Healthy Eating Promotion in Hong Kong – How far we’ve come & what’s next

Dr Anne FUNG
Assistant Director (Health Promotion)
Department of Health
Hong Kong Special Administrative Region
Outline

- Overview of healthy lifestyle promotion in Hong Kong
- Healthy eating promotion in schools
Overview of healthy lifestyle promotion in Hong Kong
Intervene at Upstream

Addressing Behavioural Risk Factors

Diseases
- Heart disease
- Stroke
- Diabetes mellitus
- Cancer

80%
40%
Life-course & Setting-based Approach

• Practising healthy lifestyle since birth
• Reduce risk of developing NCDs throughout the life-course
• Reduce overall NCD burden
Healthy eating promotion in schools
Healthy Eating Promotion in Schools

Eatsmart@school.hk (ESS) Campaign

StartSmart@school.hk (SSS) Campaign
## Primary Student Overweight/Obesity Rate

<table>
<thead>
<tr>
<th>Year</th>
<th>Overall</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997/98</td>
<td>16.4%</td>
<td>19.4%</td>
<td>13.3%</td>
</tr>
<tr>
<td>1998/99</td>
<td>17.6%</td>
<td>20.8%</td>
<td>14.2%</td>
</tr>
<tr>
<td>1999/00</td>
<td>17.7%</td>
<td>21.0%</td>
<td>14.2%</td>
</tr>
<tr>
<td>2000/01</td>
<td>17.9%</td>
<td>21.2%</td>
<td>14.4%</td>
</tr>
<tr>
<td>2001/02</td>
<td>17.6%</td>
<td>20.9%</td>
<td>14.1%</td>
</tr>
<tr>
<td>2002/03</td>
<td>18.6%</td>
<td>22.2%</td>
<td>14.8%</td>
</tr>
<tr>
<td>2003/04</td>
<td>18.7%</td>
<td>22.4%</td>
<td>14.9%</td>
</tr>
<tr>
<td>2004/05</td>
<td>18.7%</td>
<td>22.80%</td>
<td>14.50%</td>
</tr>
<tr>
<td>2005/06</td>
<td>19.4%</td>
<td>23.80%</td>
<td>14.70%</td>
</tr>
</tbody>
</table>

The graph illustrates the trend in primary student overweight/obesity rates from 1997/98 to 2005/06. The overall rate increased from 16.4% in 1997/98 to 19.4% in 2005/06. Boys had a slightly higher rate than girls throughout the period.
2005-06 Policy Agenda

Promote healthy eating habit among school children to protect the public from life-style diseases.
ESS Campaign

- Launched in 2006-07 school year
- Joint venture of Department of Health (DH) and Education Bureau (EDB)
Comprehensive Strategies
Steering Committee

• Government Bodies
  ◦ DH, EDB, Food & Environmental Hygiene Department

• Professional Associations
  ◦ HK Association for the Study of Obesity
  ◦ HK College of Cardiology
  ◦ Hong Kong Dietitians Association
  ◦ Hong Kong Nutrition Association

• Education sector
  ◦ Associations of principals of primary & special schools
  ◦ Hong Kong Education City
  ◦ Chinese University of Hong Kong

• Committee on Home-School Cooperation
Supportive Environment

Nutritional Guidelines on Lunch for Students
Guidelines on Quantity

HEALTHY LUNCH

Ratio of grains, vegetables & meat (& its alternatives) is 3:2:1 by volume

Recommendations on lunch provision for primary school students

<table>
<thead>
<tr>
<th>Food groups</th>
<th>Recommended quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>P1 to P3 students</td>
</tr>
<tr>
<td>Grains</td>
<td>At least 4 servings</td>
</tr>
<tr>
<td>Vegetables</td>
<td>At least 1 serving</td>
</tr>
<tr>
<td>Meat, fish, egg and alternatives</td>
<td>1 – 2 servings</td>
</tr>
<tr>
<td>Fruits</td>
<td>At least 1 serving</td>
</tr>
<tr>
<td>Fat and oils *</td>
<td>2 servings maximum</td>
</tr>
</tbody>
</table>

* *Used during food preparation and cooking process*
Guidelines on Quality

• 3 Low 1 High
  ◦ Low fat, low sugar, low salt and High fibre

• Classification of food items
  ◦ Strongly discouraged food items
  ◦ Limited food items
  ◦ Encouraged food items
Strongly Discouraged Food Items

**Supply:** not to be provided

<table>
<thead>
<tr>
<th>Food Items</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deep-fried food items</td>
<td>French fries, deep-fried pork chops, spring roll</td>
</tr>
<tr>
<td>Food items with added animal fat &amp; plant sources of saturated fat</td>
<td>Food items with butter, cream, palm oil, coconut oil</td>
</tr>
<tr>
<td>Food items containing trans fat</td>
<td>Bakery products (e.g. pastry, crackers) in which trans fat &amp; shortening are used</td>
</tr>
<tr>
<td>Beverages in “Snack to Choose Less” category</td>
<td>Soft drinks, fruit drinks, fruit juices with added sugar</td>
</tr>
<tr>
<td>Food items with very high salt content</td>
<td>Salted fish, salted egg</td>
</tr>
</tbody>
</table>
Nutritional Guidelines on Snacks for Students

- Snack Classification

- Snack amount:
  - $\leq 125$ kcal of energy per package
  - Drinks $\leq 250$ ml

- Snack time:
  - at least 1.5 – 2 hours between meals
Putting Guidelines into Practice

Guidelines
- Training
- Tools

Compliance
- Incentives

Award Scheme
- Monitoring
Training

Nutrition training workshops for school staff

Nutrition training workshops for lunch suppliers
Tools

Handbook of Selection of Lunch Suppliers

To facilitate the selection of lunch suppliers in a fair, just & open environment & provision of healthy, nutritive & environmental friendly lunch at the same time
Tools
School lunch suppliers database

- Production mode
  - cook-service system
  - cook-chill system
  - school on-site portioning

- Dietetic advice
  - in-house dietitian
  - consultation service
  - analysis software

- Staff training
  - nutrition training

- Special needs
  - food allergy
  - ethnic minority

- Food quality and quantity
  - different serving size
  - 3:2:1 ratio
  - whole wheat / grains with added vegetables
  - provide vegetable
  - provide fruit
  - no dessert & confectionery
  - no strongly discouraged food items
  - limited food items

- Participation in Salt Reduction Scheme for School Lunches
Tools
Mobile Application

• Snack Analysis
  ◦ Classify snacks based on its nutritional quality in accordance with “Nutritional Guidelines on Snacks for Students”
  ◦ Recommend consumption quantity
  ◦ Allow sharing on social media

• Snack Database
  ◦ Include information of >200 healthier snacks
  ◦ Allow users to save their own snack information
  ◦ Allow nutritional comparison between different snacks
Tools

Database of Prepackaged Snacks

• Facilitate the public in making healthy snack choices
• Update annually
EatSmart School Accreditation Scheme (ESAS)

- Launched in 2009-10

To Become an Ideal EatSmart School by Formulating and Implementing the Healthy Eating Policy

- Carry out education and publicity
- Provide healthy lunch
- Provide healthy snacks
- Implement school administrative measures
Two Levels of Accreditation

Basic Accreditation

- School Policy
- Restriction on sales of unhealthy food items (both lunch & snacks)
- Education & promotion

Eatsmart School Accreditation

- Full compliance:
  - Nutritional Guidelines on Lunch for Students
  - Nutritional Guidelines on Snacks for Students
Accreditation Process

Conduct an assessment using checklist

Documents Ready?

Ready for accreditation?

NO

Provide Continuous Support
- Meeting / school visit
- Training
- Information sharing

NO

Accreditation School visit
- Observation (e.g. lunch boxes, tuck shop, vending machine, drinking water supply facilities)
- Meeting with stakeholders
  - Understand their barriers
  - Provide support to facilitate changes

YES

Fulfill requirements

Grant the accreditation

YES

Documents Ready?

NO

Fulfill requirements

Grant the accreditation

Do not fulfill requirements

Ready for accreditation?
EatSmart School Accreditation Ceremony
Healthy eating promotion in schools

HOW FAR WE’VE COME & WHAT’S NEXT
In October 2012, ESAS received a Special Recognition Award from the Western Pacific Regional Office of WHO for its national-level contribution for scaling up healthy cities.
## ESAS - Participation Statistics

<table>
<thead>
<tr>
<th>Year</th>
<th>Enrolled School</th>
<th>Basic Accredication</th>
<th>EatSmart School</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009/10</td>
<td>155</td>
<td>10</td>
<td>6</td>
<td>171</td>
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<tr>
<td>2010/11</td>
<td>146</td>
<td>20</td>
<td>19</td>
<td>185</td>
</tr>
<tr>
<td>2011/12</td>
<td>135</td>
<td>27</td>
<td>40</td>
<td>202</td>
</tr>
<tr>
<td>2012/13</td>
<td>130</td>
<td>22</td>
<td>64</td>
<td>216</td>
</tr>
<tr>
<td>2013/14</td>
<td>124</td>
<td>29</td>
<td>74</td>
<td>227</td>
</tr>
<tr>
<td>2014/15</td>
<td>129</td>
<td>18</td>
<td>90</td>
<td>237</td>
</tr>
<tr>
<td>2015/16</td>
<td>128</td>
<td>24</td>
<td>90</td>
<td>242</td>
</tr>
<tr>
<td>2016/17</td>
<td>130</td>
<td>24</td>
<td>99</td>
<td>253</td>
</tr>
<tr>
<td>2017/18</td>
<td>139</td>
<td>25</td>
<td>100</td>
<td>264</td>
</tr>
</tbody>
</table>
Primary Student Overweight/Obesity Rate

![Graph showing the trend of primary student overweight/obesity rate from 1995/96 to 2016/17. The graph indicates a general increase in overweight/obesity rates for both boys and girls over the years.](image_url)

- **Overall**: The trend shows an increase from 16.1% in 1995/96 to 21.3% in 2007/08, followed by a decrease to 20.0% in 2016/17.
- **Boys**: The trend mirrors the overall trend, with a peak in 2007/08 at 21.3% and a decrease to 20.0% in 2016/17.
- **Girls**: The trend shows a steady increase from 15.9% in 1995/96 to 22.2% in 2007/08, followed by a decrease to 18.0% in 2016/17.

The graph highlights the need for preventive measures and policies to address the rising rates of overweight and obesity among primary school students.
Nutrient Testing of School Lunches in Primary Schools in Hong Kong 2013: Sodium

- >90% of lunch samples exceed recommended intake (500mg) per lunch box (mean 950mg/lunch box)
- 40 samples (42%) exceeded the recommended daily intake of sodium
- Top 3 lunches with highest sodium content:
  1. Indonesian fried rice & chicken nuggets (1722mg)
  2. Rice noodles with Japanese-style sesame chicken (1632mg)
  3. Fried noodles with mushrooms & Beijing-style dumplings (1632mg)
Working Group on Promoting Healthy School Lunch

• Established in 2015
• Terms of reference: to identify areas for improvement in the nutrient content of primary school lunch & to formulate work plans
• Members:

<table>
<thead>
<tr>
<th>Lunch suppliers</th>
<th>Education Sector</th>
<th>Professional organisations</th>
<th>Government Departments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Committee of Home-School Co-operation</td>
<td>HK Dietitians Association</td>
<td>Department of Health</td>
</tr>
<tr>
<td></td>
<td>HK Aided Primary School Heads Association</td>
<td>HK Nutrition Association</td>
<td>Centre for Food Safety</td>
</tr>
<tr>
<td></td>
<td>Subsidized Primary School Council</td>
<td>Chinese Culinary Institute</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Union of Government Primary School Headmasters and Headmistresses</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Long Term Target of Sodium Reduction in School Lunches in Hong Kong

- Baseline: 950mg
- Target 1: ≤ 905mg
- Final target: ≤ 500mg (-47.3%)

- A phrased sodium reduction approach to reduce the sodium content in school lunches
- Help students’ palates gradually adapt to change in taste & increase their acceptance of less sodium in foods
Pilot Project on Sodium Reduction in School Lunch Boxes

• **Aim:** To examine the feasibility to reduce sodium content **gradually** in school lunches

• **Period:** Conducted between September & December 2016

• **Result:** Feasible
Salt Reduction Scheme for School Lunches

**Aim:** Gradually lower the sodium level of school lunches by 5-10% each year

**Commencement:** 2017/18 school year
Salt Reduction Scheme for School Lunches

- **13 Lunch Suppliers**
- **1050 sodium-reduced lunch options** provided in 2017/18 school year
- **459 primary schools** (79% of all primary schools in HK)
- **2% - 90%** of all the lunch options available for school to choose each month

Average sodium Reduction = 8%
Evaluation (in early 2018)

Laboratory testing

Energy and nutrients including:
- Protein
- Carbohydrates
- Sugars
- Dietary fibre
- Total fat
- Saturated fatty acids
- Trans fat
- Cholesterol
- Sodium

Results:
- Reach target?
- Compare with similar study in 2013
Healthy Eating Promotion in Schools

Eatsmart@school.hk (ESS) Campaign

StartSmart@school.hk (SSS) Campaign
SSS Campaign

- Launched in 2012
- Joint venture of DH, EDB, Leisure & Cultural Services Department
- Target: children aged 2 to 6
- Setting: kindergartens & child care centres (Pre-primary Institutions, PPIs)
Task Force

• Government Bodies
  ◦ DH, EDB, Leisure & Cultural Services Department

• Professional Associations
  ◦ HK Association for the Study of Obesity
  ◦ Hong Kong Nutrition Association

• Education sector
  ◦ Chinese University of Hong Kong, Education University of Hong Kong

• School associations
  ◦ Committee on Home-School Cooperation, Hong Kong Kindergarten Association, Non-profit-making Kindergarten Council of Hong Kong

• School sponsoring bodies
  ◦ Caritas-Hong Kong, Catholic Diocese of Hong Kong, Hong Kong Christian Service, Hong Kong Sheng Kung Hui, Po Leung Kuk, the Salvation Army, Tung Wah Group of Hospitals, Yan Chai Hospital, Yan Oi Tong
SSS Campaign

• Objectives
  ◦ To create **conducive environments** to healthy eating & physical activity in the school & at home
  ◦ To help preschool children cultivate a **sustainable healthy lifestyle**

• Two main themes: **Healthy Eating** & **Physical Activity**

<table>
<thead>
<tr>
<th>School Year</th>
<th>Theme on Healthy Eating</th>
<th>Theme on Physical Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016/17</td>
<td>Eat more vegetables</td>
<td>Less screen time</td>
</tr>
<tr>
<td>2017/18</td>
<td>Healthy drinks</td>
<td>Adequate amount of physical activity</td>
</tr>
<tr>
<td>2018/19</td>
<td>Eating only one healthy snack in between meals</td>
<td>More parent-child physical activities</td>
</tr>
</tbody>
</table>
SSS Campaign

Stakeholders:
- Principals
- Teachers
- Food preparers
- Parents & carers

Create conducive environments to healthy eating & physical activity

Health literacy → Empowerment
Principals, Teachers & Food Preparers

1. GUIDELINES & NEWSLETTER

2. TRAINING WORKSHOPS
3. TEACHING KITS
Principals, Teachers & Food Preparers

4. TOOLS

Recipe Sharing Platform

Menus & recipes

<table>
<thead>
<tr>
<th>Week One</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breakfast</td>
<td>Corn flakes + low-fat milk</td>
<td>Pigs' ears + low-fat milk</td>
<td>Macaroni with hearty goulash and shredded pork</td>
<td>Oatmeal with egg drop in low-fat milk</td>
<td>Congee with shiitake mushroom and chicken</td>
</tr>
<tr>
<td>Morning Snacks</td>
<td>Carrot soup</td>
<td>Banana</td>
<td>Apple</td>
<td>Dragon fruit</td>
<td>Orange</td>
</tr>
<tr>
<td>Lunch</td>
<td>Stir-fried chicken fillets with mushroom and onions</td>
<td>Steamed ground pork with diced carrots and water chestnuts</td>
<td>Beef tenderloin with mango and roast duck</td>
<td>Steamed fish fillets with broccoli and bell peppers</td>
<td>Rice vermicelli fried with Chinese long beans, Jew's ears and shiitake</td>
</tr>
<tr>
<td>Afternoon Tea</td>
<td>Spaghetti with baby vegetables and pork meat</td>
<td>Tomato and tomato sandwich</td>
<td>Boiled corn</td>
<td>Peanut butter sandwich</td>
<td>Steamed bun with calcium-fortified low-sodium milk</td>
</tr>
</tbody>
</table>

Snack Recipes for Kids

Seasonal Menu
Festive Menu
Lunch Recipes for Kids
Soup Recipes for Kids
Snack Recipes for Kids
Recipe Sharing Platform

Parents & Caretaker

Kindergarten & Child Care Centers
Parents & Carers

1. GUIDELINES & LETTERS TO PARENTS

2. TEACHING KITS
Parents & Carers

3. TOOLS

Logbook and souvenirs to encourage parent-child activities
Healthy eating promotion in schools

HOW FAR WE’VE COME & WHAT’S NEXT
Participation Statistics

As of 31 March 2018

- Over 900 schools ever participated since 2012
- Over 610 (~60%) schools participating in 2017/18 school year
Dietary & Physical Activity Survey among Preschool Children

Dietary and Physical Activity Survey

2013/14 school year

2016/17 school year
Area for Improvement: Drink Provision

- Unhealthy drinks were provided in schools

- 49% added full-cream or sweetened dairy products
- 24% added sugars

Full-cream or sweetened dairy products 53%

Instant drinks 51%
What’s Next?

Accreditation Scheme similar as in primary schools?

Healthy Drinks at School Charter

1. Encourage young children to drink water
2. Make healthy drinks available to young children
3. Not to provide drinks with added sugar or drinks with a relatively high sugar content
Conclusion
Strengthen collaboration to promote health together