Editorial

Population-based studies of nutrition and health in Asia Pacific elderly

Meei-Shyuan Lee DrPH (Harvard) and Mark L Wahlqvist MD (Adelaide & Uppsala), FRACP

1 School of Public Health, National Defense Medical Centre, Taipei, Taiwan, ROC
2 Asia Pacific Health and Nutrition Centre, Monash Asia Institute, Monash University, Melbourne Australia

The systematic observation of food habits and health amongst the elderly, both cross-sectionally and longitudinally, in the Asia Pacific region is increasing as reflected in the recent collective report of a number of intake and health variables in Taiwanese communities. Most studies are of Chinese and Japanese-speaking populations, with some from elsewhere in Northeast Asia (notably Korea) and Southeast Asia (notably the Philippines, Indonesia, Malaysia and Singapore). These, and other international studies, demonstrate that older people can eat in various ways and yet achieve longevity and minimum morbidity, provided they remain physically and mentally active and eat a variety of relatively intact foods, including fish and pulses (lentils, legumes, beans). Such studies are the foundation of a new generation of food and health policy for the aged, with reference to EBN (evidence-based nutrition) and reflected in FBDGs (food-based dietary guidelines) which acknowledge cultural difference and support sustainable food systems.

The recent publication of the “Elderly Nutrition and Health Survey in Taiwan (1999-2000)” shortly before the United Nations “International Day for Older People” on October 1, 2005 was a landmark for such studies internationally and in the Asia Pacific region. It illustrates the advantage of bringing together otherwise disparate kinds of information, for and between communities, in the interests of their health and advocacy for it. As a representative cross-sectional study, it canvassed a number of emerging issues in this field including:

1. The situation for indigenous elderly, which appears only to have been tackled in the Asia Pacific region previously for indigenous Australians in the Kimberley area in northern of Western Australia and Polynesian of New Zealand.

2. The differential nutritional status of population subgroups, especially by food culture. This has been explored in China for urban and rural elderly in Tianjin, and, comparatively, for urban (Beijing), agricultural (Huaireou), pastoral (Tuoli), semi-farming and semi-pastoral rural (Xinyuan), and coastal dwellers (Baoshan and Rongcheng) in China. A theme in these studies is that the diversity of food is greater when trade and communication is greater, notably in cities, with implications for how food patterns affect health; and that there may be more than one set of foods which allows optimal health.

3. The particular risks and advantages of rice-based diets for the elderly, in regard to dietary fibre (which tends to be low, although resistant starch can be high depending on food preparation), micronutrients (which may be compromised for vitamins B, , B, , B, , folate and B and low for minerals such as magnesium, with controversy about calcium because of food cultural modulation through, for example, vitamin D, sodium and isoflavone status).

4. The risk of nutritionally-related, so called chronic, disease (NRD), like diabetes in relation to magnesium status; and macrovascular disease and bone health in relation to homocysteine status. Of interest, the Taiwanese study provides the opportunity to examine the link in population between homocysteine and osteoporosis, but this is yet to be done.

Correspondence: Dr. Meei-Shyuan Lee, School of Public Health, National Defense Medical Center, 161 Minchuan East Road, Sec. 6, Taipei, Taiwan 114, ROC
Tel/Fax: 886-2-87910704; Email: mmsl@ndmctsgh.edu.tw
5. The potential importance of ethnic difference and/or genetic polymorphisms in NRD expression - as with highly prevalent hyperuricemia (which may have either “health marker” or “metabolic stress response” relevance).5

6. The relationships between indices of wellness, health and nutritional status,13,22,23 first explored in the Asia Pacific region by Garry Andrews and colleagues for WHO in Fiji, Korea, Malaysia, and the Philippines.24

7. The importance attached to diet and supplements by elderly people.7,25-28

Presently, there are published data, of a cross-sectional kind, for a number of elderly communities through out the Asia Pacific region; these include Australia,5,13,29,30 China,10,14,31,32 Fiji,24 Indonesia,17,18,33 Japan,13,34-36 Korea,37 Malaysia,24,38 New Zealand,5,39,40 the Philippines,13,22,23 and Taiwan.1,41,42 These will prove more valuable as they are repeated and trends are appreciated. However, more longitudinal cohort studies for determinants of mortality (at least all-cause, if not disease-specific, using national health statistics) and morbidity are required. The FHILL (Food Habits In Later Life) studies of the IUNS (International Union of Nutritional Sciences)13,22,23,43 (www.healthyeatingclub.org/APICN/FHILL) have, for some cohorts in the Asia Pacific, been longitudinal (Australia, Japan) and more could follow. These studies have shown clearly that, beyond age 70, diet still matters. Diet is also relatively very important compared with other major determinants of mortality, some unchangeable like age self and gender, with other lifestyle factors also high on the list (notably smoking and physical activity), together with increasing frailty, reflected in cognitive and physical impairment.43 Of the various food commodities, legumes (lentils, pulses, beans) and fish have particular health protective pro-perties in their own right.45 But, otherwise, the diet as a whole is more important than single foods or nutrients in determining health outcomes.34 The Taiwanese studies could now be pursued in follow-up at or beyond five years since the study commenced. Mortality rates amongst the aged are high enough to allow confidence that meaningful answers will be found, even though the sample size of such population studies might be less than for younger cohorts.

Another value of such cohort studies is that they allow for a greater account of social and environmental factors. They, therefore, provide the basis for intelligent policy intervention to decrease nutrition vulnerability amongst the aged.

Even though the Asia Pacific region is immensely populous, with rapidly aging populations, and increasing (but not inexhaustible) resources, it needs to work out the peculiar regional nutritional needs for the aged. These needs can be translated into nutritional policy, which usually includes dietary guidelines. WHO (World Health Organisation) has produced a nutritional manual for the aged supported by the UN General Assembly in Madrid 2002.45 It developed FBDGs (food-based dietary guidelines) for the aged, building on the WHO-FAO Cyprus report of 1996.46

For the Asia Pacific region, an international perspective is most helpful. It is reflected in the longitudinal SENECA studies47-49 and in the companion FHILL studies.13,22,23 Other relevant international longitudinal studies include that in Baltimore, USA,50-52 the Harvard Grant Cohort study53 and the Swedish studies in Gothenburg.54 Other important ongoing international studies, which may become longitudinal, are those in South Africa55 and Guatemala.56,57 They all provide a wealth of breadth and depth, enabling policy to be set locally and, to some extent, globally.

References


