Healthy Eating for Healthy Development of Children

15th ASEAN and Japan Meeting on Caring Societies
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Health Promotion Board, Singapore
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Singapore is facing a childhood obesity challenge

According to the HBP findings, the biggest increase in the proportion of overweight people came during the transition to work. (PHOTO: KUA CHEE SIONG)

Prevalence of overweight and severely overweight among mainstream school students (age 7 to 18)

<table>
<thead>
<tr>
<th>Year</th>
<th>Overweight</th>
<th>Severely overweight</th>
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<tbody>
<tr>
<td>2010</td>
<td>11%</td>
<td>12%</td>
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Overweight: BMI-for-age 90th to <97th percentile
Severely overweight: BMI-for-age ≥ 97th percentile

The majority of seniors eat home-cooked food but dietary quality is less than optimal.

Singaporeans consumed 9 times more refined carbohydrate vs unrefined carbohydrate (associated with increased risk of obesity and diabetes especially in Asians).

Average Singaporean consumes 2624 calories daily (30% more than a decade ago) and with 60% of Singaporeans exceeding their daily recommended intake.

Consumption of >1 sweetened drinks up to 74% (2%pp)
Consumption of fruits & veg declined from 40% to 34%
Obesity prevalence for children increased from 10% to 12%

What do the insights and research data tell us?

Possible factors

- Physical activity has increased
- Preference for convenience
- Healthy is not tasty
- Increased portion size & meal frequency
- Calorie dense, nutrient-poor food & drinks
- Lack of healthier choice alternatives

Food

Mindset
Singapore invested in a national food strategy designed to shape citizens’ eating habits by reducing diet quantity and improving in diet quality.

## Reduce Diet Quantity & Improve Diet Quality

<table>
<thead>
<tr>
<th>Principles</th>
<th>Reduce Diet Quantity &amp; Improve Diet Quality</th>
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<tbody>
<tr>
<td>Healthy Eating with an emphasis on:</td>
<td>To reinforce healthy eating habits with focus on:</td>
</tr>
<tr>
<td>• Eating balanced healthy meals</td>
<td>• Less calories, Less Saturated Fat, Less Sugar</td>
</tr>
<tr>
<td>• Choosing water first or lower sugar drinks</td>
<td>• More Wholegrain</td>
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<td></td>
<td><strong>For Seniors</strong>, special focus on Higher Protein &amp; Calcium intake</td>
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### Design food programmes that cater to different population segments and needs

### Create a multi-stakeholder ecosystem that supports healthy eating anywhere and anytime.
Our approach was to design food programmes that cater to different population segments and needs,

**Dining at home**

*Healthy Choice Symbol (HCS)*
- Healthier packaged food options across 70 categories,
- More than 2,500 products available in all supermarkets and convenience stores

*Healthy Meal at Childcare Centre (HMCCP), Healthy Meals in Schools (HMSP):*
- Meals that are higher in wholegrain, fruits & vegetables, lower in saturated fat, sugar and salt;
- Beverages with lower sugar option,

*Healthy Dining Program (HDP)*
- Institutes of Higher Learning

**Dining out**

*Healthier Dining Programme (HDP) & Healthier Ingredient Scheme (HIS)*
- Meals that are lower in calories, higher in wholegrain in all types of food outlets around where you work, live and play,
- Food cooked with healthier oil (lower in saturated fat),
- Beverages with lower sugar option,

*Healthier Catering, Water First Policies*
- Public Service Agencies as early adopters

*HIS to be transited to Healthier Ingredient Development Scheme (HIDS) in Jul 17*

Food Programs are integrated under **Healthy Aging** with focus on senior nutrition that encourages:
- Higher Calcium & Protein intake

**Healthy eating and food messages are integrated into WOD – Let’s Beat Diabetes campaign**
And create an ecosystem that supports healthy eating anywhere and anytime.

Eco-systemic Approach

- Make healthier choice default and accessible
- Change the environment and context to nudge consumers
- Generate demand for healthier options

Inform

Shift to

Influence

Public agencies
Grocery Shopping
Live (Community)
Food and Beverage Industry
Dine Out
Point of Sales nudges
Work
School
The quality of food and beverages served had not changed much over the past few decades as school food guidelines were not rigorously implemented.

Provision of fruit and vegetables was insufficient and consumption was low.

Deep-fried & preserved food continued to be sold. Sugared drinks were easily accessible.

What was the impetus for change?

Childhood obesity was beginning to trend upwards.

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Data sources:
*HPB Student Healthy Survey 2006, 2009
#Ministry of Education obesity prevalence data
In 2012, Singapore implemented and enforced standards for quality of food served in childcare and educational institutions with the following key principles:

1. Improve the quality and taste of food served
2. Inculcate healthy eating habits from young
3. Make healthier eating the default in schools
4. Increase healthier options available in tertiary institutions

The programme required educational institutions* to:

- Saturated fat (promote use of healthier oil)
- Sugar
- Salt
- Whole-grains
- Fruit
- Vegetables
- Water or lower sugar beverages

Participating outlets in tertiary institutions were required to sell lower calorie meals

* Educational institutions refer to Childcare Centres, Mainstream Schools and Institutes of Higher Learning.
As soon as implementation was underway, unforeseen challenges and pushbacks arose.

Untrained cooks/vendors lacked understanding of the guidelines.

Operationally tedious.

There were also storage issues.

Supply of healthier ingredients lagged behind demand.

Higher cost was a concern.

Canteen vendors were afraid of losing business and money.

Students did not like the taste of whole-grains and did not eat fruit/vegetables.

High wastage of fruit and vegetables.

They were unhappy when Fried Food Day was abolished.

Parents complained about the increased price of meals.

Adoption rate for the programmes was low and progress severely hindered.
It was necessary to galvanise strong support from stakeholders to improve implementation, generate demand and make healthier options sustainable.

Create a supportive and sustainable environment with pervasive healthier options...

**Childcare Centres**
- Inclusion of HMCCP guidelines in ECDA’s Revised Licensing Criteria by 2018

**Mainstream School**
- Inclusion of HMSP guidelines into tenancy agreement for canteen vendors
- Ministry of Education directive: all vendors to be trained by Oct 2016 and all schools to implement HMSP by 2017

**Institutes of Higher Learnings**
- Inclusion of HDP guidelines into tenancy agreement for F&B outlets
- Expand from mass eating outlets e.g. canteen to cafes, restaurants etc

**Industry**
- Support HCS programme
- Increase range of products that met HCS guidelines

**Active collaboration with key influencers to encourage and reinforce habit forming**

**Schools**
- Phase-in approach towards implementation
- Sharing of best practices
- Facilitation of Learning Journeys
- Implementation toolkit for schools

**Cooks/Canteen Vendors**
- Hands-on training to prepare tasty and healthy meals
- Monetary incentives
- Handholding and consultation
- Audit by independent parties
- List of healthier ingredient suppliers

**Students**
- Nutrition education in curriculum
- Campaigns and visual cues at points-of-sale to increase mindshare
- Resources for schools to increase awareness and consumption of healthy meals

**Parents**
- Communication to parents about the programme
- Resources to increase awareness of healthy eating
- Parents as catalyst for change
With time, programme adoption rate and compliance to guidelines improved, consumption patterns started to shift.

**Compliance with Healthy Meals Programme guidelines**

- **Childcare Centres**
  - Sugar <6%: 92% (2015), 94% (2016)
  - Low fat alternatives: 80% (2015), 37% (2016)
  - Fruit and vegetables: 86% (2015), 87% (2016)
  - Wholegrains: 79% (2015), 88% (2016)

- **Schools**
  - Sugar <6%: 97% (2015), 98% (2016)
  - Low fat alternatives: 92% (2015), 99% (2016)
  - 4 food groups: 91% (2015), 96% (2016)
  - Wholegrains: 84% (2015), 96% (2016)

**Sale of healthier food and drinks in tertiary institutions**

- **SIM’s ‘Clicker’ Project on HDP Sales**
  - Food: 878 (323) to 1,756 (674)
  - Drinks: 323 (674) to 674 (323)

**Consumption habits among school children**

- **HMS P pre- and post-evaluation results**
  - Aware of daily recommended number of servings for fruit and vegetables:
    - Pre-programme: 67%
    - 6 months Post programme: 73%
  - Consume at least 2 servings of fruits and 2 servings of vegetables:
    - Pre-programme: 45%
    - 6 months Post programme: 56%
  - Consume wholegrains 5 or more times a week:
    - Pre-programme: 38%
    - 6 months Post programme: 54%
Today, over half a million students have access to healthier meals.

Increase from 130,000 to 500,000 students having access to at least 1 healthy meal daily!

2014
- 100 childcare centres
- 92 Schools
- 6 F&B outlets in IHLs

Mar 2017
- 848 childcare centres
- 359 schools
- 52 F&B outlets in IHLs

Universe:
- 1200 childcare centres
- 359 schools
- 188 outlets in IHLs
With default healthy meals & the use of repeated cues, behavioural change seems to have taken root.

- Greater acceptance of fruit by students
- Greater acceptance of healthier food - wholegrains and vegetables.
- Preschoolers become agents of change, encouraging their parents to buy healthier food.
- Youth in IHLs are selecting healthier options.
Implementing Healthy Meals Programme in Singapore Schools: Lessons learnt

- Engage key decision makers and stakeholders for support and proactively keep them updated on progress and compliance
- Ensure market availability of healthier products to meet the programme requirements
- Implement a phased approach as schools have different needs and are at different stages of readiness
- Put in place a compliance audit process to ensure that schools continue to abide with the requirements
- Provide value-added products and services to ensure ease of implementation for stakeholders
Discussion points

Invest in a national food strategy to reduce diet quantity & improve diet quality so as to shape healthy eating habits especially children and youth.

Implement and enforce standards on quality of food served in childcare and educational institutions.

Galvanise support from stakeholders to improve implementation, generate demand and make healthier options sustainable.
Thank you