

降低食物中鹽和糖含量 – 本地研究結果與訂立目標水平

Reduction of salt and sugar content in food – Results of local studies and target for reduction

Food Safety Seminar for Trade
7 July 2017

鈉(鹽)對健康的影響

Health effects of sodium (salt)

- 鈉是維持人體機能正常運作的必需元素，但攝取過多可能會增加患上高血壓的風險。
- 高血壓若不及早診治，可引致心臟病和中風等慢性疾病。
- Sodium is essential for body functions, but excessive intake of sodium may increase the risk of developing hypertension.
- Untreated high blood pressure can lead to chronic diseases such as heart attack and stroke.

糖對健康的影響

Health effects of sugar

- 糖只含能量(每克糖提供4千卡能量)。
 - 進食過多糖可能會令人攝取過多能量，增加超重和患上肥胖症的風險。
 - 經常攝取過多的糖還會引至蛀牙。
 - 肥胖症會增加患上一些慢性疾病(如：高血壓、心臟病和糖尿病)的風險。
- Sugar contains only energy (each gram of sugar can provide 4 kcal of energy).
 - Consuming too much sugar can lead to excessive energy intake and in turn increase the risk of overweight and obesity.
 - Frequent consumption of too much sugar can also lead to dental decay.
 - Obesity increases the risk for a number of chronic diseases, such as hypertension, heart diseases and diabetes mellitus.

世衛鈉攝取量建議

WHO's **sodium** intake recommendation

- 一般成年人每日的鈉攝取量應少於2,000毫克 (5克鹽，即略少於一平茶匙食鹽)
- 建議各國到2025年鹽的攝取量目標應相對減少30%
- The daily intake of sodium of an average adult should be less than 2,000 mg of sodium (5 g of salt, slightly less than 1 level teaspoon of salt)
- Recommends to reduce the dietary intake of salt by a relative 30% as a target by 2025

世衛糖攝取量建議

WHO's **sugar** intake recommendation

- 游離糖指所有由製造商、廚師和消費者在食物添加的單糖和雙糖，以及蜜糖、糖漿、果汁及濃縮果汁中天然含有的糖
- 成人和兒童的能量總攝入量的**10%以下**(強烈建議)
- 進一步減至每日能量總攝入量的**5%以下**可帶來額外的健康好處(條件性建議)
- Free sugars are monosaccharides and disaccharides added to foods and beverages by the manufacturer, cook or consumer, and sugars naturally present in honey, syrups, fruit juices and fruit juice concentrates
- <10% of total energy intake in both adults and children (strong recommendation)
- further reduction to <5% of total energy intake would provide additional health benefits (conditional recommendation)

世衛糖攝取量建議

WHO's **sugar** intake recommendation

- 以每日從膳食攝入2000千卡能量的人為例：
 - 游離糖攝入量少於50克(強烈建議)
 - 游離糖攝入量少於25克(條件性建議)
- For a total energy intake of 2000 kcal/day:
 - < 50g free sugar (strong recommendation)
 - < 25g free sugar (conditional recommendation)

本地情況 – 鹽

Local situation – Salt

- 根據本地一所大學進行的兩個研究，估計本港成年人口每日的鹽攝取量約為**10克**。目標：
 - 在**2025年**，人口平均鹽攝取量降至**7克**
 - 長遠來說希望達至**5克**或更少
- Based on two studies conducted by a local university, it was estimated that the average daily intake of salt was about 10g in the adult population. Target:
 - Average daily intake of salt to 7g by 2025
 - An ultimate aim of 5g or below in the long term

本地情況 – 糖

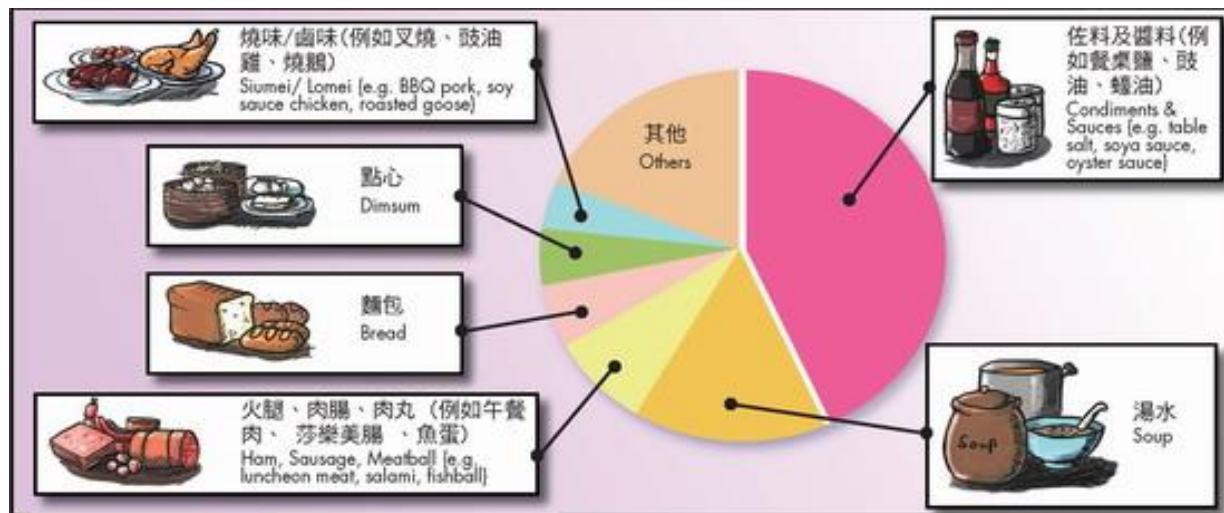
Local situation – Sugar

- 根據食安中心的膳食研究數據，估計本港成年人的糖總攝入量為平均每日53克。
- Based on data collected from the dietary studies conducted by CFS, it is estimated that the mean intake of total sugar among the local adults is 53 g per day.

飲食中鹽糖的來源

Sources of dietary salt and sugar

● 鹽 Salt



● 糖 Sugar

- 估計約 32 % 的本地成年人的糖攝入量來自不含酒精飲品，包括汽水、茶類飲料及蔬果汁／蔬果汁飲品
- Estimated that ~32% of sugar consumed by the general public comes from non-alcoholic beverages, including soft drinks, tea beverages, and vegetable and fruit juice/beverages

中心致力減少鹽和糖的膳食攝取量

Efforts of CFS on Reducing Dietary Intakes of Salt and Sugars

- 中心已進行了一系列的工作。包括
 - 推行營養資料標籤制度；
 - 制定降低食物中鈉、糖和脂肪含量的業界指引；
 - 進行食物所含營養素的風險評估研究。
- CFS has previously:
 - Implemented the Nutrition Labelling Scheme;
 - Issued trade guidelines for sodium, sugars and fat reduction in foods;
 - Conducted risk assessment studies related to nutrients in food.

中心過往研究

Previous studies by CFS

- 鈉含量
 - 湯水的鈉含量
 - 本地碟頭粉麵飯的鈉含量
- 糖含量
 - 餐飲中常見的中式飲品的糖含量
 - 本地糖水的糖含量
- Sodium content
 - Sodium content in soups
 - Sodium content in local “Meal-on-one-plate”
- Sugar content
 - Sugar content in popular Chinese-style beverages consumed with meals
 - Sugar content in local sweet soups

以上皆為與消費者委員會的聯合研究
Listed above were all joint Consumer Council studies

鈉含量研究

Studies on sodium content

湯水的鈉含量

Sodium Content in Soups



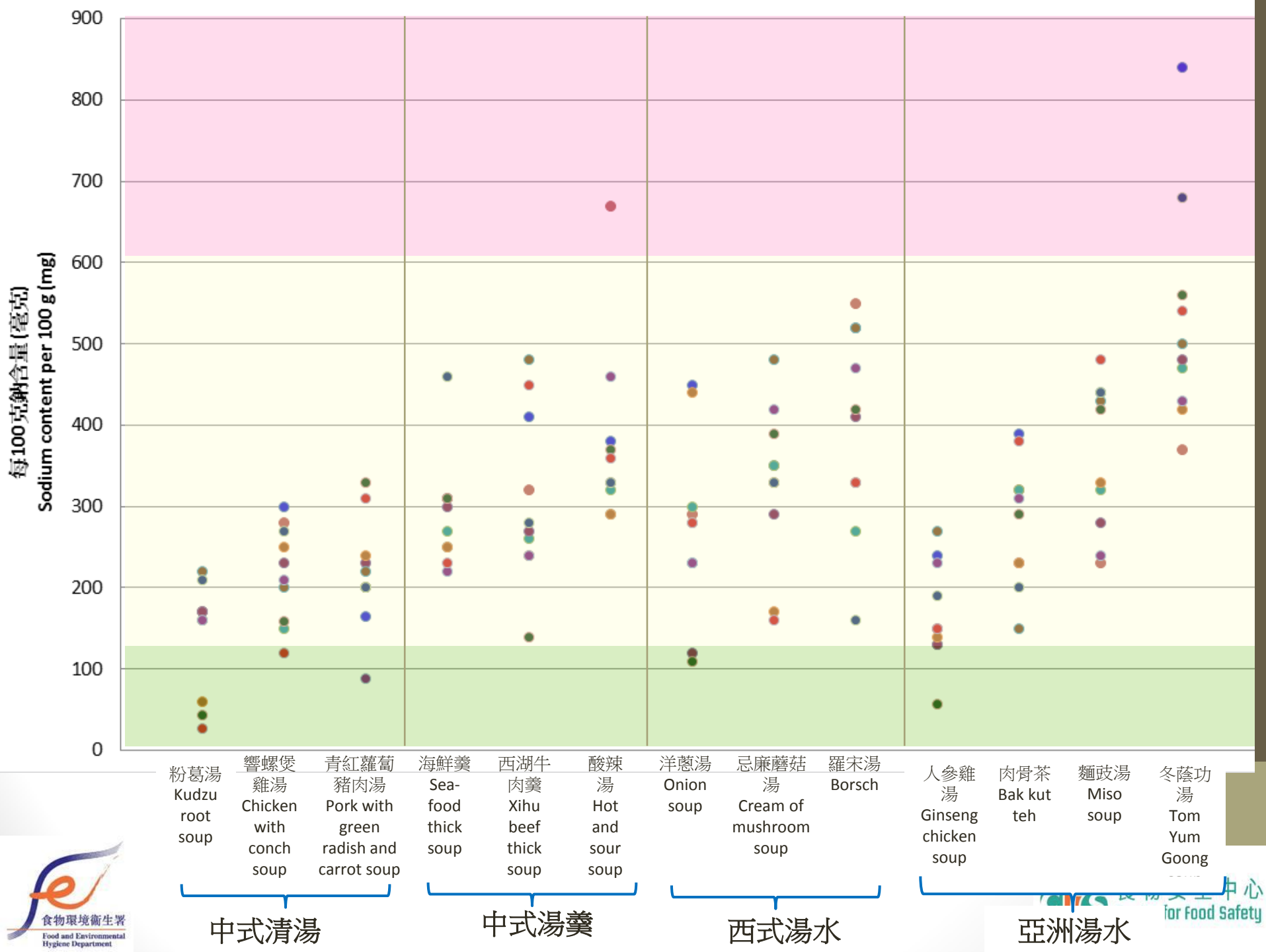
湯水樣本的鈉含量水平

Sodium levels of soup samples

湯水種類 Types of soup	樣本數目 No. of samples			
	很低鈉樣本 Very Low Sodium Samples ($\leq 40\text{mg}/100\text{g}$)	低鈉樣本 Low Sodium Samples ($\leq 120\text{mg}/100\text{g}$)	其他樣本 Other Samples	高鈉樣本 High Sodium samples ($> 600\text{mg}/100\text{g}$)
粉葛湯 Kudzu root soup	1	2	7	0
響螺煲雞湯 Chicken with conch soup	0	1	9	0
青紅蘿蔔豬肉湯 Pork soup with green radish and carrot	0	1	9	0
洋蔥湯 Onion soup	0	2	8	0
人參雞湯 Ginseng chicken soup	0	1	9	0
酸辣湯 Hot and sour soup	0	0	9	1
冬蔭功湯 Tom Yum Goong soup	0	0	8	2
其他湯水種類* Other types of soup*	0	0	60	0
整體 Overall	1	7	119	3

*包括：海鮮羹，西湖牛肉羹，忌廉蘑菇湯，羅宋湯，肉骨茶，麵豉湯

*Include: Seafood thick soup, Xihu beef thick soup, Cream of mushroom soup, Borsch, Bak kut teh, and Miso soup



湯水鈉含量佔每日建議攝取限量比重

Sodium contribution of soups to recommended daily intake

湯水種類 Types of soups	平均鈉含量佔每日建議攝取限量 Mean sodium contribution to recommended daily intake (2,000mg/day)			
	以平均飲湯分量（1碗）計算* Based on an average consumption (1 bowl of soup)*		以較高飲湯分量（2.5碗）計算* Based on a higher consumption (2.5 bowls of soup)*	
粉葛湯 Kudzu root soup	17%	23%	42%	57%
響螺煲雞湯 Chicken with conch soup	26%		65%	
青紅蘿蔔豬肉湯 Pork with green radish and carrot soup	26%		66%	
海鮮羹 Seafood thick soup	35%	39%	87%	98%
西湖牛肉羹 Xihu beef thick soup	37%		93%	
酸辣湯 Hot and sour soup	46%		114%	
洋蔥湯 Onion soup	33%	40%	82%	100%
忌廉蘑菇湯 Cream of mushroom soup	39%		98%	
羅宋湯 Borsch	48%		119%	
人參雞湯 Ginseng chicken soup	20%	40%	51%	101%
肉骨茶 Bak kut teh	34%		85%	
麵豉湯 Miso soup	43%		108%	
冬蔭功湯 Tom Yum Goong	63%		159%	
全部整體 Total	36%		90%	

* 1 碗湯水份量為約 240 克，而 2.5 碗湯水份量為約 600 克。

* One bowl of soup contains ~240g, while 2.5 bowls of soup contain ~600 g.

碟頭粉麵飯的鈉含量

Sodium Content in Meal-on-one-plate

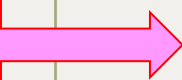


非預先包裝碟頭粉麵飯樣本檢出的鈉含量

Sodium content for non-prepackaged MOOP samples

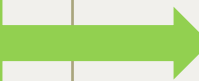
碟頭粉麵飯種類 MOOP types	樣本數目 No. of samples	每100克鈉含量 平均值[範圍](毫克) Mean sodium content [range] (mg/100 g)
味菜排骨炒麵 Fried noodles with preserved vegetable and pork	10	470 [350-600]
干燒伊麵 Braised E-Fu noodles	10	410 [250-500]
肉醬意粉 Spaghetti Bolognese	10	350 [210-430]
乾炒牛肉河粉 Fried rice noodles with sliced beef	10	340 [230-440]
焗豬扒飯 Baked pork chop with rice	10	340 [240-460]
福建炒飯 Fried rice in Fujian-style	10	310 [180-420]
咖喱牛腩飯 Steamed rice with curry beef brisket	10	270 [190-390]
叉燒飯 Steamed rice with barbecued pork	10	260 [170-320]
日式滑蛋雞飯/親子丼 Steamed rice with chicken in scrambled egg sauce	10	240 [150-320]
枝竹火腩飯 Steamed rice with bean curd sheet and roasted pork	10	230 [110-310]
整體 Overall	100	320 [110-600]

平均鈉含量最高的種類是味菜排骨炒麵



470 [350-600]

平均鈉含量最低的種類是枝竹火腩飯



230 [110-310]

非預先包裝碟頭粉麵飯樣本檢出的鈉含量

Sodium content for non-prepackaged MOOP samples

碟頭粉麵飯種類 MOOP types	樣本數目 No. of samples	每100克鈉含量 平均值[範圍](毫克) Mean sodium content [range] (mg/100 g)
味菜排骨炒麵 Fried noodles with preserved vegetable and spare rib	10	470 [350-600]
干燒伊麵 Braised E-Fu noodles	10	410 [250-500]
肉醬意粉 Spaghetti Bolognese	10	350 [210-430]
乾炒牛肉河粉 Fried rice noodles with sliced beef	10	340 [230-440]
焗豬扒飯 Baked pork chop with rice	10	340 [240-460]
福建炒飯 Fried rice in Fujian-style	10	310 [180-420]
咖喱牛腩飯 Steamed rice with curry beef brisket	10	部分碟頭粉麵飯的鈉含量差異頗大，當中枝竹火腩飯的最大差距接近2倍。
叉燒飯 Steamed rice with barbecued pork	10	
日式滑蛋雞飯/親子丼 Steamed rice with chicken in scrambled egg sauce	10	
枝竹火腩飯 Steamed rice with bean curd sheet and roasted pork	10	230 [110-310]
整體 Overall	100	320 [110-600]

非預先包裝碟頭粉麵飯鈉含量佔世衛建議每日攝取限量

Sodium contribution of non-prepackaged MOOP to WHO's recommended limit of daily intake

碟頭粉麵飯種類 MOOP types	平均每碟鈉含量佔世衛建議每日攝取限量 [範圍] Mean sodium contribution to WHO's recommended limit of daily intake in one portion [range]	每碟鈉含量達世衛建議每日攝取限量的樣本數目 Number of sample reached WHO's recommended limit of sodium intake in one portion
味菜排骨炒麵 Fried noodles with preserved vegetable and spare rib	100% [100-100%]	0
福建炒飯 Fried rice in Fujian-style	100% [100-100%]	0
干燒伊麵 Braised E-Fu noodles	100% [100-100%]	0
咖喱牛腩飯 Steamed rice with curry beef brisket	100% [100-100%]	0
焗豬扒飯 Baked pork chop with rice	100% [100-100%]	0
乾炒牛肉河粉 Fried rice noodles with sliced beef	100% [100-100%]	0
肉醬意粉 Spaghetti Bolognese	91% [91-91%]	0
枝竹火腩飯 Steamed rice with bean curd sheet and roasted pork	75% [34-100%]	0
叉燒飯 Steamed rice with barbecued pork	63% [37-100%]	0
日式滑蛋雞飯/親子丼 Steamed rice with chicken in scrambled egg sauce	63% [44-100%]	0
整體 Overall	100% [34-250%]	45

本研究全部樣本的
每碟鈉含量皆超出
世衛建議每日攝取
限量的三分之一

糖含量研究

Studies on sugar content

餐飲中常見的中式飲品的糖含量

Sugar Content in Popular Chinese-style Beverages Consumed with Meals



非預先包裝飲品樣本的糖含量水平

Level of sugar for non-prepackaged samples

飲品種類 Beverage types	樣本數目 no. of samples				
	總數 Total	視為 無糖 樣本 Samples considered as “ sugar-free ” of ($\leq 0.5\text{g}/100\text{ mL}$)	視為 低糖 樣本 Samples considered as “ low sugar ” (> 0.5 and $\leq 5.0\text{g}/100\text{ mL}$)	樣本糖含量 Samples with total sugar > 5.0 and $\leq 7.5\text{g}/100\text{ mL}$	視為 高糖 樣本 Samples considered as “ high in sugar ” ($>7.5\text{g}/100\text{ mL}$)
羅漢果飲品 Luo han guo drink	5				0
豆漿 Soy milk	31				0
薏米飲品 Coix seed drink	5	0	3	1	1
杏仁霜 Almond drink	5	0	3	1	1
竹蔗飲品 Sugar cane drink	10				2
菊花飲品 Chrysanthemum drink	5	0	1	3	1
雪梨飲品 Pear drink	5	0	1	3	1
西洋菜蜜 Watercress honey	10	0	0	5	5
酸梅湯 Sour plum drink	10				5
山楂飲品 Hawthorn drink	5				4
柑桔/柚子蜜 Kumquat/citron honey	10	0	0	1	9
整體 Overall	101	6	20	46	29

較低糖類別

Beverages with lower level of sugar

中等糖類別

Beverages with medium level of sugar

較高糖類別

Beverages with higher level of sugar

個別非預先包裝飲品的糖攝入量

Sugar intake from some non-prepackaged drinks

	樣本 數目 No. of samples	每分樣本糖含 量(克) Total sugar per sample (g)	每250毫升糖含 量(克) Total sugar (g/250mL)	佔世衛建議游離糖攝入量 百分比 % WHO daily sugar intake recommendation*
柑桔/柚子蜜 Kumquat/ citron honey	10	15 - 37		30% - 74%
西洋菜蜜 Watercress honey	10	13 - 29		26% - 58%
酸梅湯 Sour plum drink	10		13 - 40	26% - 80%
山楂飲品 Hawthorn drink	5		16 - 47.5	32% - 95%

*以每日從膳食攝入2000千卡能量的人為例，應攝入少於50克游離糖
< 50g free sugar for a total energy intake of 2000 kcal/day

本地糖水的糖含量

Sugar Content in Local Sweet Soups



本地糖水的糖含量

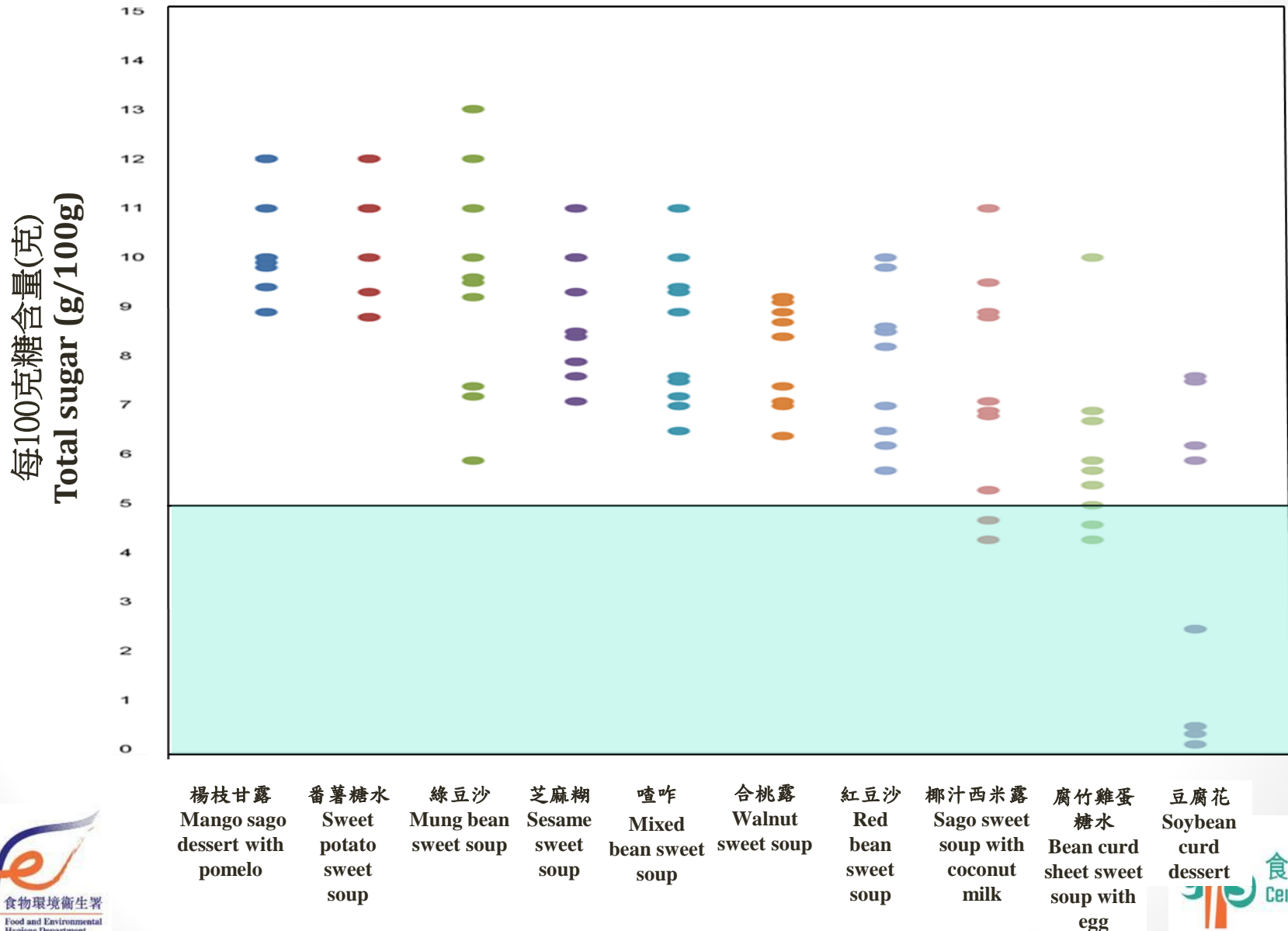
Sugar content in local sweet soups

糖水種類 Sweet soup types	樣本數目 no. of samples		
	總數 Total	視為低糖樣本 Samples considered as “low sugar” (> 0.5g and ≤ 5.0g/100 g)	樣本糖含量 Samples with total sugar > 5.0g /100 g
楊枝甘露 Mango sago dessert with pomelo	10	0	10
番薯糖水 Sweet potato sweet soup	10	0	10
綠豆沙 Mung bean sweet soup	10	0	10
芝麻糊 Sesame sweet soup	10	0	10
喳咋 Mixed bean sweet soup	10	0	10
合桃露 Walnut sweet soup	10	0	10
紅豆沙 Red bean sweet soup	10	0	10
椰汁西米露 Sago sweet soup with coconut milk	10	2	8
腐竹雞蛋糖水 Bean curd sheet sweet soup with egg	10	3	7
豆腐花 Soybean curd dessert	6*	2	4
整體 Overall	96	7	89

*不包括「無添加糖」樣本 “No added sugar” samples were excluded

非預先包裝糖水的糖含量

Sugar content of non-prepackaged sweet soups



個別非預先包裝糖水的糖攝入量

Sugar intake from some non-prepackaged sweet soups

糖水種類 Sweet soup types	樣本 數目 No. of samples	每分樣本糖含量 (克) Total sugar per sample (g)	佔世衛建議游離糖 攝入量百分比 % WHO daily sugar intake recommendation*
楊枝甘露 Mango sago dessert with pomelo	10	27 - 66	54% - 132%
綠豆沙 Mung bean sweet soup	10	19 - 48	38% - 96%
椰汁西米露 Sago sweet soup with coconut milk	10	11 - 48	22% - 96%
喳咋 Mixed bean sweet soup	10	17 - 43	34% - 86%

*每日能量總攝入量的10%以下，以每日從膳食攝入2000千卡能量的人為例，應攝入少於50克游離糖

<10% of total energy intake (i.e. < 50g free sugar for a total energy intake of 2000 kcal/day)

本地的減鹽減糖行動

Local actions on salt and sugar reduction

- 為推廣少鹽及少糖的健康飲食，政府於2014年年初成立「降低食物中鹽和糖國際諮詢委員會」（前稱降低香港食物中的鈉和糖國際諮詢委員會），並委任五位於公共衛生領域上知名的內地和海外專家為委員。
- 政府於2015年成立「降低食物中鹽和糖委員會」。
- 參考委員會的意見，和國際間推動減低膳食中鹽和糖的經驗，與業界商討如何降低食物中的鹽和糖含量。
- To promote healthy diets with less salt and sugar, the Government set up the IAP on Reduction of Salt and Sugar in Food (formerly know as IAP on Reduction of Dietary Sodium and Sugar) in early 2014, and appointed five renowned public health experts from the Mainland and overseas as members.
- The Government established the “Committee on Reduction of Salt and Sugar in Food” in 2015.
- With reference to their advice and international experience in reducing dietary salt and sugar, liaise with the trade on reducing salt and sugar in food.

訂立減鹽/糖目標水平

Setting salt/sugar reduction target

- 「降低食物中鹽和糖國際諮詢委員會」認為首先應從改良食品配方入手，並有需要為改良食品配方訂立建議目標水平。
- The “International Advisory Panel (IAP) on Reduction of Salt and Sugar in Food” considers that priority should be accorded to product reformulation, and target level for reformulation needs to be set.

訂立減鹽/糖目標水平

Setting salt/sugar reduction target

三個可行的方案

1. 訂立「鈉含量上限」

鈉含量的分布範圍第50個
和第75個百分位數之間的
數值

2. 訂立「鈉含量平均限值」

3. 訂立「減鈉百分率」

3 possible options

1. “Maximum level” approach

A ceiling level is set between the 50th and 75th percentiles of the sodium content distribution

2. “Average/mean level” approach

3. “Percentage reduction target” approach

訂立減鹽/糖目標水平

Setting salt/sugar reduction target

- 改良食品配方是一個循序漸進的過程，必須逐步減少食物中的鹽/糖含量，讓消費者的味覺慢慢適應較淡的味道，以制定切實可行的減鹽/糖目標和時間表。
- Product reformulation is a gradual process. The salt/sugar content in food must be reduced step by step, so that consumers can adapt a milder taste gradually and hence a practical salt/sugar reduction target and timeline can be established.

謝謝
Thank you!