



Multi-level determinants of obesity in the Asia-Pacific region: food system governance, social policy and consumer preferences

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3 contexts for the rise in obesity

- Spread of industrial supply chains
- Social policy: income security, housing affordability, transport system options
- Cultures of food consumption: convenient, cheap & novel

Present across the region, but play out differently making global, & even regional, solutions difficult

Feeder studies

- ARC Weight of Modernity
- Self-funded study of poultry consumption in the Cook Islands
- NHMRC Thai health risk transition
- CSIRO Barriers to healthy & sustainable diets
- IUHPE Food Systems Position Paper

The nutrition transition

The 1st phase (health promoting) – movement from famine and restricted dietary diversity.

The 2nd phase (health depleting) – from dietary diversity to another form of restricted diet (high meat, fats, salt and sugar and low fruit and vegetable intake) (Dixon et al 2007) ...

Phase 2 of the nutrition transition is spreading rapidly: *The “Western diet” has also moved into the North, South and East. NR-NCD, once seen as a burden of affluent classes, now impact every socio-economic group at every level of macro-economic development. Disparities within groups... present their own inherent challenges* (Nazmi and Monteiro 2013, p. 571)

Phase 3 (health promoting & inequity producing): affluent populations are passing through, or by-passing, health depleting phase 2; others clinging to traditional diets

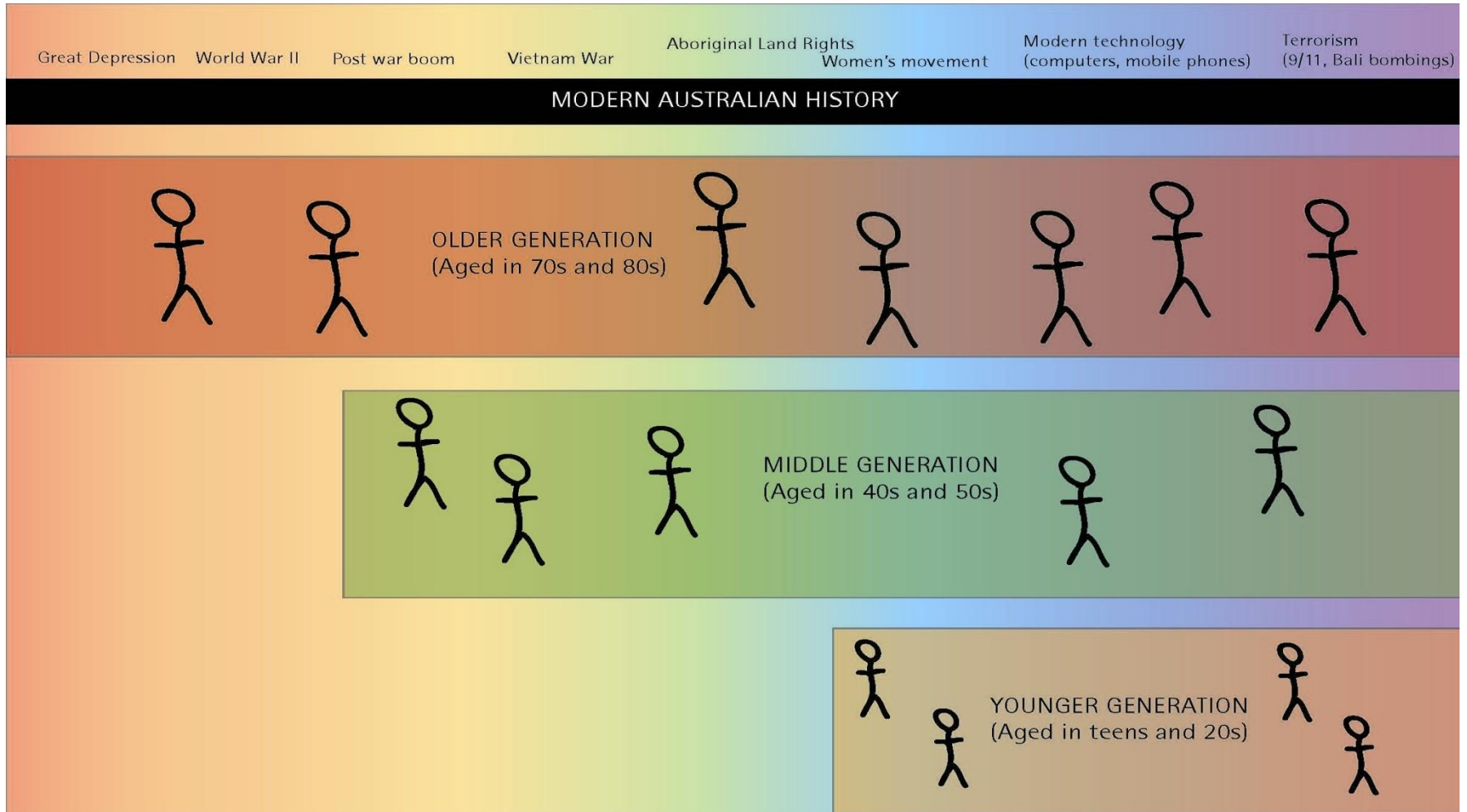
Phase 3: Melbourne





**AUSTRALIA: PHASE 2 AND 3 OF
NUTRITION TRANSITION; AUSTRALIANS ARE
AMONGST THE MOST OVERWEIGHT AND OBESE POPULATIONS:
OVERWEIGHT AND OBESITY = 64%; 2.5 FOLD INCREASE IN 20
YEARS**

The Weight of Modernity



The Lucky/'old' Generation

- Little variation in: food, weekly ritual of meals*, meal times, who was sitting at the table
- Men's tastes dominated & children ate with parents
- Women were not in labourforce, were cooking
- Little eating out (relatives)

Baby Boomers with children growing up

- Women gave up baking and making desserts
- 3 course meals became 2 courses, with bought desserts and meat and 3 veg dominating main course
- Predictable pattern to who was eating, when
- Changing culinary culture due to migrant influx, so more novel foods and dishes

Gen Y: scheduling the family meal

We try to know who's coming and whether partners are coming. And we try to time the meals so we can sit down together. But we don't get bent out of shape over that if that doesn't happen...



Gen Y: and dash-board dining

Yeah. If I'm at work or if I'm organising stuff ... I usually just grab whatever I can eat while I'm driving or whatever yeah.

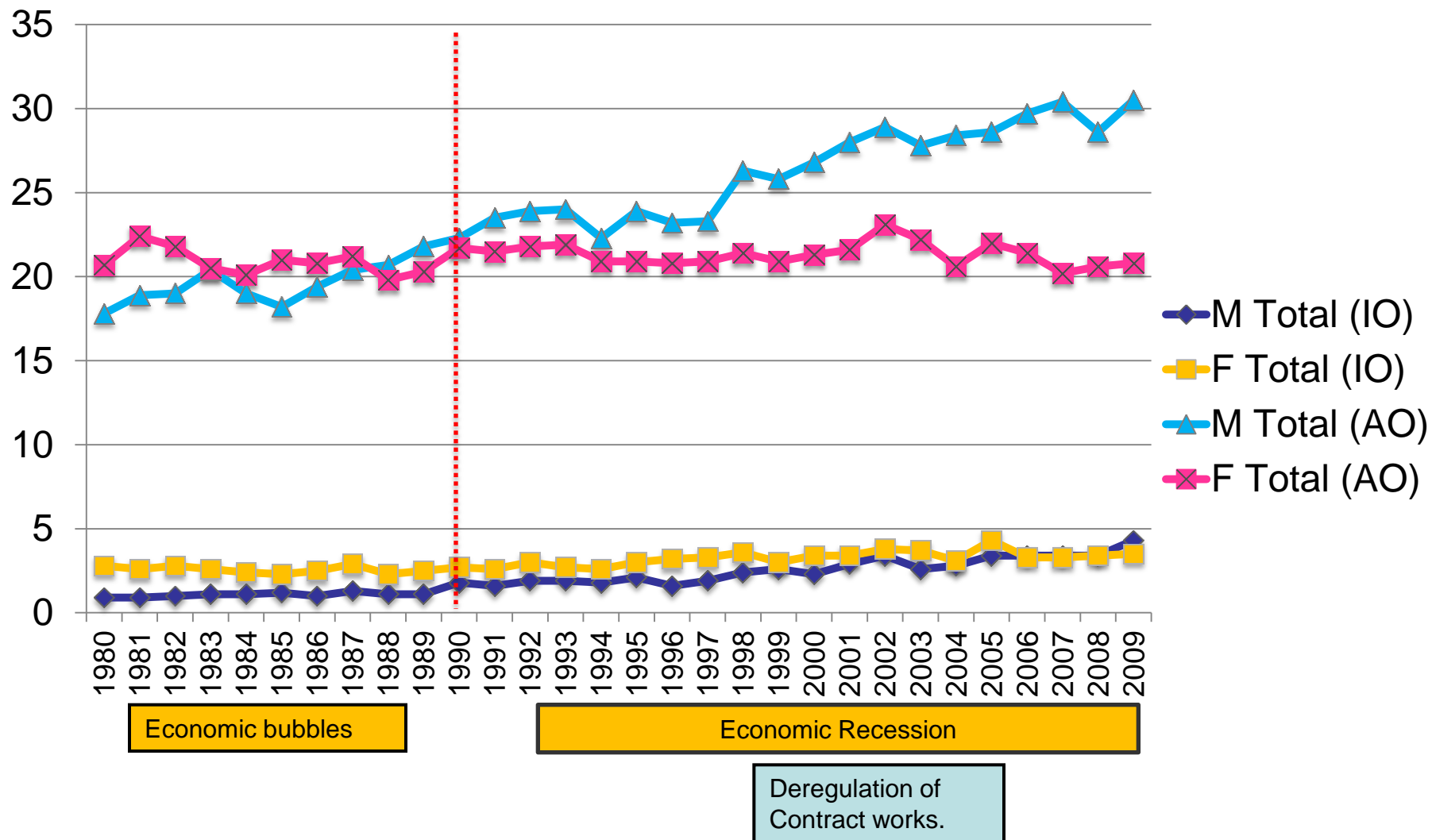




**JAPAN: PHASE 2 & 3 NT; FEMALE
OBESITY STABLE, MALE OBESITY DOUBLED**

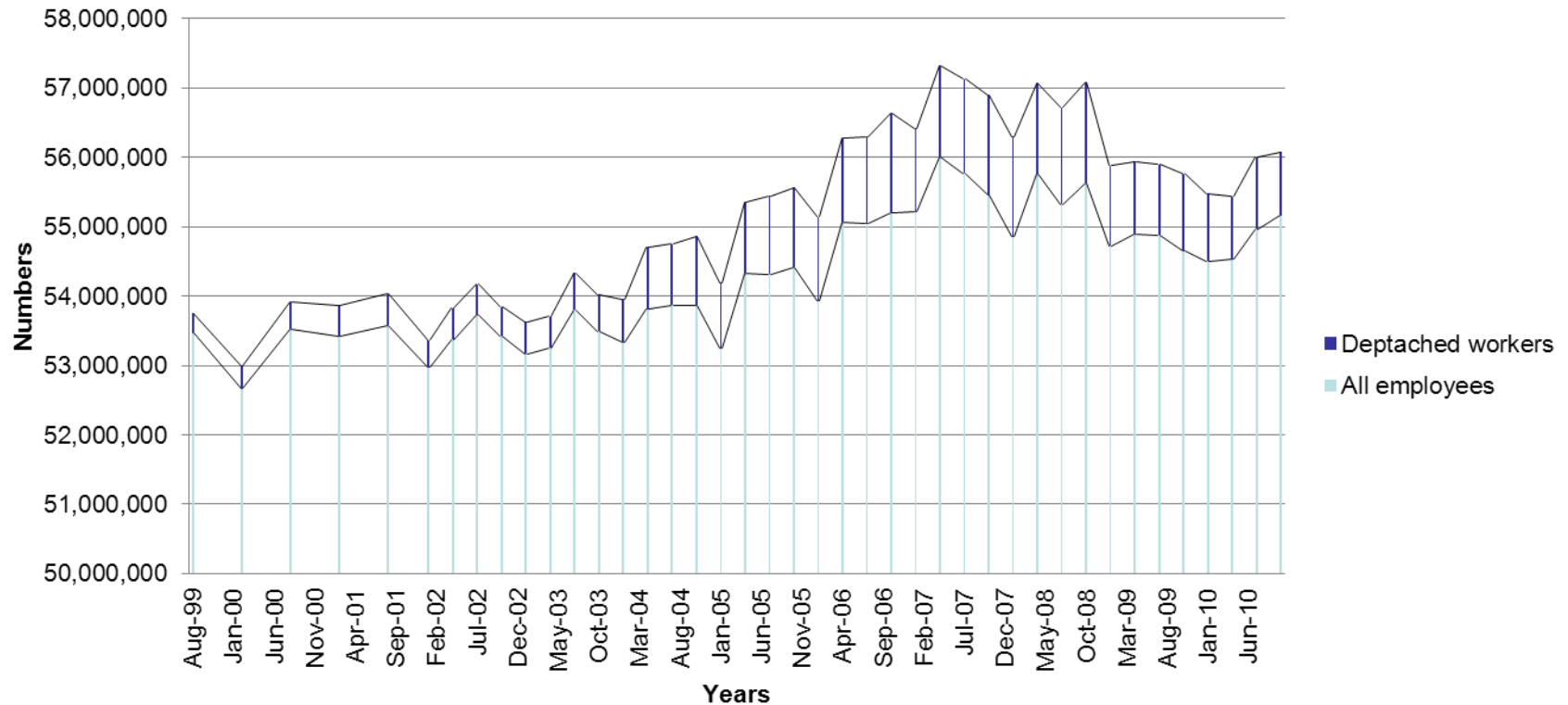
Weight Transitions in Japan

Obese populations BMI \geq 25kg/m² (AO) and BMI \geq 30kg/m² (IO)



Changing nature of employment

Employment by type of employment



Tentative reasons for male obesity rise

- Rise of solo eating
- Bar-alcohol- social pressures
- Eating bar snacks (fried), followed by home prepared meal (Takeda, in progress)



THE COOK ISLANDS: STAGE 2

NT; 60% MALES OBESE, 68% FEMALES OBESE

Cook Islands population

- 20000 people scattered across 2 island groupings
- 60000 Clers in NZ
- 30000 Clers in Australia, the US and elsewhere
- In 2001, approx 66000 tourists: 40% from NZ

CIs Economy

Principle earnings (2001)

- Tourism (Raratonga)
- Pearls (Northern Is grouping)
- Remittances from the CIs diaspora
- Clothing exports
- Fruit and vegetables exports

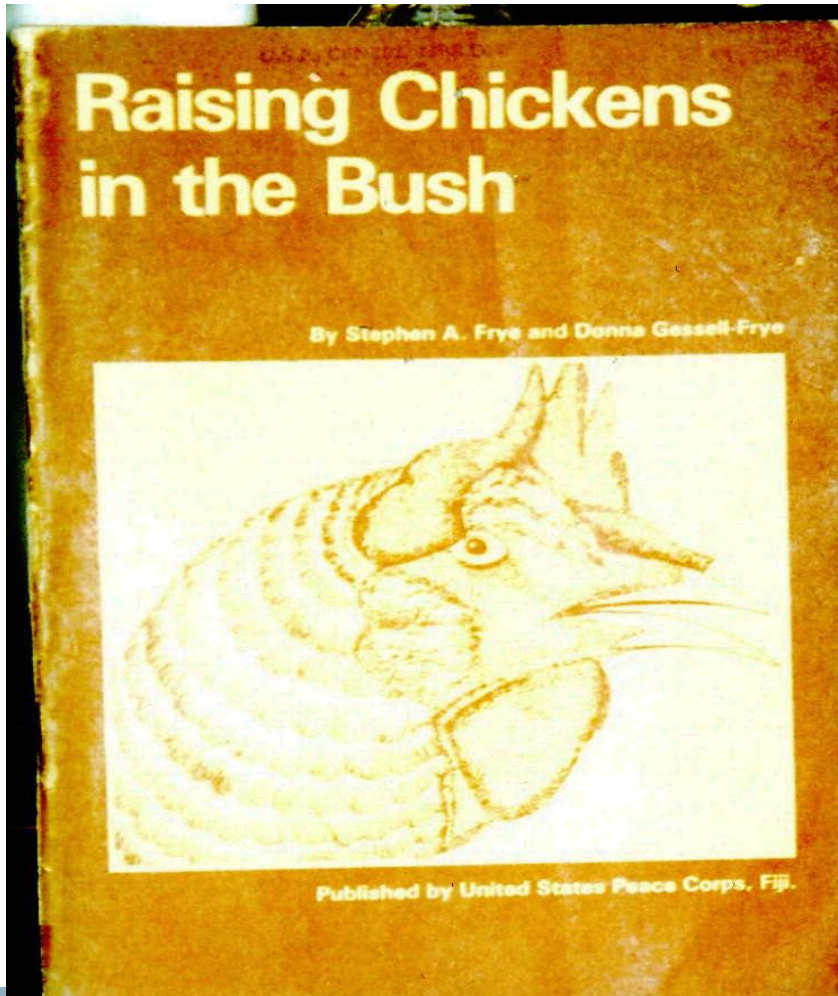
The tourist idyll

- Coconut fringed roads
- Scuba diving in the Atolls
- Saturday's fresh food market
- Sunday's church services
- Taro plots as household gardens
- Wild birds and pigs free ranging in gardens and through the cafes
- The Island nights: music and buffet





An indigenous industry & disappearing umu



Chicken commodity chain

- Auckland, Brisbane, west-coast US to Rarotonga via Tyson, Steggles and Inghams
- Supermarkets, the hotels, fast food outlets and petrol station outlets
- Packaged for oven baked pieces and fried chicken pieces



Chicken : the modern, cheap food

Ready-to-eat plates of cooked food
important for after-Church



(PARROT)
- STIX
- RINGS
- DOGS
- BUNS
- ROLLS

3-50
1-00
1-00
1-80
4-50
3-00
9-00

Plates of Food

PORK - with apple sauce
(chips + 1/2 salad)
CHICKEN CROWN MEIN
CHICKEN CROWN
ROAST CHICKEN CHIPS +
(with gravy)
SEAFOOD PLATE
FISH CHIPS + SALAD
(PARROT)

8 50
8 50
8 50
13-00
9-50



Everyday Food

VOGEL SANDWICHES
FILLED ROLLS
STEAK ROLLS
GARLIC BREAD
QUICHES
CAKES
PIES

4-00
2-50
3-50

Whole Chicken
e





Healthy Eating in the Pacific

Energy Foods

- include in all meals; local are best.



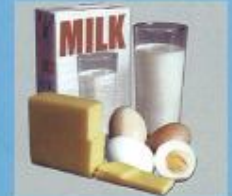
Protective Foods

- include vegetables at two meals a day and have fruit as a snack.



Body-Building Foods

- eat twice a day.



Each day eat a variety of foods from the three food groups.



**THAILAND: STAGES 1-3 NT; 1 IN
4 ADULTS OBESE, AT RISK OF NIDDM, CVD, GALL-
BLADDER DISEASE, CANCERS**

Nutrition Transition in Thailand

- Increased animal protein and fat intake
- Increase in sugar consumption (tripled between 1983 and 2006)
- Intake of kilocalories/ person/day increased from 2100 to 2530 from 1969 to 2007 [FAO (2006) *Dietary energy consumption of countries*]
- Increase in pre-prepared, convenience foods (1/2 popn eat regularly)
- Increase in wheat consumption
- Decrease in fresh f & v consumption (1/4 of adult population consuming recommended amounts)

[Kosulwat (2002) *Pub Hlth Nutr* 5(1A); Satheannoppakao (2009) *Pub Hlth Nutr* 12(11); compiled by M.Kelly 2013]

Fresh market transitions



Modern food retailing

- Since 1980s supermarkets expand in Bangkok
- Since late 1990s large increase in Foreign Direct Investment in retailing
- 2000s hypermarkets aimed at Thais of low and middle income
- Now control around half of food sales in Thailand (from M. Kelly 2013)



Resistance to Tesco Lotus



Affordable dietary diversity & ‘a way of life’ under threat

- Wet/fresh market consumers can access affordable, plant-based dietary diversity but are not necessarily being protected against the nutrition transition
- As wetmarkets become associated with older, less affluent groups in Thai society and supermarkets/department stores become associated with youth, affluence, convenience, cleanliness and culinary adventurousness
(Banwell et al. PHN 2012)



DISCUSSION



INDUSTRIAL DIETS

Industrial diets are unhealthy

- Favouring animal-derived protein and intensively produced carbohydrates
- Commercial food services/providers: hidden fats, sugars and salts
- Truck and car dependent
- Come with unhealthy cultural ways of eating (speedy eating, solo eating, no meal planning, reliance on commercial providers)

The supermarket retail revolution

Supermarkets are multi-function conglomerates

Supply chain creators and managers

Food producers: home brand specifications, own farms 'to even out supply'

Food retailers

Regulators: food safety, food quality - GlobalGAP

Cultural actors: the 3 'C's – choice, convenience, cost

Financial power of supermarkets

- Top 10 food cos total sales 2007 = \$450b
(nestle, pepsico, kraft, CCA, unilever, tyson, cargill, mars, archer daniels midland, danone)
- Top 10 food retailers total sales 2007 = \$1.1 trillion
(wal-mart, carrefour, tesco, schwarz, aldi, kroger, ahold, rewe, metro, edeka)

On the UNCTAD Transnationality Index, food TNCs = 1

Big Food, Big Retail & little government regulation

- Challenge to fat taxes
- Free trade agreements
- Product harmonisation



SOCIAL POLICIES

If people know what healthy food is, why don't they eat it?

- Fresh food more expensive, more prone to waste which is an economic issue
- Doesn't necessarily meet busy lives – work and long commutes (Dixon et al., 2013, *Food Policy*)

Cost of living barriers to healthy eating

Social and housing policy: rising cost of living, declining incomes in context of a culturally encoded ‘standard of living’

Dwyer (2009): goods transition from luxuries to decencies, then necessities: the pursuit of a decent standard of living becomes ‘habituated’

Labour market barriers to healthy eating

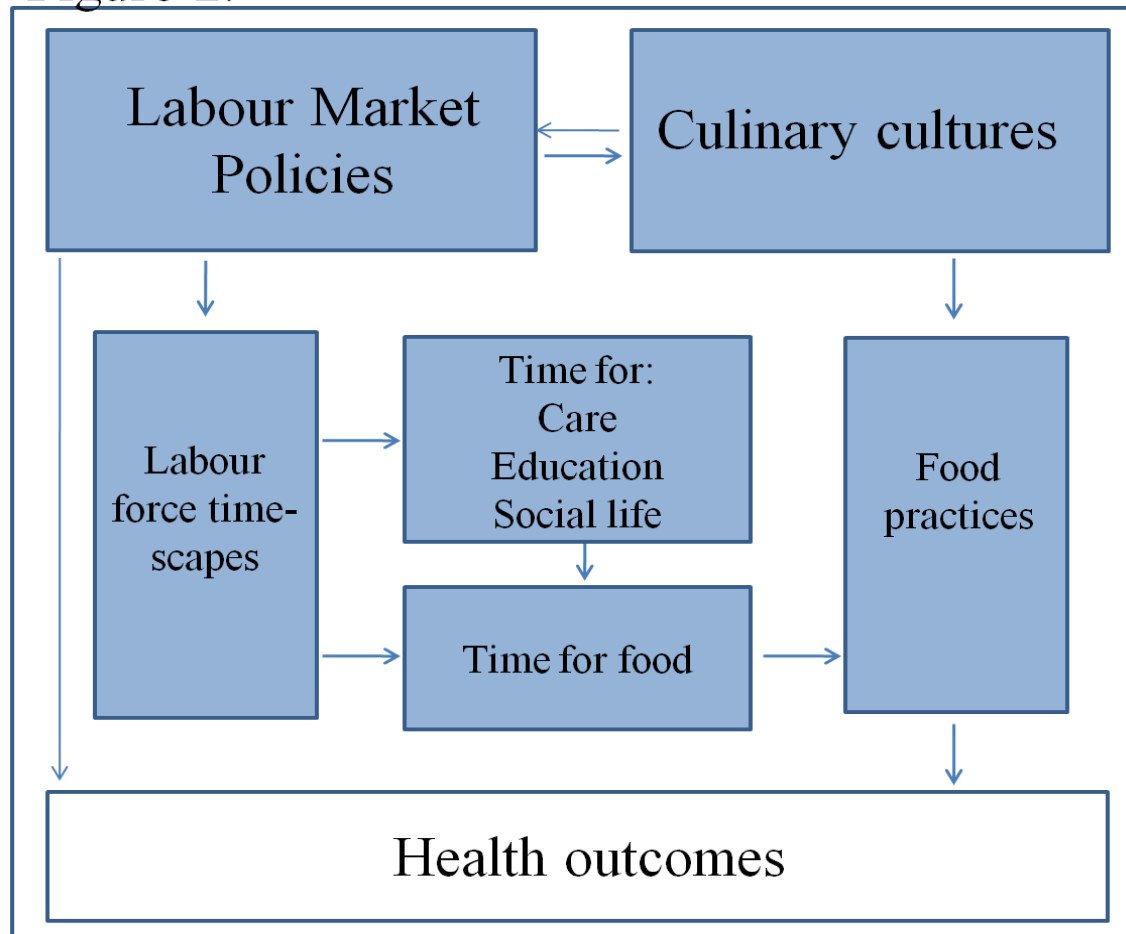
The organisation of the economy, and flexible labour market policy = a time redistributive device (Dixon et al. 2013, *Critical Public Health*)

Healthy eating practices are interrupted by labour force timescapes

- Commensal eating is preferable to solo eating (Neumark-Sztainer et al., 2003; Salvy et al., 2007)
- Domestic cooking tends to involve less energy density than commercially prepared convenience foods (Boutelle et al., 2003; WHO, 2003)

Socio-cultural determinants of diet

Figure 2.





CHANGING CULTURES OF CONSUMPTION

Obesity as disturbance of culture

Australia, Japanese males, Thailand...

- Food practices linked to cheap industrial foods

Cook Islands...

- Food practices, inferior dietary diversity & access to cheap industrial foods

Food consumption is but 1 social practice

Understanding the rhythmic richness and modulations of everyday life ... requires a move from single practices to focus on their interactive dynamics and coordination. This raises questions about how practices with different rhythmic properties can amplify, enable or cancel out each other (Shove et al. 2009, p. 10)

Doing the right thing/being normal

When consumption and especially thrifty, convenient and novel consumption are celebrated, not to consume these qualities constitutes one of two states of being: either an act of rebellion or a signal of personal failure due in the main to poverty (Humphery 2010)



3 ACTION DOMAINS TOWARDS A HEALTH PROMOTING & SUSTAINABLE FOOD SYSTEM

The quality of the food supply: availability:

Align the food supply with dietary goals...

- Monitor nutritional impact of 'free' trade
- Regulate product reformulation
- Invest in environmental efficiencies of agriculture sectors
- Invest in climate friendly adaptations to food producing environments

**WORK WITH TRADE, AGRICULTURE &
INDUSTRY**

Affordability and accessibility

Address poverty & income thresholds & access

- Revisit periodically minimum household income and social protection policies
- Monitor food price elasticities of fresh & processed foods; and intervene with food taxes, fresh food subsidies, vouchers
- Retail planning
- Public procurement of fresh foods for institutions

WORK WITH SOCIAL POLICY, LABOUR & LOCAL GOVERNMENTS

Acceptability/ cultural preferences

Influence consumer demand by:

- Regulating unhealthy foods marketing and advertising
- Community development based nutrition education targeted at community leaders
- Consider work-life balance, and hence labour market policies

WORK WITH FOOD & SOCIAL POLICY

Conclusion

- Trans-border actions required (Global and regional frameworks)

&

- National policies which consider socio-cultural and economic issues equally