Review

Equity, food security and health equity in the Asia Pacific region

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What, and how much, people eat is a response to their socio-political, socio-economic, socio-environmental and socio-cultural environments. Good nutrition is central to good health. Globally, health has improved for many but not for everyone equally. That food and nutrition-related health is unequally distributed is a marker of societal failure. For some individuals, communities and even nations, it is a matter of not having enough food, of being unable to afford food and there being little nutritious food readily available. For others there is an over abundance of food but its nutritional quality is compromised, access to healthy food is poor and cost of food is high relative to other commodities. Human development and poverty reduction in the Asia Pacific region cannot be achieved without improving nutrition in an equitable way. There is no biological reason for the scale of difference in health, including diet-related health that is observed in the Asia Pacific region. That it exists is unethical and inequitable. Asymmetric economic growth, unequal improvements in daily living conditions, unequal distribution of technical developments and suppression of human rights have seen health inequities perpetuate and worsen, particularly over the last three decades. Addressing diet-related health inequities requires attention to the underlying structural drivers and inequities in conditions of daily living that disempower individuals, social groups and even nations from the pursuit of good nutrition and health. These are matters of economic and social policy at the global, regional and national level.

Key Words: health inequity, social determinants, food security

THE SOCIAL DISTRIBUTION OF HEALTH

Modern society has done much good for population health and well-being – the average global life expectancy has increased by more than two decades since 1950. However not everyone experienced this to the same degree. Differences in health between and within countries have perpetuated and worsened, particularly over the last three decades.[1] The achievements that OECD countries have enjoyed have already started happening in East Asia and the Pacific – but there is considerable distance still to go, with wide variation between countries in the region (Figure 1).

Health within countries is also unequally distributed. These differences in health occur along a number of axes of social stratification including socioeconomic status, gender and ethnicity. In Cambodia for example, in 2005, if mothers have no education their babies have 136 chances in 1000 of dying before the age of five; conversely among mothers with the highest level of education the infant death rate is 53.[2] Focusing on the health gap between top and bottom fails to draw attention to a pervasive phenomenon that, in many countries, has increased over time: the social gradient in health.[3] With few exceptions, the evidence shows that the lower an individual's socioeconomic position the worse their health (Figure 2). This is a global phenomenon, seen in low, middle and high income countries.[4,5]

INEQUITIES IN MALNUTRITION WITHIN AND BETWEEN COUNTRIES

The world now faces a double burden of malnutrition: insufficient calorie or protein intake and under-nutrition in relation to micro-nutrients on the one hand, and over-nutrition as a result of excess calorie intake on the other. Although stocks of food have fallen recently, global food production per capita has risen steadily since the 1960s, and yet almost 1 billion people remain undernourished.[6] The United Nations Millennium Development Goal One (MDG1), 'to halve, between 1990 and 2015, the proportion of people who suffer from hunger', is far from universal achievement.

Inequities occur in the prevalence of malnutrition between countries, within countries, within communities, and even within households.[7-9] While much progress has been made among countries in the Asia-Pacific region, the region remains home to 62 per cent of the world's

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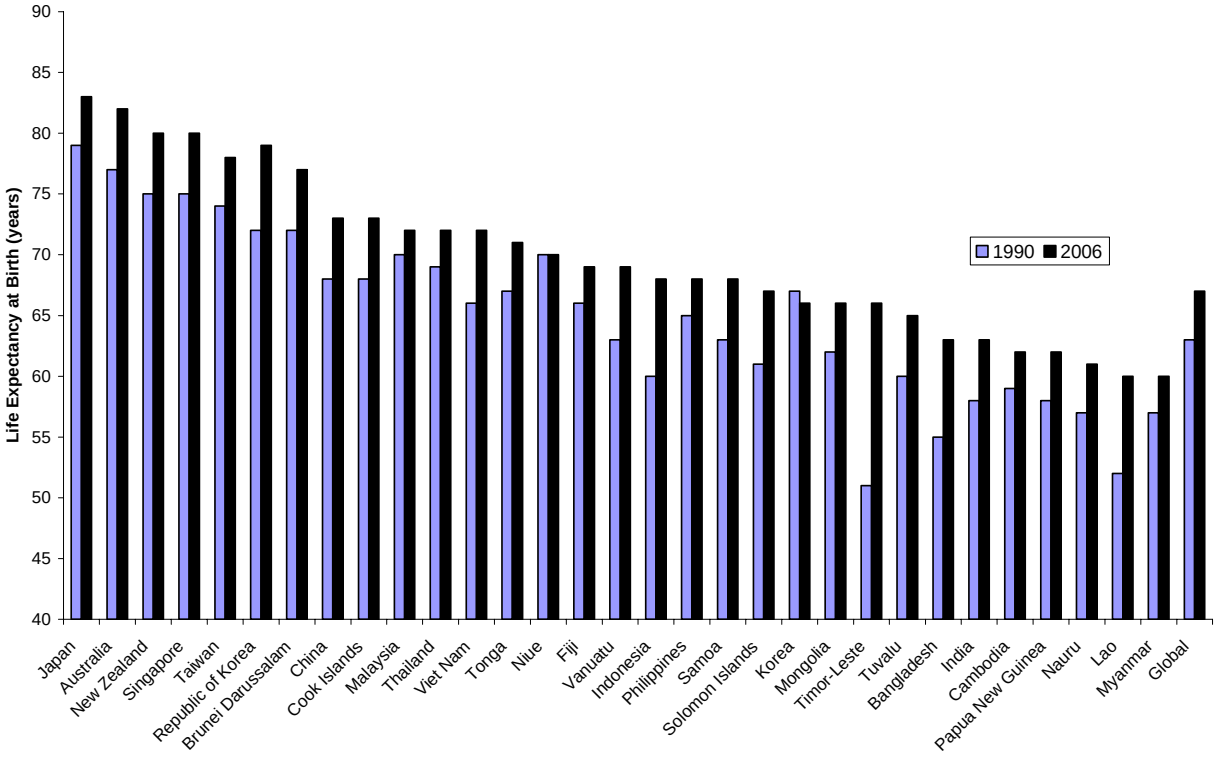

Figure 1. Life expectancy at birth across the Asia Pacific region.[2] Note: DPKR – Democratic People's Republic of Korea; LPDR - Lao People's Democratic Republic

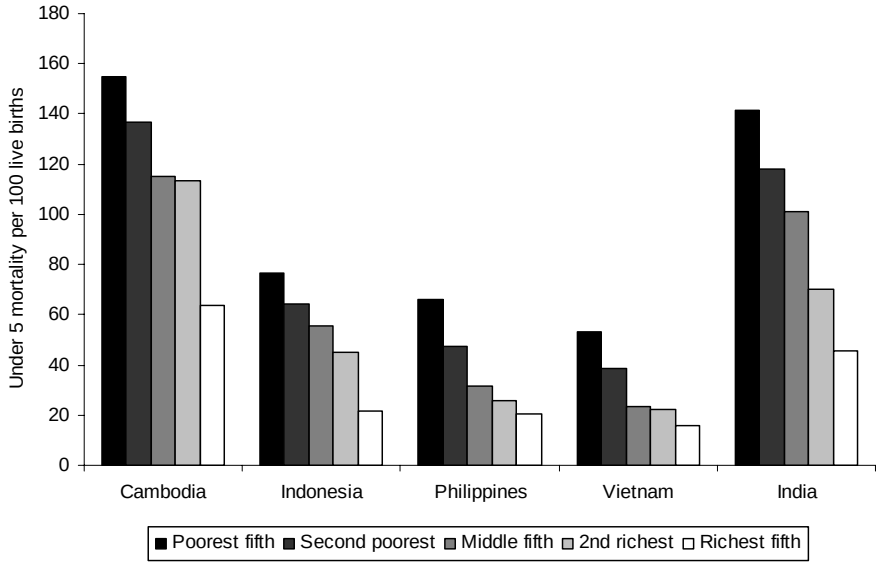

Figure 2. Under 5 mortality rates, select countries, by quintiles of household wealth.[5]

undernourished. In several countries, including Indonesia and India, the total number of undernourished people has actually increased since 1990-92.[6] The burden of undernutrition falls disproportionately on groups of lower socio-economic status (SES).[10] Relatively recent data from India indicate a difference in prevalence of underweight among children of 21% between those with mothers of no education compared to mothers with secondary education or higher (Figure 3).

Household income is strongly associated with undernutrition. In three countries for which data were available, severe stunting among children follows a distinct social gradient with levels of stunting becoming progressively lower with increasing household income (Figure 4).

Concurrently, an unhealthy transition towards diets of highly refined foods, and of meat and dairy products containing high levels of saturated fats is occurring in all but the poorest countries (Table 1).[11]

Countries of the Asia Pacific vary in the degree to which they have embraced this 'nutrition transition'.[12-14] In select low, middle and high income countries of the region differences can be seen in the contribution of animal source foods to total energy intake since the 1960s (Figure 5). Of note is the rapid increase in energy from animal source foods in China.

The increased dietary energy intake associated with the nutrition transition, together with marked reductions in energy expenditure through physical inactivity, has

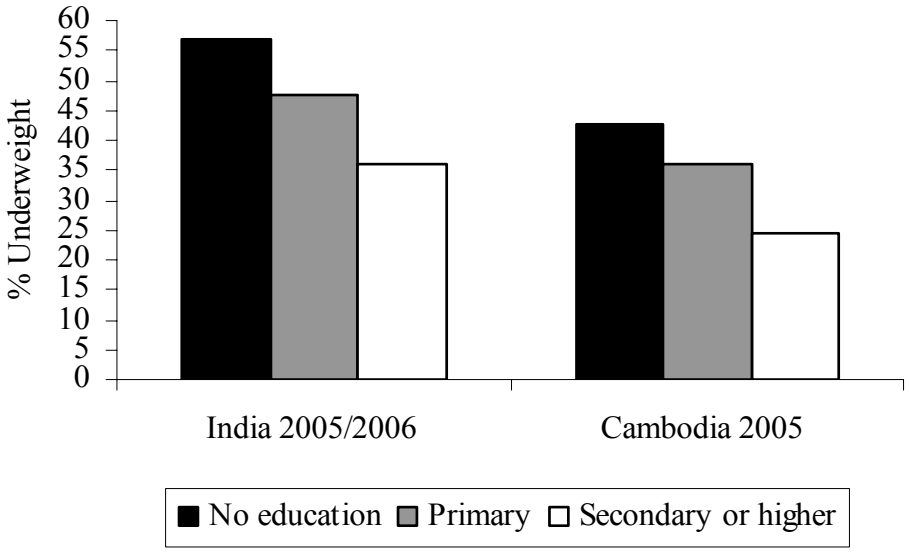

Figure 3. Prevalence of underweight among children under the age of 5 years, by level of maternal education in Cambodia and India.[5]

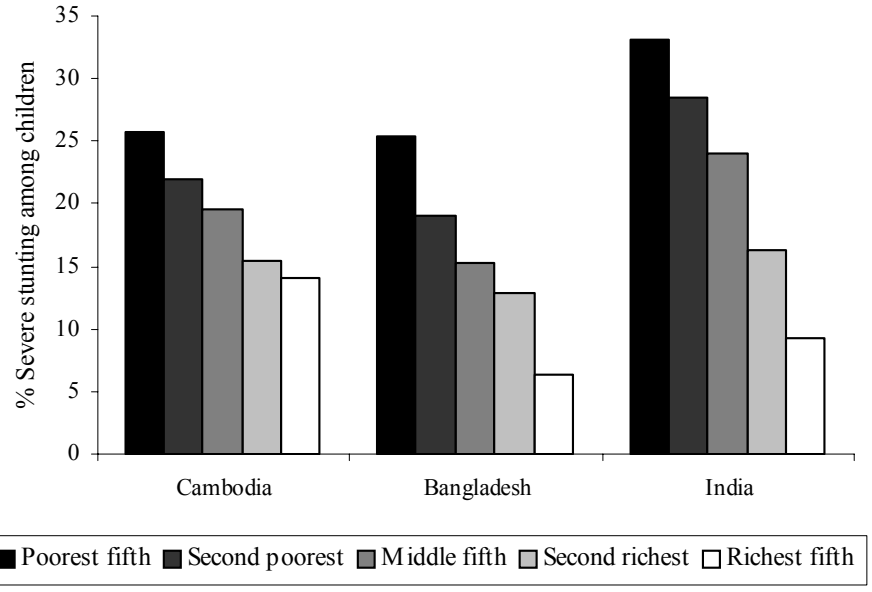

Figure 4. Prevalence of severe stunting among children, select countries, by quintiles of household wealth. [5]

Table 1. Trends in dietary supply of fat.[10]

Region	Supply of fat (g per capita per day)				% increase from 1977-79 to 1997-99
	1967-69	1977-79	1987-89	1997-99	
North Africa	44	58	65	64	10
Sub-Saharan Africa*	41	43	41	45	5
North America	117	125	138	143	14
Latin America & Caribbean	54	65	73	79	22
China	24	27	48	79	193
East & South East Asia	28	32	44	52	63
South Asia	29	32	39	45	41
European Community	117	128	143	148	16
Eastern Europe	90	111	116	104	-6
Near East	51	62	73	70	13
Oceania	102	102	113	113	11
World	53	57	67	73	28

*Sub-Saharan Africa excludes South Africa

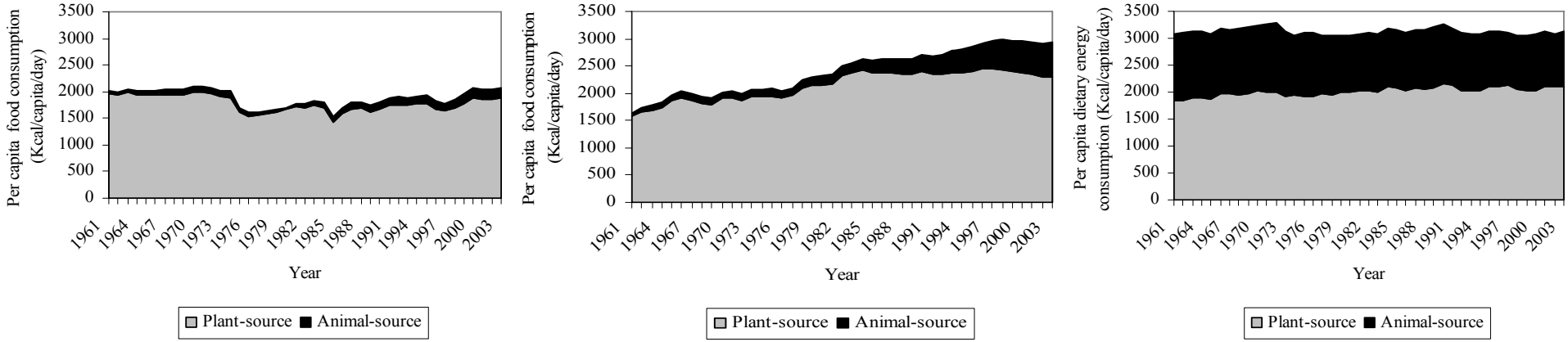

Figure 5. Contribution of animal and planet based foods to total energy intake in Cambodia (top), China (middle), and Australia (bottom), 1961-2003.

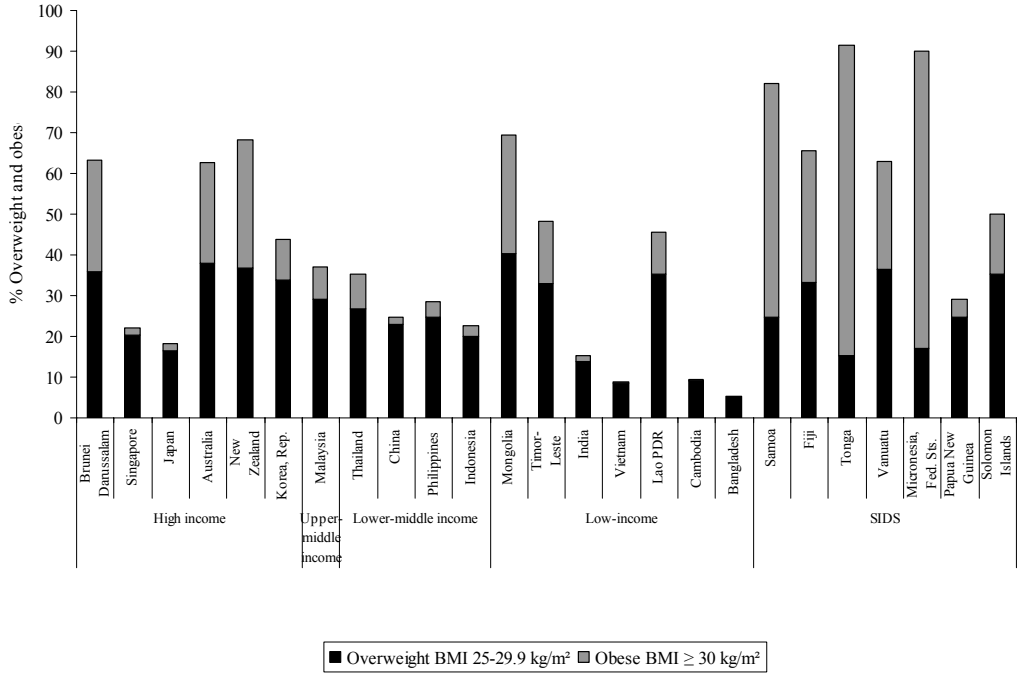

Figure 6. Female overweight and obesity in countries across the Asia Pacific region, 2005.[15]

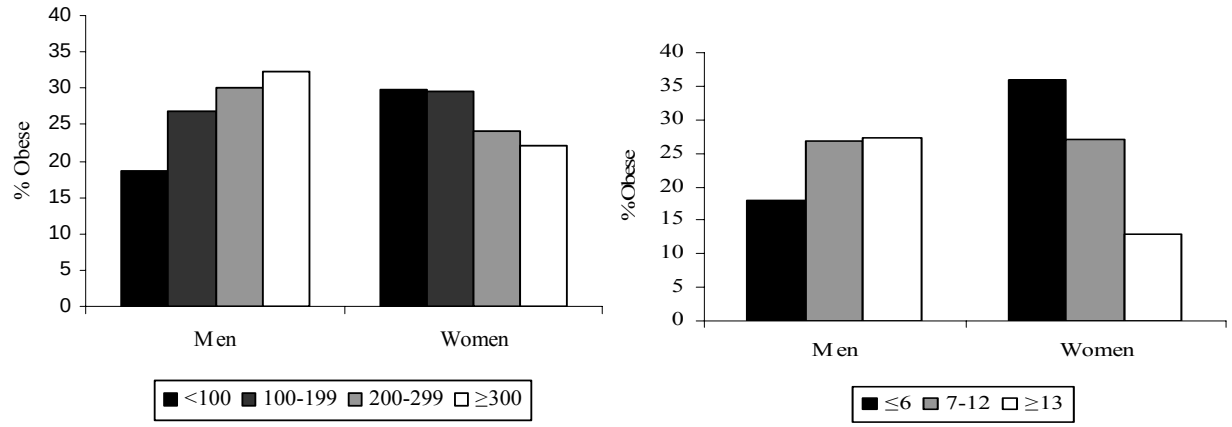

Figure 7. Levels of obesity among Korean men and women by household income (top) and years of education (bottom).[17]

contributed to the rise in levels of obesity and associated non-communicable diseases including cardiovascular diseases, diabetes, and some cancers. Levels of overweight and obesity vary markedly between countries in the Asia Pacific region (Figure 6).[15]

In high-income countries obesity occurs disproportionately among lower SES groups. A review of the global evidence concluded that as a country's gross national product (GNP) increases the burden of obesity shifts towards lower SES groups. Upon crossing a GNP threshold of about US$2,500 per capita, lower SES groups - particularly women – experience proportionally higher rates of obesity.[16] Relatively few data exist in relation to the social gradient in obesity within countries of the Asia Pacific. A study by Sook Yoon and colleagues found that increasing income and education corresponded strongly with increasing obesity among Korean men, whereas increasing income, but more so increasing education, was significantly associated with decreasing prevalence of obesity among Korean women (Figure 7).[17] This inverse association between education and obesity is also observed in Chinese women as well as in other middle and high income countries.[18]

SOCIAL INEQUITY, FOOD SECURITY, HEALTH INEQUITY

If good nutrition and related health for all social groups and nations were simply unattainable this would be unfortunate but not unjust. However as is the case with many of the marked differences in health between and within countries these are avoidable through reasonable social action but yet are not avoided. These differences in nutrition and health are unethical and inequitable.[1]

Having the freedom to live healthy and flourishing lives is synonymous with empowerment –material, psychosocial and political empowerment of individuals, communities and nations. The three dimensions of empowerment - *material*, *psychosocial*, and *political* - are interconnected. People need the basic material requisites for a decent life, they also need to have control over their lives (psychosocial), and they need voice, engagement and participation in decision-making processes (political). And what lies behind empowerment and its social distribution are the social determinants - the fundamental socio-political, socio-economic, socio-environmental and socio-cultural characteristics of contemporary human societies, and their interactions with one another.

The inequities in how society is organized mean that the freedom to lead a flourishing life and to enjoy good health is unequally distributed between and within societies. The empowerment of all social groups to live healthy lives and achieve food and nutrition security is influenced by conditions of every day life – those daily social experiences; physical environments; financial resources, and material living conditions. There are social inequities in daily living conditions, which lead to inequities in health outcomes. Of particular relevance to food and nutrition security is the nature of, and inequity in, the physical and social experiences in early life; access to and quality of education, particularly that of females; the nature of urbanisation - how cities are planned and designed plus the liveability of rural locations; distribution mechanisms and the consumer price of food, exposure to marketing of energy-dense nutrient-poor foods; the financial, psychosocial and physical conditions of working life, and the degree of social protection provided.

Inequity in the conditions of daily living is shaped by deeper social structures and processes. The right to the conditions necessary to achieve the highest attainable standard of health is universal.[19] However the risk of having one's rights violated is not universal and this inequity in risk of violation results from entrenched structural inequities.[20] Promoting health equity through food and nutrition security means tackling some of the fundamental political, economic and cultural influences on people's living conditions, their daily practices and behaviour-related risks. This means addressing issues of power, wealth and other social resources through matters of governance; national economic priorities; trade and market arrangements; fiscal policy, and the degree to which policies, systems and processes are inclusionary. Addressing these structural determinants of health inequity not only helps empower individuals and communities but also empowers national government and other key public sector institutions.

Table 2. Aspects of modern day global food systems and dietary implications.[10]

Global Food System	Dietary implication
Liberalised international food trade and increased foreign direct investment (FDI)	Imports change the type of foods available for consumption and/or their price; investment changes type of foods available, their price and the way they are sold and marketed
Growth of transnational food companies (TFCs), including supermarkets	Increases availability of processed foods (fast foods, snacks, soft drinks) through growth of fast food outlets, supermarkets and food advertising/promotion; driven by trade and FDI. Growth of transnational supermarkets changes food availability (increases diversity of available products), accessibility, price, and way food is marketed
Extensive global food advertising and promotion	Shapes food preferences by affecting desirability of different foods

Traditionally, societies have looked to the health sector to deal with its concerns about health and disease. Technical and medical solutions such as disease control and medical care are, without doubt, necessary for health but they are insufficient - medical and healthcare solutions do not exist for many of the problems that need to be addressed.[21] The high burden of inequities in premature death and ill health including malnutrition arises in large part because of the nature of society and the unequal distribution of opportunity to be healthy that is associated with membership of less privileged social groups and nations.[22] Addressing health equity, including equity in diet-related health, therefore means tackling the structural drivers that shape the conditions in which people are born, grow, live, work, and age. Policy-makers must act to ensure that all people have equal access to the basic material requisites including good nutrition for a decent life, that they have control over their lives, and they have an equal say in decision-making processes.[1] These are matters of economic and social policy.

INEQUITIES IN THE FOOD SYSTEM AND IMPLICATIONS FOR FOOD SECURITY AND HEALTH EQUITY

The relationship between social inequity, food and nutrition security and health equity is multifaceted and complex. The nature of global and domestic food systems contributes to diet-related health risks and their unequal distribution through matters of food availability, quality, accessibility and affordability (Table 2).[10,23] Food trade and governance arrangements and changes to the food production, procurement and distribution systems, have perpetuated a shift in food practices, dietary consumption patterns and nutritional status, each of which varies by SES.[24]

Trade

Global and domestic trade policy is a key structural driver of a country's food and nutrition experience and the inequities therein. The effect of trade policy on nutrition related health is mediated principally by three factors: government policy, distribution channels and enterprises. These in turn influence nutrition and health equity through their effects on prices, employment, wages, and services. Changes in international food trade policy have led to major changes in the composition, availability and price of food supplies.

Trade liberalization, or the reduction and elimination of tariff and non-tariff barriers to trade, and market deregulation have been at the forefront of free-market economic policy of modern day society. Structural adjustment in low- and middle-income countries opened them up to the international market, supported in particular by the agriculture trade agreement in the 1994 Uruguay Round of the General Agreement on Tariffs and Trade.[25] Trade liberalisation has been posed as a mechanism for countries to reduce poverty and improve food security and health equity through the growth in potential markets and greater transfer of capital, technology, knowledge and people. Indeed food production and trade has increased markedly in parts of Asia in recent years – for example, there was a 430 per cent increase in food production in China between 1990 and 2000.[26]

However, the gains have been uneven, with asymmetries in power, income, goods and services at the global level.[27] Unilateral trade liberalisation and protectionist trade arrangements have been associated with greater economic insecurity and adverse dietary changes while the expected benefits to economic growth have not accrued in poor countries.[28-30] Around two-thirds of the world's poor are still to be found in Asia[31] and every second child on the planet lives in poverty.[32] Tariffs and other restrictions on imports into industrialized countries remain high, limiting the ability of some developing countries to exploit a comparative advantage due to closed export markets. Agricultural subsidies, particularly in the European Union and the United States put commodities (e.g. European milk) on the world market in quantities that depress prices and undercut the competitiveness of poor farmers in developing countries, eroding livelihoods and perpetuating poverty and malnutrition.[33]

A key feature of trade liberalisation that affects diet and health inequities is food imports - their nutritional quality and their economic value. In the Asia-Pacific region, 25 countries are net food importers, with much of the food trade coming from other countries in the region.[34] Imports can alter the type and amount of food available for human consumption and/or prices, thus helping to shape food preferences differently among different social groups.[35] Blouin and colleagues argue that trade liberalization has distorted the food supply in developing countries in favour of an over-production of foods that are high in saturated fat, highly processed, calorie-rich and nutrient-poor, thereby exacerbating the double burden of under and over-nutrition.[36] The amount of trade

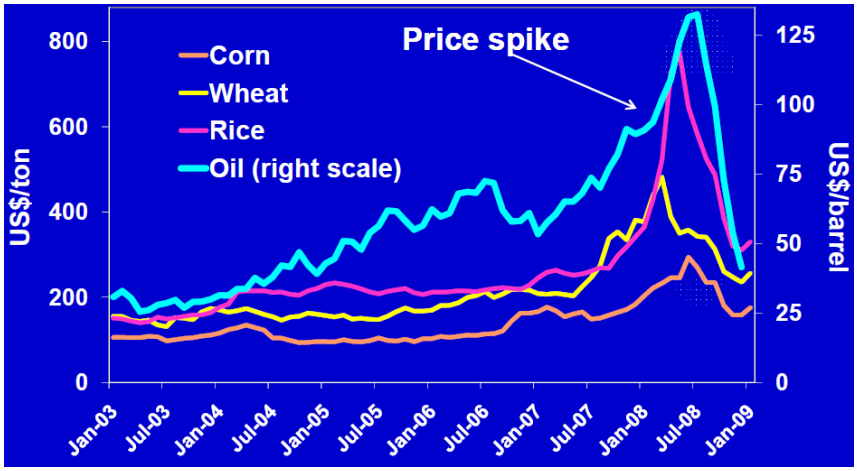

Figure 8. World Commodity Prices, January 2000-April 2008.[44]

in processed agricultural products rose much faster than primary agricultural products.[37] Liberalisation of trade has played a substantial part in the nutrition transition in the Pacific Islands, particularly by increasing fat consumption through imports of vegetable oils, margarine, butter, meat and chickens and canned meat.[38, 39] Between 1963 and 2000, the total fat supply increased by between 5 per cent and 80 per cent, the largest increases in the most economically advanced islands (80 per cent in French Polynesia, 65 per cent in Fiji).[39] It has been suggested the nature of international trade agreements transforms government capacity to protect public health and to regulate foods products[40] with serious implications for health equity between and within countries.[41]

Foreign Direct Investment

Accompanying trade liberalisation and market deregulation of the 1980s was greater foreign direct investment (FDI) and the expansion of transnational food companies (TNF) including supermarkets. Such TNFs increasingly organize food distribution and marketing on a global scale.[10] In 2003 the top thirty global retailers had 19 per cent of the market in Asia and Oceania. In general, food processing is now the most important recipient of FDI relative to other parts of the food system. As noted by McKay, some commentators suggest that the presence of these global retailers encourages more local processing companies to move into this new system, thereby harnessing local production sources, and that the use of global retail brands encourages an upgrading of quality standards.[26] However, there are serious implications for nutrition security in the Asia Pacific region. Supermarkets can be very influential on eating habits through the products they choose to sell, retail price, and the labelling and promotion of particular goods.[42] With increasing market penetration by trans-national food corporations there has seen an explosion in the transfer of processed foods, both in terms of variety and quantity, from developed to developing countries, thereby creating national marketplaces crammed with highly refined cheap foods that are now available to more groups and individuals while externalising the real costs of food and affecting local markets.[10,25,43] Vietnam, China and Indonesia are expected to be the fastest-growing markets for packaged food retail sales over the coming years, with growth rates forecasted at 11, 10 and 8 per cent respectively. Korea, Thailand, India and the Philippines rank among the top 10 growing markets, with total packaged food retail sales expected to grow by 5 to 7 per cent annually.[10]

Food Price

Business as usual in food trade, production and distribution will exacerbate food insecurity and diet-related health inequities through issues of affordability. Between July 2007 and July 2008, global food prices rose by 51 per cent (Figure 8).[44]

Several factors contribute to global and domestic food prices. Increased national pressures due to the uneven distribution of global food stocks and the accelerating demand for animal source food commodities particularly among the urban middle classes is pushing up prices. Speculative investment in food derivatives is a recent development, causing inflationary pressure, increased food demand and subsequently, inflated food prices.[45] The production of crops for biofuels is replacing production for human consumption and contributing to food price increases.[46] In addition, steep hikes in energy prices have driven up food prices (the correlation can be seen in Figure 10) as have weather-induced crop shortfalls against their rising demand in many emerging economies.[47]

Food price affects the health of all nations and communities, but food price fluctuations will most affect the food and nutrition security of nations that are already food insecure; have substantial food and fuel import bills relative to other commodities; and are economically unstable,[6] thereby exacerbating the existing inequities in food security and health between countries. Rice is one of the food commodities that experienced a sharp rise in price globally with major implications for the Asia Pacific region: nine of the world's top ten rice producers are based in the Asia Pacific region (China, India, Indonesia, Bangladesh, Vietnam, Thailand, Myanmar, the Philippines and Japan). Rice makes up approximately 40 per cent of daily calorie consumption in the region. Between January and July of 2008 the retail price of rice increased by 65 per cent in Hanoi and 54 per cent in Karachi. For

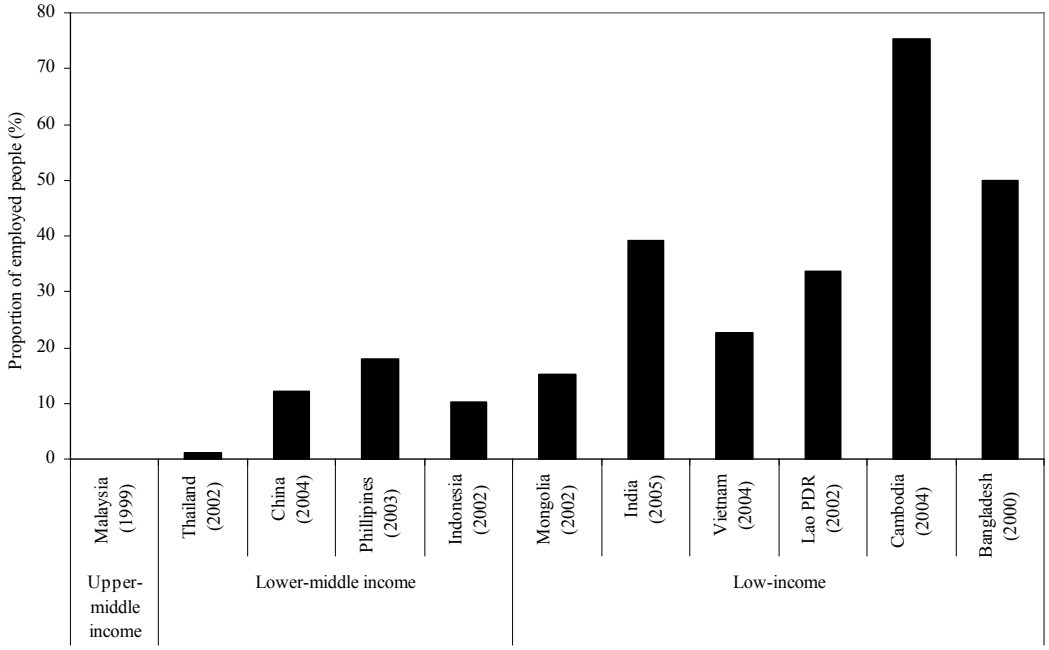

Figure 9. Proportion of employed people living below $1 per day (ppp), select countries in the Asia Pacific region.[57]

the poorer sections of society rice can account for 30-40 per cent of spending. Therefore, sharp price rises will have a major impact on the population and particularly on poorer consumers.[48]

Generally, rising food prices will hit the poorest hardest. Household expenditure on food as a proportion of weekly household income varies enormously between countries but is consistently greater among low income households compared to wealthier households.[49] However, in the current financial downturn where the cost of the collective basket of household goods starts to increase more rapidly, and income does not, all but the super-rich will likely feel the effects. Some will be able to maintain a healthy diet of fresh produce, fish, lean meat and grains; some will only be able to purchase the cheapest sources of calories – highly processed, long shelf-life products, containing saturated fats and bulk starches, preserved with sugar or salt that increase the risk of obesity and diabetes, and many millions will be unable to afford even that.[50]

UNDERLYING SOCIAL INEQUITIES

Early life

What children experience during the early years sets a critical foundation for their entire life course - influencing basic learning, school success, economic participation, and social citizenry. Each of these provides skills and resources relevant for food and nutrition security and health equity. Disadvantage in pregnancy and in utero effects, low birth weight and improper infant feeding, and deprivation in early childhood is associated with adverse health and social effects in later life. Interventions that integrate the different dimensions of child development (physical, cognitive, social and emotional development [51]) are particularly successful, resulting in sustained improvements while simultaneously reducing the immediate and future burden of disease, especially for those who are most vulnerable and disadvantaged.[52].

Access to quality education and health literacy are strongly associated with nutrition related health. Maternal education in particular has been shown not only to improve children's nutritional status but it also improves school attendance.[53] Children from disadvantaged backgrounds are more likely to do poorly in school and drop out early - and subsequently as adults are more likely to have lower incomes, higher fertility, and be less empowered to provide good health care, nutrition, and stimulation to their own children, thus contributing to the intergenerational transmission of disadvantage.[54]

Material resource – money, work and social protection

Food access is affected by both the financial cost of food and the amount of money individuals and households have to purchase food.[55] The current global economic downturn and accompanying unemployment and falling incomes, on top of already high food prices, are increasing the pressure on poorer social groups. When money is tight food is considered a flexible item in household purchasing practices.[55] Already many people living in poverty in developing countries are making changes to their diet by substituting their usual food with less expensive nutrient poor food, as well as consuming fewer meals. In the Asia Pacific region, many people living on less than US$2 a day have cut out health and education and sold or eaten their livestock. Those living on less than US$1 a day have cut out protein and vegetables from their diet.[34]

Employment arrangements and working conditions have powerful effects on food security and health equity. When these are good they can provide financial security, social status, social relations and protection from hazards and harmful behaviours.[56] In most households, work is the vehicle through which to provide the financial capability to purchase a healthy standard of living.[49] There are

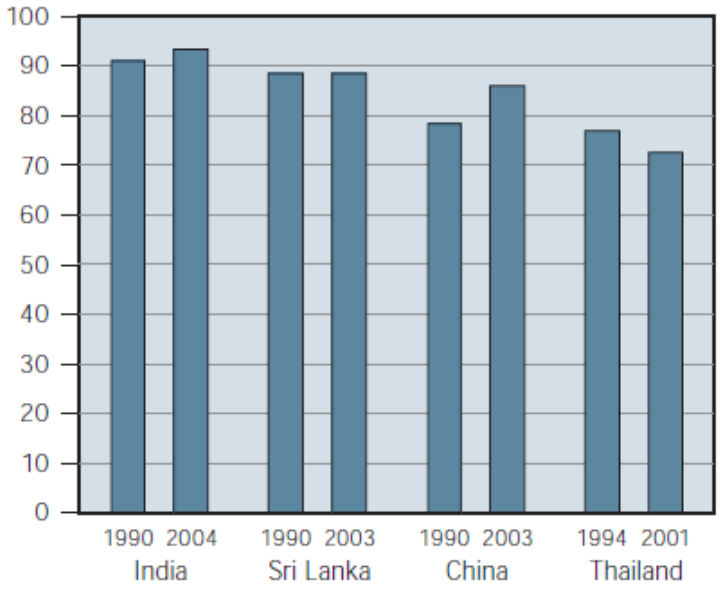

Figure 10. Percentage informal employment in select countries in the Asia Pacific.[64]

still a significant number of countries of the Asia Pacific where large proportions of workers live below US$1 per day (Figure 9).[57]

Globalization-induced changes in employment conditions have possible ramifications for nutrition security and health equity. In high-income countries, including Australia, there has been growth in job insecurities and precarious employment arrangements (such as temporary work, part-time work, informal work, and piece work).[58] Most of the world's workforce, particularly in low- and middle-income countries, operates within the informal economy, which by its nature is precarious and characterized by a lack of statutory regulation to protect working conditions, wages, occupational health and safety or injury insurance.[59] For those countries where data exist, levels of informal work are high in the Asia Pacific region (Figure 10). It is likely too, although the evidence is sparse, that the time and strain pressures associated with precarious work correlate with sedentary work, disinclination to use active transport and ready access to energy dense foods.[60,61] These precarious working conditions tend to be experienced most acutely with decreasing socioeconomic status.

Fundamentally the changes in labour market conditions reduce peoples' material and psychosocial resource, thereby disempowering them from making healthy living choices, with implications for nutrition security and health equity.[7] The pending impacts from the global financial crisis will greatly exacerbate these issues. The worst affected groups will be unskilled workers and workers laid off from the export sectors.[62] Social protection is therefore vital for food security and health equity providing basic income security particularly among those who are unemployed. Many governments provide for societies for vulnerable periods and for protection from specific factors such as illness, disability, and loss of work. Countries with generous social protection systems tend to have better population health outcomes.[63] In the Asia Pacific region only 35 per cent of the population as a whole is covered by any form of social protection; and the average for the poor in Asia Pacific is only 57 per cent, with cover ranging from 1 per cent in Papua New Guinea to 100 per cent in the Cook Islands, Japan and the Republic of Korea.[64] Although overall 55 per cent of social expenditure goes on social insurance programmes, generally pension schemes make up the bulk of social expenditure. Labour market and child protection are allocated roughly 7 per cent of the social protection budget and microcredit financing on average 13 per cent.

The lived environment

Tightly linked to economic development is the process of urbanization, either through expansion of existing urban settlements with rural-urban migration, or urbanisation of rural localities. By 2050, the urban population of the developing world will be 5.3 billion; Asia alone will host 63% of the world's urban population.[65] Although qualitatively different in low, middle and high income countries, the foreseeable trend in cities is for rising inequities across a wide range of social and health dimensions. The urban social and physical environment influences every aspect of health and well-being: the geographic setting of their location, the climate, the housing that shelters them, the danger they encounter in the street, who is available for emotional and financial support, the water they drink, what people eat, the air they breathe, where (or if) they work, and where they go for healthcare. The local exposures to damaging social and environmental health determinants and lack of health services are increasingly understood as connected to major external development trends, such as economic and cultural globalization, urbanization and global environmental deterioration, including climate change.[66]

The nutrition transition and associated obesity epidemic, already widespread among urban dwellers in many low and middle income countries, is partly due to urban planning that lacks planning for public transport

and ignores the need for walking, cycling and playing in the urban landscape. The same urban form impacts on food and nutrition security more adversely on low income groups who are more constrained by lack of transportation and lack of healthful food purchasing choices in lower-income neighbourhoods.[67] Sitting cheek-by-jowl with over nutrition and obesity among the more affluent urbanites, are slum children who have higher levels of protein energy malnutrition, vitamin A, iron anaemia and iodine deficiency disorders than their rural counterparts. The generally nutrient-poor quality of the food supply, recurrent diarrhoea due to poor environment and housing conditions, absence of adult caregivers due to employment pressures and the lack of adequate services, each serve to increase a child's risk of poor nutritional status.[68]

Power and control

Creating the socio-environmental and socio-economic conditions that ensure food security and health for all social groups depends vitally on the empowerment of individuals and groups to represent effectively their needs and interests. This means that all peoples must have a voice i.e. they have the right to participate, the capacity to do so, and are represented in decision-making about how society operates, particularly in relation to its effect on food security and health.

This relates to matters of power and the systems and processes within society that systematically create inequity in its distribution. Inequity in power interacts across four main dimensions – political, economic, social and cultural – together constituting a continuum along which groups are, to varying degrees, excluded or included. The *political dimension* comprises both formal rights embedded in legislation, constitutions, policies, and practices and the conditions in which rights are exercised including access to safe water, sanitation, shelter, transport, energy, and services such as health care, education, and social protection. The *economic dimension* is constituted by access to and distribution of social resources necessary to sustain life and good health (e.g. income, education, employment, housing, land, goods and services). The *social dimension* is constituted by proximal relationships of support and solidarity (e.g. friendship, kinship, family, clan, neighbourhood, community, social movements) and the *cultural dimension* relates to the extent to which a diversity of values, norms, and ways of living contribute to the health of all and are accepted and respected.[69]

Issues of power imbalance relate not only to individuals and communities. The political, financial, and trade decisions of a handful of governments, institutions and corporations are having a profound effect on the conditions of daily living,[59] and consequently the daily practices and behavioural choices of millions of people. Putting food security and health equity in international trade arrangements and domestic economic policy is critical. This means good global and national level governance - tackling the balance of geo-political and economic power in agenda-setting and decision-making in relation to food trade agreements. It is accepted almost unanimously by those in the health field that trade negotiations and disputes must be made more transparent, have increased civil society involvement and need greater involvement of health interests such as the WHO and Ministries of Health. The development of the WHO's Framework Convention on Tobacco Control is an excellent example of coherent global action to restrain market availability of a harmful commodity, providing national government the policy space within which to act. WHO is working with WTO, the World Bank, World Intellectual Property Organization, UNCTAD, international experts, and trade and health policy-makers from 10 countries to develop a diagnostic tool to examine five components of the trade-health relationship including trade in foodstuffs. Implementation of this diagnostic tool will enable policy-makers to develop national policies and strategies related to trade and health and to identify their capacity-building needs in this area.[70]

SOME ACTIONS TO ADDRESS EQUITY IN FOOD SECURITY AND HEALTH

- Managing the integration into the global agricultural market requires support and protection. Lessons learnt from the Green Revolution highlight the need for a multifaceted approach to sustainable agriculture that combines technological solutions, services and better infrastructures and public policies, particularly agricultural price policy.
- TNCs should be required to implement nutrition security and health commitments in Asia Pacific countries. In all countries, FDI is subject to regulation, often in very complex ways. As FDI expands within countries, there is space when negotiating these regulatory packages to include nutrition security. Excise taxes – a normal part of any tax code – could be used to reduce demand for foods unnecessary in the basic diet of all income groups.
- Barriers to education include issues of access, quality and cultural appropriateness of education. Poverty relief and income generating activities together with measures to attract quality teachers, provision of more accessible schools and classrooms, culturally relevant materials, and reduced family out of pocket expenditure on school materials are critical elements of a comprehensive strategy to make education a reality for all children.
- The issue of food security cannot be tackled without linking it with income, work and social security. Consider Food-for-Work and Employment Guarantee schemes. Without adequate child-care not only are workers, especially women, unable to go out to work and earn but their children are vulnerable to the malnutrition-infection cycle.
- Commit to investment in balanced rural-urban growth that empowers local government with regulatory and financial control, and ensures cities are planned in such a way that prevents and ameliorates the urban health risks including over and undernutrition.
- Fairness in voice, inclusion and participation requires changes in how top-down policy-making is made and it also requires bottom-up community led action.

CONCLUSION

Ensuring provision of a nutritious food supply is a major global and national policy challenge with profound implications for human development based on principles of economic, environmental sustainability and equity. Ena-

bling all groups in society to contribute to such development is critical. So too is the endeavour to ensure that all communities and individuals have both physical access to food sources, and the financial resources required for making healthful food choices. Attention to the drivers of food and nutrition security and health means attention to the underlying social inequities. These are matters of economic, agricultural, social and health policy.

AUTHOR DISCLOSURES

Sharon Friel, Phillip I Baker, no conflicts of interest.

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Review

Equity, food security and health equity in the Asia Pacific region

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亞太地區的平等、糧食安全以及均健

人們吃什麼以及吃多少，反應出他們的社會政治、社會經濟、社會環境及社會文化等因素。良好的營養是良好健康的首要條件。全球許多人的健康情形雖然已獲得改善，但並非人人皆平等。食物及與營養相關的健康的不平等分配是社會失敗的指標。對於某些個體、社區、甚至國家而言，問題在於沒有足夠的糧食，或買不起糧食，或缺乏高營養價值的食物；而對於其他地區，則是糧食過於豐足，但是營養品質卻未達標準，欠缺健康的食物，而且食物的價格高於其他生活必需品。若營養狀況沒有平等地改善，則亞太地區的人類發展及貧困縮減是無法達成的。健康的差異等級並無生物學上的理由，包括在亞太地區觀察到的與飲食相關的健康差異。它的存在是不道德及不公平的。不均衡的經濟成長、不平等的日常生活條件改善、科技發展的不平等分佈及人權受壓制，使得健康不平等在過去三十年延續且惡化。解決與飲食攸關的健康不平等應關切潛在的結構性因素以及日常生活條件的不平等，這些才是導致個體、社會團體、甚至國家無力追求良好的營養及健康的根源。在全球、地區及國家層次，這些都是經濟與社會政策的課題。

關鍵字：健康不平等、社會決定因素、糧食安全