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# Shaping Supportive Environments for Sustainable Health Development

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**Shu-Ti Chiou M.D., Ph.D., M.Sc.**

- Senior Consultant Physician, Taoyuan General Hospital, Ministry of Health & Welfare, Taiwan
- Immediate Past Director-General, Health Promotion Administration, Ministry of Health and Welfare, Taiwan
- Adjunct Associate Professor, School of Medicine, National Yang-Ming University, Taiwan
- Member of Executive Board, The International Union for Health Promotion and Education (IUHPE)
- Member of Governance Board, International Network of Health Promoting Hospitals & Health Services
- Chair, Task Force on Health Promoting Hospitals and Age-friendly Health Care

# Shaping Supportive Environments for Sustainable Health Development

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*Shu-Ti*

- Background
- Social mobilization, supportive environments & healthy public policies in obesity prevention & control
- Future prospective: synergies between health promotion & SDGs

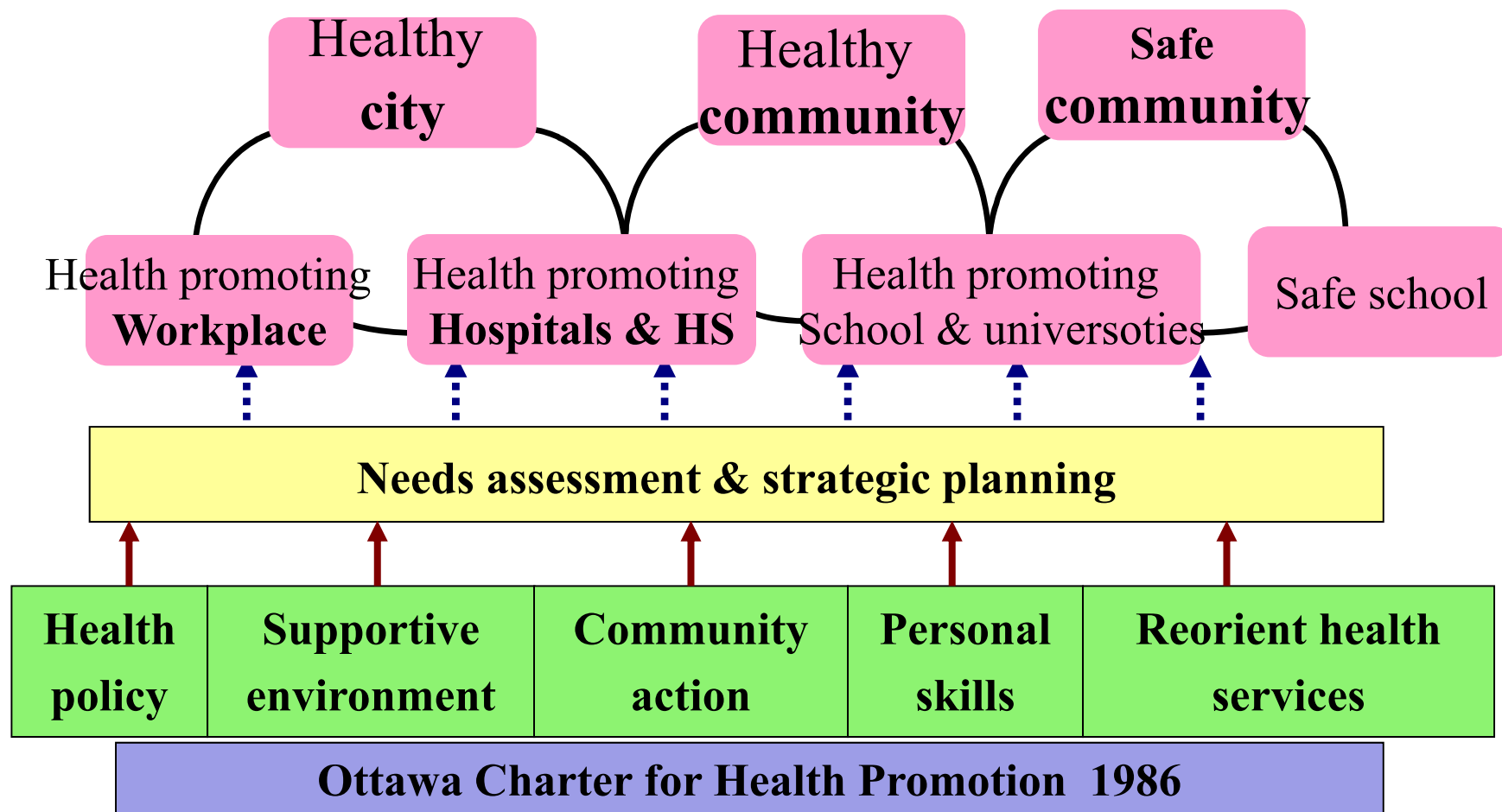
# Background

# Population and Health Statistics in Taiwan, UK and USA

	Taiwan	UK	USA
Total population	23.4 million (2014)	64.5 million (2014)	318.9 million (2014)
Population Density (Pop. Per km2)	647 (2014)	267 (2014)	35 (2014)
GDP/capita, \$	22,635 (2014)	46,332 (2014)	54,630 (2014)
THE (Total Health Expenditure) as % of GDP	6.6 (2013)	9.1 (2013)	17.1 (2013)
Illiterate rate, (%) >=15yr	1.5 (2014)	-	-
LE0 (Life Expectancy at birth, years)	80.0 (2013)	81 (2013)	79 (2013)
Male	76.9 (2013)	79 (2013)	77 (2013)
Female	83.4 (2013)	83 (2013)	81 (2013)
Population age 65 and above (%)	12.0 (2014)	17.5 (2014)	14.4 (2014)
Total Fertility Rate	1.07 (2013)	1.9 (2013)	1.9 (2013)
Crude birth rate(‰)	8.5 (2013)	12.2 (2013)	12.5 (2013)
Neonatal mortality rate(‰)	2.2 (2014)	2.5 (2014)	3.7 (2014)
Infant mortality rate(‰)	3.6 (2014)	3.7 (2014)	5.7 (2014)

Source : 1. Department of Statistics, MOI, R.O.C.      2. Department of Statistics, MOHW, R.O.C.  
 3. Directorate General of Budget, Accounting and Statistics, Executive Yuan, R.O.C.  
 4. The World Bank      5. WHO Global Health Observatory Data Repository

# Development of healthy settings in Taiwan



# Certification standards & performance indicators

## ■ Healthy workplaces

- Devising and implement policy instruments on workers' health
- Protecting and promoting health at the workplace
- Improving the performance of and access to occupational health services
- Providing and communicating evidence for action and practice
- Incorporating workers' health into other policies

## ■ Health promoting hospitals

- Management policy
- Patient assessment
- Patient information and intervention
- Promoting a healthy workplace
- Continuity and cooperation

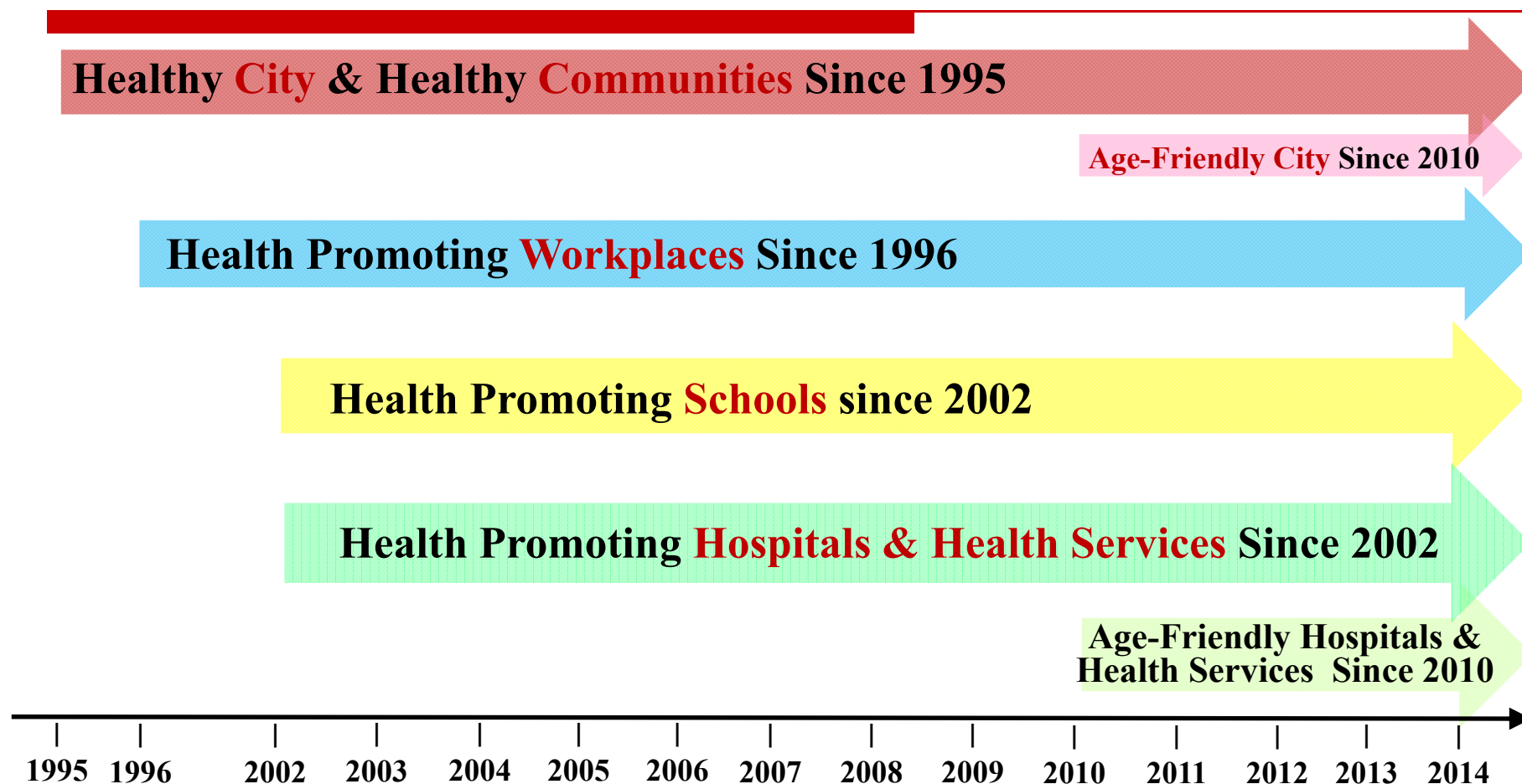
## ■ Health promoting schools

- School policies
- School's physical environment
- School's social environment
- Individual health skills and action competencies
- Community links
- Health services

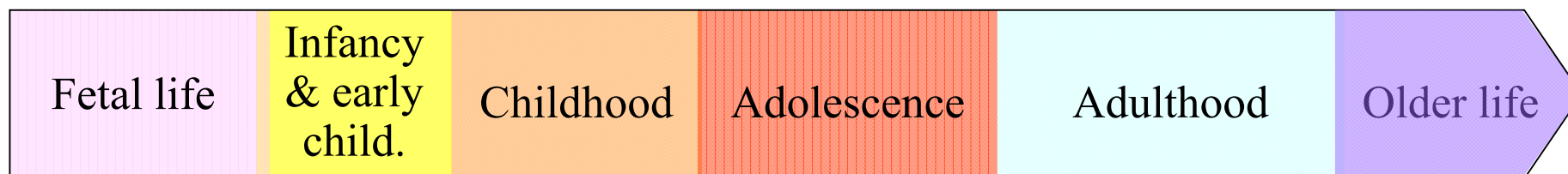
## ■ Age-Friendly City

- Respect and social inclusion
- Social participation
- Outdoor spaces and buildings
- Transportation
- Housing
- Communication and information
- Community support and health services
- Civic participation and employment

# Development of health promoting settings in Taiwan



# Health promoting settings



**Healthy City Project:** 14 counties/cities implementing.  
12 counties/cities and 11 other local districts counties members of  
the **Alliance of Healthy Cities (AFHC)**.



**Healthy Community Development:** 455 communities  
**Safe Communities** : a total of 19 communities certified by WHO-CC



**WHO Collaborating Centre on  
Community Safety Promotion**



**Baby-  
friendly  
H.S.:** 182  
(80.7% of  
births)

**HP  
Kinder-  
garten**

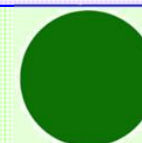
**HP Schools:** 3,905 (100%)  
**HP Universities:** 142 (almost 100%)  
**Safe Schools:** 79 (by the WHO  
International Community Safety  
Promotion Center.

**HP Workplaces:**  
12,439

**Age-friendly City:** 22  
cities/counties (100%)

**Age-friendly Hospitals &  
Health Services:** 211

**Health promoting healthcare :** 160



International Network of  
**H**ealth  
**P**romoting  
**H**ospitals & Health Services



# Annual Award Selection for Best Practices of Healthy Cities & Age-friendly Cities in collaboration with Taiwan Alliance for Healthy Cities <sup>Shu-Ti</sup>

President (or Vice P) & Mayors attended the annual conference.

AFC, 8 Domains	2013	2014
	Applicants	
Outdoor spaces and buildings	30	32
Transportation	16	17
Housing	11	9
Social participation	26	38
Respect and social inclusion	16	23
Civic participation and employment	16	25
Communication and information	17	22
Community support and health services	19	40
Total	151	206



The 5<sup>th</sup> Healthy City and Age-friendly City Awarding Ceremony (2013)



The 6<sup>th</sup> Healthy City and Age-friendly City Awarding Ceremony (2014)

# Participation in global events

Ex. In The 6th Global Conference of Alliance for Healthy Cities, 2014 (Health in All Policies),

- Taiwan submitted 157 abstracts, accounting for more than 50% of all 270 submitted abstracts, and 77 were accepted.
- Taiwan won 5 among 10 outstanding posters awards, and
- 7 among 57 awards of Creative Developments in Healthy Cities were from Taiwan.

## Taiwan's participation in the Global Conference of Alliance for HC

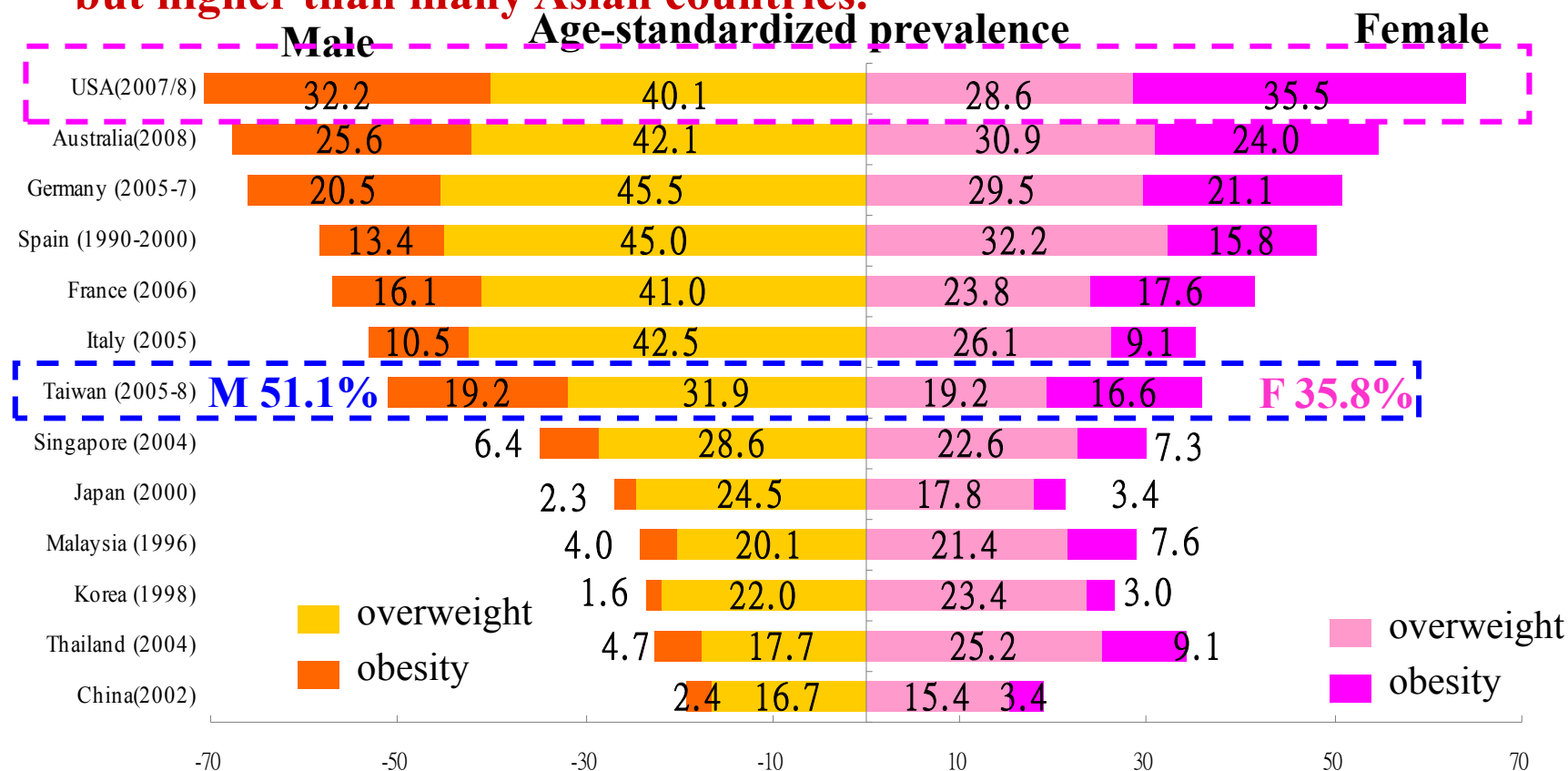
yr	poster	oral	Oral poster	Creative Award
2008	4	14	0	2
2010	23	14	0	2
2012	44	13	0	4
2014	51	13	13	7



**Social mobilization,  
supportive environments & healthy public  
policies in obesity prevention & control**

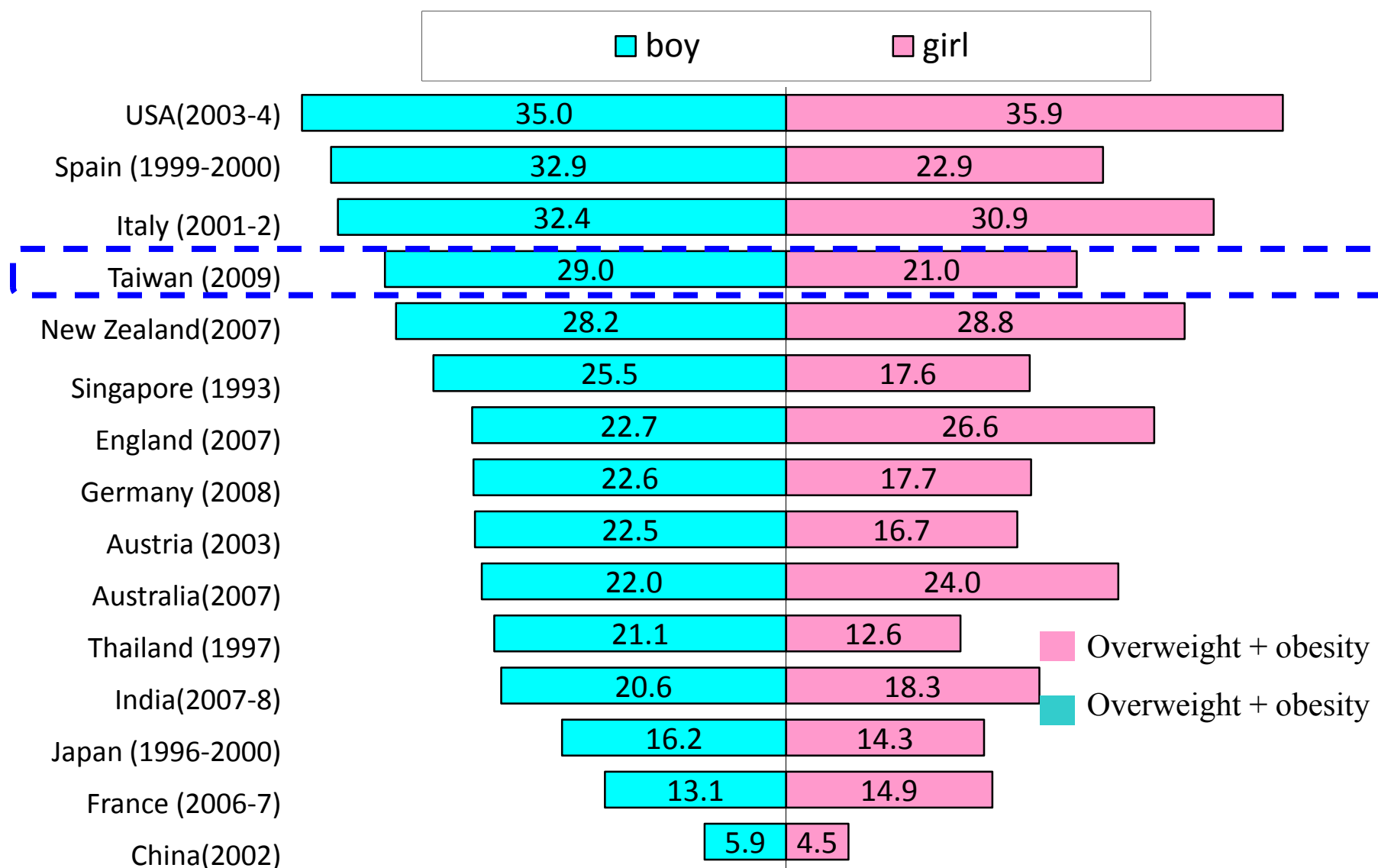
# Overweight and obesity in adults

**Our prevalence of overweight and obesity is lower than Western countries, but higher than many Asian countries.**



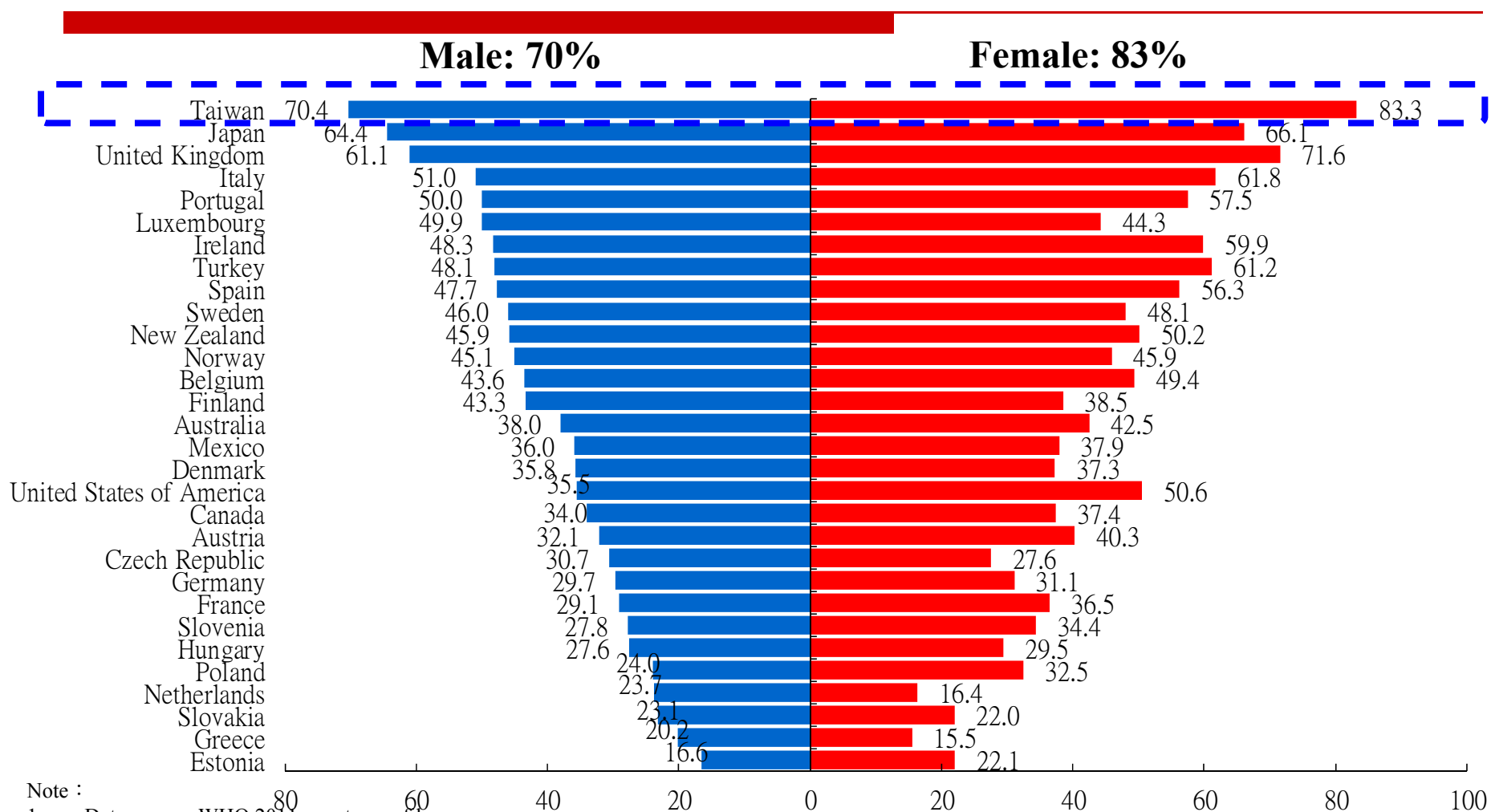
Data sources: International Obesity Taskforce (IOTF)  
 Europe: overweight:  $25 \leq \text{BMI} < 30$  ; obesity:  $\text{BMI} \geq 30$  (2008, 20+ years old)  
 Asia: depends on each countries' standard  
 Chinese Taipei: Nutrition and Health Survey in Taiwan (NAHSIT).  
 overweight:  $24 \leq \text{BMI} < 27$  ; obesity:  $\text{BMI} \geq 27$  (2005-2008, 18+ years old)

# Overweight and obesity in **children**



# Prevalence of insufficient physical activity

- Compared with 29 OECD members



Note :

1. Data source: WHO 2011 country profile.
2. Data of Taiwan : 2013 Taiwan BRFSS
3. Physical inactivity: the percentage of the population aged 15 or older engaging in less than 30 minutes of moderate activity per week or less than 20 minutes of vigorous activity three times per week, or the equivalent.
4. Physical inactivity (Taiwan) : people aged 18 or old engaging in less than 150 minutes of moderate activity per week.
5. Data from Chile, Iceland, Israel, South Korea, Switzerland were absent.



# Obesogenic environments



# Health-related targets of Taiwan's Golden-Decade Mega-plan (2011-2020)

Indicators	Base, 2010	Target, 2020
<b>Cancer mortality rate</b> (1/100,000)	131.6	119.3 by 2016 ( <b>10%↓</b> ) 106.0 by 2020 ( <b>20%↓</b> )
<b>Adult smoking rate</b> (%)	Adults: 19.8	Adults: 10 ( <b>50%↓</b> )
<b>Adult betel quid chewing rate</b> (%)	Men 12%	Men: 6% ( <b>50%↓</b> )
<b>Adult physical activity</b> (%)	Adults: 26%	Adults: 52% ( <b>2 folds ↑</b> )
<b>Healthy BMI</b> (%)	Men: 46.3 Women: 56.8 Boys: 52.3 Girls: 57.1	Men : 48.6 ( <b>5% ↑</b> ) Women : 59.6 ( <b>5%↑</b> ) Boys : 57.5 ( <b>10% ↑</b> ) Girls : 61.2 ( <b>10% ↑</b> )
<b>Age-friendly City Initiative</b>	1 among 22 cities and counties	All 22 by 2016 (100%)



# The challenges

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- People believe it's personal.
- People believe it's easy- just eat less & exercise more!
- People don't exactly know how severe the consequences are.
- Proposals to introduce sugar tax, traffic light labeling & ban of marketing did not get much public support.

# The war against obesity!

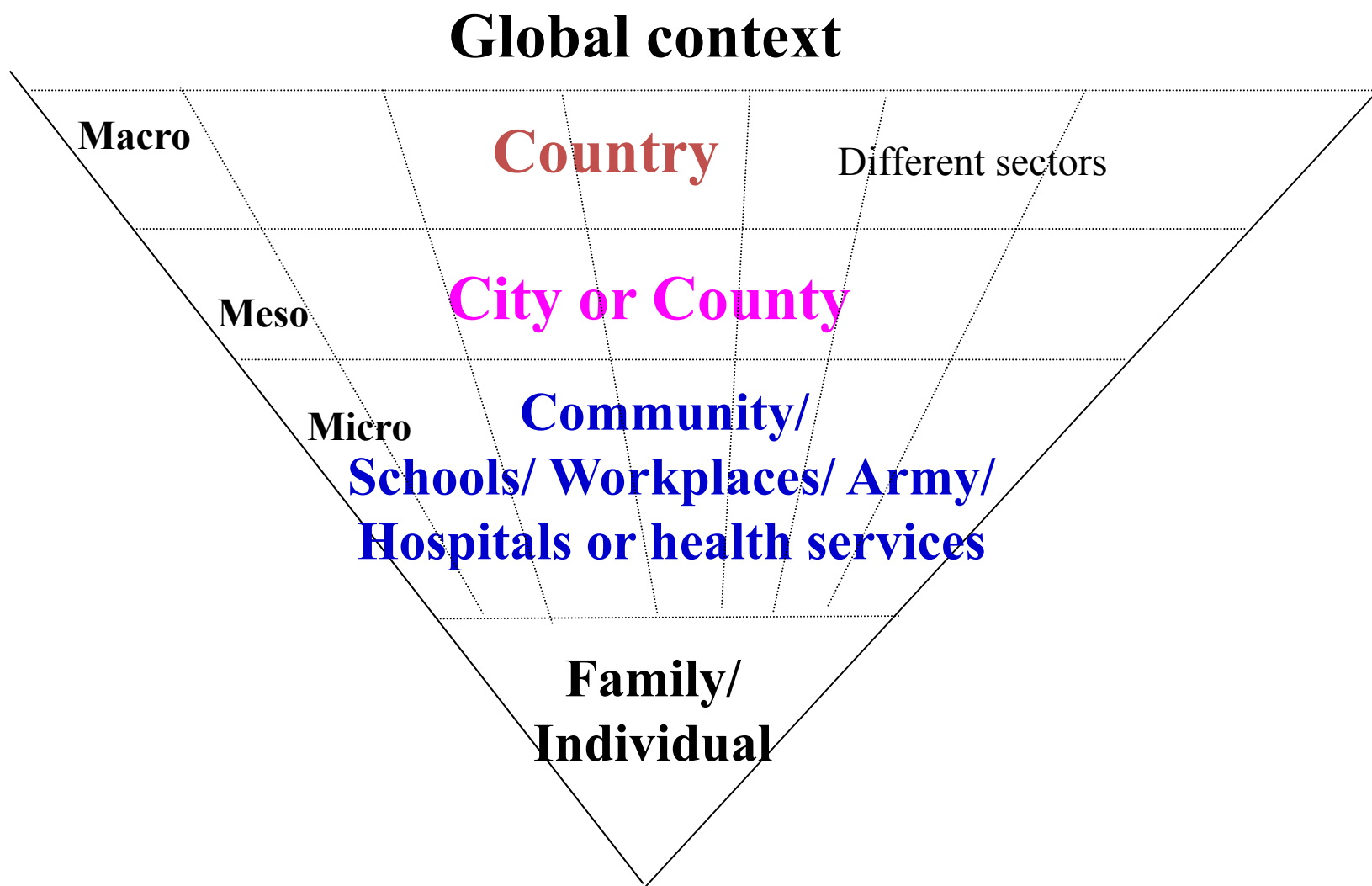
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- To mobilize our **society** and **people** to join the fight against obesity, we launched “**Healthy Centenary, Healthy Taiwan-600 tons away**” campaign in 2011 (& thereafter)
- A social movement of synchronized momentum to “change”
  - **Individuals** to collectively learn and practice “smart eating, joyful moving, daily weighing”, **NOW!!**
  - **Systems**: strong voice for better environment and supply: **“WE WANT IT!”**.
- To mobilize 600,000 persons to collectively lose 600,000 Kg of excessive body weight.

(About 9% of persons aged 6-64 who are overweight or obese to join and lose 1 kg per persons)

# A multi-level, multi-sector ecological approach

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# Settings as the channels of action



# Creating positive changes in settings

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Ottawa Charter for Health Promotion, WHO, 1986



# 1. Political commitment: President Ma, Prime Minister Wu and Minister Yang kicked off the campaign

Jan. 18, 2011 ↓

Feb. 24, 2011 →

Everyone take care of bodyweight. Don't relax even for the Lunar New Year!



Average BW gain with lunar new year: 2Kg



## Followed by ministries & counties/cities

Goals declared by counties/cities →

Ministry	Goals
National Fire Agency	0.36 tons
National Police Agency	2.5 tons
Ministry of Defense	7.2 tons
Ministry of Education	80 tons
Council of Labor Affairs	100 tons
Total	190 tons





**Followed by setting leaders:**

**Minister Wang of Labor Affairs demonstrated her will to work with BHP and to help labors lose 120 metric tons in 2011**



workplaces



**“We’d like to donate!”**

**“Yes, we can!”**

hospitals



# Political commitment and leading by example by mayors and magistrates



## 2. Enable personal skills:

### Capacity building for:

--public health workers and program managers;

--participants

with: educational activities & modules

#### Hospital setting



#### workplace



#### school



#### Self-help manual & App





### 3. Strengthen community action

It's happening everywhere! Have you joined?

*Shu-Ti*



■ The CEO of TSMC in annual company sporting events



Community folk-dance groups



community post-partum mothers support groups



HP workplaces



Basket ball groups of a company

# And the winner is...

“Honor” as the reward

“ 1 kg rice in exchange of 1 kg weight loss”



Lottery for participants with “health” as the reward



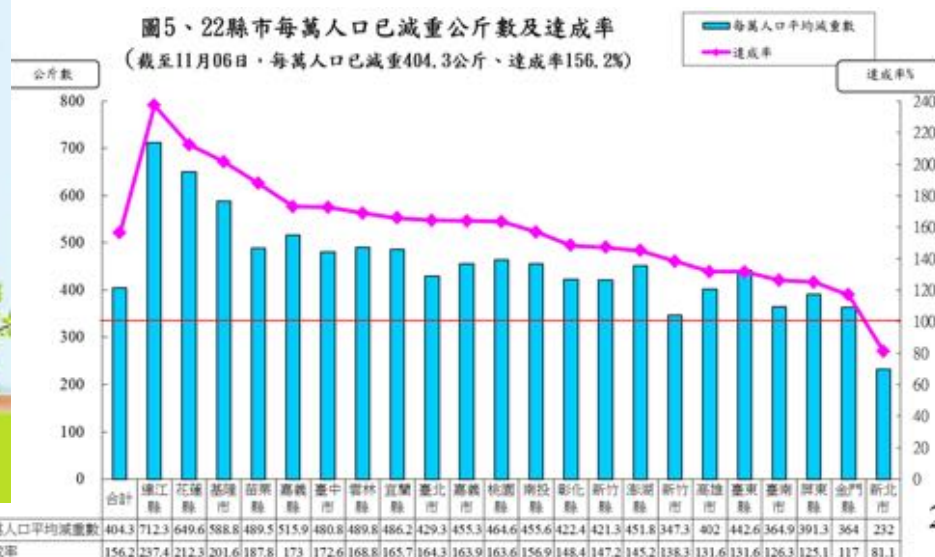


# Data upload, rankings, competition

- Participated teams upload data of weight loss weekly
- Email results of weight loss to each county and city weekly.
- Rank the rates of achievement of counties and cities



縣市	衛生局登錄目標	減重人數	減重人數達成率%	總人口	每萬人口參與人數	每萬人口目標參與人數	每萬人口參與人數達成率%
合計	699.9	42746	6.5	2337517	18.3	282.3	6.5
基隆市	64.8	0	0.0	268836	0.0	241.2	0.0
新竹市	113.7	0	0.0	3994929	0.0	292.4	0.0
臺中市	73.6	9639	13.1	2701660	35.7	272.4	13.1
臺南市	54.0	2154	4.0	1883208	11.4	266.7	4.0
高雄市	83.4	1921	2.3	2779877	6.9	300.0	2.3
桃園市	6.4	184	86.0	12165	151.3	128.8	86.0
基隆市	13.3	206	2.6	374934	7.9	301.4	2.6
宜蘭縣	33.2	2093	15.9	456456	45.7	267.9	15.9
新竹縣	34.0	1742	12.4	539486	32.0	263.9	12.4
苗栗縣	33.0	12765	20.9	2048023	62.3	298.4	20.9
新竹市	13.6	314	2.9	42483	7.3	256.7	2.9
彰化縣	14.3	473	3.3	50554	8.4	272.8	3.3
彰化市	39.0	0	0.0	129003	0.0	300.0	0.0
南投縣	33.6	0	0.0	517222	0.0	262.9	0.0
嘉義縣	35.6	76	0.5	526229	1.4	294.8	0.5
雲林縣	39.2	0	0.0	707792	0.0	271.3	0.0
嘉義市	7.9	165	2.3	270872	6.1	291.7	2.1
澎湖縣	2.8	319	29.3	100490	31.6	278.9	29.3
金門縣	3.5	1096	88.5	120713	140.5	299.9	88.5
連江縣	27.1	2066	7.6	812286	24.2	318.0	7.6



# Media promotion

## Press Conference / Press Release

- Help industries make traditional festival foods that are high in fiber and low in salt, sugar, fat and calories.
- Educate the public on selecting healthy traditional festival foods.

Jan	<ul style="list-style-type: none"> <li>• The Spring Festival</li> </ul>	 
Feb	<ul style="list-style-type: none"> <li>• Lantern Festival (Press Release)</li> <li>• Valentine's Day (Press Release)</li> </ul>	 
Mar	<ul style="list-style-type: none"> <li>• Women's Day (Press Release)</li> </ul>	
Apr	<ul style="list-style-type: none"> <li>• Tomb-Sweeping festival (Press Release)</li> <li>• Children's Day (Press Release)</li> </ul>	 
May	<ul style="list-style-type: none"> <li>• Mother's Day</li> </ul>	
Jun	<ul style="list-style-type: none"> <li>• Rice dumpling Festival</li> </ul>	 

## 4. Reorient health services Advocator, role model, enabler, mediator

St. Martin de Porres Hospital in  
Chia Yi outreach to community



“On diet, don’t feed me!”



Integrate obesity screening and weight  
management into routine checkup and  
clinical services

100

回首頁 回首頁 回首頁 回首頁 回首頁

回上一頁 回下一頁 回首頁 回首頁

成人營養入院篩檢(初篩)Nutritional Status Evaluation (MUST Score)

病歷號碼: 性別: ☐ 男 ☒ 女 入院日期: 101 年 05 月 08 日

姓 名: 床號: 000 - 001 診造日期: 101 年 05 月 08 日

生 日: 年齡: 86 歲 列印日期: 101/05/14

篩選因子	0分	1分	2分
身體質量指數(BMI)	<input type="checkbox"/> $\geq 20$	<input checked="" type="checkbox"/> 18.5~20	<input type="checkbox"/> $\leq 18.5$
最近6個月體重減輕	<input checked="" type="checkbox"/> $\leq 5\%$	<input type="checkbox"/> 5~10%	<input type="checkbox"/> $\geq 10\%$
禁食>5天	<input checked="" type="checkbox"/> 沒有		<input type="checkbox"/> 有

總分 1 分 護理人員: \_\_\_\_\_ 日期: \_\_\_\_\_ 時間: \_\_\_\_\_

醫 師: \_\_\_\_\_ 日期: \_\_\_\_\_ 時間: \_\_\_\_\_

※警備處置:   
 ○低風險 (=0) 一般臨床照護即可  
 ○中度風險 (=1) 應再考慮一次營養評估  
 ○高風險 (=2) 應考慮營養攝取量小於25%即會營養師

※MUST  $\geq 3$  為營養不良高危險群, 若BMI  $\leq 27$  建議照會營養師做進一步的營養評估。

2011年11月30日病歷製表通過



## 5. Build supportive environment

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**5As” strategies** to make healthier choices easier

**Available:** water, healthy foods & food products; time, place & facilities for physical activities,

**Accessible:** they are around you,

**Affordable:** at low price,

**Adorable:** with joy & fun, and

**Adoptable:** you can make it a droutine.



# Innovation of delicious and affordable healthy meals and food products

## ■ Healthy food certification



## ■ Aboriginal healthy meal



## ■ Healthy gourmet



## ■ Three bundles of veggies cost NTD\$ 10



## ■ Fashionable restaurant

hotspots 編輯 陳元慈 撰文 VINCENT  
健康選食

總是給人放心與安心感的天和鮮物，永遠都有絡繹不絕的人潮，店家宣稱從健康的生物鏈開始做起，擁有自家生產的有機農場、人道雞豬鵝畜牧場、以及超越國際標準的海洋漁場。在自家賣場內設立烘焙、餐廳與果汁吧的天和鮮物，是台灣第一家也是目前唯一一家全方位的農漁畜牧產品直營販售店。賣場內全數商品都須經過安全檢驗或有效的合法認證才能上架，其中七成以上是國內有機商品與食材，烘焙區裡可清楚看見所有食物的食材來源。果汁吧內可嚐到用湯匙舀著吃的精力湯，安心不僅看得到，也吃得到。

(右)精力湯：由十五種  
藥材熬成，清甜爽口。  
(下)有機芒果麵包：以  
有藥法產區小麥與有  
機芒果製成。



地址：台北市北平東路30號  
電話：(02) 23516268  
營業時間：10:00-20:00  
網址：<http://www.thefood.com/>

天和海產精製肉片：  
肉片十足。



# Healthy souvenir for tourists



Low fat

Low  
calorie

Low sugar

High fiber  
(w/whole  
wheat flour)



關廟區低糖低卡養生鳳梨酥

Local food  
(w/rice flour)

	中國大陸受訪者	香港受訪者	台灣受訪者建議
1.	鳳梨酥 (70%)	鳳梨酥 (68%)	鳳梨酥 (70%)
2.	彰化肉圓 (59%)	牛肉乾 (58%)	茶葉 (69%)
3.	宜蘭鴨賞 (57%)	太陽餅 (37%)	太陽餅 (64%)

**Ranked as No.1 favorite  
souvenir by 70% of  
tourists;  
20,000,000 pieces sold per  
year.**

Visa大中華區台灣旅遊偏好調查報告, 2009

## School policy

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- HPS is mandatory.
- **Healthy bodyweight management** is a priority issue, monitored with indicators.
- **Guidelines on food products to be sold in schools** (ex. upper limit of sugar, fat and sodium in drinks and foods)
- **Healthy lunch** with menu designed and supervised by dieticians provided at very low prices
- **A Meat-free Day per week.**



# Meat-free day in School

- 2,552 primary and junior-high schools in Taiwan (about 72% of all schools) implement at least 1 meatless day per week,
- Estimated that each meatless meal can reduce 1,740,193kg of CO<sub>2</sub> emission.
- Equivalent of a 1,600cc car driving 197 times around the Earth.



# Environment-friendly eating in low-carbon hospital initiative

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## Green Food :

- Vegetarian meal choices available in the cafeteria
- Healthy bakery designed by hospital dietitians



**NTD 5 Discount if staff brings their own tableware**





# Convenient store chains- “health” as a value for competition

Turn “bad health as a result of economy” into “good health as a competition for economy”



# Active transportation system



**BBMW:**  
**New Brand of transportation:**  
B-bus  
B-bike  
M-metro  
W-walk





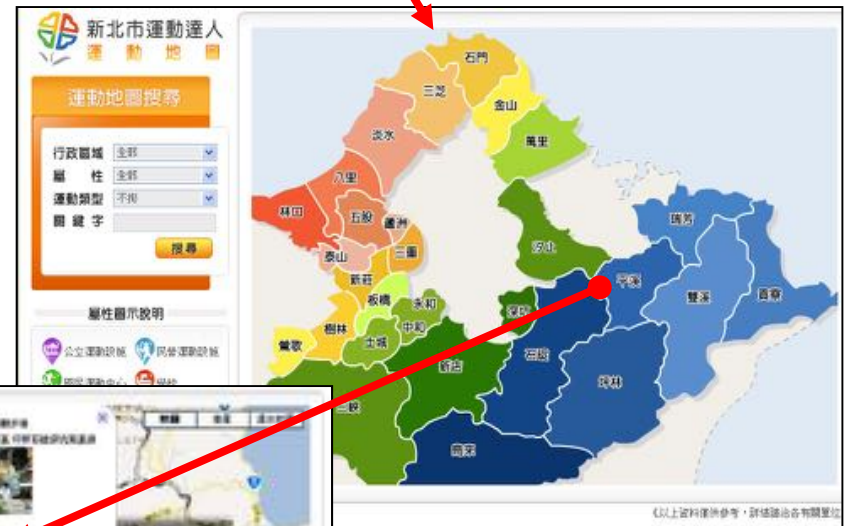
# Physical Activity in Workplaces

**Something normal people can  
do in normal places, in normal  
dresses**



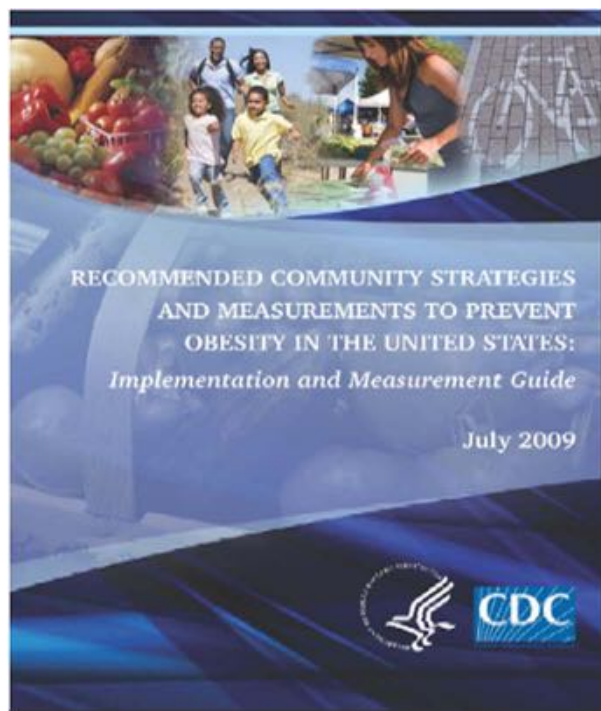


# Sport Map



# Periodic review on obesogenic environment

6 categories, 19 strategies and 40 items.



Category 1: Strategies to promote the **availability of affordable healthy food** and beverages.

Category 2: Strategies to support **healthy** food and beverage **choices**.

Category 3: Strategy to **encourage breastfeeding**

Category 4: Strategies to **encourage physical activity** or limit sedentary activity among children and youth.

Category 5: Strategies to **Create safe communities** that support physical activity.

Category 6: Strategy to **encourage communities to organize for change**

## 6. Develop Healthy Public Policy

### ■ Labeling, Limiting, Elimination:

- ✓ Labeling of “sugar content” both on food package & for prepared drinks
- ✓ Ban of advertisements & promotion of unhealthy foods towards children (effective in 2016.01.01)
- ✓ Eliminate partially hydrogenated oils (PHO) in food products (effective in 2019)

### ■ Legislation for **traffic light labeling** of packaged foods & menu labeling in big restaurants: underway

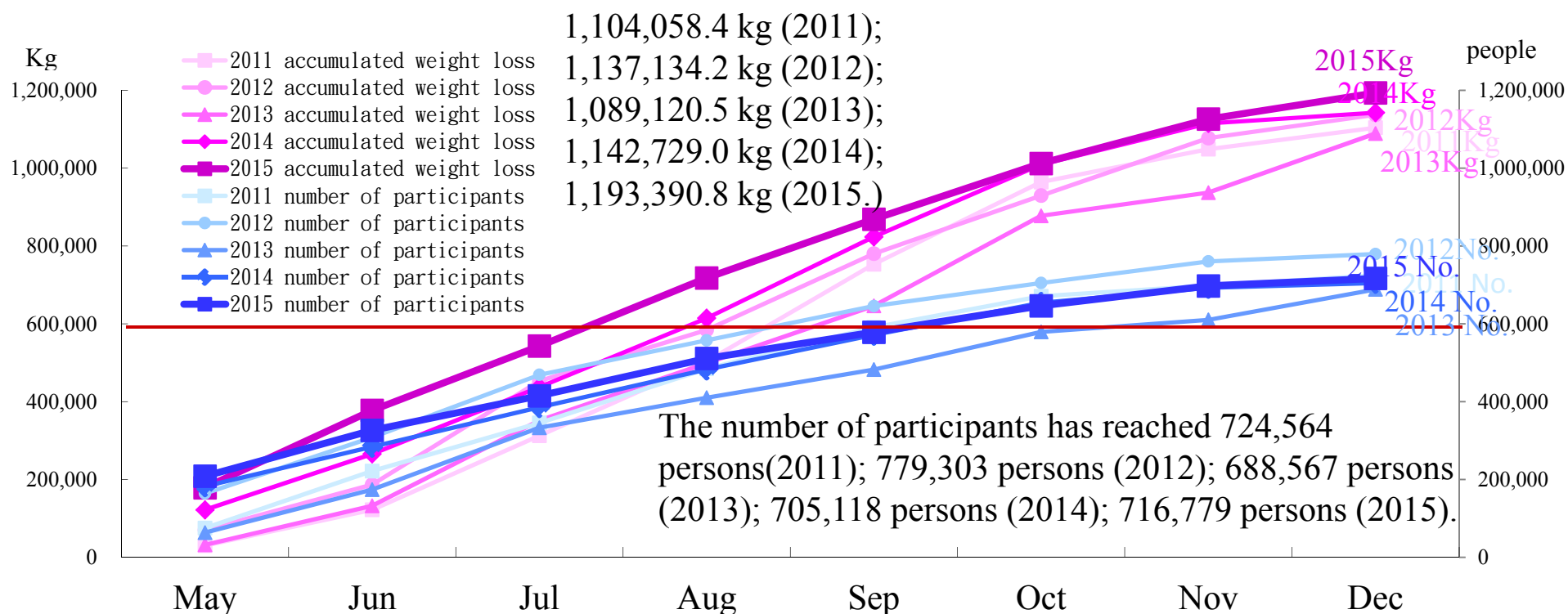
### ■ **Sugar tax?!**



# 1. The impact on health

## Results of Campaign 2011-2015

- Weight loss: 1,104,058.4 kilograms (2011); 1,137,134.2 kilograms (2012); 1,089,120.5 kilograms (2013); 1,142,729 kilograms (2015) ; 1,193,390.8 kilograms (2015).
- No. of participants: 724,564 persons(2011); 779,303 persons (2012); 688,567 persons (2013); 705,118 persons (2014) ); 716,779 persons (2015).
- Each participant lost an average of **1.57** kilograms.



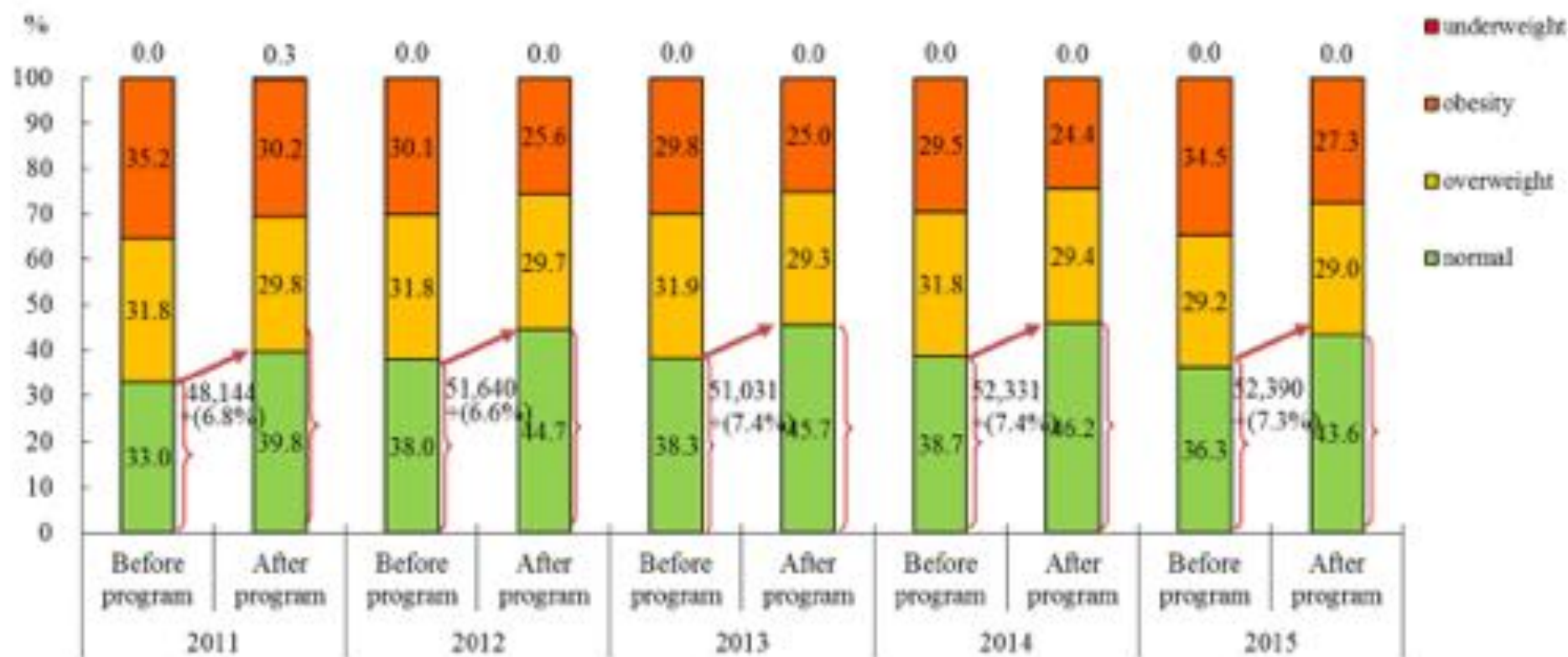
Aug. 6<sup>th</sup>, 2015 - 600 tons weight loss achieved

Oct. 14<sup>th</sup>, 2015 - 600,000 achieved total participants

Nov. 30<sup>th</sup>, 2015 - 22 cities/counties have achieved the goals set by HPA

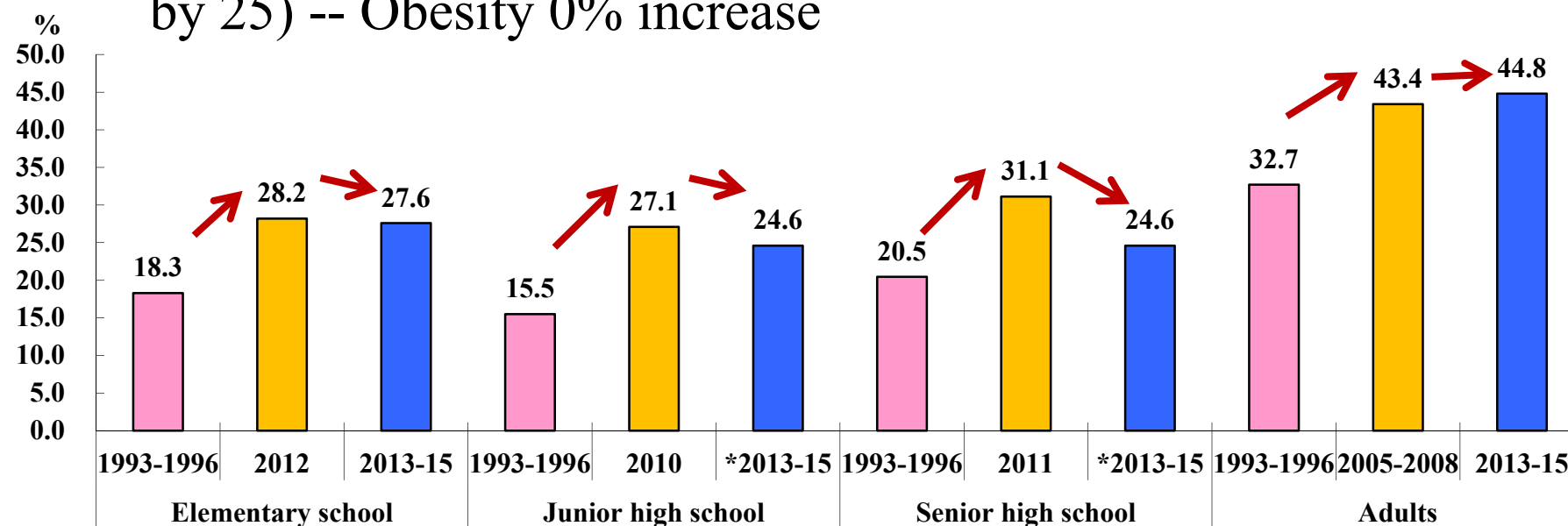


# Distribution of all participant's BMI, pre-and-post campaign, 2011-2015



# Prevalence of overweight and obesity in Taiwan

- The growth in the prevalence of over-weight and obesity in Taiwan has been slowing down.
- Set of 9 voluntary global NCD targets for 2025 (WHO 25 by 25) -- Obesity 0% increase

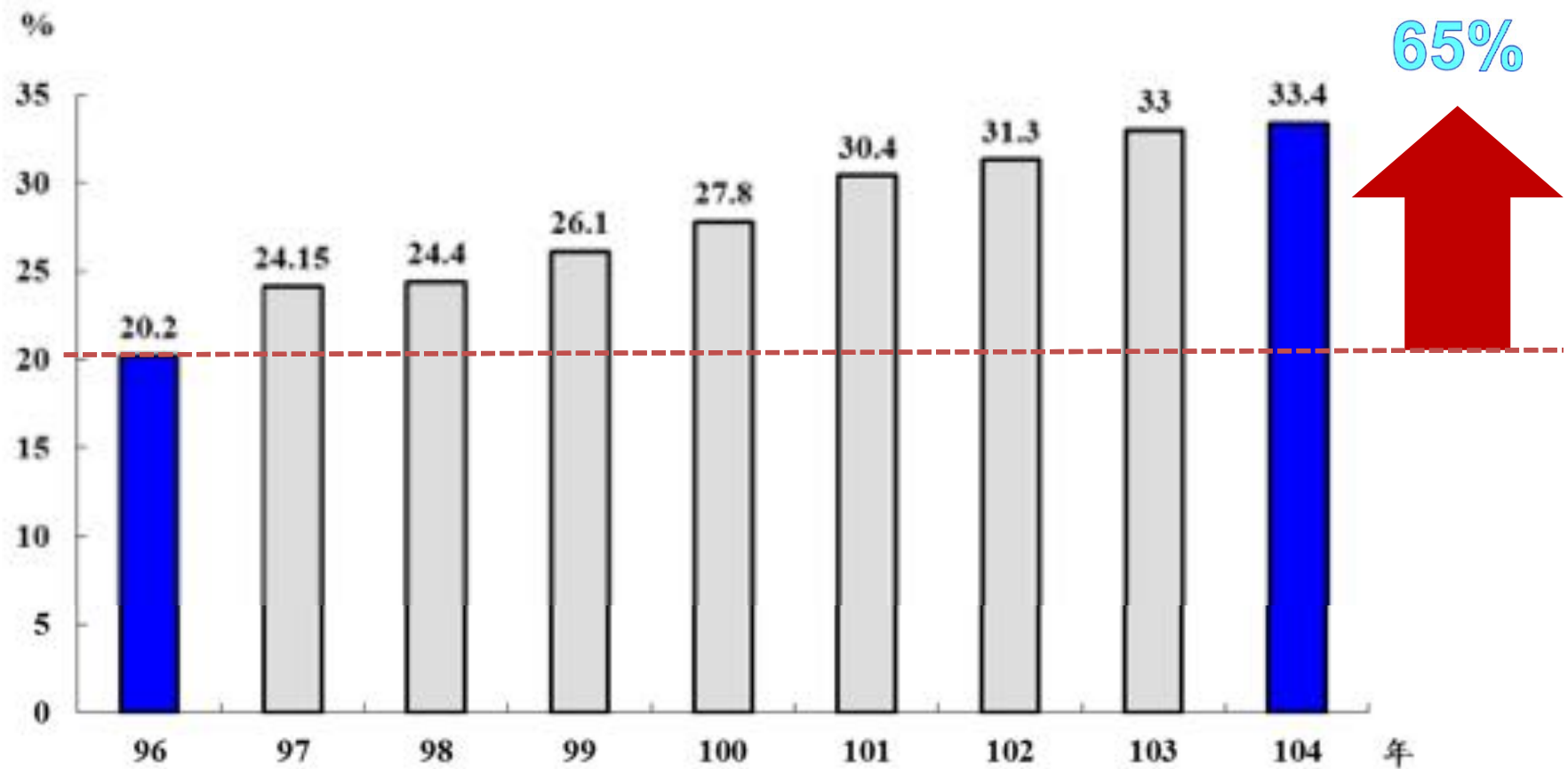


## Note:

1. Data source: Nutrition and Health Survey in Taiwan. \*Teenagers (13-18 years old)
2. Elementary, junior high and senior high school students' weight status is defined by "Definition of obesity in children and adolescents" issued by Ministry of Health and Welfare in 2013.
3. The adult's (18+ years old) overweight and obese: BMI  $\geq 24$  kg/m<sup>2</sup> (2005-2008: 19+ years old)



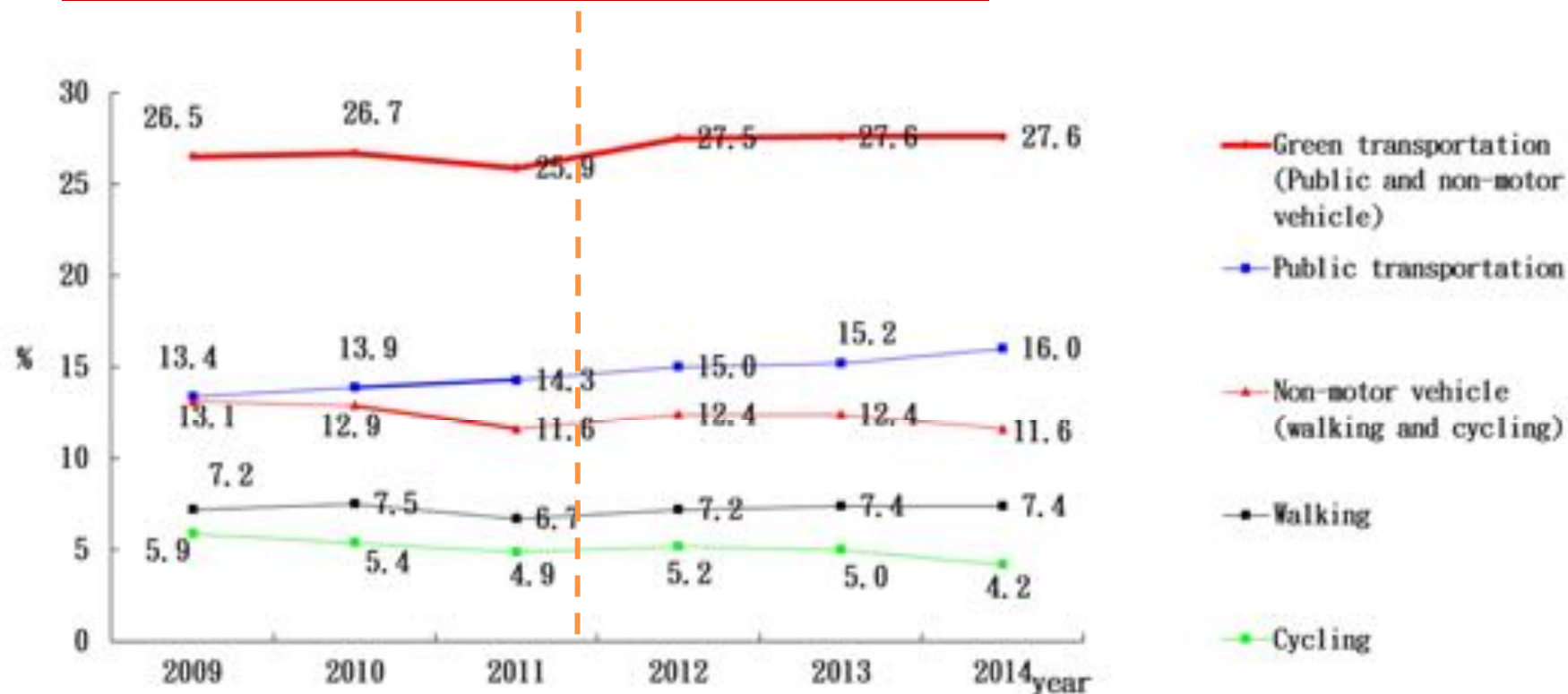
# Prevalence of sufficient physical activity<sup>Shu-Ti</sup> rose by 65% in 8 years (and doubled in 10 years)



資料來源：教育部體育署「運動城市調查」。

註：規律運動定義為每週至少運動3次，每次至少30分鐘，心跳達130或運動強度會喘會流汗。

# Green transportation, 2009-2013



1. A specific purpose is one trip that takes more than 500m to travel; there could be multiple trips and multiple modes of transportation used per day

2. Walk 500m or more

3. Numerator: number of trips taken with public transportation yesterday (or walking, biking, non-motorized vehicles)

Denominator: total number of transportation taken in all trips

Source: Ministry of Transportation and communication 資料來源：交通部統計處「民眾日常使用運具狀況調查」

# Impact on items of food environments

● improved ● unchanged ● worse

By Strategy	Result
Strategy 1: Increase availability of healthier food and beverage choices in public service venues	●●●●●●●●
Strategy 2: Improve availability of affordable healthier food	●●
Strategy 3: Limit supply of less healthy food in public service areas	●●
Strategy 4: Limit “all-you-can-eat” restaurants in the public service venues?	●
Strategy 5: Limit advertisements of less healthy foods and beverages.	●
Strategy 6: Decrease consumption of sugar-sweetened beverages	●
Strategy 7: Increase accessibility to healthier food	●
Strategy 8: Encourage production, distribution and sales of local produce	●●●
<b>Total of 18 items</b>	<b>18 ●</b>

# Impact on physical activity environments

● improved ● unchanged ● worse

By Strategy	Result
Strategy 9: Encourage breast-feeding	●●
Strategy 10: Require physical education in schools	●●
Strategy 11: Increases opportunities for extracurricular physical activity	●
Strategy 12: Limit screen time to no more than 2 hours per day in licensed child care facilities	●
Strategy 13: Support locating schools within easy walking distance of residential areas	●●
Strategy 14: Increase infrastructure supporting walking	●
Strategy 15: Improve accessibility to outdoor recreational facilities	●●●●●●●
Strategy 16: Improve access to public transportation	●
Strategy 17: Strengthen personal safety in public areas	●●
Strategy 18: Enhance traffic safety in areas where people walk or ride bicycles	●●
<b>Total of 21 items</b>	<b>17 ● 4 ●</b>



# Comments

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- **Concerted efforts** between governments, settings, civil society & politicians led to better prepared society, developments of supportive environments & success of legislations against obesity
- Make **data talk** in an effective way.
- Engage **politicians at all levels**.
- Get a high-level platform for multi-sectoral & public-private **partnerships**.
- Have a **shared target** and get people on board.
- **Do the right things right** from the first time for everyone.

# **Social mobilization is critical!**

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Make the movement & appeals visible & do-able:

We have a problem &  
we have the solutions &  
we have the people (with us).

# **Future prospective: synergies between health promotion & SDGs**

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- Articulate the co-benefits of health promotion in supporting the achievements of other SDGs, including those of environment friendliness & economy.
- Articulate health as the value & co-benefits of achieving other SDGs.

# SDGs synergies & sustainable eating





*The Heaven, the earth, the people  
as one.*

天地人合一

*Healthy economy,  
Healthy environment,  
Healthy society.*

