



飲食文化的建立與實踐

Food cultural establishing and practicing

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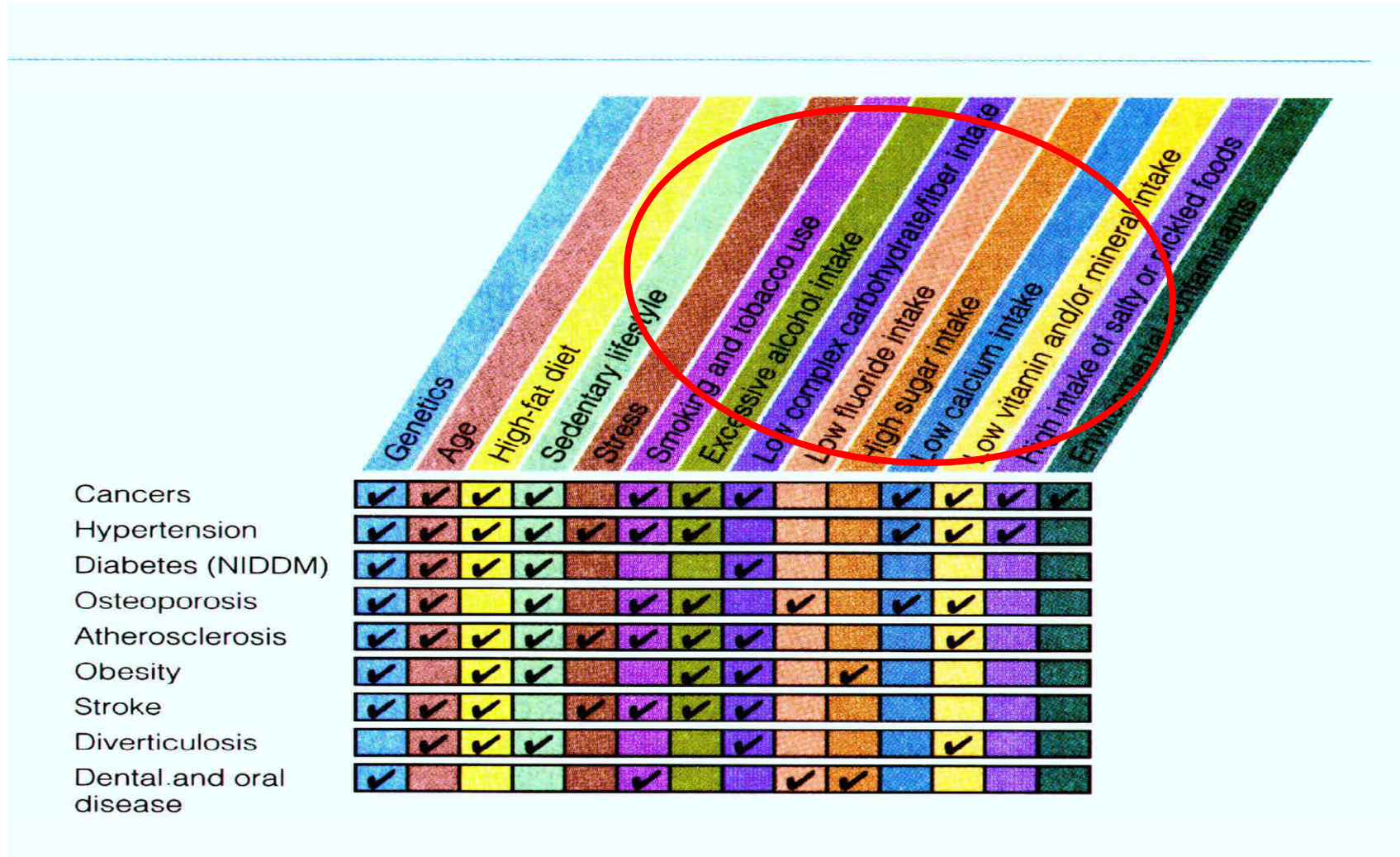
糕餅與生命禮俗

- 滿月圓、四月桃、度啐是紅龜 張，2009
- 訂婚禮品
 - 金環一對、金戒子一對、半豬、喜酒、糕仔、紅綢二尺四、烏紗綢七尺、蠟燭四對、爆竹、禮香二把、耳飾一對、荖花（糖米花香）、禮餅、蓮招花
 - 訂盟、完聘、送日頭 鈴木，1950
- 老年祝壽，紅龜粿、紅桃粿
- 死後喪葬，發糕、米糕；蓮花糕→答謝毛巾

- Once upon a time...
- There was a girl...
- Am I a histologist?
- Is this a fairy time?
- Definitely not.



Risk factors and lifestyle diseases



■ Nutrients deficiency + Lifestyle disease



Double burdens of disease

- Global village
- Average food availability increase annually
- Food intake unbalance
- The less exercise, the more sedentary life

Bethene-Ervin, 2009

Nestel, et al, 2007

Ramakrishnan, 2002

Misigoj-Duraković & Duraković, 2009

Hong , et al, 2009

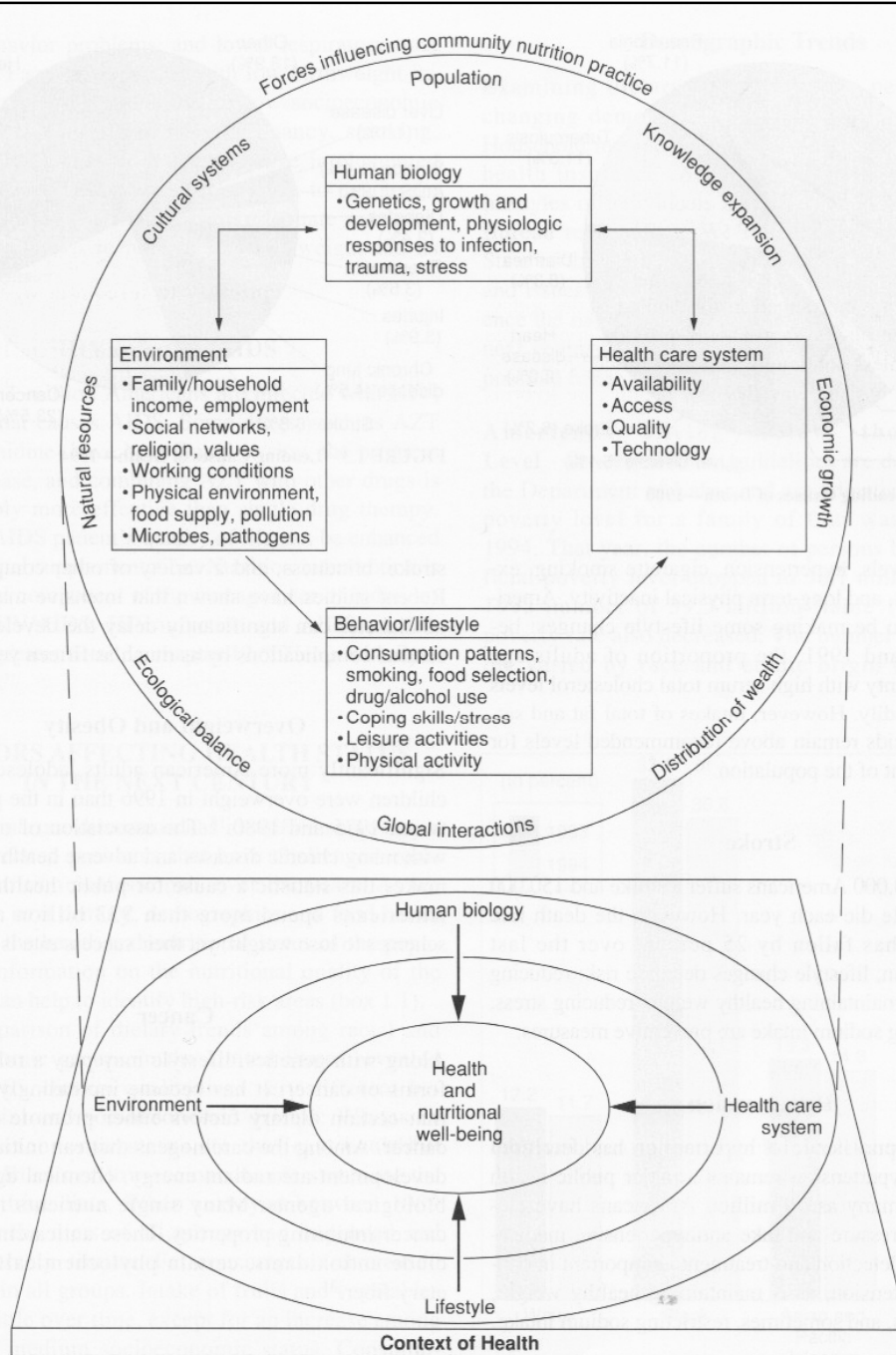
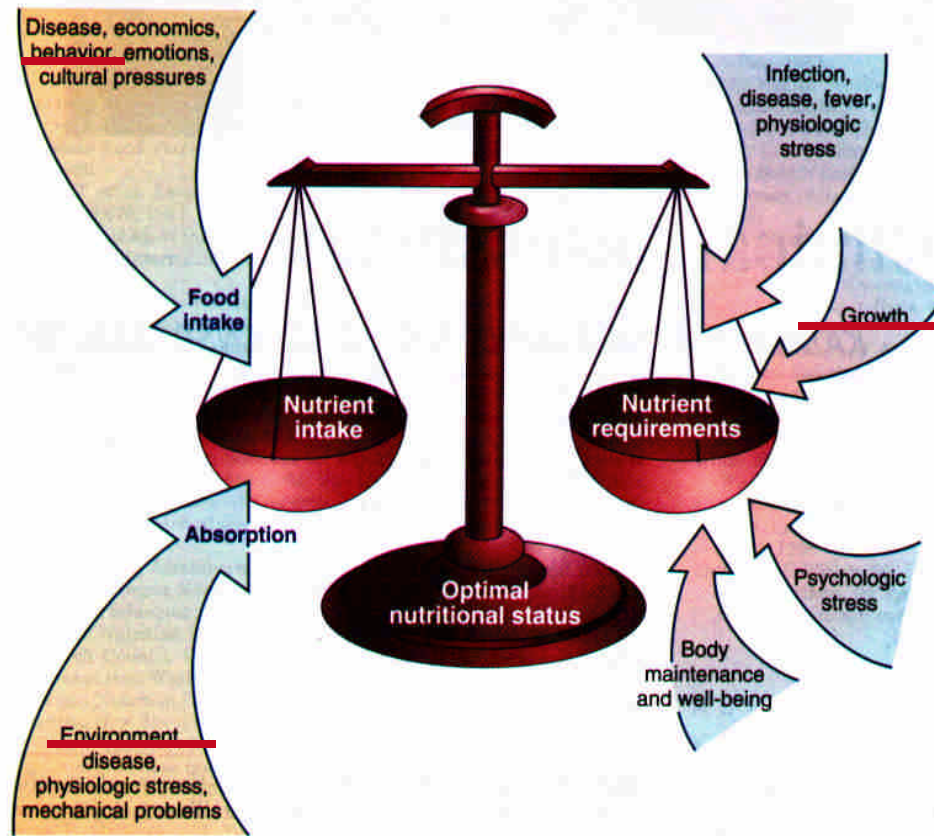


FIGURE 1.1 Context of Health
The forces that influence community nutrition practice.

354 Nutrition Care

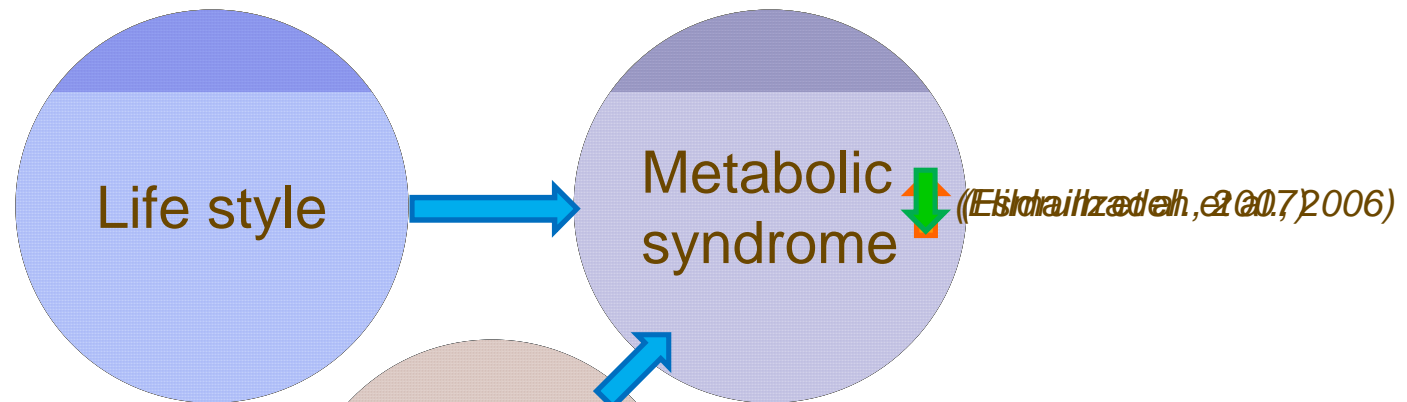


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FIGURE 16-1 Optimal nutritional status viewed as a balance between nutrient intake and nutrient requirements.

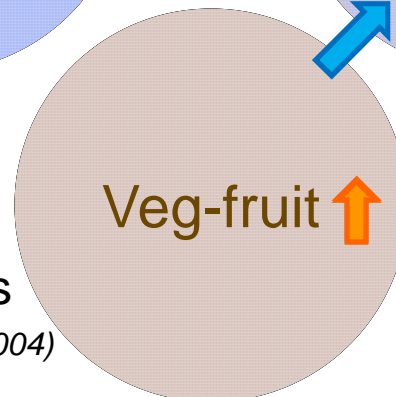
Kathleen & Hammond, 2000

Global problem of metabolic syndrome

- Cluster metabolic risk factors
 - Blood sugar, blood pressure, blood lipid, central obesity (Reaven et al., 1988)
- ↑ cardiovascular disease & diabetes (Hu et al., 2004; Scuteri et al., 2005)



- Dietary intake in Taiwan
 - Vegetable: 2.9 servings
 - Fruit: ♂ 1.4 ♀ 1.1 servings (Department of Health, Executive Yuan, 2004)



- 5 servings veg-fruit daily → Recommended ↓ risk of CVD (Krauss et al., 2000)

Dietary intervention

- ↓ Metabolic syndrome

- Mediterranean diet

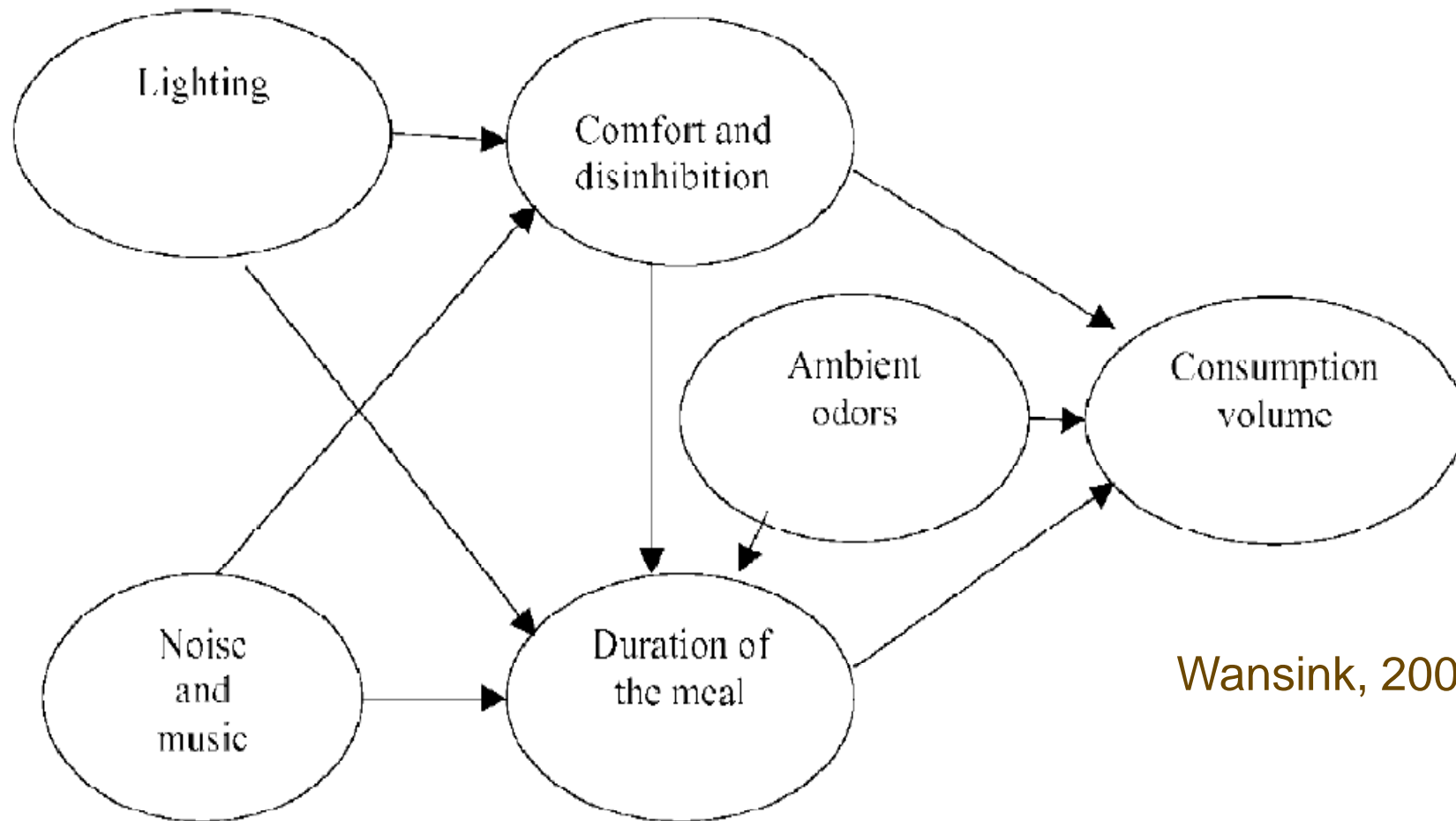
(Alvarez et al., 2006)

- Dietary approaches to stop hypertension study (DASH diet)

(Azadbakht et al., 2005; Lien et al., 2007)

- High whole grain, fish, legume, veg-fruit

(Panagiotakos et al., 2007)



Wansink, 2004

Figure 2 Atmospherics that influence food consumption volume.

You are what you eat

- Food choice decisions
 - *what we eat*
 - soup or salad
- Food consumption volume decisions
 - *how much we eat*
 - half of the bowl or all of it
 - package size, plate shape, lighting, variety, or the presence of others

Wansink, 2004

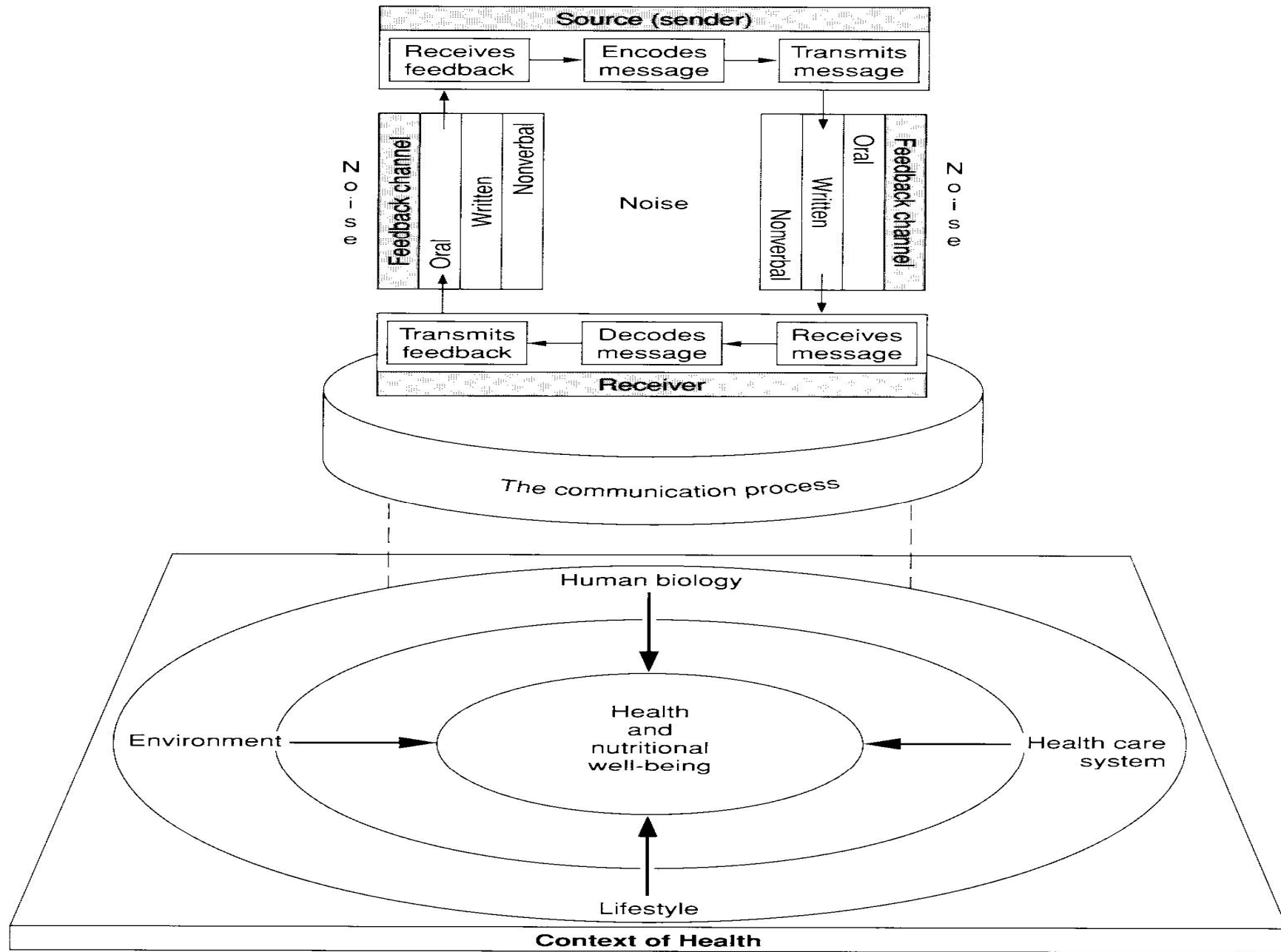


Figure 17.1 Context of Health

The communication process. (Source: Top of model from Mondy R. Premeaux SR: *Management: concepts, practices and skills*, ed 7 © 1995. Reprinted by permission of Prentice-Hall, Inc., Upper Saddle River, NJ.)

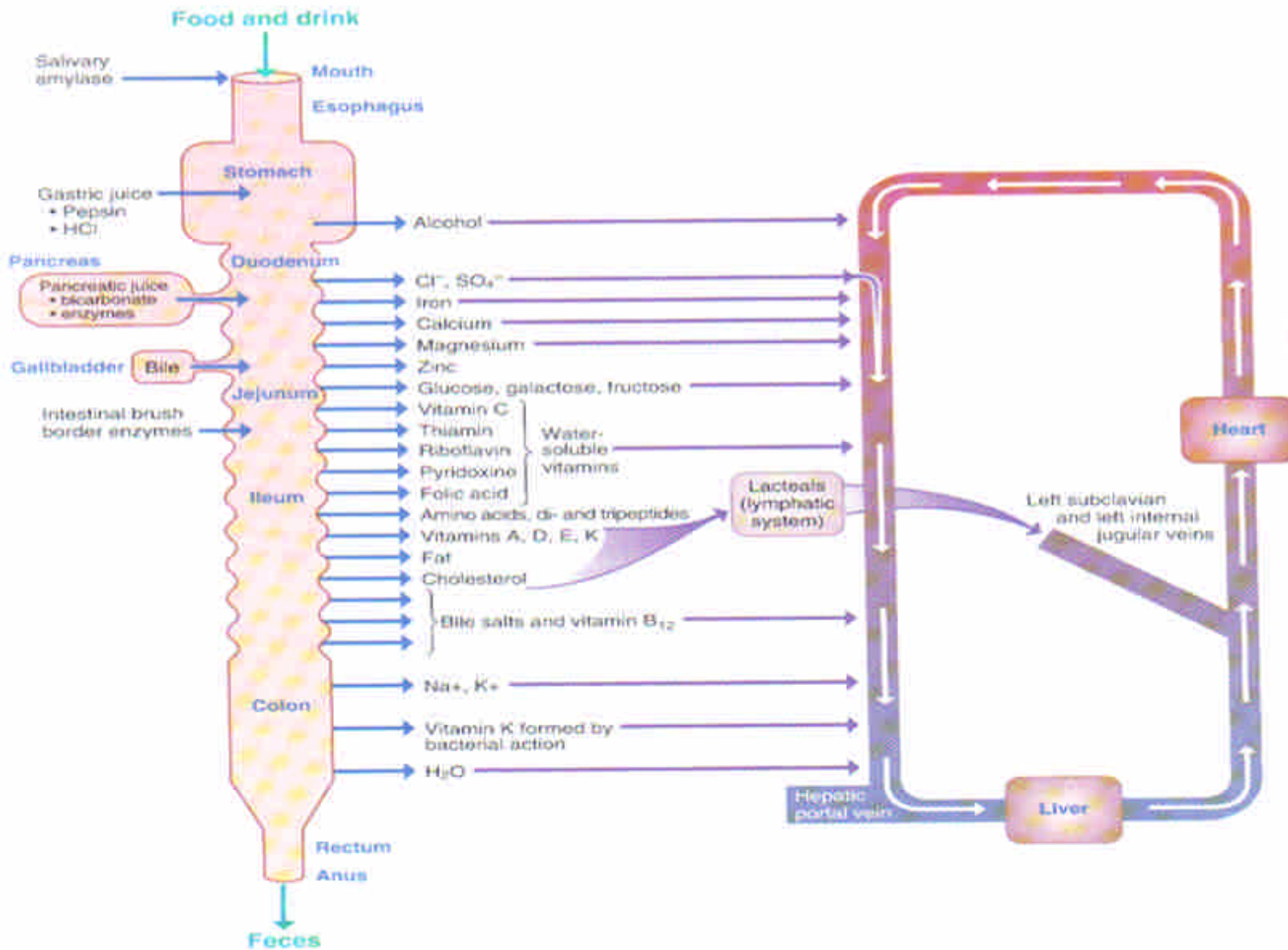
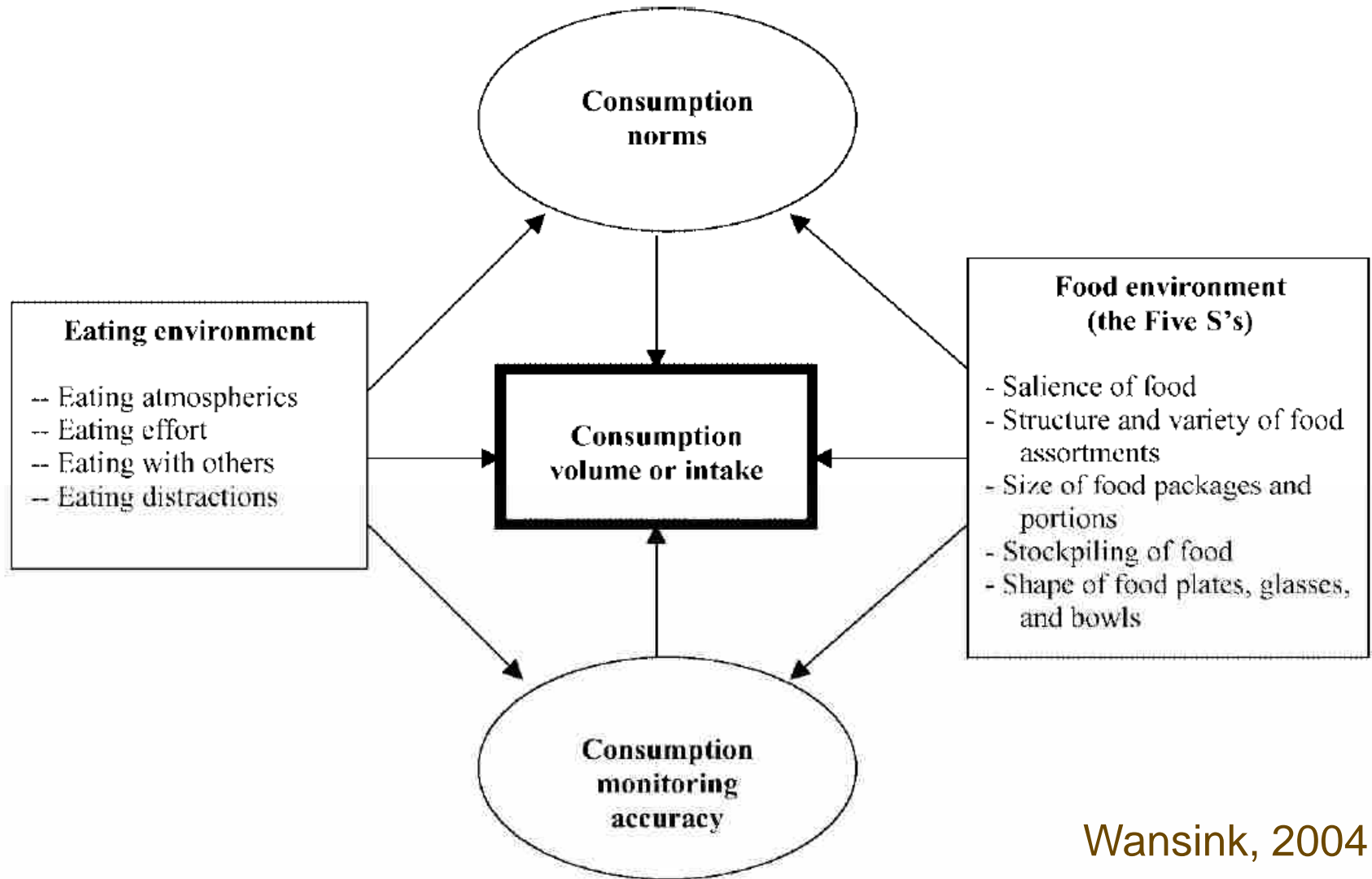


FIGURE 1-8 Sites of secretion and absorption in the gastrointestinal tract.

Protein concentration in food

	protein	fat	CHO	calorie	Protein%
Milk- whole milk	8	8	12	150	21.3
- skim milk	8	—	12	80	40
Veg	1	—	5	25	16
Fruit	—	—	15	60	—
Cereal	2	—	15	70	11.4
Meat- mod. fat	7	5	—	75	37.3
- low fat	7	3	—	55	50.9
Soybean	7	5	—	75	37.3
oil	—	5		45	—



Wansink, 2004

Figure 1 Antecedents and mediators of food consumption volume.



每日均衡飲食指南

Everything Diet

- Food
- Exercise
- Weight scale
- Environment
- Clothes
- Water...

■ Book



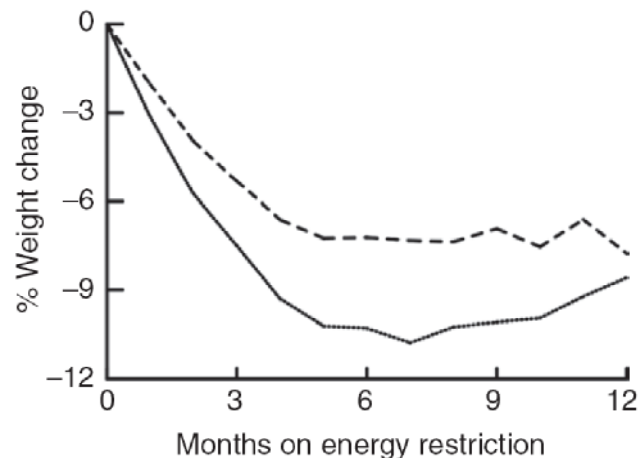
7 dietary key points for weight maintenance

- Calorie counting
- Nutrition balance
- Dieting dietary skill
- 19 Super nutrients
- 20 Good natural foods
- 15 Health food
- Meal replacement

Shieh, 2008

Low **VS** Moderate dietary energy restriction

- Theoretical calculations: small daily energy reductions → weight loss
- Experimental data:
 - 10 or 30% ER, 12 months, not significantly different



Das, et al., 2009

Balanced nutrition = Weight maintenance

■ Principle

- A variety of nutritious, well-balanced, family-friendly meals

- Right choice

- Fat Burning Foods

Gosselin & Cote, 2001

- Grapefruit

- Immediately zap craving
 - Taste buds play in creating cravings
- 3 times a day, before meal
- 3.6 lb/12wks

Resources for Better Life, 2009

- Red wine

- block a receptor on fat cells
- breakdown and preventing new fat cells forming.

Dietary intake in weight maintenance

- Eat > 5 fruit-veg a day
- Use prepackaged meals
- Practice portion control
- Count fat grams
- Choose low-fat food
- Consume a low-calorie, low-fat diet
- Eat breakfast regularly
- Limit portion sizes
- Limit intake of high fat/high calorie foods

Dieting dietary skills

- Purchasing habits
 - Low fat in, high fat out
 - Natural in, product out
- Consumption volume
 - regular in, irregular out
 - time, quantity
 - meal point
- Eating order
 - soup → veg-fruit →meat & egg →cereal
- Eating habit
 - chewing carefully,
 - 80% satiety,
 - not being a garbage can
- Food selection

20 Good natural foods / High fiber

- **Potato**
 - Vit. B₆, 愉悅心情
- **Sweet potato**
 - fiber
- **Oat**
 - 不飽和脂肪酸、微量礦物質、水溶性纖維
 - 降低膽固醇、TG
- **Konjac 蒟蒻**
 - 葡甘露聚糖
 - 吸附腸道水分，飽足感
- **Apple**
 - 果酸、奎寧酸、檸檬酸、鞣酸、類葫蘿蔔素，熱量極低
 - 纖維降低食慾
- **Kelp 海帶**
 - 水溶性纖維增加飽足感
 - 碘促進新陳代謝
- **Tomato**
 - 增加飽足感、降低食慾
- **Agar 洋菜**
 - 水溶性纖維增加飽足感
 - 抑制脂肪吸收、降低血糖濃度
- **Beans, legume**
 - 纖維增加飽足感
 - 吸附腸內水分，增加糞便體積
- **Grain cereals**
 - 豐富Vit. B complex參與能量代謝、提高新陳代謝率
 - 水溶性纖維增加飽足感、降低食慾，避免熱量攝取過多

20 Good natural foods / Fat-suppressed

- **Onion**
 - 槲皮黃酮 抑制脂肪消化吸收
 - 硫化丙烯、硫胺基酸↑HDL-C
↓LDL-C
- **Leeks 韭菜**
 - 硫化物加速新陳代謝，抑制脂肪消化吸收
- **Garlic**
 - 硫化物加速新陳代謝，抑制
- **Wax gourd 冬瓜**
 - 高水分、脂肪含量低
 - 纖維具飽足感
- **Hawthorn 山楂**
 - 減少脂肪消化吸收
- **Bamboo**
 - 低脂食物
 - 纖維具飽足感
- **Grapefruit**
 - 糖份具有提升血糖、調節食慾的作用
 - 纖維具飽足感
- **Green tea**
 - 兒茶素抑制糖類的消化吸收率
 - 高產熱效益，增加熱量消耗
- **Mustard leaves, pickled and dried**
 - 梅乾菜
 - 纖維增加飽足感，降低脂肪攝取
- **Mushroom**
 - 核酸提高基礎代謝率，加速熱量消耗，纖維增加飽足感

Fat burning foods

- Eggs
 - super high in protein
 - vitamin B₁₂, breaking down fat cells
- Low Fat Dairy Products
 - 3 cups of fat-free milk vs low calcium diets
 - gained less weight, 2 years
- Beans
 - protein, fiber and iron.
- Oatmeal
- Olive Oil
- Whole Grains
- Lean Cuts of Meat
- Healthy Snack Options

Eat breakfast regularly

- Eating a 600-calorie breakfast
 - rich in carbohydrates and protein
 - vs a modest breakfast
 - vs a lower-CHO eating plan
 - Reduce food cravings later in the day

Dohney, 2008

「推動早睡、早起、吃早餐運動村」

- 日本福島縣飯館村議會，2007-3-19通過宣言議案
 - 目的：使孩童養成基本生活習慣，
 - 擬訂「便當日」、「好好吃電鍋日」
 - 基本原則
 - 「全家推行早睡、早起運動」、
 - 「確實吃早餐維護孩童健康」、
 - 「透過『食』推廣家族和樂、地區和睦」

•教育部電子報 2007-04-19

•http://140.111.34.116/e9617_epaper/windows.aspx?windows_sn=284

Nutritional KAB – in elderly

■ Nutritional knowledge: poor

■ Information

- Ignore
- Most from family

(Lin et al., 2004; Jann, 2000)

■ Attitude

■ Positive but pessimistic

(Yu et al., 1999; Lin et al., 2004; Jann, 2000)

KAB : knowledge, attitude, behavior

Nutritional KAP – in elderly

■ Behavior change

■ ↑ age

→ ↑ fruit, vegetable, fish, chicken

→ ↓ red meat, egg, fried & fatty foods

(Horwath et al., 1992)

• Knowledge → behavior

(Liu, 1991; Jann, 2000; Lin et al., 2004)

• ↑ knowledge in elderly

→ Improve nutritional status

(Lin et al., 2004)

Nutrition education frame

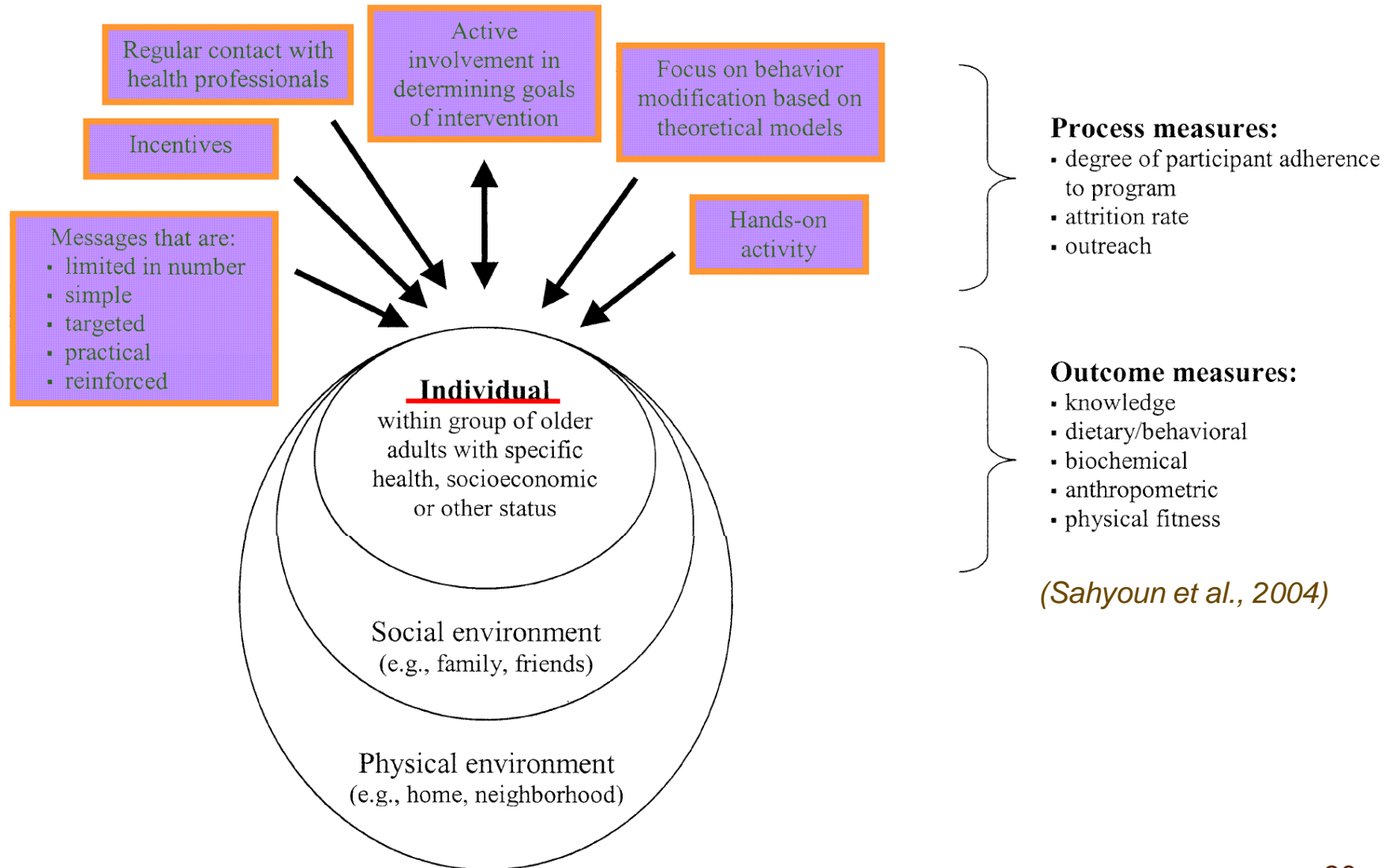


Figure. A framework for designing a nutrition education intervention for older adults.

Nutrition education models

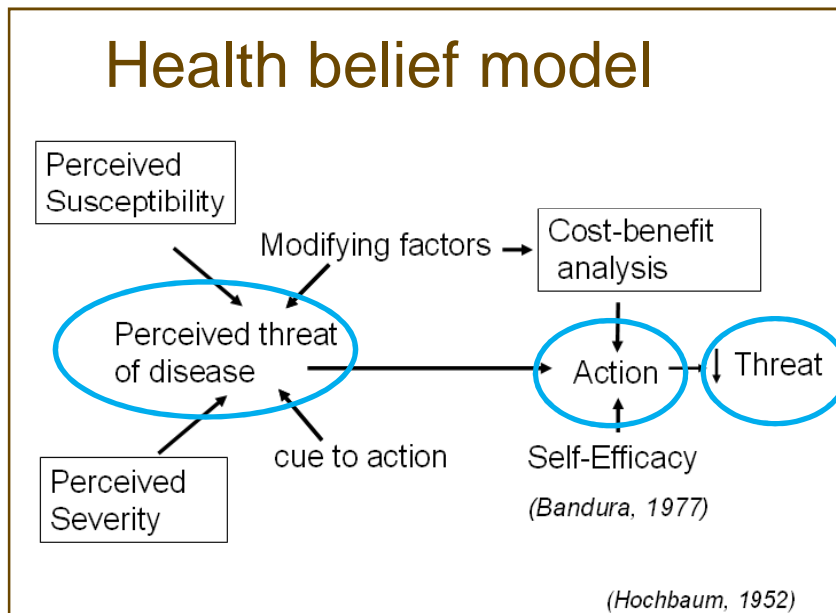
- **↑ Awareness & enhancing motivation**
 - Health belief model, HBM
 - Theory of planned behavior, TPB
- **Facilitating the ability to take action**
 - Social cognitive theory, SCT
 - Transtheoretical model
 - Stages of change construct, SOC
- **Promoting environmental supports for action**

Nutrition education models

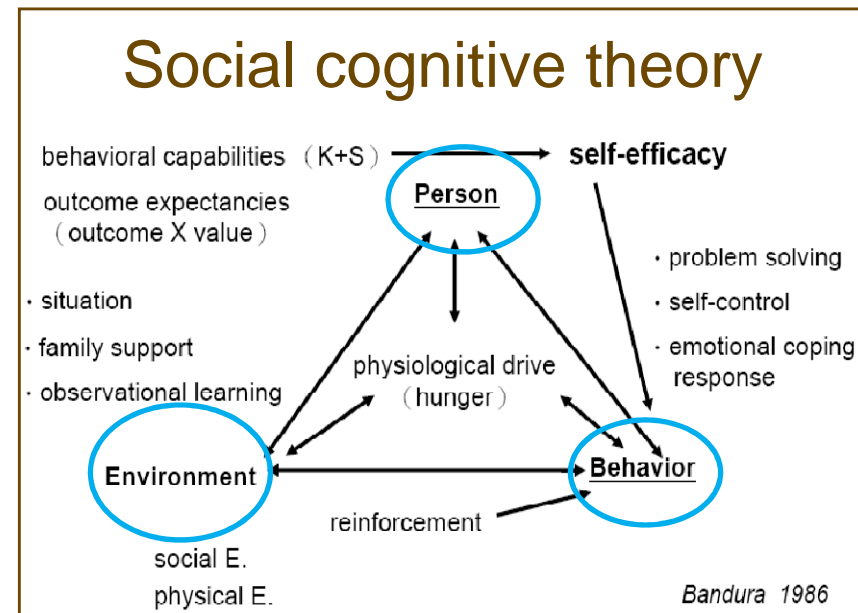
■ HBM

■ SCT

Health belief model



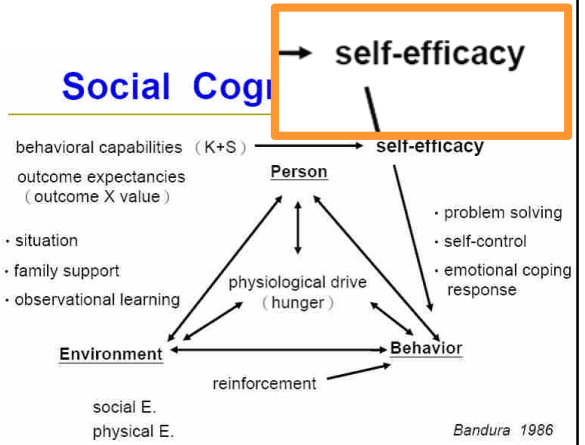
Social cognitive theory



Educational model- Revised structure

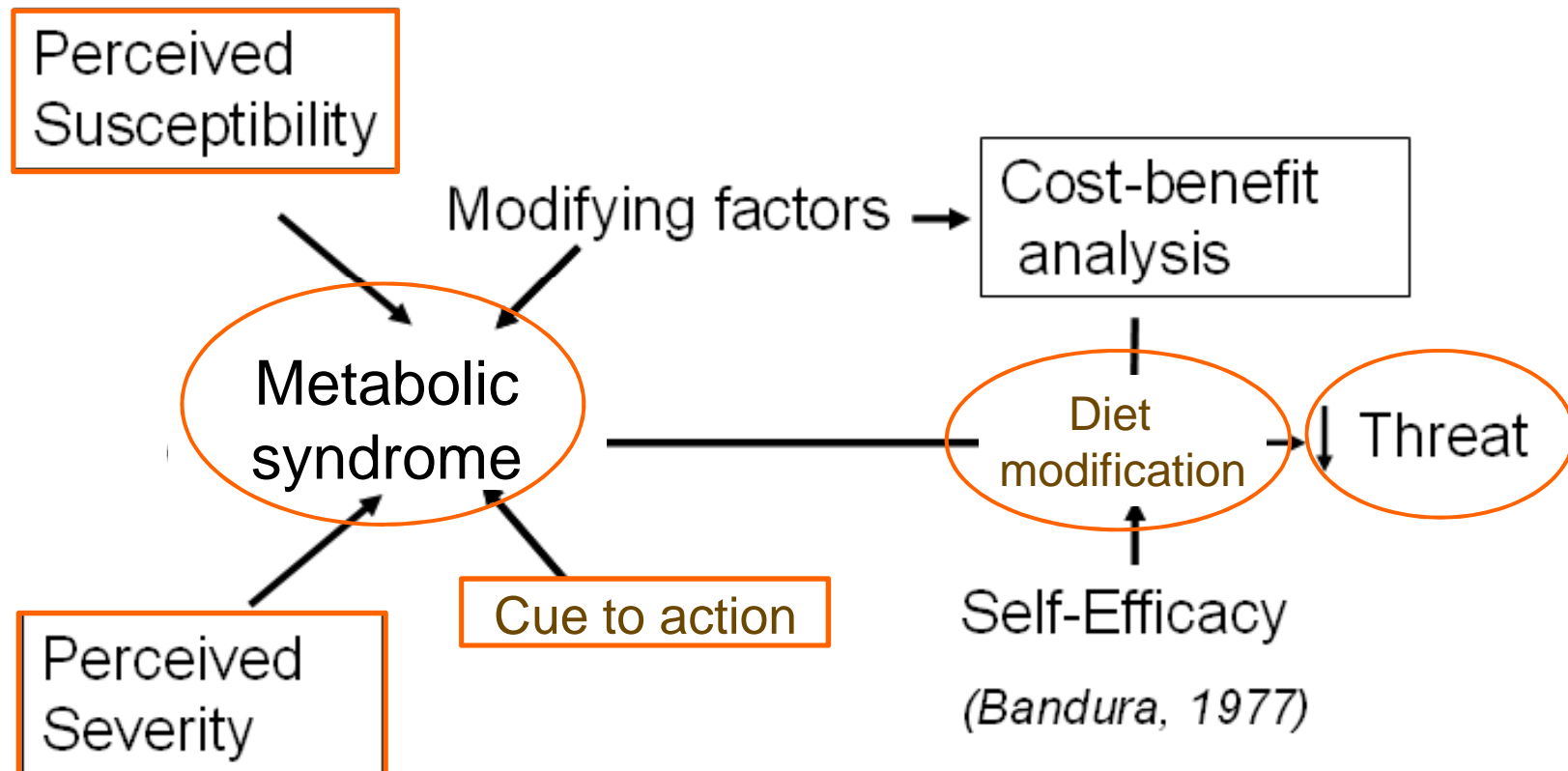
Nutrition education

Knowledge	What is metabolic syndrome Benefits of veg-fruit
Attitude	↑ interesting ↑ self-efficacy It's good to eat healthy
Practice	veg-fruit recipe ↑ veg-fruit intake



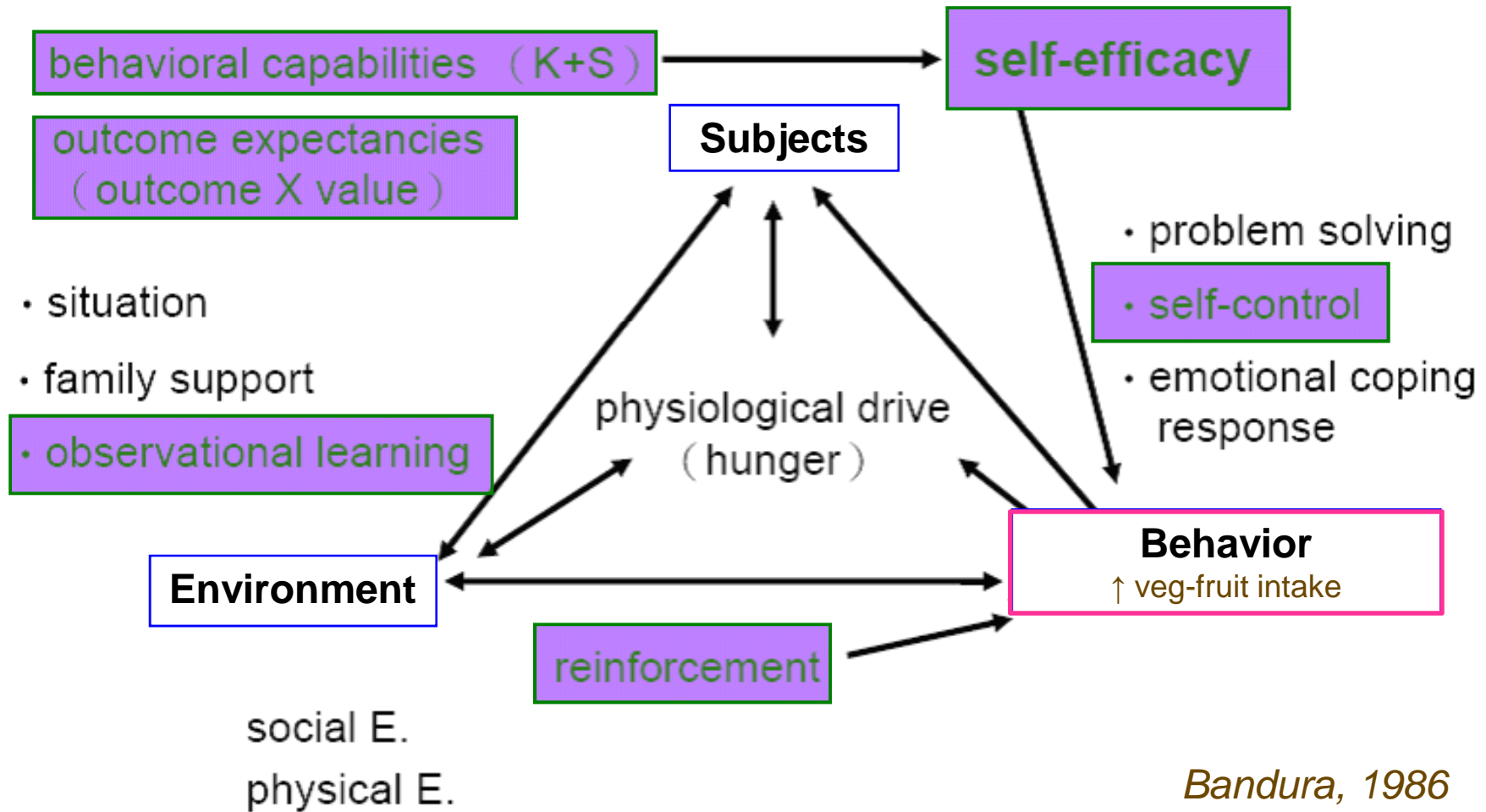
1. Realizing metabolic syndrome
2. ↑ veg-fruit intake

Education model: Health belief model



(Hochbaum, 1952)

Education model: Social cognitive theory



- Do you enjoy your family meal?
 - How often you eat at home?
 - Do you usually cook at home ?
- Do you enjoy the meal that is prepared by dept. of dietitians?
 - How often you eat at hospital cafeteria?
- Will you encourage your patients to try and enjoy hospital diet?

日本能？為什麼台灣不能

- 「便當日」，
 - 孩童理解做便當的辛苦和感謝的心，讓孩童自己做便當。
 - 國小5、6年級小學生為活動對象，
 - 使用當地生產的食材
 - 著重在「食」與「感謝生命」的教學時
- 「好好吃電鍋日」，
 - 每月第3星期日，家庭成員分擔做飯菜，促進家族間的交流溝通

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http://weightloss.suite101.com/article.cfm/fat_burning_foods



Thanks for your attention

臺北醫學大學



Fat burning foods

Zemel, 2005

apples
apricots
artichokes
asparagus
beets
blackberries
blueberries
broccoli
Brussels sprouts
cabbage
cantaloupe
carrots
cauliflower
celery

cherries
chives
cod
corn
crabs
cranberries
cucumbers
eggplant
flounder
garlic
grapefruit
grapes
green beans
honeydew
kale
leeks

lemons
lettuce
limes
lobster
mangoes
mushrooms
nectarines
okra
onions
oranges
papaya
parsley
peaches
pears
peas
peppers

pineapple
prunes
pumpkin
radishes
raspberries
red cabbage
sauerkraut
scallions
spinach
squash
strawberries
string beans
tangerines
tomatoes
turnips
watermelon