

碟頭粉麵飯的鈉含量

Sodium Content in Meal-on-one-plate

業界諮詢論壇
Trade Consultation Forum
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背景

Background



鈉對健康的影響

Health effects of sodium

- 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 have higher risk of developing high blood pressure.
- Untreated high blood pressure can lead to chronic diseases such as heart attack and stroke.



世衛鈉攝取量建議

WHO's sodium intake recommendation

➤ 鈉

- 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%。



➤ Sodium

- The daily intake of sodium of an average adult should be less than 2,000 mg (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.



政府推動健康飲食的工作

Government's on-going work in promoting health diet

- 政府十分重視降低食物中鹽和糖的工作。由於健康飲食是市民減低從食物中攝入鹽和糖的其中一個關鍵，衛生署及食物環境衛生署轄下的食物安全中心（食安中心）一直透過與食物業界、學校和其他持份者合作，積極推廣健康飲食習慣。
- The Government attaches much importance to the reduction of salt and sugar levels in food. Given that healthy eating is one of the keys to reducing the intake of salt and sugar in food, the Department of Health (DH) and the Centre for Food Safety (CFS) of the Food and Environmental Hygiene Department (FEHD) have done a lot in promoting healthy eating habits through collaboration with the food trade, schools and other stakeholders.



本地的減鹽行動

Local actions on salt reduction

- 政府於2015年成立「降低食物中鹽和糖委員會」，就制定政策方向及工作計劃，以減低香港市民的鹽和糖攝入量及食物中的鹽和糖含量，向食物及衛生局局長提供建議。
- 「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。
- 改良食品配方須循序漸進地逐步減少食物中的鈉（鹽）含量。
- The Government established the “Committee on Reduction of Salt and Sugar in Food” in 2015, which is responsible for making recommendations to the Secretary for Food and Health on the formulation of policy directions and work plans to reduce the intake of salt and sugar by the public, as well as to reduce salt and sugar in food.
- 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.
- Product reformulation should gradually reduce the amount of sodium (salt) in food.

為推廣少鹽及少糖的健康飲食，政府於二零一四年初成立「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。

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.

飲食中的鈉的來源

Sources of dietary sodium

- 世衛指出，煮食時添加鹽及不同的醬料是亞洲國家其中一個攝取鈉的主要來源。
- 碟頭粉麵飯是本港市民每日飲食其中一個主食類別。
- 故食物安全中心和消委會進行是次聯合研究。
- According to WHO, high proportions of sodium in the diet come from salt added in cooking and from sauces in Asian countries.
- Meal-on-one-plate (MOOP) is one of the categories of staple food in local daily diet.
- CFS and CC thus conducted this joint study.



是次研究

The Study



目的 Objectives

- 檢測及比較一些本地碟頭粉麵飯在不同食肆或商店的鈉（鹽）含量。
- 幫助公眾在外出用膳時能作出知情和適合個人情況的選擇。
- 推動食物業界透過改良食品配方提供減鈉的碟頭粉麵飯。
- To measure and compare among food outlets the levels of sodium (salt) in local MOOP dishes.
- To inform and assist the public to make informed choices when eating out.
- To encourage the trade to provide MOOP items with less sodium through recipe reformulation.



研究範疇 Scope of Study

- 本港市面上部分較常見的碟頭粉麵飯：
 - 6種飯
 - 4種粉麵
- 非預先包裝及預先包裝碟頭粉麵飯
- Meal-on-one-plate that are commonly available in local restaurants:
 - 6 types of rice
 - 4 types of noodles
- Included both non-prepackaged and prepackaged MOOP



方法

Method



採樣 Sampling

➤ 抽取樣本時間

- 2016年7月至9月

➤ 地點

- 非預先包裝碟頭粉麵飯
 - 中式食肆、西式食肆、亞洲食肆、港式茶餐廳及快餐店
- 預先包裝碟頭粉麵飯
 - 超市及便利店

➤ Sampling period

- July to September 2016

➤ Location

- Non-prepackaged MOOP
 - Chinese restaurants, Western restaurants, Asian restaurants, HK style cafés and fast-food restaurants
- Prepackaged MOOP products
 - Supermarkets and retail outlets



碟頭粉麵飯種類 MOOP types	非預先包裝樣本數目 No. of <u>non-prepackaged</u> samples collected	預先包裝樣本數目 No. of <u>prepackaged</u> samples collected
咖喱牛腩飯 Steamed rice with curry beef brisket	10	2
焗豬扒飯 Baked pork chop with rice	10	3
枝竹火腩飯 Steamed rice with bean curd sheet and roasted pork	10	0
叉燒飯 Steamed rice with barbecued pork	10	0
福建炒飯 Fried rice in Fujian-style	10	0
日式滑蛋雞飯/親子丼 Steamed rice with chicken in scrambled egg sauce	10	0
肉醬意粉 Spaghetti Bolognese	10	3
乾炒牛肉河粉 Fried rice noodles with sliced beef	10	0
干燒伊麵 Braised E-Fu noodles	10	0
味菜排骨炒麵 Fried noodles with preserved vegetable and spare rib	10	0
整體 Overall	100	8

測試項目 Test Items

- 測試由中心食物研究化驗所進行。
- 非預先包裝碟頭粉麵飯
 - 檢測樣本中的鈉含量。
 - 為了解添加醬汁對碟頭粉麵飯的鈉含量的影響，額外抽取3個“走汁叉燒飯”樣本及檢測其鈉含量。
- 預先包裝碟頭粉麵飯
 - 檢視了這些樣本的營養標籤。
- Testing conducted by Food Research Laboratory of CFS.
- Non-prepackaged MOOP
 - Tested for sodium content.
 - To understand the effect of the addition of sauce on the sodium content of MOOP, 3 additional samples of “steamed rice with barbecued pork without sauce” were collected for sodium content analysis.
- Prepackaged MOOP products
 - Referred to the nutrition label.



結果分析 Data analysis (1)

每100克食物鈉含量（毫克） Sodium content per 100 g (mg)	鈉含量水平 Level of sodium content
$\leq 120^*$	「低鈉（或鹽）」 “ Low sodium (salt)”
> 1.5 g 鹽 (600 毫克鈉) [#] > 1.5 g salt (600 mg sodium) [#]	「高鹽（鈉）」 “ High salt (sodium)”

*根據本地現行的營養標籤規例

According to the existing Nutrition Labelling Regulation in Hong Kong

[#]根據英國衛生部及英國食物標準局於2016年發表的“Guide to creating a front of pack (FoP) nutrition label for pre-packed products sold through retail outlets”

According to the “Guide to creating a front of pack (FoP) nutrition label for pre-packed products sold through retail outlets” published by the UK Department of Health and the Food Standards Agency in 2016



結果分析 Data analysis (2)

➤ 鈉攝入量分析

- 把攝入鈉的分量與世衛建議的每日攝取限量，即每日應攝取少於 2,000 毫克鈉（5 克鹽）作比較。
- 再以每日三餐計算，把樣本的每份鈉含量與世衛建議每日攝取限量的三分之一作比較。

➤ Analysis of sodium intake

- The amount of sodium intake is compared with WHO's recommendation, i.e. less than 2,000 mg of sodium (5 g of salt) per day.
- When considering taking 3 meals a day, the sodium content of a portion of MOOP sample is compared with one-third of WHO's recommended daily limit.



結果

Findings



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 rib		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 ro		230 [110-310]
整體 Overall	100	320 [110-600]

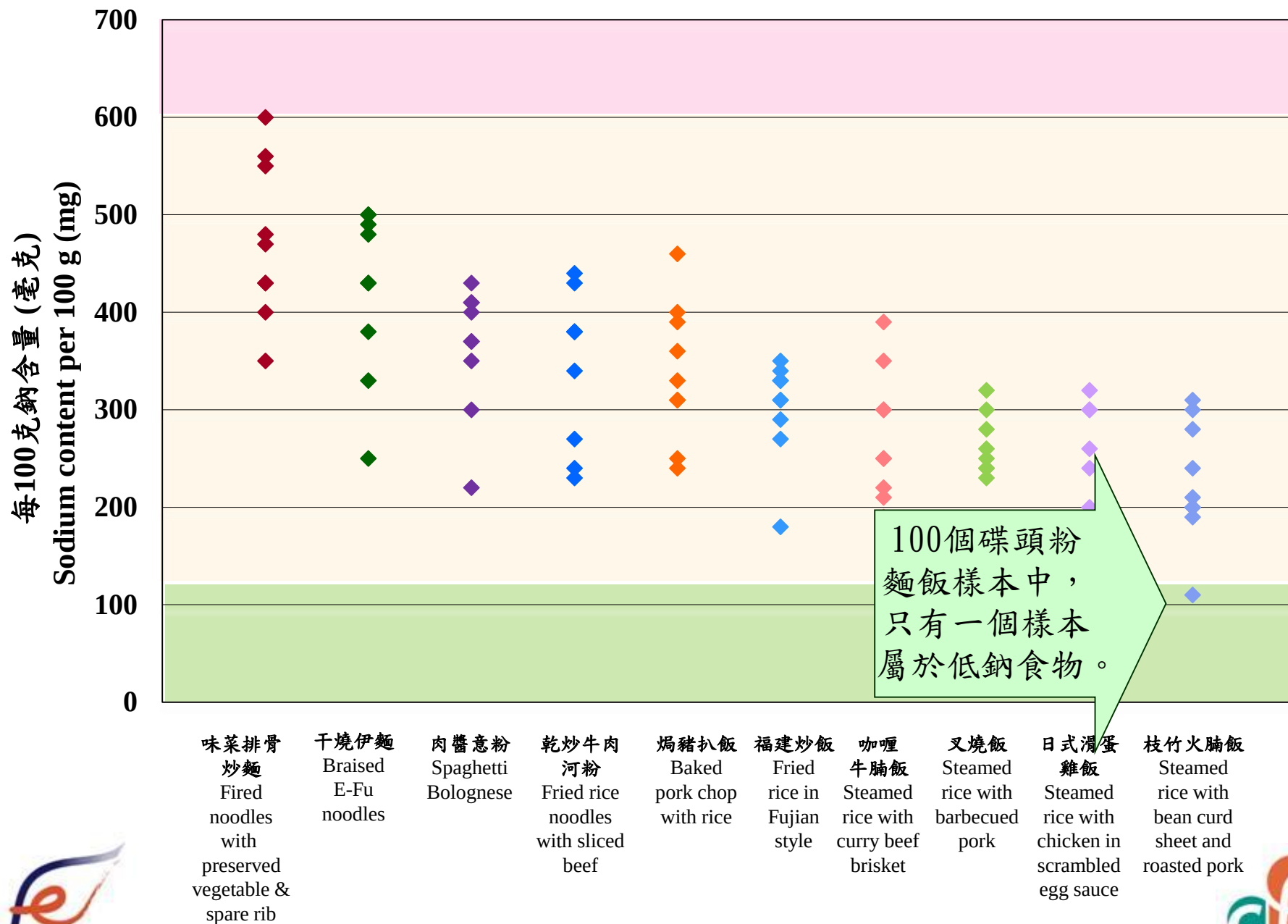
平均鈉含量最高的種類是味菜排骨炒麵

平均鈉含量最低的種類是枝竹火腩飯

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 daily sodium intake in one portion
味菜排骨炒麵 Fried noodles with preserved vegetable and spare rib	150% [100-250%]	10
福建炒飯 Fried rice in Fujian-style	150% [100-250%]	10
干燒伊麵 Braised E-Fu noodles	150% [100-250%]	10
咖喱牛腩飯 Steamed rice with curry beef brisket	150% [100-250%]	10
焗豬扒飯 Baked pork chop with rice	150% [100-250%]	10
乾炒牛肉河粉 Fried rice noodles with sliced beef	150% [100-250%]	10
肉醬意粉 Spaghetti Bolognese	150% [100-250%]	10
枝竹火腩飯 Steamed rice with bean curd sheet and roasted pork	71% [34-150%]	0
叉燒飯 Steamed rice with barbecued pork	63% [34-150%]	0
日式滑蛋雞飯/親子丼 Steamed rice with chicken in scrambled egg sauce	63% [44-150%]	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

預先包裝碟頭粉麵飯樣本的鈉含量 Sodium content for prepackaged MOOP samples

碟頭粉麵飯種類 MOOP types	非預先包裝 Non-prepackaged		預先包裝 Prepackaged	
	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)	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)
肉醬意粉 Spaghetti Bolognese	10	350 [210-430]	3	443 [335-555]
焗豬扒飯 Baked pork chop with rice	10	340 [240-460]	3	343 [257-390]
咖喱牛腩飯 Steamed rice with curry beef brisket	10	270 [190-390]	2	153 [119-187]

減低從碟頭粉麵飯攝取鈉的可行方案

Possible ways to reduce sodium intake from MOOP



方案1: 減少添加醬汁/豉油

Approach 1: Reduce the addition of sauce

	食肆1 Restaurant 1	食肆2 Restaurant 2	食肆3 Restaurant 3
每份有汁叉燒飯鈉含量 (毫克) Sodium content in a portion of “steamed rice with barbecued pork with sauce ” (mg)	1500	1400	1000
每份走汁叉燒飯鈉含量 (毫克) Sodium content in a portion of “steamed rice with barbecued pork without sauce ” (mg)	1100	880	460
每份走汁叉燒飯可減少超過 四分一至一半的鈉含量	26%	37%	56%
走汁所減少的鈉分量最高 佔世衛建議每日攝取限量 近三成	19%	26%	29%

在計算過程中以實際數字計算，但表內數字以兩位有效數字顯示。

Actual values were used during calculation, while results were shown in two significant figures in the above table.

方案2: 減少進食餸汁

Approach 2: Reduce the consumption of gravy



咖喱牛腩飯樣本

A sample of “steamed rice with curry beef brisket”



方案2: 減少進食餸汁

Approach 2: Reduce the consumption of gravy

咖喱牛腩飯樣本 Samples of steamed rice with curry beef brisket	平均每份鈉含量 (毫克) Mean sodium content (mg/portion)
整份樣本 (食物加全部餸汁) Whole portion of sample (Food portion plus all gravy)	2100
剩餘餸汁 Strained gravy portion	560^
行為一：減少進食一半剩餘餸汁 Scenario 1: Reduce consuming half of the strained gravy	
若消費者減少進食一半剩餘餸汁，所減少的鈉攝入量 佔世衛建議每日攝取限量一成四 (14%)	1800
行為二：避免進食剩餘餸汁 Scenario 2: Avoid consuming all strained gravy	
若消費者避免進食全部剩餘餸汁，所減少的鈉攝入量 超過世衛建議每日攝取限量的四分之一 (28%)	1500

在計算過程中以實際數字計算，但表內數字以兩位有效數字顯示。

Actual values were used during calculation, while results were shown in two significant figures in the above table.

^此乃平均數字，十個咖喱牛腩飯樣本每份剩餘餸汁的鈉含量範圍是250-1,200毫克。

Data in mean value only. The range of sodium content per portion of strained gravy in 10 samples of "steamed rice with curry beef brisket" was 250-1,200 mg.



方案3：為碟頭粉麵飯訂立減鈉目標水平

Approach 3: Setting sodium reduction target for MOOP

- 參考外地訂立減鈉/鹽目標的提議及「降低食物中鹽和糖國際諮詢委員會」的建議
 - 本研究的結果可作為制訂碟頭粉麵飯減鈉目標水平的參考數據
- With reference to overseas practices on target setting on sodium/salt reduction as well as the recommendations of the IAP on Reduction of Salt and Sugar in Food
 - The data obtained in this study can be used as a reference to set sodium reduction target for MOOP



方案3：為碟頭粉麵飯訂立減鈉目標水平

Approach 3: Setting sodium reduction target for MOOP

兩個建議方法

1. 訂立「鈉含量上限」

上限定於鈉含量的分布範圍
第50個和第75個百分位數之
間的數值

→ 每100克含310至390毫克鈉

2. 訂立「鈉含量平均限值」

根據平均鈉含量(即每100克含
320毫克鈉)

→ 設定減鈉指標

2 recommended options

1. “Maximum level” approach

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

→ 310-390 mg sodium /100g

2. “Average/mean level” approach

Make reference to the mean
sodium content (i.e. 320 mg
sodium /100 g)

→ Set the sodium reduction target

結果1:

- 個別相同種類碟頭粉麵飯樣本的鈉含量差異頗大。

這表示業界降低這些碟頭粉麵飯的鈉含量是切實可行的，而連鎖食肆可帶頭採取行動。

Finding 1:

- Sodium content varied quite widely within certain types of MOOP.

This suggests that it is practicably possible for the Trade to reduce the sodium content in MOOP, and chained restaurants could take the lead to take action.



結果2:

- 接近一半樣本每碟的鈉含量皆超過世衛建議每日攝取限量，而全部樣本每碟的鈉含量皆超出該限量的三分之一。

業界應改良食譜以減少碟頭粉麵飯的鈉含量。
市民應注意從碟頭粉麵飯所攝入的鈉分量及保持均衡飲食。

Finding 2:

- Nearly half of the samples contained sodium contents over WHO's recommended limit of daily intake in one portion, while all samples contained sodium contents over one-third of that limit in one portion.

The Trade should consider recipe reformulation to reduce the sodium content in MOOP. The public should be aware of the amount of sodium intake from MOOP and maintain a balanced diet.

結果3:

- 若進食叉燒飯時走汁，每碟所減少的鈉攝入量最高佔世衛建議每日攝取限量近三成。

業界應以獨立容器盛載醬汁、豉油。

市民應要求食肆不要或減少在碟頭粉麵飯上添加醬汁、豉油。

Finding 3:

- When having “steamed rice with barbecued pork” without consuming sauce, the reduced sodium intake accounted for as much as ~30% of WHO’s recommended daily limit.

The Trade should serve sauce in separate containers.

The public should request no/less sauce to be added on MOOP.

結果4:

- 進食咖喱牛腩飯時減少進食餸汁，每碟所減少的鈉攝入量平均超過世衛建議每日攝取限量的四分之一。

若餸菜和粉麵飯可分開送上，業界應避免直接在粉麵飯上淋上餸菜。

市民應在試味後才添加適量的餸汁。

Finding 4:

- When having “steamed rice with curry beef brisket” without consuming gravy, the reduced sodium intake reached a quarter of WHO’s recommended daily limit on average.

If dishes can be separated from rice/noodles, the Trade should avoid adding the dish directly on rice/noodles.

The public should taste before adding gravy.

建議 Advice

給消費者的建議

Advice to Consumers (1)

- 減少進食鈉含量高及含有高鹽分配料（如醃菜、鹹魚、臘腸）的碟頭粉麵飯。
- Limit the consumption of MOOP high in sodium and those contain ingredients with high salt content (e.g. pickles, salted fish, preserved sausages).
- 外出進食時：
 - ✓ 要求食肆不要或減少添加醬汁、豉油；並反映想少鹽/少鹹。
 - ✓ 要求食肆把餸菜與粉麵飯分開送上，並在試味後才添加適量的餸汁。
- When eating out:
 - ✓ Request no/less sauce to be added on MOOP; and ask for “less salt” or “less salty” option of the food.
 - ✓ Request dishes to be served separately from rice/noodles, and taste before adding gravy.



給消費者的建議

Advice to Consumers (2)

- 留意碟頭粉麵飯的分量。
。如分量超過個人食用分量，與他人分享。
- Beware of the portion size of MOOP. Share with others when the portion size is large.
- 留意營養資料
 - 參考營養標籤、本研究結果或中心的營養資料查詢系統。
 - 除鈉含量外，亦應留意其他營養資料如脂肪含量。
- Take note of the nutrient content
 - Read nutrition labelling, make reference to the result of this study or the Nutrition Information Inquiry System (NIIS) of the CFS.
 - Apart from sodium content, other nutrition information such as fat content is also important.



給業界的建議

Advice to Trade (1)

- 參考中心的《降低食物中鈉含量的業界指引》，透過改良食譜（如減少使用鹽和調味料，及採用新鮮配料或香草和香料）以減少碟頭粉麵飯的鈉含量。
- 以獨立容器盛載醬汁、豉油及餸菜，利用標準量匙添加所需分量的醬汁、豉油，或只在消費者要求時才添加。
- Make reference to the CFS' "Trade Guidelines for Reducing Sodium in Foods", reduce sodium content in MOOP through recipe reformulation (e.g. reduce the use of salt or seasonings; and use more fresh ingredients, herbs and spices).
- Serve sauce and dish in separate containers, use standard measuring spoons to add the required amount of sauce, or add sauce upon consumers' request.



給業界的建議

Advice to Trade (2)

- 除了提供標準分量的碟頭粉麵飯外，可提供較少分量如輕量版的碟頭粉麵飯，讓消費者按所需的分量來選擇。
- 在菜單、價目表及其他印刷品上展示營養成分資料（尤其是鈉／鹽）。
- Apart from providing the standard portion size of MOOP, offer MOOP in smaller portion size for consumers to choose based on their requirements.
- Display nutrition information (particularly sodium/salt) of MOOP on menus, price list and other printed matters.



謝謝
Thank You

