within CAG at Changi Airport Recreation Club**



## Further Strengthening of ONE Changi Identity through Thematic Events



The **ONE Changi Steps Challenge** 2018 was co-organised by CAG and HPB.

Over 5,600 airport staff participated in the 15-week challenge.



Participants of ONE Changi Fiesta 2019 collectively clocked 1 million steps within two days.

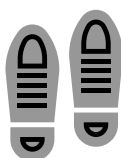
Changi Foundation donated \$10,000 to Metta School's Student Welfare Fund.

Note: All pictures were taken before COVID-19.

## ENCOURAGING IMPACT FROM ACTIVE INVOLVEMENT OF ONE CHANGI PARTNERS

### Average Weekly Step Count in ONE Changi Steps Challenge

Over **5,600 individuals** from CAG and Certis coming together to take steps towards better health



Overall, **10%** improvement in step count by end of challenge

### Fitness and Coaching among 4,000 Certis Officers

- Multiple weigh-ins, health goal setting, and interim health coaching
- Average of **3.2kg** weight loss
- Overall, **34% of participants** showed  $\geq 3\%$  improvement in  $\geq 1$  health indicator

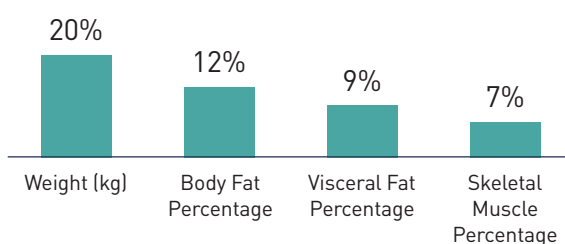


Figure 13. % of returnees with significant improvements in the four health indicators

### Chronic Disease Management Programme for 300 Smarte Carte Workers via Health Screening and Coaching



Improvement in eating habits

**75%**



Reduced body pain

**60%**



Reduced intake of sweetened drinks

**37%**



Improvement in  $\geq 1$  ergonomic measurements

**12%**

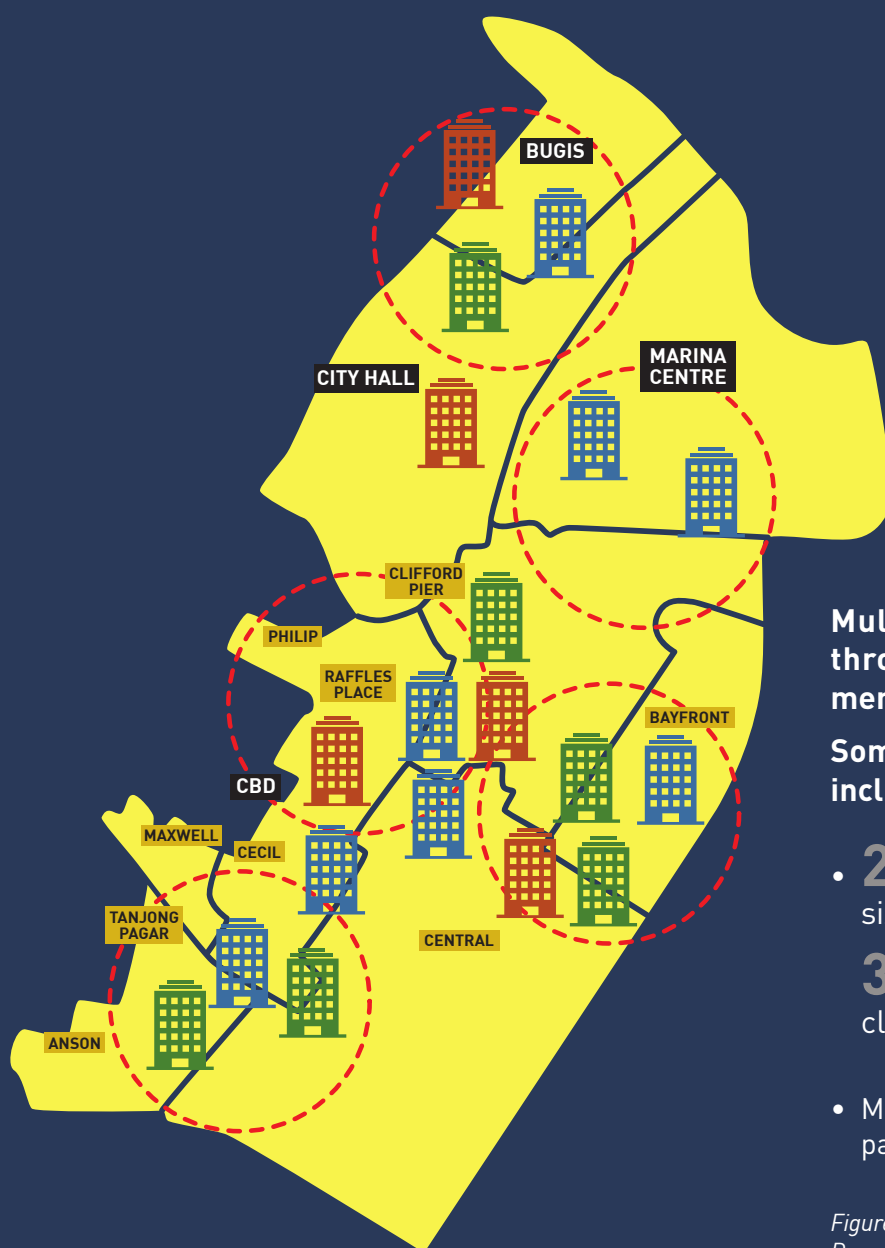
## 2. PRECINCT APPROACH

Another strategy to amplify outreach through partnering Precinct Multipliers with well established networks.



### Case study - Singapore National Employers Federation (SNEF)

Health has been used as an engagement strategy to reach young workers in One Downtown Core Business District.



Multi-faceted partnerships through SNEF's network of member companies

Some notable improvements include:

- **2X** increase in workforce size in Downtown, and nearly **3X** increase in number of clusters since 2017
- More than **50%** of participants are **<40** years old

Figure 14. Schematic representation of One Downtown Core Business District

## DEVELOPING DOWNTOWN AS ONE DOWNTOWN PRECINCT

With its extended network across the Downtown business district, SNEF has been working with partners to curate various interactive activities and workshops, across pockets of accessible areas in the district.

### Forming “Health Zones” to Implement Various Broad-based Health Activities



Working with partners like Singapore Chinese Cultural Centre to provide communal spaces and increase accessibility of activities to workers



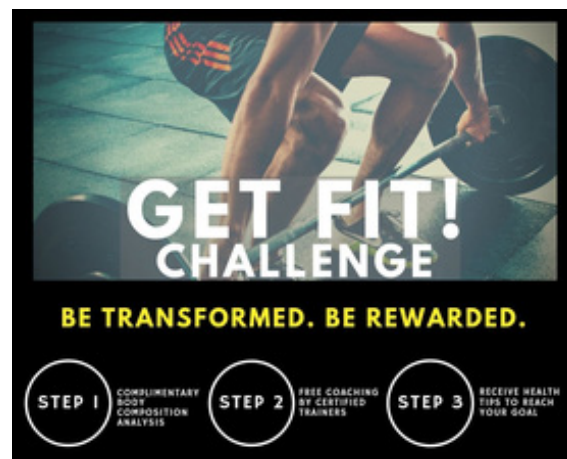
Interactive physical activity programmes with fun elements



Innovative lunchtime mental wellness workshops

### Reaping Results from Body Composition Measures Used among Young Workers

Another example of a successful thematic challenge by SNEF would be its Get Fit! Challenge in 2019, where body composition measurements were used to engage and attract young workers.



In efforts to promote physical health and well-being among younger workers, the following initiatives were implemented:

- Personal trainers explained and set goals on nutrition and physical activity together with participants, providing health tips to nudge behavioural changes
- Participants underwent body composition weigh-ins and monitoring over five months



### Drawing Young Workers in Downtown through Thematic Challenge

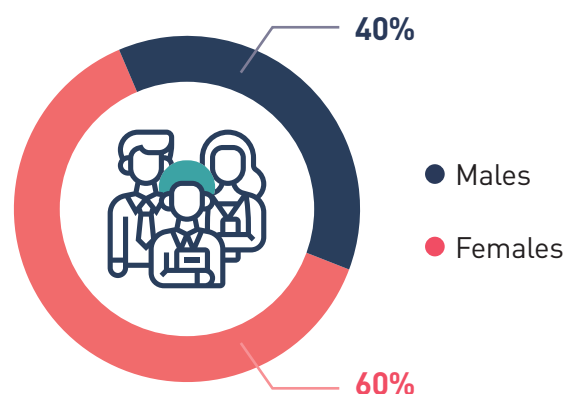
SNEF also attracted many young workers from Downtown, through its thematic events which challenged participants at heightened fitness levels, and promoted team bonding. One example would be SNEF's Downtown Amazing Race in 2019.



Thematic activities at Downtown (e.g. Amazing Race)



### Participant Demographics



### Age Profile

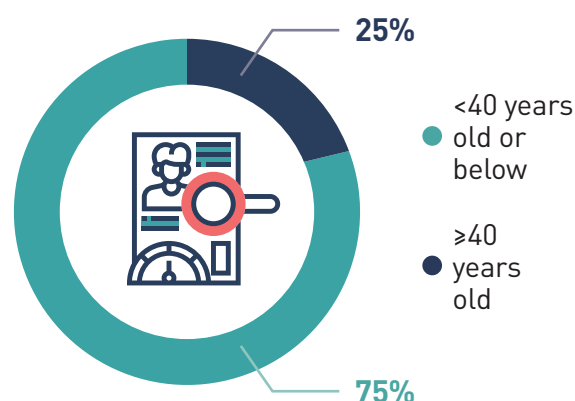


Figure 15. Participant Demographics

## IMPROVEMENT AMONG RETURNEES

**Close to 1 in 2** participants reported an increase in active time.

*Median active time increased from 280 to 310 minutes*



**Close to 1 in 10** participants with high body fat achieved ≥ 2% body fat loss (average **3.2%**).

*Average % body fat reduced from 34.5% to 31.3%*



**Close to 1 in 5** participants with moderate risk BMI reduced ≥ 1 BMI point (average -1.4 BMI point).

*Average BMI reduced from 27.5 kg/m<sup>2</sup> to 26.1 kg/m<sup>2</sup>*



**Close to 1 in 4** participants with ≥1 risk factor improved in ≥1 risk factor.



ORCHARD  
ROAD  
A GREAT STREET



Case study — Orchard Road  
Business Association (ORBA)

Engaging Mature Workers across Hard-  
to-Reach Sectors in Orchard Road

Similarly for ORBA, workplace health is an engagement strategy for enhancing the welfare of **mature workers** in Orchard Road, particularly in the retail, hospitality, food services and entertainment sectors.

Strong support from various stakeholders in Orchard Road have also contributed towards the growth of health promotion activities, together with growing epicentres.

Some notable improvements include:

- **2X** increase in number of epicentres since 2017
- Reaching out to more mature workers, of which more than **50%** of participants are >40 years old

1111 SOMERSET

The CentrePoint

fareastplaza  
the fashion incubator

義安城  
NGEE ANN CITY

plaza  
singapura

ROBINSONS

RP  
ROYAL PLAZA  
ON SCOTTS  
SINGAPORE

Singtel

TANGLIN MALL

TANGS

## Increased Participation and Health Outcomes in Programmes

ORBA adopts a worker-centric approach to customise health programmes based on job needs and retail timing. Encouraging results were also observed in its collaboration with nationwide initiatives.

### Health Coaching Customised for Job Functions



This consisted of 15- to 20-minute stretching sessions to build strength and agility, nutrition tips and ergonomics relevant for workers' job functions.



#### Body Pain

**27%** reduction in body pain

Average body pain score reduced from 5.3 to 2.8, on a rating scale of 1 to 10



#### BMI

**13%** reduction of  $\geq 1$  BMI point

Average BMI reduced from 28.4 kg/m<sup>2</sup> to 27.4 kg/m<sup>2</sup>

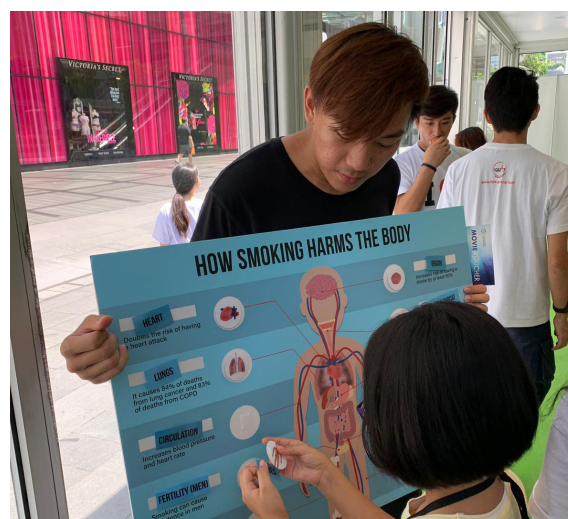


#### Practice

**35%** learnt exercises were practised at home

### Smoking Cessation Initiatives

In conjunction with the 'Orchard Road No Smoking Zone', ORBA initiated smoking cessation activities with I Quit as part of larger (nationwide) anti-smoking efforts.



**11%** of smokers reduced their daily average sticks by 3.3 sticks

Average daily sticks for smokers reduced from 9.8 to 6.5 sticks



**200**

Smokers signed up for I Quit



## Effecting Positive Lifestyle Changes among Workers

Workers provided feedback on **health benefits experienced**, such as loosened stiff bones and muscles, and showed more receptivity in adopting these exercises. ORBA has received positive testimonials from its participants.”



**Housekeeping  
Division**

Workers can **unwind and interact** with one another through these activities.”



**Sales, Purchasing and  
Customer Service Department**

ORBA provides a **good range of health promotion activities** to educate workers on healthy living.”



**Promotions and Display, Advertising & Promotions Division**

## 3. COMPANY-OUTREACH APPROACH

The TOC has reached out to companies by bringing workplace safety and health programmes to the doorsteps of workers, and this has yielded encouraging participation and outcomes.

### Enhancing Health Outreach to Hard-to-Reach SMEs

**More than 1,700 companies** have come on board Company-based programmes, benefiting **more than 33,000 workers**

#### SME Health+



**29,100 participants**  
from **1,736 SMEs**



with

**120,939 workforce size**



#### Workplace Alliance for Health (WAH)

**4,320 participants**  
from **36 Large Companies/ Organisations**



with

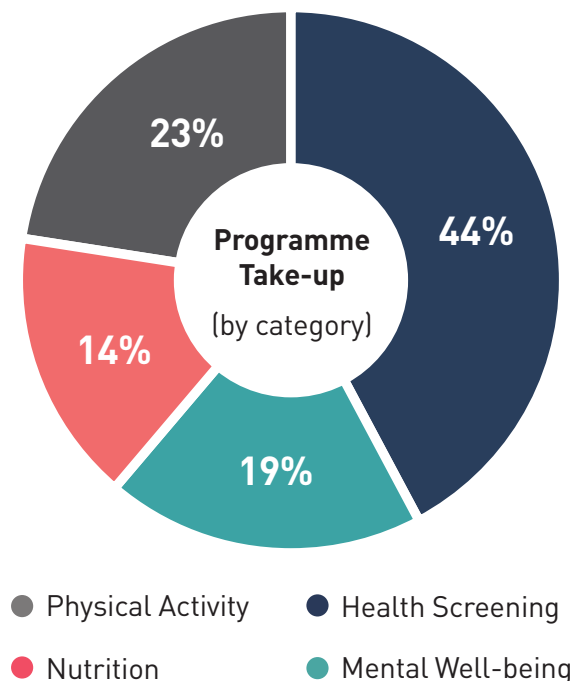
**65,734 workforce size**



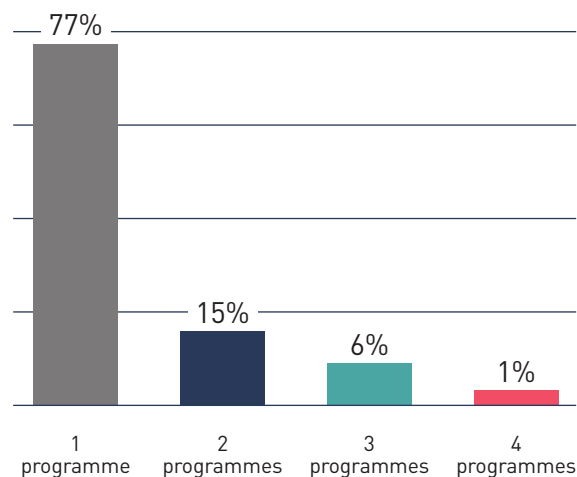
Figure 16. Overview of Company-Outreach achievements

## Health Screening Activities — High Subscription Rates and Improved Biometric Measurements

Close to 1 in 2 participating SMEs have taken up health screening



No. of programmes purchased by companies



Moving forward, we will increase promotional efforts to encourage more SMEs to take up programmes across different programme categories.

1 in 5 participants saw improvement in at least 1 biometric measurement



**15%** of participants' blood pressure readings went from "Abnormal" to "Normal" status



**10%** of participants' glucose and lipid levels went from "Abnormal" to "Normal" Status



**4%** of participants saw an improvement in  $\geq 1$  BMI point



### Case Study — SME Health+

#### Improving Employees' Health through a Customised, Plug-and-Play Model

At Ang Mo Kio-Thye Hua Kwan (AMK-THK) Hospital, Workplace Health Promotion (WHP) programmes were implemented based on needs and gaps identified.

Beyond health screening, the following programmes were also implemented:

### Nutrition



Workshops focusing on topics such as healthy eating habits, ageing with good nutrition and combating high cholesterol

### Physical Activity



Cardio and strength-training programmes to cater to varying health needs

### Mental Well-being



- For Employees: Stress and anxiety management
- For Supervisors: Capacity building workshops to support employees with mental health needs

## Return-on-Investment (ROI)

### Promoting WHP Initiatives through a Localised WHP ROI Calculator

A localised WHP Return-on-Investment (ROI) Calculator was developed to help companies engage their staff in WHP initiatives and cater to specific company needs.

This online tool justifies investment on WHP. It generates WHP ROI projections based on key inputs by companies (e.g. productivity, staff engagement, absenteeism).

Benefits include:



**Helping HR managers advocate health promotion efforts to multi stakeholders**

- ✓ Includes **long-term savings** from productivity as well as more immediate gains



**Supporting value-for-money investments in health promotion**

- ✓ Helps companies to scope an appropriate WHP based on **employees' demographic profile** and **various cost drivers** involved



**Strengthening the implementation of health promotion programmes**

- ✓ Supports **decision-making** on factors which could affect the eventual gains from health promotion efforts

# KEEPING OUR MATURE WORKERS HEALTHY AND PRODUCTIVE

Expanding efforts to engage more mature workers

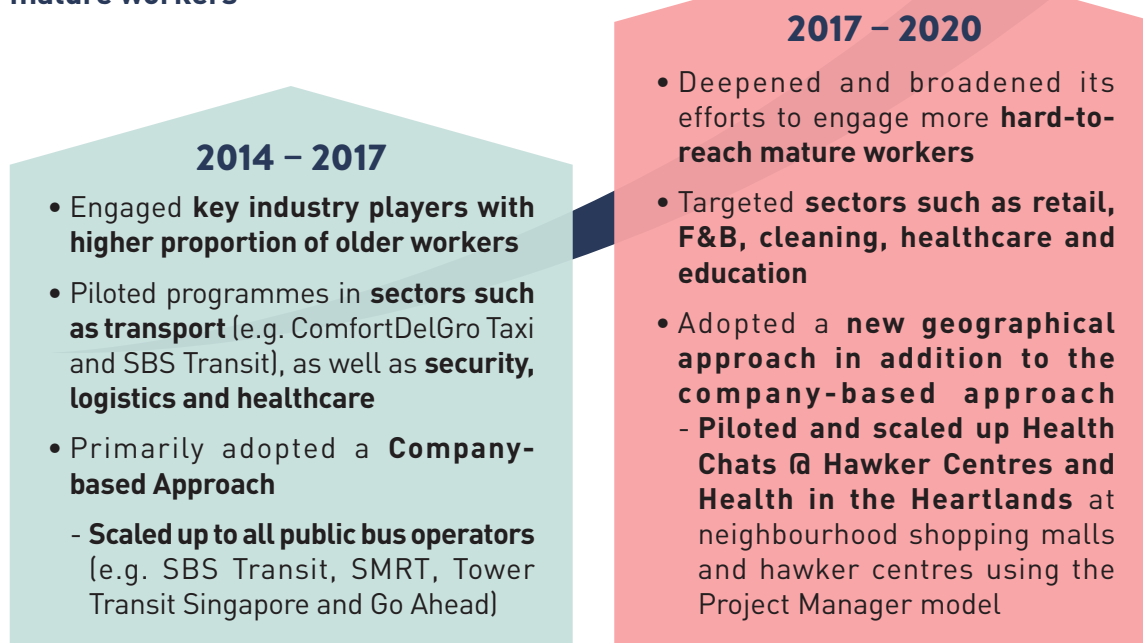


Figure 17. Progress of mature workers outreach



To date, **over 133,000 workers** have access to our mature workers programme and **more than 94,000 workers** have participated in the programme.

## THREE-PRONGED APPROACH TO EXPAND ENGAGEMENT OF MATURE WORKERS

We would like to highlight achievements in the following three areas:

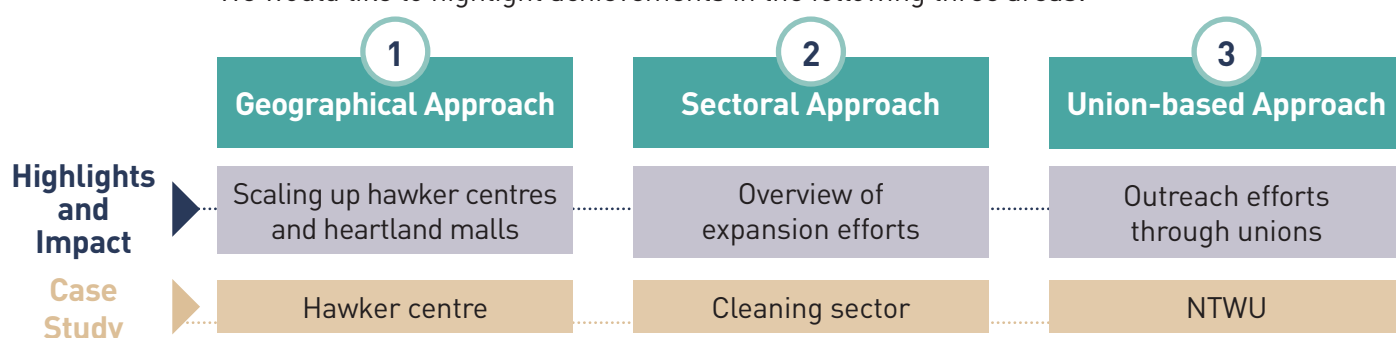


Figure 18. Three-pronged achievements in mature worker outreach



## 1. GEOGRAPHICAL APPROACH

### Health Chats @ Hawker Centres

The TOC adopted a geographical approach to engage hard-to-reach workers in the retail, F&B and cleaning sectors. Workers in these sectors tend to have a higher proportion of workers who are over 40 years old and at a higher risk of developing chronic illnesses due to their age.

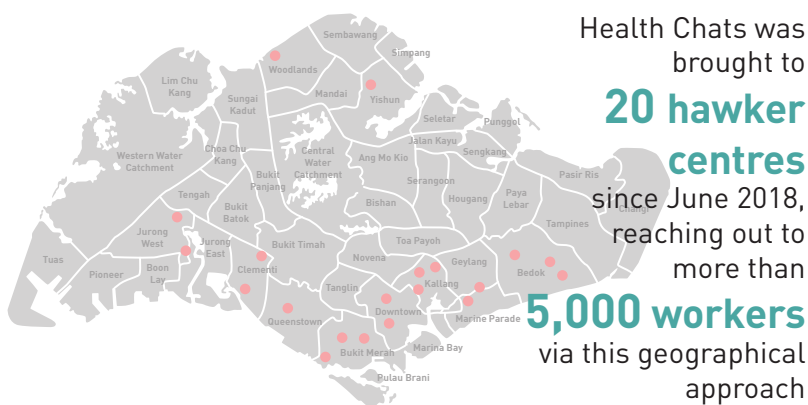


Figure 19. Map of Health Chats @ Hawker Centres across Singapore

### The participating hawker centres include:

Albert Centre Market & Food Centre, Geylang Serai Market, Ghim Moh Market & Food Centre, Tekka Market, Chinatown Complex, Tiong Bahru Market, Yuhua Market & Hawker Centre, Geylang Bahru Market and Food Centre, and many more.

### Health Checks and Health Coaching

This pertained to chronic disease management, healthy eating, exercises, joint care and ergonomics, among others.



BMI and blood pressure measurements



Strength, balance and flexibility exercises



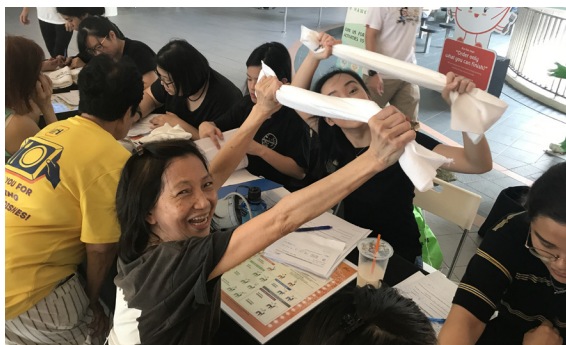
Coaching on healthier eating



Ergonomic lifting techniques

Our health activities are made convenient and brought directly to workers with unstructured work hours. Often times, due to the job nature of the workers, they are plagued with lower back and leg pain. Thus, this programme is customised to provide ergonomic tips — proper weight-lifting exercises to minimise back injuries, as well as equip them with bite-sized information on leading a healthy lifestyle and managing chronic disease.

Over **5,000 workers** have participated in Health Chats @ Hawker Centres.



### Positive Changes in Health Indicators and Lifestyle Behaviours among Participants:



**71%** of participants who reported bodily pain experienced a reduction in pain



**59%** adopted  $\geq 1$  healthier eating habit



**32%** of participants with abnormal blood pressure results had improvements in their blood pressure levels



**28%** increased their minutes of weekly physical activity time

### TESTIMONIALS FROM PARTICIPANTS OF HEALTH CHATS @ HAWKER CENTRES

“I feel very touched that HPB has brought this programme to us hawkers. We have definitely benefited from it. Even though we are very busy, we have learnt things like doing simple exercises to keep ourselves healthy.”

**Ms Tan,**  
Albert Centre Market & Food Centre



“I appreciate that this programme has been brought to the hawker centre. It is a good initiative that has taught me basic exercises I can do at home after work.”



**Mr Tay**  
Yuhua Market & Hawker Centre

“The most important part of this programme is that the Health Chats team is here monthly to take my BP and BMI. The monthly chats assure me that my health is on the right track and if there is something amiss, I know I can approach my doctor immediately.”

**Mr Tay**  
Geylang Bahru Market & Food Centre





## 2. SECTORAL APPROACH

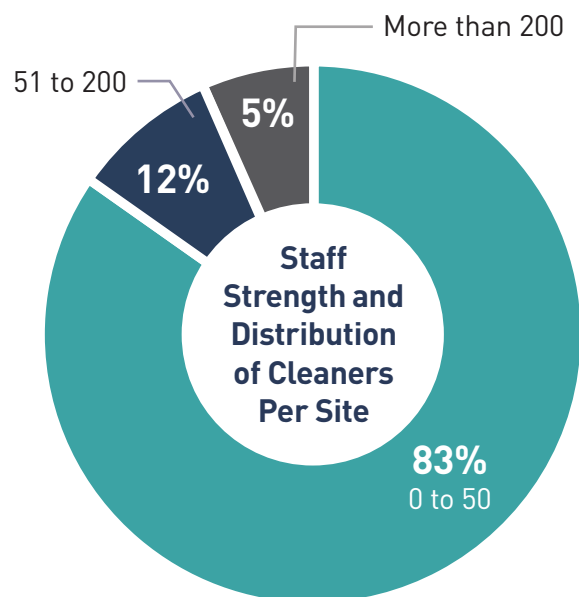
### Expansion of Efforts to the Cleaning Sector

#### Highly-fragmented Cleaning Industry

- **73%** of total workforce of **52,000** cleaners are Singaporean / PRs
- Cleaners are scattered across more than **15,000** buildings

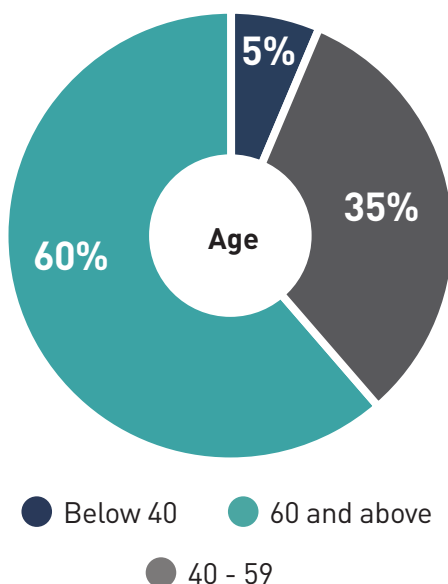


Source: NEA  
1 Sept 2014

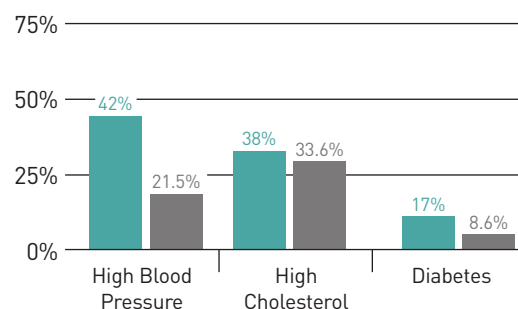


#### Customised Programmes Based on Profile of Cleaners

- Generally mature in age
- Poorer health status than the general population — Higher prevalence of chronic health conditions, with more than half having  $\geq 1$  condition



#### Percentage of Participants with Existing Chronic Diseases



■ Cleaners Surveyed (2014 - 2016)  
■ National Population Health Survey 2017 (General Population)

Source: Basic health surveys with SP, RP and MOE school cleaners (n = 1055) between 2014 and 2016

### Three-Pronged Strategy in Reaching Cleaners

**Company-based** approach by targeting key market leaders



**Geographical** approach by targeting locations with many cleaners

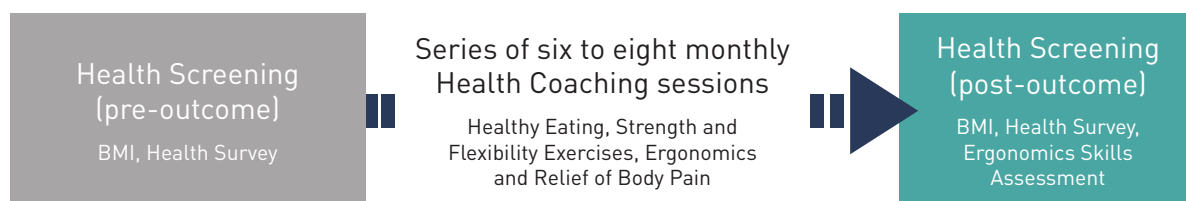


**Union-led events** where cleaners receive updates and training



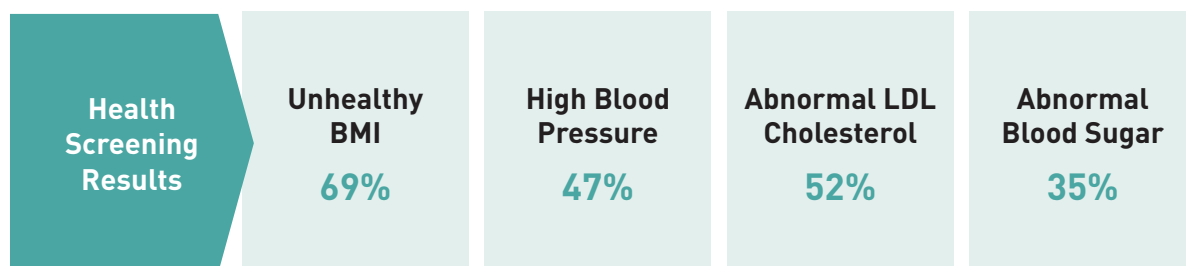
### Overview of Programme Model to Address Health Needs

**Aim: Chronic Disease and Pain Management**



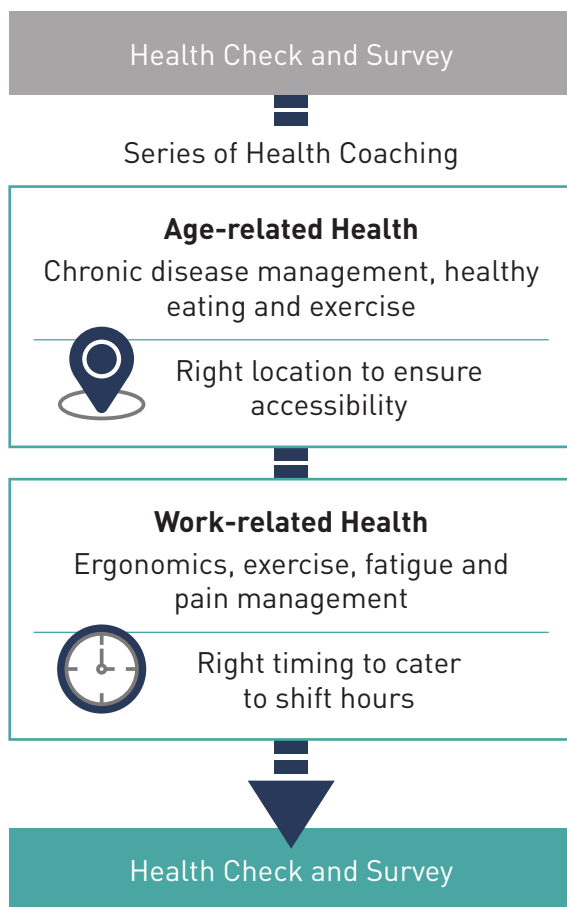
#### Case Study: Ramky

The above programme model was implemented among Ramky's employees, in order to make healthcare relevant and accessible for them.



Source: Basic health screening for Ramky's employees, N(BMI & BP) = 156, N(LDL and Blood Sugar) = 109

## Customised Programme for Ramky



Note: All pictures were taken before COVID-19.

## Positive Impacts on Participants' Health and Lifestyle Habits

### Results of selected Ramky sites

(Changi Airport Terminal 3 and Singapore American School Programmes)



**72%** of participants improved their eating habits



**61%** of participants who had body pain experienced a reduction in pain



**45%** of participants with abnormal screening results showed improvement in the 2<sup>nd</sup> screening

“In the past, because I wanted to do my work faster, I didn’t realise I was using wrong techniques that could increase my chances of injury. Now, my colleagues and I always remind one another to practise the tips we learnt from the coaches.”

#### Chua Chin Hock

Length of Service in Changi: Over 21 years

“I really enjoyed the sessions, and have been practising what I was taught, such as the correct way to handle the mop so as to not overstrain my shoulder. This is the first time I’ve experienced a programme where coaches come to the workplace and teach me useful techniques that I can use every day.”

#### Noor Hayati

Length of Service in Changi: Over 15 years

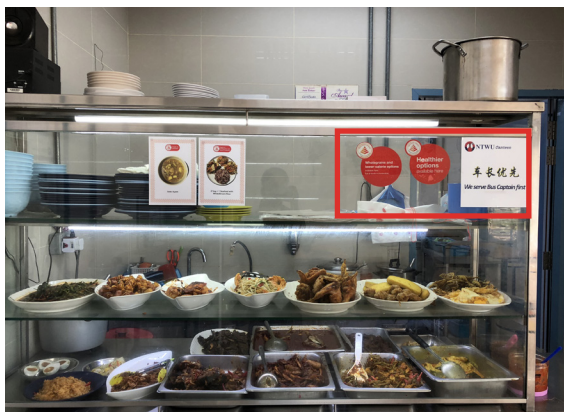
### 3. UNION-BASED APPROACH

#### Engaging Workers through Partnerships with Trade Unions



#### Case Study: NTWU

TOC partnered with National Transport Workers Union (NTWU) to increase access to healthier food options for public transport operators.



Strong partnership with NTWU allowed the conversion of all 45 canteens in bus depots and interchanges under the Healthier Dining Programme (HDP) — canteen menu boards are tagged to promote healthier dishes.



- Health coaching sessions were held for bus captains to raise their awareness on healthy eating, so as to create demand for healthier dishes sold at the canteens.
- NTWU provided meal vouchers for the purchase of healthier dishes at the canteens.

After the HDP roll-out, **68%** of bus captains indicated that they chose healthier options when eating at NTWU canteens

**“In NTWU, we place our workers’ health and safety as our utmost priority, and recognise that our canteens are usually the first touchpoint for workers to have their daily meals. Therefore, we are constantly encouraging healthier choices at our canteens.”**

**Mr Fang Chin Poh, General Secretary (NTWU)**

**“I have been eating brown rice at our canteens for more than a year. It aids in digestion, and I have never felt healthier!”**

**Mr Leong Kok San, Bus Captain**



## ENSURING RELEVANCE OF MATURE WORKERS PROGRAMMES

The TOC works to ensure that programmes catered to mature workers continue to stay relevant to meet the rising needs of Singapore's ageing workforce.



Figure 20. Array of programmes catered to mature workers

Note: All pictures were taken before COVID-19.

# KEY RECOMMENDATIONS

The Total WSH Programme has certainly gained momentum among workers in recent years. To address prevailing concerns, the TOC aims to enhance it in the following ways:

## Development and Scaling-Up of Total WSH Approach

To scale up and quicken the roll-out of the Total WSH Programme to more companies, differentiated models for companies of smaller sizes and varying needs would need to be adopted. This includes modifying the programme to allow simpler forms of Assessment for SMEs with fewer workers and less complex operations.

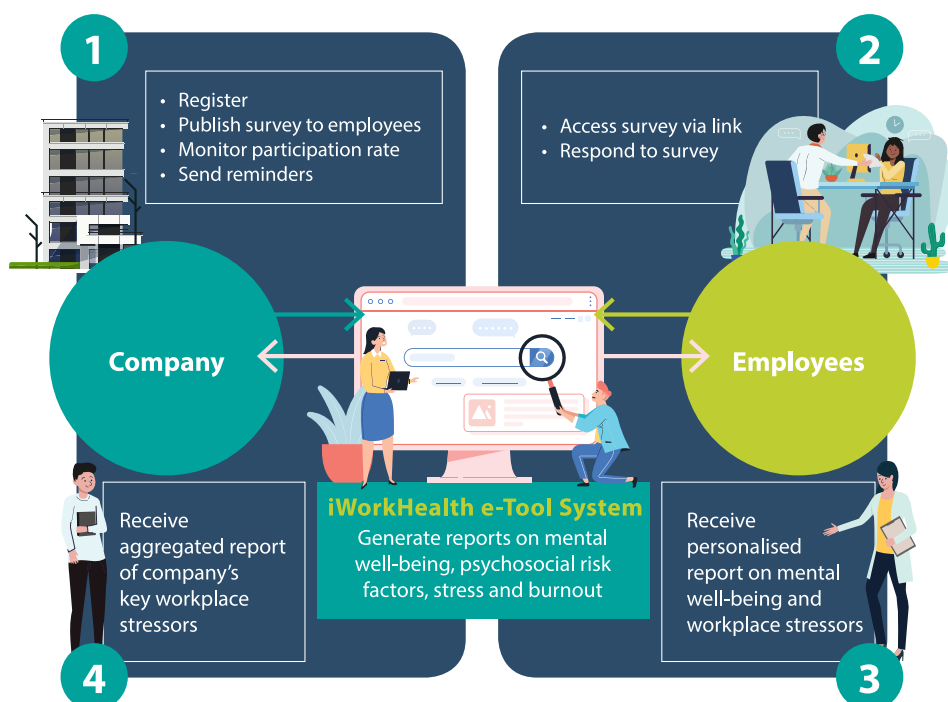
## Increased Focus on Mental Well-being

Work stress is on the rise in workplaces, and if not managed proactively, it could have consequences for companies and employees. Take early intervention measures to identify workplace stressors using the iWorkHealth toolkit and embark on the Total WSH Programme to prevent the onset of downstream problems. The iWorkHealth will be made available to all by the first half of 2021.

The **Tripartite Advisory on Mental Well-being at Workplaces**, which provides practical guidance and resources for both employers and employees in managing stress, was released in the second half of 2020. With greater adoption of iWorkhealth and recommended measures within the Advisory, we can expect mental well-being to be better looked after in workplaces, especially with the disruptions brought about by COVID-19.

For more information on iWorkhealth: [www.iworkhealth.sg](http://www.iworkhealth.sg)

For more information on the Tripartite Advisory on Mental Well-being at Workplaces: <https://www.mom.gov.sg/covid-19/tripartite-advisory-on-mental-well-being-at-workplaces>





## WAY AHEAD

### Enhancing Outreach to Companies: Workplace Outreach Wellness Packages

By providing a **more streamlined source of plug-and-play offerings for impactful health programmes**, companies can take up any of the following health packages based on their existing resources and employees' health needs.

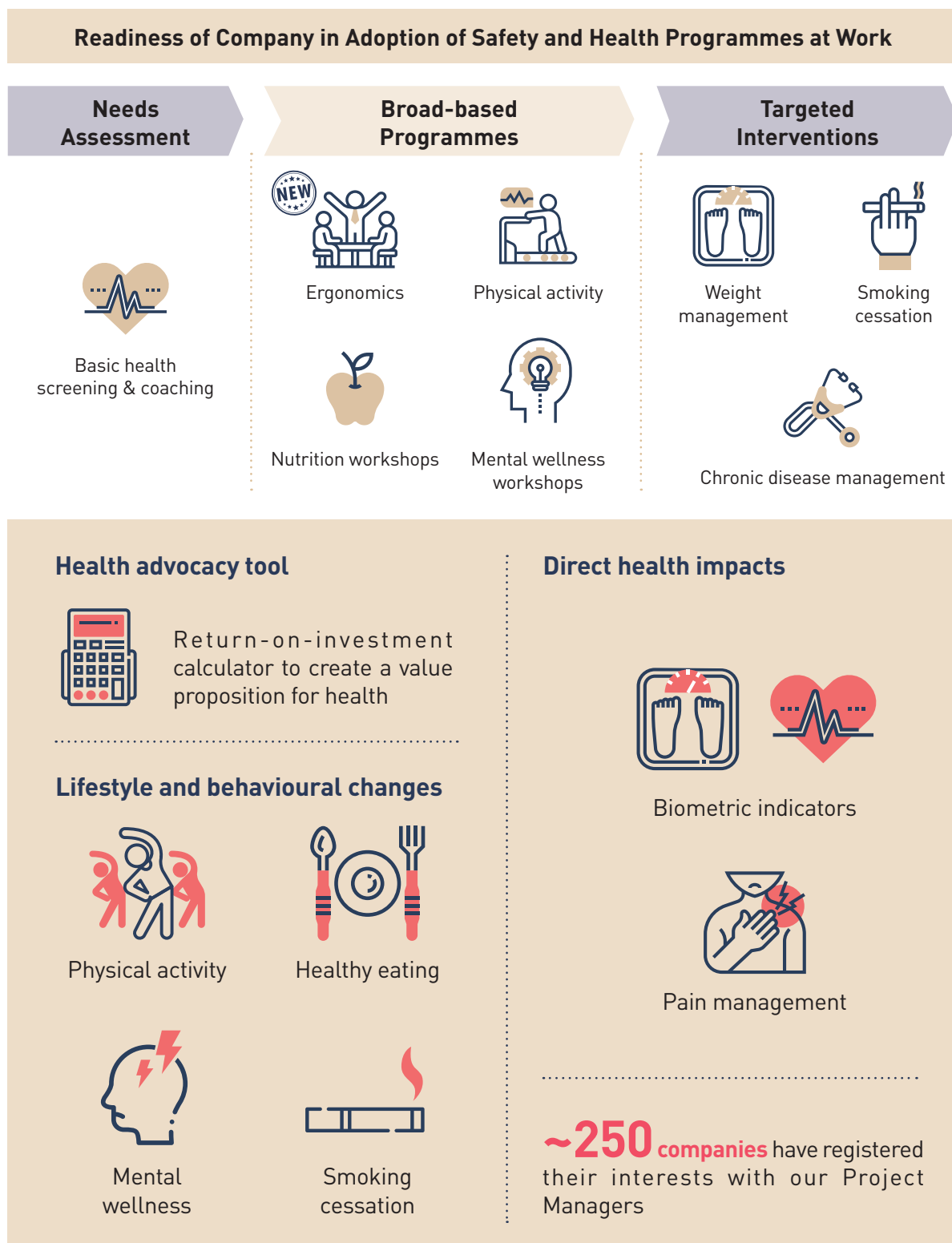


Figure 21. Plug-and-play Workplace Outreach Wellness (WOW) Packages

Note: These programmes may be conducted on-site or off-site, and via digital or traditional platforms.

### BCA Green Mark Scheme for Workplaces

Formed in 2018, the **BCA-HPB Green Mark for Healthier Workplaces** scheme incorporates health within workplaces through policy and programming. It does this through:

- Recognising companies which **emphasise the health and well-being** of its users and occupants
- **Enhancing the business case for office sustainability** through creating a supportive workplace environment

To date, there are **23 participating sites** impacting **11,600 workers**.



### BCA Green Mark Schemes for Buildings

The **BCA Green Mark Schemes** are poised to be **the way ahead for existing and new buildings**.

The schemes **create further synergies in the built environment** to influence ecosystems and infrastructure, and is an opportunity to **strategically influence health elements** for buildings to address climate change challenges.

In partnership with HPB, BCA is committed to explore how the Green Mark schemes could benchmark with international schemes that focus on human-centred design and health promotion.

### Business Improvement District (BID): Placemaking and Health Collaboration with URA Pilot



Learning from the success of the Precinct Approach, there is a concerted effort to leverage URA's placemaking initiative. This empowers stakeholders to take greater ownership of their precincts and public spaces to inject vibrancy into workplaces. Initial success has been observed in Marina Bay, Marina Centre and China Place.

The integration of health is a key strategic initiative in placemaking as it allows greater economies of scale, and greater impact and visibility.

### Catering to the Needs of the Growing Gig Economy

With a growing gig economy, there will be more unstructured worksites. Points of congregation need to be leveraged so as to transcend these physical boundaries. The health needs of these freelancers are met by:

COMFORTDELGRO  
TAXI

SMRT  
TAXIS

Grab



- **Engaging freelancers** through close partnerships with key industry players
- Tapping on geographical approaches via **regular congregation platforms and public spaces** (e.g. private hire drivers' dialogue sessions, carnivals, hawker centres, heartland malls)

fse  
Freelancers and  
Self-employed

NICA  
NATIONAL INSTRUCTORS & COACHES ASSOCIATION



- **Leveraging Trade Union and Association platforms** to engage their members who are freelancers
- Posting relevant health messages and tips via **online channels** (e.g. e-newsletters, push notifications)

# ORGANISATION CHART

## COMPOSITION OF THE TRIPARTITE OVERSIGHT COMMITTEE ON WORKPLACE SAFETY AND HEALTH (2017 – 2020)

### Co-chairs

**Dr Amy Khor**

Former Senior Minister of State  
**Ministry of Health**

**Mr Zaqy Mohamad**

Senior Minister of State  
**Ministry of Manpower**

### Members

**Prof Chia Kee Seng**

Professor, Founding Dean  
**Saw Swee Hock School of  
Public Health**

**Ms Cynthia Leow**

Former Director (Workforce  
Planning & Capabilities)  
**Public Service Division**

**Er. Ng Say Cheong**

Group Director (Building &  
Infrastructure)  
**Housing Development Board**

**Mr Philbert Chua**

Head of HSSE of PSA South  
East Asia Region  
**Port of Singapore Authority**

**Mr Larry Lim**

Former Assistant Vice President,  
Customer Experience  
**CapitaLand Singapore Business  
Park & Commercial**

**Ms Anthea Ong**

Founder  
**WorkWell Leaders Workgroup**

**Mr Heah Soon Poh**

Assistant Chief Executive Officer  
(Engineering & Operations Group)  
**JTC Corporation**

**Mr Simon Lim**

Director (Workplace Health and  
Outreach Division)  
**Health Promotion Board**

**Mr Silas Sng**

Divisional Director (Occupational  
Safety and Health Division)  
**Ministry of Manpower**

**Mr Heng Chiang Gnee**

Immediate Past Chairman  
**Workplace Safety & Health Council**

**Mr Kenneth Loo**

Immediate Past President  
**Singapore Contractors Association  
Limited**

**Mr Augustine Tan**

Immediate Past President  
**Real Estate Developers'  
Association of Singapore**

**Dr Lyn James**

Former Director (Epidemiology and  
Disease Control Division)  
**Ministry of Health**

**Mr Edwin Lye**

Group Director (Industrial Relations  
and Workplace Partnerships)  
**Singapore National Employers  
Federation**

**Ms Melissa Tan**

Chairman  
**Waste Management and Recycling  
Association of Singapore**

**Mr Simon Kuik**

President  
**Association of Singapore Marine  
Industries**

**Mr John Ng**

Chairman  
**Workplace Safety & Health Council**

**Dr Andrew Epaphroditus Tay**

Former Benefits Consultant (Life@),  
APAC  
**Facebook**

**Mr Kuo Dyi Chang**

Assistant Vice President  
(Group HSSE)  
**Port of Singapore Authority**

**Mr Milton Ng**

2nd Advisor  
**Environmental Management  
Association of Singapore**

**Mr Melvin Yong Yik Chye**

Assistant Secretary General  
**National Trades Union Congress**

**Mr Eddie Lee**

Former Executive Director  
**Singapore Human Resources  
Institute**

**Mr Zee Yoong Kang**

Chief Executive Officer  
**Health Promotion Board**

## COMPOSITION OF TOC SUB-COMMITTEES





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