The Asian Gerontological Experience

Capacity Building in Social Gerontology Training and Translational Research in Asia

Papers Presented at
The Asian Gerontological Experience
Workshop cum Expert Group Meeting

Edited by

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Foreword

The workshop brought together leading academics, university administrators as well as leaders of civil society organisations serving the elderly to share information, experiences and insights on capacity building in social gerontological training and translational research in Asia — the region that has the fastest ageing populations. It is our hope that through such forums and sharing of experiences, we can make a small contribution to better prepare countries and territories in Asia for the coming age wave.

Participants from 10 Asian countries/administrative regions, including Singapore, served as speakers, discussants and session chairs. They were drawn from a variety of academic disciplines, including demography, education, geriatrics, social gerontology, sociology and social policy.

Also present were observers drawn from the Singapore civil service and statutory boards, academics and practitioners from universities and polytechnics, and civil society organisations catering to the elderly. Observers were also invited to share their views and experiences.

The purpose of this e-publication is to share the views of the experts with a wider audience. A summary of the presentations and discussants' comments at the workshop is also included.

The views expressed are those of the authors alone and do not represent the views of either organiser. Designations and affiliations of speakers and participants are as at the time of workshop.

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Social Gerontology Training and Research in Asia

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INTRODUCTION

The demographic profile of the Asian and Pacific region has undergone considerable transformation over the recent decades and one of the most significant trends is population ageing. The proportion of older persons (aged 65 and above) has been steadily increasing and the number is projected to increase threefold from 420 million in 2010 to almost 1.3 billion by 2050, constituting almost 25 per cent of the total regional population. I will not be going into the details of the transformation of population structure from pyramids to inverted pyramids but will just focus on the significant social, economic and political impact of an ageing Asia.

The Asia-Pacific region is a diverse one and countries are at different stages with regard to population ageing. Three clusters of countries can be discerned:

(i) Countries that are ageing but with a cushion of affluence, namely, Australia, Hong Kong, Japan, Macau, New Zealand, Republic of Korea and Singapore.

(ii) Developing countries that are ageing without being affluent; these countries would include China, Indonesia, Malaysia, Thailand and Vietnam.

(iii) Countries where the fertility rate is above replacement level and where ageing does not appear to pose a near-term threat, that nonetheless need to prepare for a foreseeable ageing scenario.

Dramatic changes in the population of Asia has been brought about by increased longevity and decreasing fertility. These demographic changes shape the population structure of an ageing Asia, characterised by: an increasing number of older elderly persons (and the concomitant increase in the frail and vulnerable); an increasing number of singles living alone; smaller family size; changing patterns of labour force participation with dual income households; the feminisation of ageing; the greater speed of ageing compared with developed countries (which took a longer period to arrive at ageing populations); and the rise of the "new old" who are often better educated and in better health.

These demographic trends will have significant socio-economic implications. Foremost among these would be the change in dependency ratio; with fewer in the working age supporting the elderly, there will be challenges for economic growth. The stresses and pressures on the pension systems will be considerable, especially with regard to affordability, adequacy and sustainability (especially with "pay-as-you-go", defined benefit systems).

Traditional support systems, especially family-based ones, will be eroded with changes in marital patterns, diminished family size, and increased female labour force participation as well as changes in social norms of filial piety and multi-generational families.

Increased longevity and lifestyle changes will bring about epidemiological changes, with an increase in incidences of chronic diseases, cognitive

impairment and decline, and an increasing burden on health costs. This will be compounded by the increasing number of frail and vulnerable older elderly persons with increased probabilities of being afflicted by debilitating dementia or cardiovascular diseases.

The gender dimensions will also be significant, with women constituting the majority of the over-60s and especially among older elderly persons. Older women are more likely to be widowed or single, and are more likely to be financially dependent stemming from lower literacy, lower labour force participation and limited or no pensions. With smaller family sizes, women who played traditional caregiving roles may themselves be deprived of care support when they age.

The implications for developing countries are even more complex. Some developing countries have to contend with the challenges and opportunities of the demographic dividend and the "youth bulge", the double health burden of a young and ageing population, and the rural-urban divide where the elderly are left behind in the rural areas while the job-seeking young migrate to the urban areas.

The problems posed by ageing for countries in Asia are formidable, and governments are increasingly aware of the need to prepare for the challenges through appropriate policies and programmes. These efforts are also guided by the international community, which has taken collective action through the United Nations to address population ageing.

THE UNITED NATIONS AND AGEING

In 1982, the United Nations convened the First World Assembly on Ageing in Vienna, Austria at which an International Plan of Action on Ageing was adopted covering (a) Health and Nutrition; (b) Protection of Elderly Consumers; (c) Housing and Environment; (d) Family and Social Welfare; (e) Income security and Employment; and (f) Education.

Almost a decade later in 1991, the United Nations promulgated the Principles for Older Persons with 18 principles clustered into five categories:

(a) Independence; (b) Participation; (c) Care; (d) Self-fulfilment; and (e) Dignity.

In 1995, the World Summit for Social Development was convened in Copenhagen, Denmark with the very significant and forward-looking theme of "Society for All", marking the conceptualisation of age being integrated into a society for all ages.

Next, the year 1999 was proclaimed the International Year of Older Persons by the United Nations General Assembly, bringing heightened attention and awareness to the issue of ageing and catalysing national, regional and global initiatives.

The landmark Second World Assembly on Ageing held in Madrid, Spain in 2002 and attended by 159 countries resulted in the Madrid International Plan of Action on Ageing (MIPAA), which still serves as the global policy framework document on ageing today.

At the regional level, ageing has been increasingly recognised as an emerging issue by countries in Asia and the Pacific, and in 1999 (before the 2002 Madrid World Assembly on Ageing), the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) convened the Regional Meeting on a Plan of Action on Ageing for Asia and the Pacific in Macau, at which the Macau Plan of Action on Ageing for Asia and the Pacific was adopted.

After the Madrid World Assembly in 2002, UNESCAP convened a regional meeting in Shanghai, China later that same year to map out regional strategies to implement the outcome of the global plan of action. The Shanghai Regional Implementation Strategy for the Madrid International Plan of Action on Ageing was adopted at the meeting.

In 2007, in preparation for the first high-level global review of the Madrid International Plan of Action on Ageing, a regional preparatory meeting was convened in Macau at which the Macau Outcome Document for the High-level Review of the MIPAA was adopted. This outcome document was transmitted to the United Nations in New York as the input from the Asia

and Pacific region. The MIPAA Global Review was held at the United Nations in New York during the Commission for Social Development in 2008. The next five-year global review of MIPAA is scheduled to be held at the United Nations in New York in 2013 and in preparation for that review, a regional meeting will be held in Bangkok, Thailand in September 2012.

The landmark MIPAA was the first international instrument adopted by consensus by 159 countries. Of particular interest are two core concepts. The first is the shift to a development approach, recognising the contributions and concerns of older persons in both developed and developing countries, and the need to integrate ageing into the development process. The second is the advocacy for a life-course, intergenerational approach and the inclusiveness of all age groups, with the protection of the rights of older persons and the promotion of their active participation in society. Three priority directions were identified: (i) older persons and development; (ii) advancing health and well-being into old age; and (iii) ensuring enabling and supportive environments.

These three pillars of MIPAA were the core components of the regional Shanghai Regional Implementation Strategy, with one additional dimension on implementation and follow-up action. This fourth dimension entails national capacity building and requires two areas of action. Firstly countries are to establish or strengthen national mechanisms on ageing, formulate frameworks for gathering data and information, establish indicators of implementation, and enhance the participation of NGOs and civil society. Secondly, regional and international co-operation would also be important and could be effected through promoting exchanges of information and experience between countries, and identifying a regional entity such as UNESCAP to serve as a focal point and also to review the progress of implementation.

It is heartening to note that in response to the above call for action, the Asia-Pacific Institute of Ageing Studies at Lingnan University in Hong Kong has developed the comprehensive Ageing Policy Integrative Appraisal System (APIAS) of implementation indicators.

TRAINING AND EDUCATION
IN SOCIAL GERONTOLOGY IN ASIA

With the rise in ageing populations in Asia, gerontology — the study of the social, psychological and biological aspects of ageing — is becoming increasingly important. There is a growing demand for training and education in social gerontology stemming from various drivers. These would include:

(i) Recognition of the necessity and benefits of integrating gerontological aspects into many related fields — biomedical sciences especially geriatrics, geriatric nursing, dentistry, physiotherapy, social sciences especially economics, sociology, social work, public health, architecture and planning, etc.

(ii) The lack of training and capacity building of professionals and practitioners working on ageing issues, and the need for formal certification and credentials.

(iii) The need for training curriculum adapted and modified to reflect specific socio-economic and cultural contexts.

Social gerontology training is undertaken in several countries in Asia and the Pacific, usually by institutes of higher learning such as in Australia, China, Hong Kong, Indonesia, India, Japan, Malaysia, New Zealand, Republic of Korea, Singapore, etc. Training is undertaken in basic research and concepts, and as professional training for careers, fed into allied professions, or to provide support to entities working on ageing, or caring for the aged.

Training institutes offer a wide range of courses covering degrees (up to the doctoral level), diplomas and certificates, minors and electives. Innovative modalities are offered by some institutions such as service learning, experiential learning, satellite training programmes, courses with variable exit points commensurate with qualification awarded, modular courses, etc.

There are also training course for lifelong learning such as the University of the Third Age (U3A) in Malaysia and the Elder Academy at Lingnan University, Hong Kong. Public education on key ageing issues has also been undertaken

and programmes undertaken by entities such as the Council for Third Age in Singapore on applied social gerontology have contributed to raising public awareness and serving as a bridge connecting different stakeholders.

Training courses are mainly held at the national level with few regional training courses, although a noteworthy regional training programme is the International Institute of Ageing (INIA) – Singapore Action Group of Elders (SAGE) ASEAN Gerontology Course held annually in Singapore. There is certainly scope for co-operation among training institutes both nationally and across borders.

BUILDING RESEARCH CAPACITY IN SOCIAL GERONTOLOGY IN ASIA

In addition to providing training in social gerontology, it is also essential to build capacity in research on social gerontology in the region. Several key drivers are behind this need. These would include undertaking research to reflect the different socio-economic and cultural backgrounds of Asian countries, as culture-bound assumptions (such as those from developed Western countries) may not be applicable in the Asian context. There is also the need to create scientific evidence predicated upon a focused research agenda addressing priority issues.

While the research culture and research infrastructure is well established in developed countries, and in the more developed countries in the region (such as Australia, Japan, New Zealand), the research landscape in developing countries needs to be enhanced. Social gerontology research poses a real and present challenge, and in the context of resource-constrained developing countries growing old before getting rich, and rapid ageing that cannot be adequately addressed with out-dated research data, it is important that the challenges be identified and barriers removed.

Barriers identified include the following: the lack of a research culture; financial constraints including the lack of sustainable funding; weak research infrastructure; fragmented and lack of interdisciplinary collaboration; limited number of researchers and the need to train and nurture emerging

researchers; and a dearth of strategic alliances between researchers and other stakeholders.

As ageing is a relatively recent phenomenon in Asia, much remains to be done to obtain new research data and refine conceptual understandings. The research agenda would also seek alternatives to 20th century instruments that are being used to address 21st century issues (for instance, to revisit models of pension systems developed for shorter life spans). Topical and relevant research issues include:

- From a conceptual perspective, there should be in-depth and contextual analysis of the social development and welfare philosophy of a country, focusing on the bearer and shifting the risk among the individual, the family, community and government.

- Another conceptual issue to be examined is that of the traditional intergenerational contract, that will involve revisiting filial piety, fairness between generations and intergenerational solidarity and interdependence.

- An issue that will require the attention of the Asian and Pacific region is the human rights perspective on the rights of older persons as embodied in the ongoing global deliberations on a proposed human rights instrument on the Rights of Older persons, covering issues that include age discrimination and ageism, elder abuse and violence, the right to adequate standard of living, health and social care, participation and social exclusion, etc.

- There is also a need to revisit definitions and understandings of key issues such as "dependency ratio" and "retirement" especially in the light of the "stretched life-course" and high number of older persons in the informal sector in developing Asian countries.

- On the economic front, the research agenda should delve into participation in the labour market, sustainable social protection systems (including formal and informal pension systems, non-contributory social pensions), migration, etc.

- The conceptualisation of wellness and active ageing should be expanded to cover linkages to the life-course approach, the inter-linkage to productivity, independence/autonomy and self-help, health promotion and preventive interventions, life-long learning, volunteerism, etc.

- A promising development would be to build upon the work done by behavioural economists on incentivising health-seeking behaviour.

- The co-ordination and possible integration of health care and social care should be rigorously examined.

- Research on long-term care, palliative and end-of-life care especially in the socio-cultural context of Asia should be intensified.

- Multiple issues pertaining to careworkers, caregivers and caregiver support should be accorded urgent attention.

- The possibilities and challenges of ageing in place should be studied — including creating age-friendly environments, linking housing with transport and naturally occurring residential communities (NORCs), etc.

- Technological innovations, including bridging the digital divide and techno-gerontology, should be explored.

Finally, to enrich the research agenda, there should be comparative and cross-national research, sharing of learning from good practices and examples as well as problematic ones so that policy failures can be avoided. It is essential that research findings and knowledge be effectively utilised and ultimately serve as a tool to inform policy understanding and policy-making. In this regard, the role of translational research is essential.

TRANSLATIONAL RESEARCH
IN SOCIAL GERONTOLOGY IN ASIA

Translational research stems from biomedical research, essentially referring to the transfer of research knowledge into practice and application (from bench to bedside), often without any linkage to social implications. In the social sciences, while translational research would also serve to translate research findings into practice and application, the objectives would be more varied. In most instances, there should be a multiplicity of objectives, as such research would serve to produce a scientific evidence base that would be used for an influencing agenda to inform and garner public understanding and support and very importantly to influence policy-making.

In social gerontology, translational research would be more complex as it is increasingly being recognised that in many cases, research would involve an alliance of several disciplines (such as the medical, biosciences, social sciences) and research findings would need to be synthesised, amalgamated, analysed and interpreted. Often, measurement of output or outcome change is problematic as changes can be only attributed or there could be multiple influences involved.

The process of translational research is often multi-faceted, which could require the following steps:

(i)   Using interface knowledge brokers, intermediaries and networks to propagate information involving the need to curate, distil and repackage using the media, think-tanks and social marketing. Disintermediation is also possible whereby information is transmitted through direct communication such as through social media or events.

(ii) Identifying impact gaps and monitoring the take-up of the research knowledge; this would require re-examining current incentives to propagate research findings, for instance, instead of only using citation indices and publication in academic journals as success measures of research, other impact-tracking and measuring mechanisms such as impacts folder or database to cover external impacts (sometimes referred

to tongue-in-cheek as "congratulations" folder), number of website hits, etc., can be explored.

(iii) Enhancing utilisation of the new media such as removing barriers to accessibility (for example, moving from closed-web to open-web), and learning from successful practices such as using multi-author blogs (such as Huffington Post).

(iv) Creating an infrastructure and platform to bring together collaborators involving researchers from cross-sectoral disciplines and other stakeholders, especially practitioners and community-based organisations.

Of significant importance is that the research impact should serve to inform and to influence policy-makers and public opinion and perception, especially through policy-making machineries. A strategic partner that must be involved, if possible at all stages, would be the national machineries for ageing issues. In Asia and the Pacific, many governments have established entities to address ageing concerns, usually in the form of inter-ministerial commissions committees and council. Some examples are the Ageing Society Policy Council (Japan), Office for an Ageing Australia, Office for Senior Citizens (New Zealand), National Working Commission on Ageing (China), Elderly Commission of Hong Kong, National Older Persons Commission (Thailand), National Commission on Ageing (Indonesia), Ministerial Committee on Ageing (Singapore), etc.

LOOKING AHEAD

As we move to embrace opportunities and face challenges ahead, some future action may be considered.

(i) In the Asia-Pacific region, it will be useful to create a platform for researchers, experts and decision-makers to seek and co-create solutions to the challenges of population ageing. Examples exist such as the Europe Network in Aging Studies, and the African Research on Ageing Network (AFRAN).

(ii) From the earlier discourse on the dearth of social gerontology training in Asia, it is evident that shortcomings should be overcome. However, it would be useful to monitor and assess the outcome of training which has been undertaken, such as by conducting tracer studies to track the career pathways of graduates, the relevance of curricula, and the effectiveness of the training programmes — to guide future training initiatives and meet the needs of the country as well as the aspirations of the trained.

(iii) It will be useful and necessary to have an agenda for ageing research in Asia, as demonstrated in the European FUTUREAGE roadmap. This could build upon existing materials such as the United Nations/International Association of Gerontology Research Agenda on Ageing for the 21st Century.

(iv) Finally, it is essential that ageing should be included in the agenda of political entities such as the Association of Southeast Asian Nations (ASEAN) and Asia-Pacific Economic Cooperation (APEC) to promote and expedite co-operation at the regional level. Areas of co-operation can include training, certification of qualifications, migration including for employment of health and careworkers, etc.

The challenge of population ageing is a formidable one, but with political will, informed and concerted action from all stakeholders, we can address and surmount them to build a "Society for All Ages".

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Training and Education in Social Gerontology for the Asia-Pacific Region

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INTRODUCTION

Ageing in the World

Population ageing is increasingly being referred to as a global phenomenon. The shift in age structure is brought about by increased longevity coupled with a low fertility rate leading to an ageing population worldwide. It is estimated that the proportion of persons aged 60 years and older in the world will double from 10 to 21 per cent between 2000 and 2050 (i.e., from 600 million to 2,000 million in absolute numbers). In 2025, it is projected that 15 per cent of the world's population will be aged 60 and above. In 2002, among the world's population aged 60 years and above, 52 per cent lived in Asia and the Pacific; this figure is projected to increase to 59 per cent in 2025 (United Nations Population Division 2005).
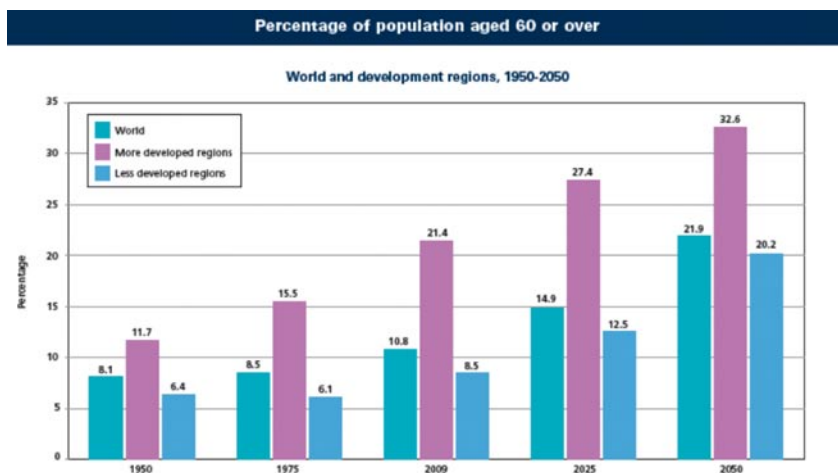
Source: United Nations Economic and Social Commission for Asia and the Pacific (2009)

Ageing in Asia and the Pacific

Across Asia, those aged 60 or over are expected to outnumber the population aged below 15 before 2050. Many developing societies in the region such as Japan and Hong Kong are ageing more rapidly than the norm where the inverted population pyramid is becoming more apparent in a number of Asian countries, according to the United Nations Population Division.

Many Asia-Pacific countries have undergone a dramatic demographic shift from a state of high birth and death rates to one characterised by low birth and death rates, with rising longevity. Fuelled partly by its one-child policy, China, for example, is expected to double its older population from 10 to 20 per cent in just 27 years, from 2000 to 2027. Countries like South Korea and Taiwan are also expected to face a population decline by 2050.

In general, regions and countries with the greatest proportion of elders above 65 years and over will also have great increases of the "old-old" (who are 80 years or above). Between 2000 and 2050, based on calculations from the UN Population Division (2005), the proportion of the population aged over 80 years will increase 400% in Japan (4 to 15 per cent), 450% in India

(0.7 to 3.3% per cent) and 800% in China (0.9% to 7.2 per cent). These high rates of growth have alerted an increasing number of countries and their governments to plan for infrastructure development and the immediate need to develop specialised training for professionals to meet the cumulative needs of older people.

Table 1. Ageing situation on selected countries in Asia and the Pacific

Country	Population aged 60 years or above					
	Number ('000)	Number ('000) by sex		Population Sex Ratio (males per 100 females)	% of total population	% of 80 years or over*
		Male	Female			
Afghanistan	1,179	584	595	98.2	3.8	5.2 (61 thousands)
American Samoa						
Armenia	451	175	275	63.6	14.6	18.6 (84 thousands)
Australia	4,227	1,987	2,238	88.8	19.0	20.0 (845 thousands)
Azerbaijan	810	346	462	74.9	8.8	12.3 (100 thousands)
Bangladesh	9,881	4,869	5,010	97.2	6.6	10.4 (1,024 thousands)
Bhutan	51	27	24	112.5	7.0	9.8 (5 thousands)
Brunei Darussalam	23	12	11	109.1	5.7	13.0 (3 thousands)
Cambodia	880	340	540	63.0	6.2	6.7 (59 thousands)
China	165,151	80,121	85,034	94.2	12.3	11.0 (18,211 thousands)
Cook Islands (the)						
Fiji	68	31	36	86.1	7.9	5.9 (4 thousands)
French Polynesia	25	13	12	108.3	9.4	12.0 (3 thousands)
Georgia	831	331	500	66.2	19.1	16.7 (139 thousands)
Guam	20	9	9	100.0	10.9	10.0 (2 thousands)
Hong Kong, China	1,286	613	674	90.9	18.2	19.5 (251 thousands)
India	92,663	44,344	48,317	91.8	7.6	8.80 (8,156 thousands)
Indonesia	19,585	8,827	10,758	82.1	8.2	8.8 (1,718 thousands)
Iran (Islamic Republic of)	5,523	2,808	2,714	103.5	7.5	13.3 (732 thousands)
Japan	38,542	17,034	21,506	79.2	30.5	20.7 (7,996 thousands)
Kazakhstan	1,592	560	1,030	54.4	9.9	12.1 (193 thousands)
Kiribati						
Korea (Democratic People's Republic of)	3,368	1,300	2,066	62.9	13.8	7.7 (259 thousands)
Korea (the Republic of)	7,574	3,263	4,309	75.7	15.7	12.6 (954 thousands)
Kyrgyzstan	337	140	197	71.1	6.3	15.1 (51 thousands)
Lao People's Democratic Republic (the)	364	162	202	80.2	5.9	9.1 (33 thousands)
Macao, China	63	32	31	103.2	11.5	15.9 (10 thousands)
Malaysia	2,191	1,085	1,108	97.9	7.7	7.2 (158 thousands)
Maldives	22	12	10	120.0	6.9	9.1 (2 thousands)

Country	Population aged 60 years or above					
	Number ('000)	Number ('000) by sex		Population Sex Ratio (males per 100 females)	% of total population	% of 80 years or over*
		Male	Female			
Marshall Islands (the)						
Micronesia (Federated States of)	7	2	4	50.0	5.9	14.3 (1 thousands)
Mongolia	163	70	91	76.9	5.9	11.0 (18 thousands)
Myanmar	3,801	1,727	2,077	83.1	7.9	9.5 (361 thousands)
Nauru						
Nepal	1,881	844	1,037	81.4	6.3	7.4 (140 thousands)
New Caledonia	30	14	16	87.5	11.8	13.3 (4 thousands)
New Zealand	800	373	427	87.4	18.3	19.0 (152 thousands)
Niue						
Northern Mariana Islands (the)						
Pakistan	11,129	5,750	5,379	106.9	6.4	9.3 (1,030 thousands)
Palau						
Papua New Guinea	317	142	175	81.1	4.6	6.3 (20 thousands)
Philippines (the)	5,350	2,350	3,000	78.3	5.7	7.5 (403 thousands)
Russia Federation (the)	25,495	8,681	16,816	51.6	17.8	16.3 (4,145 thousands)
Samoa	13	5	7	71.4	7.3	15.4 (2 thousands)
Singapore	713	337	376	89.6	14.0	12.6 (90 thousands)
Solomon Islands	27	13	14	92.9	5.0	7.4 (2 thousands)
Sri Lanka	2,565	1,181	1,382	85.5	12.3	11.9 (306 thousands)
Tajikistan	335	149	187	79.7	4.9	14.0 (47 thousands)
Thailand	8,902	4,034	4,866	82.9	12.9	13.0 (1,155 thousands)
Timor-Leste	54	25	28	89.3	4.8	5.6 (3 thousands)
Tonga	8	4	5	80.0	8.0	12.5 (1 thousands)
Turkey	6,570	2,982	3,588	83.1	9.0	9.2 (605 thousands)
Turkmenistan	307	129	176	73.3	6.1	12.4 (38 thousands)
Tuvalu						
Uzbekistan	1,705	747	955	78.2	6.2	14.5 (248 thousands)
Vanuatu	13	6	6	100.0	5.4	7.7 (1 thousands)
Vietnam	7,350	3,100	4,249	73.0	8.4	14.9 (1,096 thousands)

*Responded to Survey on Ageing 2011, UN ESCAP

Note: No data available for the following countries/associate members of UN ESCAP: American Samoa, Cook Islands (the), Kiribati, Marshall Islands (the), Nauru, Niue, Northern Mariana Islands (the), Palau, Tuvalu.

Source: Population Division, United Nations Department of Economic and Social Affairs. 2011. *World Population Prospects: The 2010 Revision.*

The Asia-Pacific region consists of many countries where, although sharing many similar cultural and historical backgrounds, non-identical demographic change and ageing patterns exist. In general, the countries of East Asia are furthest along in the population ageing process, followed by Southeast Asia and then South Asia. For example, the rapidly ageing population in Japan has already severely deteriorated their current social structure and social security allowance, while others like Hong Kong, Singapore and South Korea have only 12 to 13 per cent of those aged 65 and above in their current populations. However, by 2050, these figures will rise to almost 40 per cent. There are still many "young" Asian countries such as Cambodia, Laos, Myanmar and the Philippines, with Bangladesh having the youngest population of any major country in the region, at about 4 to 5 per cent of those aged 65 or older. These countries are also characterised by considerable internal socio-economic and demographic diversity, as, for example, between the northern and southern states of India, the coastal and interior provinces of China, and the eastern and western parts of Indonesia.

Compared against the ageing trends across the world, the Asia-Pacific region has several characteristics that are different from the western developed economies:

Most of the current ageing research and curricula are based on the western experience, building on concepts and methodologies from Euro-American societies. However, these mainstream concepts cannot always be applied directly in the Asia Pacific contexts with unique socio-economic and cultural diversifications.

1. Age before wealth

Asia is an extraordinarily vast and heterogeneous region whose countries span the spectrum of wealth, economic development and urbanisation. Unlike countries such as Britain and United States, whose industrialisation and urbanisation came before population ageing, thus allowing time to accumulate adequate wealth to build infrastructures — e.g., universal pension, training institutes and hospitals — needed for an ageing population, most parts of Asia have only witnessed steady economic growth over the second half of the century. While economic development in certain parts of the Asia-

Pacific has transformed at a speed and on a scale never before witnessed, other parts of the continent has had no significant economic development. Most Asian regions (particularly agrarian countries) still experience resource restraints for putting the necessary "age friendly" institutions and financial systems such as pension and capital markets, healthcare programs, and regulatory systems in place, and may simply not be able to afford a large dependent elderly population.

2. Rapidity of ageing

In the United States and across Europe, it took about 150 years for the proportion of those aged 60 and above to increase from 7 to 14 per cent, whereas the Asia-Pacific region would only take 30 years for the proportion of those aged 60 and above to reach 10 per cent (in most countries except Japan, Australia and Hong Kong) and to grow beyond the 25 per cent mark in 2050. There is less time for building the infrastructures needed to meet the growing demands of its ageing citizens. For example, accumulation of assets through prefunding of public pensions, "pay-as-you-go" mechanisms or programmes that mandate or encourage private savings for retirement or elder healthcare require a long time to mature. Workforce skills developments through training to assist the future strain and demand of care support systems also necessitate time.

3. Increased longevity

Contrary to popular thinking, despite its widespread poverty (as defined by the UN as living on less than US$1 a day), extreme geographic variations (rural versus urban environments, tropical rain forests versus dry deserts, etc.) and socio-political-religious multiplicities (languages, ethnicities, ideology, etc.), 60 per cent of the world's total aged population living in the Asia-Pacific region tend to have life expectancies beyond 70 years. The longest average life expectancies from birth beyond 80 years are also found in Japan, Hong Kong, and some parts of China. The consequences of this phenomenon equates to greater demands on healthcare services in general, specifically health and social support associated with age, such as dementia, osteoporosis, arthritis, etc.

4. Feminisation and cultural imperatives

In most countries of Asia, as in the rest of the world, older women (aged 65 and above) outnumber older men, particularly in the oldest age groups. In 2001, UNESCAP found the ratio of men versus women stood at 8.2 (meaning there were 820 men for every 1,000 women) in the Asia-Pacific Region, with India nearest to the one-to-one ratio (at (0.88) followed by Hong Kong (0.87) and China (0.86) (UNESCAP 2001). The fastest growing group among older women is the "oldest old" (aged 80 or above) with women generally outliving men for 4 to 5 years (World Health Organization 2007).

The United Nations has long recognised the increasing poverty affecting the lives of the majority of people across the world, in particular women and children. Traditional Asian values of patriarchal hierarchy serve to perpetuate the negative implication of being female in Asian families. In all countries of South Asia, like in most parts of the world, older women are more vulnerable than older men. A higher proportion of older females are single or widowed, illiteracy levels are higher among older females and a lower proportion of them are remuneratively employed as they often take up traditional roles as housewives and/or are involved in informal low-wage occupations. Women's dependency on men for land and income often puts them at great financial risk when their husbands pass away. Hence, most may have little or no national retirement protection as they age. The change in contemporary family structures brought about by drastic drop in birth rates where Asian families consist of two or less children will also threaten the viability of the traditional family support system for elderly women. Education also plays a major role in determining a person's utilisation of available services, especially in rural areas, where isolation and lack of formal support place widows at greater risks for health and cognitive deterioration.

**Chart 2. Percentage of population aged 60 and above
living alone, by sex, major areas: around 2005**
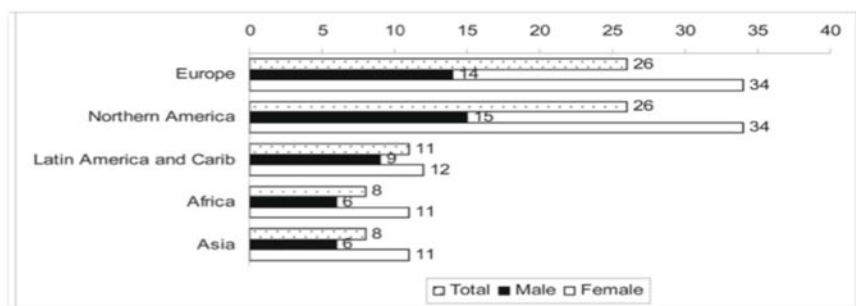
Source: United Nations Economic and Social Council (ECOSOC)

5. The thousand faces of ageing

Population ageing is a pervasive global phenomenon that will influence all people in various aspects. Greater demand for health services and long-term care support, altered living arrangements, income and social security coverage, elder abuse protection, and the need for special mechanisms to ensure elders "age in place" will be the forthcoming challenges for Asian countries national policies and agendas.

Healthcare systems will be challenged by the large and growing size of the older population, whose ailments and diseases are much unlike those of younger people. Stress will increase on agencies offering social services and on pension system, and increasing mobility and urbanisation in most Asian countries will hinder traditional family support.

Regardless of forthcoming difficulties, it is worth to note that the future ageing population in the Asia-Pacific region have experienced the most stable and wealthy periods for the past 20 to 30 years, and have received more education and opportunities than the first cohort of baby boomers. This is particularly true for thriving economies such as China, Hong Kong, Japan and Singapore, with fast followers like India, Indonesia, Malaysia and South Korea. Such a well-defined elder consumer group with high spending power will be a reservoir of wealth for businesses, leading to changes in consumer market emphasis.

The European Commission identifies key elements of active ageing for an individual, namely: working longer; retiring later; being active after retirement; engaging in health sustaining activities; and being as self-reliant and as involved as possible (European Union 1999). Communities will benefit from the increasing number of independent retirees who are active and healthy. From recipients of help and support, older persons are able to serve as contributors of informal services and support for their families and communities. Elder volunteering is regarded as one measure of social capital, playing an important role in supporting and maintaining informal social networks, thus binding intergenerational relationships.

The ageing of population should be seen as a transition as a result of social, cultural, economic, political and technological advancement of the society. One of the most pernicious areas requiring attention in ageing societies is "moral panic", where fear of ageing, aroused by politicians and fuelled by economists and the media, often focuses on negative aspects such as "unsustainable costs of the greying hordes". This attitude is all too prevalent and does not recognise that with adequate planning and investment in good health and social services, the future older generations in the Asia-Pacific region can be healthier, wealthier and more self-sufficient. Ageism should be avoided by governments, NGOs and international organisations within Asia's cultural mosaic and closely-knit networks across the region need to be formed to support one another as we plan for the challenges of greater longevity.

Taking full advantage of the available window of opportunity brought about by this population shift will also require a deeper consideration of the central characteristics of the current and future elderly, their family relationships, living arrangements, health needs, labour participation opportunities and levels of earnings and savings. Improved knowledge in the care of the elderly will also assist in improving the quality of care to this population. These categories of knowledge are by no means exhaustive, but rather illustrate what would be imperative for understanding and preparing for an ageing society.

TRAINING AND EDUCATION IN
SOCIAL GERONTOLOGY IN ASIA – PART 1

Developments in Social Gerontology

The term "gerontology" was first introduced in 1903 by Elie Metchnikoff, a Nobel laureate and professor at the Pasteur Institute of Paris. Metchnikoff recognised that a new scientific discipline was necessary for understanding the causal variables for health and disease to physical or functional changes led on by chronological ageing. This hypothesis had led to a series of conferences and studies on degenerative diseases as a manifestation of the ageing process. Renowned scholars such as Charles Darwin (1809–1882) and Alfred Russel Wallace (1823–1913) later directed an evolutionary paradigm for biological ageing and variations in length of lives.

The 20th century witnessed dramatic advances in life expectancy along with advancements in medicine and technology leading to further studies of the psychological, sociological and economic effects of ageing. The field of study in Gerontology continues to expand with increased public interest and awareness in ageing issues.

Ferraro (2006) comments on the evolution of gerontology discipline as a non-stagnant process which requires incorporation of new ideas and methods for developing compelling answers to the basic question of ageing. Hence, it is no longer meaningful to attempt a grand all-encompassing "theory of ageing" as was done in the 1950s and 1960s. The greatest challenges social scientists face today in gerontology research is the wide variety of problems ranging from abstract concerns, such as the social effects of population ageing to practical matters such as public policy for address elderly poverty. There are multiple theoretical frameworks to represent the various aspects of ageing, which provides different perspectives in viewing and explaining the ageing phenomena.

Bengtson et al. (1997) summarises the epistemological and historical considerations for social gerontology theory construction into two levels: micro-social and macro-social analysis. The micro-social levels of analysis examine both theories in social constructionist perspective and social

exchange theories, while the macro-social levels cover areas in age stratification, political economy of ageing and critical gerontology, with the life-course perspective and feminist theories bridging both levels by highlighting the social interaction and social structures for affecting the dynamics of ageing.

1. Social constructionist perspectives

Researchers who employ social constructionist theories focus on the explanation of the ageing processes through understanding of social definitions and social structures. Social meaning and self-conceptions of ageing are also explored through discourse and time by reflecting different life situations and social roles. Social constructive perspectives contribute to social gerontology by recognising the individual's active participation in multidisciplinary settings for affecting social meaning and social structures.

However, criticism of this approach states that too much emphasis is being placed on individualism, leading to obscurity of macro level effects such as cohort, historical and age stratification influences, and limits attention to social structures and social power.

2. Social exchange theories

This approach is often used in explanations for intergenerational social support and financial exchanges. Applied to ageing, this perspective attempts to account for intergenerational exchange behaviour where shifts in social roles, skills and resources are explained with calculations of rationality and self-interest. The central assumption is made where resources (emotional, social or financial) in exchange will be unequal and that such exchange is made on grounds of greater social benefit versus cost incurred.

However, caution should also be taken on grounds of exchange based on irrational, non-material motivations such as altruism and affection. Current social exchange theories of socio-political ageing will need to re-examine the notional of social power associated with material exchanges, as filial piety in current day no longer equates to material support for elder family members due to either limited capacity or urbanisation.

3. The life-course perspective

The life-course perspective is one of the most cited perspectives in social gerontology journals and has made major contributions to the study of ageing in social sciences. This perspective serves as an explanatory mechanism for conducting longitudinal examinations of individual behaviour change over time and across complementary multidisciplinary contexts. The life-course approach has been credited for reflecting the life of an individual in its entirety, rather than in cohorts, and for allowing deviations in trajectories. The difficulty lies in incorporation of the contextual variables of the ageing process into one single analysis.

4. Feminist theories and perspectives

Feminist theorists argue that gender relations and different gender experiences should be a primary consideration for understanding ageing and the aged as it serves an organising principle for social life across the life span. Key concepts of the feminist perspective in ageing include: gender stratification, power structures, social institutions, social networks, caregiving and family work, social meanings and identity. Calasanti (1993) illustrates this perspective through women's retirement research where she found that occupational segregation and labour market discrimination by gender and race has led to disparity in retirement pensions, social security and other forms of income. Other research has also used socialist-feminist theory in ageing to examine informal healthcare, unpaid family labour and unequal access to health resources.

5. The age stratification (age and society) perspective

Riley and associates (1994) have developed this unique perspective that focuses on the role of social structures and aged population by cohorts in the process of individual ageing and the stratification of age in society. This perspective has been applied to the concept of structural lag and extended kin support networks.

Structural lag occurs when social structures are no longer able to keep pace with the dynamics of population change. An obvious example is the average

increase in life expectancy beyond the age of 65 and the lack of available societal structures to accommodate elders or encourage active ageing. Riley and Loscocco argue that an age-integrated society can compensate for structural lag, and suggests policy changes for restructuring social institutions of work, education and family.

6. Political economy of ageing

This perspective is used to explain how economic and political forces constraint the opportunities, choices and elder life experiences through institutionalisation and economic public policy. Political and economic structures are criticised for being bureaucratic activities, which often disadvantage rather than benefit the aged population.

When combined with critical theory analysis, this perspective suggests the experience of ageing varies with structural constraints such as social class or minority group status. This perspective can also be linked with social constructionist perspectives to demonstrate how structural forces manage and control the social construction and experiences of ageing whilst ignoring the individual agency.

7. Critical theory

Critical perspectives of ageing focuses on humanistic dimensions and structural components of ageing, and are reflected in a variety of contemporary social gerontology theories such as the political economy of ageing, feminist theories, theories of diversity and humanistic gerontology.

Critical gerontology offers a framework for viewing and better understanding old age, focusing on both social inequality and the humanistic side of ageing. Critical gerontology emphasises emancipation of older people from all forms of domination, and involves identifying opportunities for emancipatory social change against bureaucracy. With the rapid ageing trends in both developed and developing countries, and with efforts of the global economic and political elites to privatise governmental income support and healthcare programmes, critical gerontology will become increasing important and influential over the next several years.

Growing Demand for Social Gerontology Training

With the rapid increase of older adults, educational needs of the workforce in ageing services are broadening. The United Nations 2002 Madrid International Plan of Ageing stressed the importance of having training programmes and of trained personnel for tackling the phenomenon of the world population ageing. Article 82 states that "there is an urgent worldwide need to expand educational opportunities in the field of geriatrics and gerontology for all health professionals who work with older persons and to expand educational programmes on health and older persons for professionals in the social service sector" (United Nations 2002). Attempts to only treat older persons as chronically ill patients whilst ignoring the psychological frailty of the elderly can potentially hinder his/her full recovery and the service providers' clinical mastery.

Unfortunately, research has shown that current professionals who work with older adults still lack proper training and education in gerontology (Karcher and Whittlesey 2007; Van Dussen and Leson 2010), while some of the traditional areas of service provision to older adults lack graduates to serve the diverse and growing older population. These professionals are often not fully educated on the issues of ageing, which influence their work (Mezey et al. 2008a; Mezey et al. 2008b). This may be because some professionals were educated before widespread gerontological education entered the curricula. Additionally, persons accepting employment in the ageing arena may be outside their academic scope of practice and may not have had training on ageing issues (LaMascus 2005; Peterson and Wendt 1990).

Karcher and Whittlesey (2007) conducted a needs assessment survey with 170 ageing agencies in the metropolitan Atlanta and northwest Georgia area, US to identify the gerontology education needs of employees and those perceived by employers. In terms of current educational background in ageing, the results showed that employees were most likely to have had non-credit workshops in ageing and non-credit certificates in ageing. A small percentage had obtained undergraduate degrees in ageing or had taken at least one academic course in gerontology. The greater majority of respondents had no training or educational background in ageing. Overall, employers preferred a higher level of education and training than currently present, in the form of non-credit certificates versus academic degrees.

Similar results were also found in Van Dussen and Leson's study in 2010, where professionals working with older adults report that they have had very little formal education in gerontology and ageing-related issues. They also report that they would like more educational opportunities in the form of a certificate in applied gerontology, a gerontology bachelor's degree and continuing professional education. The top five topics within gerontology that interest most respondents were, namely, Alzheimer's disease/dementia, behaviour issues, legal issues, mental health issues and medications.

The invitation for formalised social gerontology education and training for the Asia-Pacific is not recent, but rather than focusing solely on particular skills development, we need to build our programme that is appealing to current professionals and to new professionals educated through our programmes. In order to meet this demand effectively, institutions will need to conduct needs assessments in their targeted geographical regions to determine the types of educational programming professionals in their areas desire.

Academic Concentrations

Traditionally, social gerontology concentrated on the study of the social demographic characteristics of older people and an ageing population. The focus has been on the life-course approach to ageing instead of studying old age per se in gerontology. However, in recent years, the definition of social gerontology has expanded to include health, technology and overall lifestyle (Phillips et al. 2010). Over the past two decades, the study of gerontology has expanded across various disciplines, and gerontological issues and concerns have also been integrated into occupations such as public health, medicine, education, social work, law, politics and even banking.

The understanding of ageing and the analysis of its complexity require consideration of many contributing variables and their interactions. "Multidisciplinarity" and "interdisciplinarity" are advocated in gerontology as a means of encouraging different views, gaining fresh insights and opening up new areas at the intersection of disciplinary territories, all to enhance our understanding of the ageing process and to promote older people's quality of life. Recent efforts to strengthen multidisciplinarity and interdisciplinarity in ageing are driven by the recognition that a comprehensive understanding of

complicated phenomena like ageing is best achieved through the contributions of different disciplines for the overall betterment of quality of life.

Over the years, researchers have ideologically debated over gerontology as a multidisciplinary or interdisciplinary field of study. Some suggested that gerontology is a multidisciplinary study as it attracts diverse perspectives to the study of ageing characterised by sub-specialties such as biology or psychology of ageing. Others suggest that gerontology should be an interdisciplinary field with distinct theory and research methods.

Ferraro and Chan (1997) suggested that while multidisciplinary activities emphasise collaboration among various disciplines with their unique contributions highlighted, interdisciplinary activities emphasise an integrated, emergent approach where joint contribution is highlighted. Interdisciplinary study can be defined as bringing together two or more disciplines to form an integrated understanding of an issue (Newell and Green 1998). Thus, multidisciplinary activities emphasise co-operation amongst disciplines (for instance, the establishment of universal pension systems requires the collaborative efforts from economists, social scientists and policy-makers) whereas interdisciplinary activities emphasise integrated approaches to knowledge development (for instance, the experience of caregiving could be understood by integrating various insights from a psychological, sociological, political, cultural and economic perspective.)

To date, whilst most researchers agree that the "problem" of ageing requires multidimensional understanding and study, there is no consensus as to the disciplinary source of gerontology. Also, with the biological and societal phenomena of ageing changing over time, the study of ageing cannot remain unique to any source of discipline. Rather, interdisciplinary approach can help conjoin elements of various disciplines into a common framework.

This ideological tension has also led to the lack of interdisciplinary theoretical development, appropriate translation and research method for the study of ageing. Bengston et al. (1999) described the study of gerontology as "data rich and theory poor", as efforts to develop theories accordingly to limitations within disciplinary perspectives neglect the interdisciplinary nature of its "true" concepts and disciplinary linkages.

The infrastructure of higher education and research is another area of contention where development of gerontology curriculum in universities, colleges or medical schools are often hindered at the expense of other fields of study that are deemed more popular. While most institutions of higher education are aware that gerontology should receive increased attention, there are only limited budgets within higher education institutions allocated for the study of gerontology. Existing reward systems within academic structures separate the disciplinary divide as tenure, research funding and academic support often favour strictly discipline-based achievements over interdisciplinary or multi-disciplinary approaches to knowledge development in subjects such as gerontology. Challenges of interdisciplinary work also require time and efforts for building collaborative partnerships. Such partnerships are often threatened by difficulties of labour division and sharing of intellectual credit.

Ferraro (2006) expresses the importance of advocating gerontology as a unique discipline and that a superstructure for identifying the key concepts and principles in gerontology should be established for guiding research and education in this transformative field of study. He proposed a "Gerontological Imagination" for articulating the seven principles for gerontology research and education

Table 2. Tenets of a "gerontological imagination"

	Tenet	Description
1.	**Ageing and causality**	Ageing is not a cause of all age-related phenomena. Thus, gerontologists maintain a healthy scepticism for what are attributed to be age effects.
2.	**Ageing as multi-faceted change**	Ageing involves biological, psychological and social changes in individuals at varying rates. The transitions associated with growing older are probably not linearly related to chronological age, and the process of ageing itself is also multidimensional in nature.
3.	**Genetic influences on ageing**	The imprint of genetics on development and ageing is substantial. Genetics influences not only longevity but also biological and behavioural processes across the life course.
4.	**Ageing and heterogeneity**	Age is positively associated with heterogeneity in a population.
5.	**Ageing and life-course analysis**	Ageing is a lifelong process, and using a life-course perspective helps advance the scientific study of ageing.
6.	**Ageing and cumulative disadvantage**	Disadvantage accumulates over the life course, thereby differentiating a cohort over time.
7.	**Ageing and ageism**	There is a propensity toward ageism in modern societies; ageism may also exist among elderly people or those who work with or for elderly people. Even scholars interested in ageing may manifest ageism.

Source: Ferraro, K. F. 2006. "The Gerontological Imagination". *Gerontology: Perspectives and Issues*, edited by J. M Wilmoth and K. F. Ferraro, third edition. New York: Springer, 325–42.

In 2006, Alkema and Alley attempted to help advance the disciplinary evolution of gerontology through an integrative gerontology model that advanced three disciplines of biology, psychology and sociology as core elements for Gerontology curriculum, apart from anthropology, humanities and medicine (Alkema and Alley 2006).

Figure 1. Integrative gerontology model

Cultural

Economic

Psychology of Ageing

Historical

Political

Sociology of Ageing

Biology of Ageing

Environmental
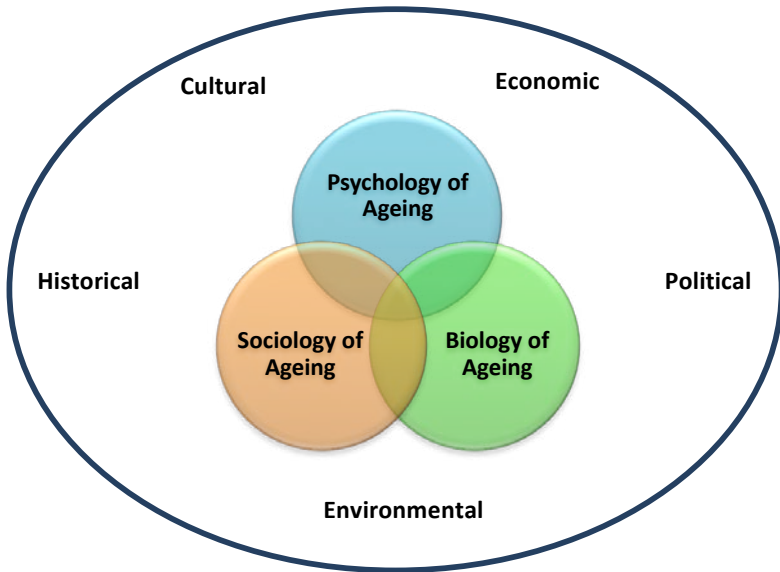
Source: Alkema, G. E. and D. E. Alley. 2006. "Gerontology's Future: An Integrative Model for Disciplinary Advancement". *The Gerontologist* 46 (5); 574.

They further emphasise the need to build conceptual linkages across biological, psychological and social processes of ageing as one unified field of study. Researchers should also adopt interdisciplinary research methods by incorporating multidimensional and longitudinal studies for addressing the cohort effects, structural factors and macro-societal effects of ageing. For instance, the life-course perspective can be better understood through reviewing lifespan developments in social and temporal contexts, while the study of the biology of ageing is also supplemented by analysing physiological, psychological and environmental effects through an individual's life stages. These findings should then feed into policy decisions for practical application, promotion of a non-ageist era and further gerontological knowledge development.

TRAINING AND EDUCATION IN
SOCIAL GERONTOLOGY IN ASIA – PART 2

Reviewing International Trends in
Training and Education in Gerontology

International recognition for gerontology as a unique discipline is emergent. The United Nations designated the year 1999 as the International Year of the Older Persons, and in 2000, requested the International Association of Gerontology to draft the next Charter for the Rights of the Elderly. The numerous academic programmes in gerontology across the globe reflect societal recognition of the importance for developing a gerontological knowledge infrastructure and the need for professional workforce to work with/ for the elderly. There are also increasing numbers of gerontological journals and textbooks as well as ageing specific research centres being set up. In the following, it gives a review of tertiary education in the field of ageing for the purpose of understanding the current trends in training and education in gerontology. It uses the Webometrics Ranking of World Universities as the reference for its being the largest academic ranking of higher education institutions.

Tertiary Education Institutions

1. Overview of gerontology programmes in the North America

Gerontology is observed to be an important discipline in the North America, that many leading institutions in the US and Canada have research centres for ageing studies or several divisions or departments of gerontology. Most of these institutions offer minors or certificates at both undergraduate and post-graduate levels as extension programmes to investigate into issues of ageing or as courses to equip participants with skills and knowledge in elder care, or both.

Subjects of interest are the first five universities found offering gerontology-related degree(s) selected from top-ranking universities in the North American region. The top-ranked institutions located in the US are the University of California Berkeley (ranked fifth), University of Michigan (ranked sixth),

University of California Los Angeles (ranked 14th), Michigan State University (ranked 21st) and The University of North Carolina Chapel Hill (ranked 23rd), all of which provide degrees related to gerontology (Webometrics Ranking of World Universities 2011)

Although none of these universities offer degree programmes directly dedicated to gerontology, they provide multidisciplinary affiliations to the subject either as part of a concentration or a specialty module. On the contrary, the consideration of gerontology as an expertise has placed it at the post-baccalaureate level as a professional degree (that is, a master's degree or post-graduate certificate/diploma). These are full-time degrees normally spanning two years and requiring students to attend courses over 200 hours, including field study or practicum.

Apart from UC Berkeley, which offered gerontology in its master of social work programme, the rest of the selected universities offered gerontological nursing degrees with the rationale of developing multi-knowledgeable frontline employee within the healthcare profession to cater for both medical and sociological needs of elderly in the United States. However, most of the courses provided by these gerontological nursing programmes focused mainly on the physiological factors of the older adult, and lacked social-gerontological knowledge.

As for the master of social work degree in UC Berkeley, it mainly focused policy-based and issues-based perspectives on ageing, without distinct focus on the theories of gerontology. No gender-specific perspectives of ageing were identified for the above programmes.

Although Canadian universities are not found amongst the top-ranked institutions of North America, institutions such as the University of Toronto has offered dedicated degrees to gerontology ranging from baccalaureate to doctorate levels, which provide holistic coverage of the physical, psychological and social perspectives of ageing, both practically and theoretically.

2. Overview of gerontology programmes in Europe

The top 100 universities in the European region were screened manually to identify five highest ranked gerontology-related degree programmes. Due to language barriers, non-English information was not reviewed and only four universities were found to provide such courses in the English language. Most of these institutions are located in the British Isles, including University of Southampton (ranked third), Newcastle University (ranked 57th), Trinity College Dublin at the University of Dublin (ranked 58th), and the Universitat de Valènc(ranked 45th) in Spain (Webometrics Ranking of World Universities 2011)

All of the gerontological programmes found are at the post-graduate level, which is offered at full-time, part-time and distance-learning modes, with different orientations for each university's programmes. The Spanish institution combined gerontology with psychology, focusing mainly on the mental perspectives of aging. Newcastle University provided a geriatrics inclination that focused mostly on medical and physical aspects of the elderly, whilst the University of Dublin provided training for working nurses, which offered intensive gerontological knowledge in elder care.

The University of Southampton offered a social science curriculum covering qualitative and quantitative research techniques, with age-related social policies and social issues forming the backbone of their programmes. Finally, it is worth to note that there are still numerous tertiary institutions offering non-structured short courses that address the issue of population aging.

3. Overview of gerontology programmes in Oceania

According to the top university ranking in the Oceania region, universities offering gerontology-related degrees are selected manually and are included within the analyses. Many of the universities in the Oceania region offer modular courses within wider curricula, which covered wide-ranging ageing issues from healthcare to economics, and across various disciplines.

Only five universities in Australia and New Zealand contained degree programmes or short courses dedicated to gerontology. They are, namely:

University of Adelaide (ranked ninth), University of Wollongong (ranked 17th), La Trobe University (ranked 18th), Griffith University (ranked 24th) and James Cook University (ranked 27th) (Webometrics Ranking of World Universities 2011).

Seldom are these degrees purely dedicated to gerontology, but are rather combined with other perspectives or exist as a specialisation in a professional area. It is observed that lower-ranked institutes had established gerontology as an independent discipline, while those higher in ranking had only acknowledged gerontology as a part of a greater discipline. Even though the aforementioned institutes provided gerontological programmes, they are usually of post-graduate level, and there are no specific gerontology degree programmes found that are available for undergraduate students.

The degrees offered by the universities are commended as either a science degree of health science or a medical degree of nursing. Both part-time and full-time modes of study are available for students. The courses are designed as flexible as possible by creating various exit points throughout the whole curriculum, so that a shorter period of study will result in a lower level qualification (such as a certificate or diploma) granted to the student. It is designed for those who want further gerontology-related training for their own profession or those who are entirely new to gerontology.

Most of the programmes found in Australia shared the same vision in establishing core subjects such as social policy and practice related to the care of older people and dementia for gerontological studies. Basic research skills and methodologies are made compulsory for all students, whilst psychological and physical characteristics of the aged are also regarded as topics of importance in most curricula. However, not every institute taught theories of gerontology as a core subject, presenting a more practical-oriented stance of the universities in this region.

4. Overview of gerontology programmes in Asia

Many gerontology programmes at tertiary level offered in Asia include institutes in Hong Kong, Beijing and Taiwan, namely, the National Cheng Kung University (ranked fourth), University of Hong Kong (ranked fifth),

Peking University (ranked ninth) and Chinese University of Hong Kong (ranked 11th) (Webometrics Ranking of World Universities 2011). The programmes provided are at the post-graduate level ranging from post-graduate diplomas to master degrees in Hong Kong, while both Taiwan and Beijing offered master degrees by research.

The University of Hong Kong (HKU) and the National Cheng Kung University (NCKU) offered pure gerontology degrees under the faculty of social science, while the Chinese University of Hong Kong incorporated gerontology teachings under the medical faculty, and Peking University held such topics under the Institute of Population Research. Most of the above institutes regarded the study of demography as a core subject for understanding the ageing phenomenon except HKU. Yet all of them identify social gerontology and social policy as essential in establishing a solid foundation to their programmes. Electives offered ranged from economics to clinical practices, and they coincided in addressing elder healthcare services as the focus of studies, with care management, care skills, relevant policies and other related topics also included in its theme.

In the Japanese tertiary education system, gerontology has not been regarded as an independent discipline that accorded recognition as a specialised degree. Instead, for top-ranking universities like the University of Tokyo and Osaka University, which contained departments of gerontological nursing, offered only elective courses for students of nursing or liberal study courses at the undergraduate level. Even if graduate schools in Japan offer master degrees with specialised courses in gerontological nursing, the degree titles conferred do not bear the title or nature of gerontology. This may be a culture-specific difference in term of the understanding of gerontology, that it is conceptualised as an essential fundamental knowledge for every health specialist but not a specialised profession amongst their practice-oriented medical field. Such a situation has justified our exclusion of Japanese programmes in our list of research, as they are systematically incompatible for comparison. However, it is essential for us to acknowledge their rationale in regarding gerontology as a general knowledge for all.

Primary and Secondary Education Intuitions

Educational systems for the secondary curriculum have been searched manually from country to country throughout the world to map the recent degree of integration of gerontology in secondary education. In such a process, it is impossible to investigate every country in the world and, unavoidably, some of the subjects are to be left out due to language barriers. We have no choice but to limit ourselves to major regions with documents written in accessible languages, which in our case are Chinese and English. Therefore, many European and South-East Asian countries are not analysed.

Generally speaking, there are no programme or curriculum specifically designed for gerontology at the primary and secondary levels amongst the researched countries. Instead, ageing-related knowledge is usually regarded as topics or issues within a discipline and is dispersed over the general mainstream curriculum. They are found disarrayed and unsystematically incorporated with humanities subjects in terms of social studies (e.g., in Hong Kong), civic and moral education (e.g., in Singapore) and citizenship (e.g., in Indonesia). However, for most countries, gerontology teachings are mostly identified within social studies and health sciences curriculum, and addressed mainly physiological changes within the early stages from a life-course perspective.

Focus has mostly been placed on the realm of a conjugal family, and the elderly are only discussed as an affiliation to the familial system. It is worth to note that due to the prevalence of Confucianism amongst the Asian countries, filial piety has been stressed in education. It is not addressed in the western educational system as individualism is the prevailing ideology where the responsibility to care is directed one-way from parents to children, but not vice versa. Yet elderly community services, related policies, enabling environments and facilities are not illustrated within the curriculum in Asian countries. It may be the reason that these aspects are considered as a matter of politics and are excluded from pre-tertiary education teachings, often leading to criticisms of accountability for the misconception of gerontology as mere professional knowledge but not essential knowledge for all ages. The already packed curriculum of primary and secondary education and deficiencies of appropriate training for teachers may be reasons for the

authorities' reluctance to develop gerontology teachings as an independent subject.

Yaguchi (1995) reported that a survey of nearly 2,000 elementary and junior high school teachers in Japan were conducted on the status of ageing education. Results revealed that on the whole, teachers themselves held a negative view of older people, only 3.1 per cent of the respondents had received formal training on ageing, while only 1.7 per cent had actually taught materials related to ageing in their classes, and less than 1.9 per cent partook in some type of activities with elderly. From this report, educators had agreed that an education process designed to reduce prejudice against ageing or the elderly should start as early as primary education.

On the contrary, Canada has brought new light to pre-tertiary gerontological education. Canadian institutions have pioneered a systematic programme titled "Child Development and Gerontology" dedicated for Grade 12 students so as to better equip students with skills and knowledge related to the ageing population. A comprehensive syllabus was developed, which covers the physical, social, environmental and legal aspects of older citizens for building and strengthening students' knowledge in: 1) the processes of disease and factors contributing to health and well-being in early and later life; 2) the evaluation of social and recreational activities, programmes and services for the improvement of the quality of life; 3) environmental and social issues as well as career opportunities related to child care and gerontology, and also; 4) legislation governing the care of children and older adults.

Defining Social Gerontology Education for the Asia-Pacific

The Asia-Pacific region contains countries with variation in demographic transitions and developmental needs and resources. While more developed countries are able to provide the educational infrastructures and appropriate educational staff to meet the growing demands of professional gerontology training across various academic faculties, others are still under great strain for acquiring adequate funding and support on their national agendas.

Wide-ranging factors have contributed to the development of education opportunities in gerontology in the Asia Pacific region. Faculties and

academies will need to develop innovative ways to meet the education needs of professionals within and beyond their countries. In all these developments, cultural sensitivity, consultation and regional partnerships should be key considerations. Institutions across the region and internationally should strengthen the associations of gerontology researchers by increasing their active membership and by promoting more opportunities for their research, supplemented by support from private and public sources of funding. Scholarships should move away from traditional single disciplinary contributions, and value unique offerings of gerontology research as an integrative discipline. Graduate students should also be encouraged by varying faculty leaders to undertake studies in topics of gerontology by extending their educational programmes in ageing at both undergraduate and postgraduate levels.

There is an increasing expectation and reliance within the health and social services industries on higher education institutions to supply professionals and para-professionals that are equipped with gerontological knowledge and skills. The quality of knowledge generated within higher education institutions, and its availability to the wider economy, is also becoming increasingly critical to national competitiveness. Higher education institutes from both the United Kingdom and the United States offer entry-level programmes that often examine health and social services from a clinical perspective (Weaver 1999). Whilst in the Asia-Pacific, there is a general lack of gerontological curricula being integrated into early and secondary schools systems, and training opportunities in gerontology exist in only a few institutions of higher education.

In order to educate students on the broadening issues related to population, one must move beyond the historical practice of teaching about ageing from a clinical perspective. Calls for improvements in geriatric education and training across all types of healthcare providers were evident, though most working in the healthcare fields (such as nursing, physical therapy and dietetics) still only received training focusing on particular skill development rather than gerontology (Peterson and Wendt 1990). Research has indicated that more attention should be put on social work education in gerontology along with the rising demand for ageing-competent professionals (Rosen et al. 2002; Waites and Lee 2006).

Attention should also be paid to the difference in western curriculum and its applicability in the eastern context. For example, individualistic assumptions underlying western literature on the role of caregiving as a female one may not be applied in traditional Asian cultures that follow mainly the Confucian principle where sons are expected to assume the responsibility of the family in a patriarchal system. In East Asian societies like China, Japan, Singapore and South Korea, government ageing policies are based on Confucian ethics of filial piety that require children to take care of their ageing parents, and elder parents may legally enforce the right to receive care from their immediate children. In Oceanic societies, extended family networks also form part of primary support for the elderly.

Another consideration for designing a suitable curriculum for the Asia-Pacific region is the expectations and traditional learning modes of students where students are more familiar to didactic teachings and delivery. International experiences suggest that the traditional on-campus learning model may no longer be ideal. Professionals in practice are often also laden with family and community responsibilities, and are unable or unwilling to attend regular campus study. Some institutions have shifted their programmes to a more flexible learning mode via distance-learning education so to capture a wider market, locally and internationally. Cross-national partnerships are also seen as an emerging operative model where curriculum and teaching materials are developed and organised by an institution in one country for delivery to an institution of another country in collaboration. Two examples are the University of Sydney's partnership programme with the Singapore Institute of Management, and the University of New England's partnership with the Chinese University of Hong Kong.

Teachings in gerontology in primary and secondary schools are also encouraged to assist students to become more familiar with the topic of ageing, and to better deal with their own and family ageing matters. A paradigm shift towards a non-ageist education system and knowledge is essential for sustaining the economic and technological agenda of the modern world. Trans-generational communication and interaction, guided by the wisdom of elders and cultural traditions are also necessary for encouraging family cohesion and communication that are often disregarded through the use of modern technology and economics.

In addition, tertiary educational institutions must be made accessible to all age groups and provide opportunities where students of all ages can be brought together in an organised manner for intergeneration interaction so that students' learning experiences can better equip them to deal with ageing issues at home and in their careers.

Lifelong education for promoting health and mental vigour should also be enforced in all institutions. Glendenning (1992) suggests that lifelong learning can be a vehicle for self-fulfilment, retraining older employees to technological changes, or personal and group empowerment. The education process can help older persons explore their social and political rights, and raise their consciousness about their self-sufficient role in society to reducing demand for public support and resources.

Proposal for a New Social Gerontology Training Programme for the Asia-Pacific

The heterogeneity of the ageing population and the lack of social gerontological centred degree granting programmes in the Asia-Pacific calls for an applied social gerontology programme, which incorporates both the life-course perspective and person-environment perspective.

The life-course perspective highlights the significance of changing contexts to human ageing where personal and biological human experiences are examined with simultaneous considerations within the fields of psychology, sociology and history. A person-environment perspective emphasises the dynamic interaction between an individual's physical and psychological characteristics with the social and physical environment. Adaptation, therefore, implies a dual process in which an individual adjusts to the social and physical environment, whilst bringing changes in others. Hooyman and Kiyak (2002) refer the "environment press" as the demand that social and physical environments make on the individual to adapt, respond or change. The concept can be applied in various fields, such as social work where the "environment press" is that of human behaviour and the environment, and the need to develop practice and policy interventions to achieve better complementary relations between the person and his/her social environment.

The concept of "environment" in the proposed applied social gerontology programme is imperative that it refers to the larger society, such as the community. It is sufficient to say that we aim to deal with ageing issues from a micro, intermediate to a macro level, and with a developmental perspective focusing on the individual and their environment. The proposed applied social gerontology programme is therefore taken from a range of subjects such as global ageing challenges, active ageing programmes and policy, social welfare and services, to health and housing issues. This interdisciplinary training programme aims to enhance students understanding of the ageing phenomena through micro and macro perspectives of ageing, and prepares students for entering into interdisciplinary fields of gerontological practice.

Problem-based learning will be incorporated into this programme to allow students to identify their own areas of strengths and weaknesses, so as to work towards improvement in a manner best suited for the individual learner. Various exit points and recognition of knowledge proficiency may be considered for enabling flexible learning modes to meet different learning needs. Exit points may be categorised into modular certification and full certification at either certificate (30 credits) or diploma levels (42 credits).

The proposed programme may be run on a full-time mode for one year or part-time for two years. The core curriculum for the Applied Social Gerontology concentration provided for all students will occupy a total of 30 credits out of a total 42 credits of the whole programme. Each credit should be equivalent to 10 notional hours. The standard mode is three credits per module and students are required to complete all 10 mandatory modules, two elective modules with compulsory practicum training.

Lectures will be supported by tutorials. In lectures, key theories, concepts and issues in social gerontology will be introduced in interdisciplinary perspectives. In tutorials, students will gain in-depth understanding of particular issues or perspectives on ageing through small group discussions, presentations and case debates.

The core curriculum aims to provide students with a broader perspective of the ageing population, whilst examining challenges and opportunities of the older population in public service domains such as housing, health,

social services, education, recreation and transportation. The United Nations World Assembly on Ageing and the action framework (three pillars) of the World Health Organization (WHO) will serve as a background for curriculum design. Private responses including business-driven initiatives for and by the elderly, care provided by the family, the neighbourhood network and self-help groups, will also be studied.

The elective curriculum follows a life-course approach for enhancing student's awareness for the biological, behavioural, economical, historical, psychological, and social factors for affecting life experiences, personal choices, opportunities, and constraints across the span of human lives, with their possible relationships to the ageing processes explained.

The course is targeted at professionals wanting to have a better understanding of an ageing society and/or wishing to enter a career in the elderly care or geriatric social services. Students will have an opportunity for practicum experience in one or more types of elderly services, which aims to give students supervised practical application of the concurrently studied theory in a relevant elderly care setting (such as in elderly homes, enhanced home and community care teams and multi-services centre for the elderly). The practicum module provides the opportunity to gain hands-on experience in a work setting where planning, implementation, observation and evaluation activities are the focus. Fieldwork associated with governmental, local non-governmental agencies or private sectors servicing older persons would be arranged for students in small groups. Agency personnel and instructors with expertise in the field will provide supervision and feedback for student's performance evaluation.

Students are expected to articulate their individual practicum experiences and coursework with peers to enhance the overall learning experience for the class. Students will undergo formative and summative evaluations of their practicum experiences where they will be assessed on numerous skills such as communication and interpersonal skills, organisation and time management, understanding of service in placement settings, practical application of theoretical knowledge as well as achievement in meeting learning objectives. Evidence of their performance will be based on written

assignments, feedback from agency staff and supervisors and quality of course portfolio work submitted.

Table 3. Proposed courses in social gerontology training programme

Diploma in Applied Social Gerontology	
Required courses **(10 modules/30 credits)**	**Elective courses** **(2 modules/6 credits)**
1. Introduction to social gerontology & the life cycle (I-V) 2. Introduction to sociology 3. Challenges of global ageing 4. Active ageing programme and policies (I) 5. Active ageing programme and policies (II) 6. Health and illness — a life-course perspective 7. Social welfare and services for the elderly in the Asia-Pacific 8. Housing and social care for the elderly in the Asia-Pacific 9. A life-course series: The four life stages with correlation to the seven dimensions of wellness 10. Introduction to research methods in gerontology	11. Education and literacy for the elderly 12. Consumer behaviour of the silver market 13. Marketing for senior consumers 14. Healthcare provision for an ageing population 15. Gender and ageing

Course Descriptions

1.   Required courses

1.1   Introduction to social gerontology and the life cycle (I–V)

This course will provide the students with an interdisciplinary overview of the implications of human ageing on the society with a special focus in the Asia-Pacific regions. The course adopts a cross-disciplinary approach and stresses economic, social, psychological and health-related aspects of the human life cycle. An overview of some of the main issues and concepts in gerontology studies will be introduced.

1.2   Introduction to sociology

This course equips students with basic knowledge of sociological analysis in a life-course context. It provides an overview of the nature and methods of sociology and an introduction of the fundamental processes and organisation of society. It is followed by the discussions on the emergence and development of various institutional arrangements of society and the structure and dynamics of social life. Upon the completion of this course, students are expected to have a better understanding of the basis of social order and a better idea of their social status /roles, so as to optimise individual opportunities for health, participation and security for enhancing quality of life.

1.3   Challenges of global ageing

This course will examine the social and economic demands brought about by the demographic revolution of the 21st century. Detailed analysis will be made in reference to global demographic transformations and its impact on government budgets, living standards and the future global economic and geo-political landscape.

1.4   Active ageing programme and policies (I)

This course will be conducted in two series. The first series will examine the concepts and rationale of "active ageing" with reference to the policy framework of the United Nations World Assembly on Ageing and the action framework (three pillars) of the World Health Organization (WHO) for affecting decision-makers on ageing at all levels, public and private. It will also introduce the determinants of active ageing for understanding its influences on such frameworks. Particular attention will be paid to human rights of older persons and the adaptation of a "rights-approach" in the socio-political process.

1.5   Active ageing programme and policies (II)

This course will be conducted in two series. This second series will focus on regional government and the key objectives and policies relating to its

senior citizens. Reference will be made to the demographic transitions and effects on Asia's socio-economic and political domains. It also reviews the existing programmes and services implemented by the regional governments in meeting the demands of its aging population and development of an "age-friendly city". Topics of active citizenship, social cohesion, elder participation, and community healthcare and eldercare services will also be discussed.

1.6   Health and illness — a life-course perspective

This course will provide a general overview of the concepts of health and illness with a special focus on the ageing population and from a life-course preventative perspective. Other related issues include chronic diseases prevalent amongst the aged population, non-communicable diseases and its relations with individual socio-economic status, doctor-patient relationships, health promotion and education for the ageing, etc.

1.7   Social welfare and services for the elderly in the Asia-Pacific

This course will introduce the current welfare policies and services for the older persons in the Asian context. Profile of the elderly poor will be examined with implications to social policies. Topics include: the welfare system, population profiling, policy formulation process, planning and evaluation of services provided, assessment of caring needs and the formulation of an ICP (individual care plan) for the elderly that infuses appropriate healthcare and social service resources.

1.8   Housing and social care for the elderly in the Asia-Pacific

This course will examine the impact of living environments on the well-being of older persons. It also explores how community networks affect the care of older persons. It is designed to allow students to understand how the built environment, both internal and external, affects the living of the older persons. Visits to various housing types or accommodation arrangements will be arranged in order to stimulate learning.

1.9   A life-course series: The four life stages with correlation to the seven
       dimensions of wellness

This course will provide a conceptual overview of the four stages life cycle
(i.e., preparation, achievement, fulfilment and completion) and an analysis
of the implications to six different dimensions of wellness, namely, social,
intellectual, physical, vocational, emotional, spiritual and financial wellness.
The life-course series is a composition of biological, behavioural, economical,
historical, psychological and social factors for affecting life experiences,
personal choices, opportunities and constraints across the span of human
lives, with their possible relationships to the ageing processes explained.

1.10   Introduction to research methods in gerontology

This course will examine the elements of the research process, focusing on
both the quantitative and qualitative methodologies. Topics include, design
of questionnaires, telephone interviews, in-depth interviews, focus groups,
data entry and analysis, and report writing.

2.   Free elective courses

2.1   Education and literacy for the elderly

This course will discuss the philosophy and strategies of educational
gerontology and its application to the education of older adults. It will
introduce the educational theories of andragogy and practices of "eldergogy".
It also discusses the effects of lifelong learning for successful aging and
health wellbeing of the older person. Examples will be drawn from Hong
Kong's Elder Academy.

2.2   Consumer behaviour of the silver market

This course examines the purchase power of the elderly consumer and
their positioning within an increasingly important and prominent segment
of our consumer marketplace. It blends elements of psychology, sociology,
anthropology and economics in an attempt to understand the elder buyer's

decision-making process and post purchase behaviour, both individually and in respective socio-economic and generation groups.

2.3 Marketing for senior consumers

This course aims to study marketing strategies and product stimuli for targeting the elder consumers and the respective sub-age groups as distinct market segments. It also examines the multimedia effects in response to the rising elderly consumer market, and the new business opportunities it can offer for the future Asia-Pacific region and globally.

2.4 Healthcare provision for an ageing population

This course will introduce the challenges in health policy for supporting various types of care to cater for the ageing population. It will examine three main types of care: self-care, informal care and formal care. Other related issues include chronic diseases prevalent amongst the aged population, doctor-patient relationships, health promotion and education will also be examined. It also introduces various basic caregiver and first aid skills for those who wish to later progress as professional healthcare givers. Topics include: Rehabilitation support, physical and emotional support, values and ethics in eldercare contexts will be discussed.

2.5 Gender and ageing

This course will introduce the WHO's policy framework for active aging from a gender perspective. It will discuss the feminisation of ageing and examines the determinants of health from a life-course perspective whilst recognising the individual diversities of elder men and women as non-homogeneous groups. Upon the completion of this course, students are expected to become more gender-sensitive and responsive when reviewing ageing programmes and policies for health, participation and security.

CONCLUSION

The wide-ranging effects of the ageing phenomenon are inevitable. With Asia being the fastest ageing population, it is imperative that we are prepared to cope with the current and upcoming challenges it brings. In doing so, holistic understanding of the ageing phenomenon should be met with appropriate gerontology education and training.

Before the development of such a gerontology training programme, it is important to review the essential perspectives that have influenced the steering of gerontology education as a unique discipline. It is also important to consider the distinctive and diverse characteristics of Asian culture against the backdrop of its demographic, geographic, socio-economic, religious and political scenery. The advancements of our modern-day education, technology and healthcare systems have also enhanced the knowledge-base of our contemporary elder population, leading to an overall improvement of life quality and expectations for service quality. Various government policies and national agendas have also highlighted the priority for supporting active ageing, intergenerational harmony and elimination of ageism in public media.

Comprehensive interdisciplinary gerontology education can help to facilitate understanding of the micro and macro dynamics of ageing. It also equips current and future professionals with inclusive knowledge and competence for working with older persons in health and social care settings. Gerontology research and findings can also facilitate governments' considerations in their policy-making process, so as to establish appropriate and age-friendly infrastructures to better meet the daily needs of their ageing populations.

Very little formal education programmes in gerontology were found in Asia Pacific as compared to the United States or Europe. Asia-Pacific education institutions, at both pre-tertiary and tertiary levels, should react quickly to respond to such training needs as appealed by both the health and social care industry and its employees. Other industries such a finance, legal, tourism and architecture have also made increasing requests for recruiting professionals who are able to cater to the silver market. While higher institutional support should be encouraged for gerontology research and

education, pre-tertiary education institutions should incorporate teachings about ageing and it associated effects in their general curriculum to allow students to gain a fuller life-course perspective on ageing.

An interdisciplinary gerontology programme has been proposed to integrate both the life-course perspective and person-environment perspective. Experiential learning through student practicums and problem-based learning techniques will be incorporated to allow students to transfer the accumulated theoretical knowledge from lectures and tutorials for crystallisation in real-life applications. Various exit points will enable flexible learning for those who wish to enter a lower-level attainment programme as a taster course, or those who wish to gain professional attainment by completing the entire programme. Considerations will be made for distance-learning modules to cater for those with various professional and personal commitments and are unable to attend training on campus.

The knowledge infrastructure of gerontology was revolutionised from various theoretical developments and proliferations through time. The disciplinary study of the gerontology will continue to evolve over time as societal demands and new circumstances transpire. Gerontology training curriculum should be revised periodically to ensure that the study of ageing and the learned knowledge be responsive to the practical needs of its users. Likewise, those involved in gerontology teaching and research should also undergo continuous professional development to align and enhance their own knowledge with the latest gerontological developments and serve as role models for promoting lifelong education.

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3

An Overview of Education and Training in Gerontology in Malaysia

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INTRODUCTION

The growth of the older population is a 21st century phenomenon that affects all, from individuals and families, to communities and nations. According to the latest demographic projections, Asia and the Pacific region will experience the largest growth in the number of older persons over the next two to three decades (United Nations 2009; Kinsella and He 2009). However, most countries in this region are not ready, economically, socially, medically and environmentally, to address the impending impact of rapid population ageing. Concerns for the well-being of older persons have been advocated and reiterated in many international assemblies, such as the World Summit for Social Development, the Millennium Development Goals and the Two World Assemblies on Ageing, and Malaysia has incorporated such considerations in national policies and development planning documents (for instance, in the Ninth Malaysia Plan, Tenth Malaysia Plan, National Welfare Policy, National Social Policy, National Policy for Older Persons and the National Health Policy for Older Persons).

In the 2010 Population and Housing Census, the number of older persons aged 60 years and above stands at 2.25 million, which is about 7.4 percent of the total population. The statistic has increased from 1.45 million or 6.2% in 2000. According to medium projections by the United Nations (2006), the proportion of older persons in the country will reach 15% in 2030, making Malaysia an "aged" nation according to the classification of Chen and Jones (1989). Pala (2005) noted that the increasing size and proportion of the older population is a global trend that will persist well into the future. Both, increasing life expectancy and low fertility have contributed to rapid ageing in the country. In 1970, life expectancy at birth in Malaysia for males and females were 61.6 and 65.6 years, respectively. Forty years later, the figures improved to 71.7 and 76.6 years. The total fertility rate or the average number of children born to a woman over her entire reproductive period indicates a decreasing trend — from 6.0 recorded in 1960 to 2.2 in 2010. A steady decline in fertility rate will result in the country reaching aged nation status even sooner. The huge increase in an older population will also mean that gerontology will be one of the most important and crucial fields in Malaysia.

The term of gerontology is the study of social, psychological and biological aspects of ageing. Jewish-Ukrainian scientist Mechnikov is credited for coining the term in 1903 that also led to the emerging study of ageing and longevity. Gerontology is distinguished from geriatrics, which is the branch of medicine that focuses on health care of the elderly. The field is multidisciplinary, where there are a number of overlapping sub-fields as well as associated fields such as psychology and sociology.

Gerontology offers career opportunity in various fields that include and are not limited to education, economy, finance, health and management. Career prospects are expected to flourish, both in public and private sector, due to the rapid population ageing in Malaysia. Informal caregivers also need access to information and basic training on the care of older persons (United Nations 2002).

Generally, this article aims to review the education and training in Malaysia that focuses on social gerontology. It will also include a brief discussion on geriatric training and education. The next section will discuss the development and history of gerontological education in the country.

GERONTOLOGICAL EDUCATION IN MALAYSIA

Development of gerontology education was initiated in 1980 with the Aged and Ageing Course, offered by the Department of Development Studies from Faculty of Agriculture in Universiti Pertanian Malaysia (presently known as Universiti Putra Malaysia). Merger of the department with the Department of Social Science at the Faculty of Educational Studies contributed to the establishment of the Faculty of Human Ecology in 1992. Upon establishment of the faculty, a Bachelor of Science in Human Development programme was introduced. The programme adapted the life-span development approach that covers various aspects of ageing, such as adult development, nutritional study, consumer science, housing and physical environment as well as leisure and ageing.

In addition, the establishment of the Institute of Gerontology, Universiti Putra Malaysia in 2002 marks an important milestone in gerontological education. It was a collaborative effort between the Faculty of Human Ecology and Faculty of Medicine and Health Sciences at the university. Currently, this is the only institute of higher learning that offers academic degrees in the field. There are three graduate programmes being offered at the institute, namely, Master of Science in Gerontology, Master of Science in Gerontechnology and Doctor of Philosophy in Gerontology. In Malaysia, the field of gerontology is considerably new. Therefore, the institute faces constant challenges in recruiting students at each enrolment year. The course is also less popular among students; for instance, a student would usually prefer to register for an engineering degree, which is a more familiar field rather than enrolling in gerontechnology programme, a brand new field that is just developing in Malaysia. Over the years, an average of seven local and international students have registered for either Masters or PhD programme annually. Both programmes require students to submit a thesis and enroll in coursework with a minimum of nine and 12 credit hours, respectively, for graduation. The

supervisory committee will determine the number of courses that a student should take based on the qualifications and experience in related field of gerontology. The thesis will be supervised by a team of two (for Masters) or three (for PhD) supervisory committees, which will be led by a chairman.

Nonetheless, applying for the graduate programme can be rather competitive. For example, a candidate is required to have a bachelor's degree in a closely related field that is recognised by the university to enter the Masters programme. The applicant must also obtain exemplary grades or have working experience in a related field. Students come from a broad range of professional backgrounds; from researchers, government officials to medical doctors.

Opportunities for professionals in the field of gerontology are expected to increase as the number of older Malaysians is projected to double over the next few decades. Currently, the institute has produced 11 graduates awarded by the university's Graduate School, and the institute's role is to manage the students. The institute is also at the discussion stage with MARA College to develop a Diploma in Gerontology. This challenging three-year curriculum is an entry level to the tertiary education after exiting secondary education. On the other hand, it is also designed for professional training as a part of career advancement to those who work closely in the field.

Another institute of higher learning that has gained ground in the field gerontology is Universiti Pendidikan Sultan Idris (UPSI). This university specialises in teacher training and education programmes of study in the undergraduate degree as well as graduate degree levels. Gerontology is a new field of study that will be offered at the Faculty of Education and Human Development. The programme is in its planning stages and the first author is actively involved in her capacity as the advisory committee member.

Another established programme with formal certification is the Fellowship Training Program under Ministry of Health. It is a three-year programme in the field of geriatrics led by specialists from the University Malaya Medical Centre and Universiti Putra Malaysia. At present, there are 13 geriatricians available throughout the country. The small number of geriatricians means that majority of elderly are assessed by their family doctors or general

practitioners. Availability of highly trained health personnel is critical to support the increasing number of elderly especially in managing chronic conditions in older people with complex healthcare needs.

At the secondary education level, the Ministry of Education in 2005 has introduced elective vocational subject in basic gerontology and geriatric services for Form Four and Form Five students. It serves as an effort to educate young people about gerontology and the elderly in Malaysia as well as to give the opportunity for students to choose relevant a subject, base on their interests. Students are trained in basic skills to help older persons that include nutrition, personal hygiene, movement and recreation. The subject also covers communication and psychological aspect in dealing with older persons. Students who choose to take this subject will have to attend 12 classes (40 minutes each) per week. Several schools in Selangor, Johor, Kelantan and Sarawak have their own gerontology laboratory for teaching. SMK Pengkalan Chepa I in Kelantan was among the first three schools to initiate the subject in 2007. At present, the school has 50 students enrolled in the subject, 25 students each for Form Four and Form Five.

In general, education in gerontology includes social gerontology and medical gerontology or geriatrics. It is available in secondary school vocational curriculum and equipped with state-of-the-art facilities to assist in teaching. It is important to give exposure to the students at the early stage to create interest in the field later. At the tertiary level, the subject is included in bachelor programmes at Universiti Putra Malaysia. The Institute of Gerontology at the same university coordinates graduate programmes in this field. As Malaysia is continues to age, other institutes of higher learning are also taking the initiative to kickstart their own programmes. Consequentially, training programmes for knowledge and skills upgrading in gerontology will be discussed in the next section.

PROGRAMMES AND ACTIVITIES IN GERONTOLOGY

Apart from graduate programmes, the Institute of Gerontology also engages in various efforts to improve the well-being of older Malaysians by offering training, seminars and conferences. The programme is the annual agenda for the institute and receives strong support from international and local agencies in the field of aged and ageing. For example, the In-situ Satellite Training Programme (ISTP): Social, Health and Economic Issues of Ageing was jointly organised with the International Institute on Ageing (INIA), United Nations – Malta for three consecutive years since 2007. The collaboration was established from an MOU partnership with INIA in 2005. The training programme aimed to deliver multidisciplinary knowledge on different aspects of international, regional and local perspectives of ageing. Training was participatory and hands-on through lectures, workshops and group activities with local and international trainers. It was conducted to facilitate the capacity building of individuals who work or intend to work in the field of gerontology and geriatrics. With the successful conclusion of the training programmes, the institute later planned to continue the training based on national capacity development on social, health and economic issues of ageing. In 2011, the ISTP was improved by introducing a Gerontology Training Programme that discusses issues that are relevant to national socio-economic condition and need. The programme is fully organised by the institute and has successfully gathered almost 60 professionals graduate students.

Since its establishment, the institute has successfully organised numerous seminars and conferences on various topics of ageing. The first National Conference on Ageing was organised in 2004. Seminars and conferences are common activities that are organised by the institute in partnership with international bodies, government agencies as well as non-governmental organisations, with the main purpose of providing multilateral platform to unite key stakeholders as well as to share multidisciplinary research, policy and practice on current issues. The conference also facilitates the development of a national focus in gerontology and geriatrics, in addressing future needs and programme planning. The conference themes will change depending on the issues and the national agenda on ageing, for example, "Population Ageing in the Developing World"; "Media Awareness on Active

and Productive Ageing"; and "Bridging Research, Policy and Practice", to name a few.

After several years of organising the national conferences, an inaugural regional conference was organised in 2010, featuring renowned international keynote speakers as well as plenary papers on a range of issues related to old age and ageing. The selected theme for the conference was "Improving Well Being in Later Life", reflecting the multidisciplinary nature of the phenomenon in a diverse socio-cultural and geographical region. This conference represents a unique opportunity for policy-makers, researchers and social workers from various countries to come together and share our knowledge on the challenges and opportunities of population ageing in Southeast Asia.

Recently, the Institute held a Residential Aged Care Refresher Workshop course for caregivers at Rumah Seri Kenangan, Cheras, a welfare home operated by the Department of Social Welfare, Malaysia. Rumah Seri Kenangan provides shelter and care to destitute, older persons. With the support from the Department of Social Welfare itself, the course was conducted with 30 personnel mostly health attendants and nurses of the home. The objective of the course is to enhance their knowledge on gerontology, elderly health and caregiving in order to improve quality of care provided to the elderly.

Every agency involved in the field of gerontology has an initiative to create awareness about and to advocate for the aged and ageing. The first author is familiar with other training programmes conducted by various agencies in the country, with regular invitations to share her knowledge and expertise in the programme as keynote speaker, paper presenter, etc. The awareness programme is often conducted by non-governmental organisations such as the National Council of Senior Citizens Organisations Malaysia, Gerontological Association Malaysia and Usiamas, Alzheimer's Disease Foundation Malaysia in conjunction with National Day of Older Persons, which is celebrated every 1st of October. The Institute of Gerontology supports this programme as the well-being of the elderly is one of the institute's main interests. It is also important in order to empower and mainstream older persons and to develop a voice for the elderly.

Most activities and programmes in gerontology were organised by professional institutions with collaboration from local and international bodies. The knowledge transfer initiatives are able to provide stakeholders with the learning and networking experiences. Periodically, the institute hopes to improve this initiative by conducting an evaluation of their programmes and activities. This is in order to keep a programme relevant and efficient in their operations. Evaluation was carried out in a variety of ways. Most often through guided feedback from the participants and sometimes over group discussion session at the end of the programmes.

PROFESSIONAL TRAINING FOR MATURE WORKERS

The year 2011 marks another major event for the institute when the Registrar Office, UPM approved a pre-retirement course that promotes well-being in old age. As it is important to prepare and invest from early in life, the course is made open to the university staff aged 40 years and above, even though the mandatory retirement age being fixed at 60 years. Small investments over the life-span in various aspects of health, social, economics, spirituality and the environment will help accumulate advantages in old age leading to a healthier, active, positive and productive life. Overall, the course aims to assist retiring employees in making a smoother transition into retirement.

The private sector in Malaysia also has its own pre-retirement course to educate and facilitate their employees in making early preparations for retirement. This course is run by private companies such as Angsana Harmoni Sdn. Bhd. and RealMind (M) Sdn. Bhd. and are being recognised by corporations such as Malaysia Airlines and PETRONAS. Through her personal communication with colleagues from private organisations, the first author was informed that some oil and gas companies such as Exxon-Mobil Corporation and Shell Malaysia as well as the Employees Provident Fund have also been conducting pre-retirement course for their employees.

Training and retraining programmes are also being emphasised in the nation's workforce to increase the mobility and adaptability towards knowledge-intensive and higher value-added activities. Under the Ninth Malaysia Plan

(2006–2010), Malaysia has continued to develop and strengthen economic activities within the field of information and communication technology (ICT). This development may lead to barriers for older workers who wish to stay in the labour force. In a study by Dr Jariah Masud and her colleagues in 2006, it was found that most human resource executives have a negative perception of older workers and prefer to hire younger candidates if given the choice (Jariah 2006). As such, older workers and also retirees are encouraged to participate in training and skills upgrading programmes to ensure their employability and competitiveness in the labour force. Human Resources Development Bhd., funded by the Ministry of Human Resources, Malaysia provides such programmes for workers of all ages to enhance the quality of the work force in the country.

LIFELONG LEARNING IN MALAYSIA

Learning is the process whereby human beings create and transform experiences into knowledge, skills, attitudes, beliefs, values, senses and emotions (Jarvis 2001). The Institute of Gerontology provides learning in later life through its signature third age education programme. In 2005, the institute, with the support of the Government of Malaysia and the United Nations Population Fund (UNFPA), started a project to promote active and productive ageing in Malaysia. Later in 2007, the research team of the project introduced a Lifelong Learning Initiative for the Elderly (LLIFE) programme. LLIFE was the pilot programme leading to the establishment of a University of the Third Age (U3A) Malaysia in 2008. The objectives of the U3A are different from educational institutions, U3A offers education for leisure while the former prepares a young person for life and work, or for re-training a middle-aged person in mid-career. The aim of the U3A is knowledge for its own sake and does not require special qualifications for enrolment, nor does it grant any certificates, diplomas or degrees. All U3A members are required to attend 24 hours of lectures on Adult Development and Ageing. The class covers a wide range of topics related to ageing such as health, nutrition, housing and assistive technology. At present, there are almost 300 members associated with U3A Malaysia. The membership structure ensures that learning is not a one-off occurrence but is sustained through the community of older learners.

Lifelong education covers "formal, non-formal and informal patterns of learning throughout the life cycle of an individual for the conscious and continuous enhancement of the quality of life, his own and that of society" (Dave and Cropley 1976). Formal lifelong education opportunities for the older persons include tertiary education at institutions of higher learning. For instance, Open University Malaysia (OUM) and Universiti Sains Malaysia (USM) both have special intakes. At OUM, about 109 out of 66,484 students were 60 years and above in May 2009 (Latifah and Ng 2010). Majority will graduate with a university diploma or degree and only 6% have high risk of not graduating with a CGPA less than 2.0. OUM offers flexible study programmes for older adults in Open and Distance Learning institutions. The older learners are also provided with incentives — they receive a 75% discount on course fees to encourage their participation lifelong education. Meanwhile, in Universiti Sains Malaysia, a retiree was recently conferred a degree in Social Science at the university's 44th Convocation. The successful story of Musa Jaafar, aged 79, a former FELDA manager, set an example that age is not a barrier to formal education (Kaur 2011).

Non-formal and informal adult education included evening classes, community colleges and also agricultural extension programmes. As an example, the Ministry of Rural and Regional Development has designed several programmes to reduce the literacy gap between the urban and rural community. In 1961, Adult Education Division was created as the first step for the development of human resources by eliminating illiteracy in rural communities. This division was renamed in 1977 to Social Development Department (KEMAS) with the aim to involve the development of human capital and also that of rural communities. Lifelong learning programmes under this initiative are very wide and comprehensive. The examples include village action plans, village management and administration, mosque management, communication skills as well as computer and Learning (LLL) Campaign focused on the Chinese community. The Malaysian Chinese Association (or MCA, a uni-racial political party in Malaysia) launched LLL Campaign in October 2004, with the objectives of fostering a learning society and enhancing competitiveness to cope with the rapidly changing global economy. However, the MCA's lifelong learning secretariat LLC was closed in late 2010 due to funding problems and change of leadership. During its operation, MCA offered more than 500 programmes with diverse range of opportunities under the LLC. It included

job skills, information technology, life and health, music and art, humanities and social science and languages. Another similar opportunity for lifelong learning is the Young-at-Heart (YAH) programme established by YMCA Senior Citizens Club Kuala Lumpur and Yayasan Nanyang Press in 2006.

CONCLUSION

The field of gerontology is still in its infancy in Malaysia. It has recently been given much attention as Malaysia is in the process of becoming an aged nation. The government has recognised the field as an important dimension due to the growing older population. It has been translated as a new area of study in the formal education, both in secondary and tertiary levels. New curricula in the field of gerontology and geriatrics, training and lifelong learning programmes have been developed towards creating a knowledgeable society in addressing the need of the older persons.

Training is important for professionals in the field to cater for an ageing scenario. Training programmes, conferences or seminars is a platform in spreading latest knowledge on gerontology. It is also an opportunity for professionals in the field to collaborate and build linkages. The workforce and businesses are also adapting to a labour market of training and retraining of older workers. This is considered a lifelong learning strategy for older workers to fit in the current demands of the economy. In transition to retirement, many agencies including the private sector are implementing pre-retirement courses for mature workers. Retirement, being a common transition faced by the older person, needs comprehensive planning for life adjustment after retirement.

Learning in later life has become a byword for self-improvement, whether it is to bridge gaps in the digital divide or cultivate a creative hobby. Although third age education in Malaysia is still at a nascent stage, there is a growing awareness among the general population, both young and old, in the importance of gerontology, geriatrics and adult development. By enhancing the opportunity for lifelong learning, education and training through University of the Third Age, it is hoped that older Malaysians will be able to lead a more fulfilling, active and meaningful life in old age.

By the time Malaysia reaches the aged nation status, it is hope that the field of Gerontology will be experiencing a stage of dynamic development. Lifelong learning will be inculcated and intrinsic to self-determination where older persons themselves must be involved and must take charge of their own learning. It is hoped that the situation will become extremely encouraging for the development of training programmes and activities in a diverse assortment of organisations.

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4

Building Research Capacity in Gerontology: Experiences and Lessons from Australia

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BACKGROUND

Over the past decade, increased policy attention on the consequences of demographic ageing in Australia has led to a more focused research agenda on ageing, greater funding opportunities and raised awareness and recognition of gerontology as an important field of study. Research capacity building efforts in ageing have been considerable and have improved collaboration between the policy, research and service sectors, raising expectations of research funding streams and translation of research into policy and practice. The discourse on ageing has also shifted gradually from a deficit model to focus more on healthy, active or productive ageing, indicating a broader multidisciplinary approach and more positive perceptions of ageing. This shift in focus has enabled social gerontology to flourish in Australia, with a number of ageing research centres having social gerontology streams.

While much has been achieved over this period, there are ongoing challenges in sustaining the progress made to date and in building research capacity that has longer-term strategic prospects. This paper outlines Australia's efforts to

build research capacity in gerontology over the past decade, examining key successes and future challenges, with consideration of how this experience may be relevant to Asia.

BUILDING THE AGEING RESEARCH AGENDA

A broadening of the ageing policy and research agenda became evident between 2000–2003 with the release of a suite of strategic, review and position papers by the federal government. After extensive consultation, in 2001, the National Strategy for an Ageing Australia (2002) was launched, outlining the broad policy goals for addressing a comprehensive agenda of ageing issues. This national focus on ageing was made explicit in the National Research Priorities released at the end of 2002 which identified "Ageing Well, Ageing Productively" as a priority goal. It recognised the need for research into the economic and social participation of older people and their carers, supporting independence and quality of life, and compression of morbidity towards the end of life. A review of healthy ageing undertaken by the Prime Minister's Science, Engineering and Innovation Council, further defined the research gaps and priorities in this area (PMSEIC 2003).

In mid-2002, the Building Ageing Research Capacity (BARC) project was established by the federal Department of Health and Ageing, with the aim of improving collaboration and co-ordination between researchers and policy-makers. Its initiatives included major national symposia in 2003 and 2006, development of the Framework for an Australian Ageing Research Agenda (Office for an Ageing Australia 2003), and establishment of the Ageing Research Online (www.aro.gov.au), a national portal for information on researchers, projects, educational opportunities and grants. After flourishing for two years, with over 2,000 researchers registered on the site, the ARO has since languished and its future is unclear.

Another significant development during this time was Ageing Well Ageing Productively (AWAP) funding round, which was jointly supported by the two main government-funding bodies — the National Health and Medical Research Council (NHMRC) and the Australian Research Council (ARC). The AWAP round provided AUS$10 million over five years for the following six

projects addressing a broad range of issues including economics, genetics, health and lifestyle, and indigenous issues as well as support for longitudinal research:

1. Working Longer: Policy Reforms and Practice Innovations (Chief Investigator: Professor John Piggott).

2. Predictors of Ageing Well in the Australian Longitudinal Study on Women's Health and the Perth Health in Men Study (Chief Investigator: Professor Annette Dobson).

3. Gene — Environment Interaction in Healthy Brain Ageing and Age Related Neurodegeneration (Chief Investigator: Professor Perminder Sachdev).

4. Using health outcome data from pooled longitudinal studies of ageing to develop statistical and microsimulation models, to determine how to best compress morbidity and optimise healthy and productive ageing (Chief Investigator: Professor Kaarin Anstey).

5. The development and evaluation of management strategies designed to address poly-morbidity in older people: Implications for health policy planning, practitioners and patients (Chief Investigator: Professor Andrew Gilbert).

6. Examining a core assumption of policy and services for older indigenous Australians (Chief Investigator: Professor John Condon).

This research has recently been showcased in an Australian Government funded special issue of the *Australasian Journal on Ageing*, with an editorial by Professor John McCallum, Head of Research Translation Group at the NHMRC (McCallum 2011). While these projects represent a significant investment, ageing research nevertheless comprises a relatively small proportion of the total ARC and NHMRC grants allocated. Interestingly, the recent review of "Aged Care in Australia", undertaken by the Productivity Commission recommends the need for a clearinghouse to co-ordinate and share existing data — there is almost no emphasis on generating new knowledge.

In recognition that the Framework for an Australian Ageing Research Agenda (2003) is now over eight years old, the NHMRC and the Australian Association of Gerontology recently convened a workshop of leading researchers on "Progressing Australia's Research Agenda on Ageing Well". Questions debated included the need for a large national longitudinal study of ageing to provide new evidence that existing longitudinal studies were unable to generate; a more sustainable funding model for research on ageing, possibly in the form of a national research institute on ageing; greater support for translating research into policy and practice; continued attention to researching the needs of Australia's diverse older population, in particular the needs of indigenous people; and the importance of Asia in priority setting and collaboration.

THE ROLE OF RESEARCH CENTRES

A number of university research centres on ageing have come and gone over the past decade. There are currently around 30 ageing-related centres, including 19 Australian Association of Gerontology (AAG)/International Association of Geriatrics and Gerontology (IAGG) collaborating centres. Such centres have either a discipline focus (e.g., geriatric medicine, nursing, dementia, social sciences) or, to a lesser extent, may be transdisciplinary. While important incubators for research on ageing, they generally struggle to be sustainable. Most are small (fewer than 10 researchers) and staffed with contract researchers; few have established partnerships with government; none have ongoing funding streams and there is no truly "national" or international centre. The recent move by universities to create larger institutes or pursue other research priorities has seen some productive centres lose focus or disappear.

In a promising development in 2011, an ARC Centre of Excellence in Population Ageing Research (CEPAR), led by Professor John Piggott at the University of New South Wales, was funded for $12.7 million over seven years. This initiative represents a significant national commitment to ageing research and draws together cross-disciplinary expertise from economics, psychology, sociology, epidemiology, actuarial science and demography, to build in world-class leadership in the field of population ageing research.

This represents the largest commitment to ageing research to date and reflects the government focus on the economic implications of population ageing, as confirmed in the three Intergenerational Reports (Costello 2002 & 2007; Swan 2010) produced by the federal Treasury. The strong focus on economic responses to population ageing within CEPAR is likely to have played a critical role in the centre being funded by the Australian Government. This was highlighted in a 2009 speech, by the Hon. Wayne Swan, Member of Parliament and Federal Treasurer, who noted that population ageing "is arguably one of two of our greatest economic challenges — along with climate change" (Swan 2009).

KEY ACHIEVEMENTS IN CAPACITY BUILDING

The ARC/NHMRC Research Network in Ageing Well

The Ageing Well Network is the leading example in Australia of an attempt to build capacity in research on ageing. It was jointly funded for AU$2.5 million over five years (2005–2009) through the ARC Research Networks scheme and the NHMRC in recognition of the multidisciplinary nature of the ageing research field. The Network involved seven university partners who provided significant cash and in-kind contributions.

The Network was led by a Management Committee that comprised the Research Theme and State Convenors who set Network directions, led major initiatives, and allocated funds. The Network's four research themes were established in order to set research priorities and develop collaborative, multidisciplinary research efforts of importance for the well-being of older people and for an ageing Australia. The themes related closely to the National Ageing Research Priorities, the Building Ageing Research Capacities (BARC) project, and key constituency groups. The four themes were:

• Population Research Strategies
• Productivity and Economic Security
• Independent Living and Social Participation
• Healthy Ageing

The Network was successful in facilitating collaboration between researchers across disciplinary and institutional boundaries, resulting in AU$5 million in competitive research funding and identification of new research agendas. In terms of research capacity building, the most significant research project supported by the Network was the Learning How to Age Well from Australian Longitudinal Studies of Ageing programme, which was funded for AU$2.5 million through the NHMRC/ARC AWAP funding round mentioned earlier. This project draws together nine substantially enhanced longitudinal datasets, with a total of over 50,000 participants, in order to identify factors capable of preventing disease and compressing morbidity — and thus increase years of active and engaged ageing. This dataset has become a major national resource that has been used by researchers from across the country to explore a diverse range of ageing issues, including health and labour force participation, alcohol and smoking, mental health, falls and social engagement.

Other capacity building efforts supported by the Network included promoting efficiencies among researchers in making best use of existing data, expertise, funding and other information and resources. This included the development of the Ageing Well Data Archive and the Australian Research Grant and Literature Inventory on Ageing. Both resources continue to be available for researchers in ageing. In addition, the Network supported a range of longitudinal methods that involved Australian and international experts and aimed to place Australian researchers at the forefront of longitudinal research on ageing.

The Network aimed to provide a focal point for Australian involvement in leading international research. This involved supporting visits by leading academics, involving them in presentations at national and international fora, research development workshops, and developing research grant proposals. The Network also supported international trips by leading Australian researchers for similar purposes to the above and other overseas funding bodies, international organisations and leading research institutes.

Another key focus of the Network was to build connections between researchers and key peak bodies on aged and community care, with aged consumers and with key policy departments. These engagements were facilitated by the Network Advisory Group (comprised of the lead executives

from the key organisations) and by the State Hubs which operated in close connection with the State Offices on Ageing and ageing-related policy departments. The Advisory Group ensured that Network activities were grounded in the needs of the end-users of research and helped greatly with the dissemination and translation of ageing research findings.

One of the most significant activities of the Network was to support the emerging cohort of new researchers, which it did by providing funding for the existing national Emerging Researchers in Ageing initiative (ERA), allowing the initiative to significantly expand the range of opportunities it provides for emerging researchers. More details on the ERA initiative are provided in the following section.

It should be noted that one of the major challenges faced by the Network was engaging the broader research community in its capacity building efforts. Much of the activity undertaken by the Network was done by the small group of committed researchers and external stakeholders who made up the Management and Advisory Committees. While excellent outcomes were clearly achieved, this reliance on the vision and effort of a small team may have somewhat limited the scope of the Network as well as placing high demands on already busy researchers and stakeholders.

Emerging Researchers in Ageing Initiative (ERA)

The ERA initiative was established in 2002 at the University of Queensland to provide support and encouragement to students undertaking research higher degrees in the field of human ageing, by offering them opportunities to network and collaborate with their peers, senior academics and policy-makers within Australia and internationally. ERA quickly developed into a national initiative with a membership database. The membership of PhD students has almost doubled since the database was established, rising from 271 in 2007 to 526 in 2011. While it is difficult to put metrics on the number of students supported by ERA, it is estimated that approximately 300 students annually participate in various ERA activities, and there is clear anecdotal evidence to suggest that the initiative has attracted additional research students to the field of ageing and has facilitated their successful completion of higher degrees and integration into the ageing research community.

ERA aims to be informed by the needs of the students and so conducted a National Survey of Emerging Researchers in Ageing (NERAS). A sample of 267 emerging researchers in ageing, enrolled across 29 Australian universities, was identified and asked to participate in a web-based survey with a response rate of 60% (161). The survey found that 75% of students wished to remain in the field post-PhD, but that a key barrier to doing so was insufficient opportunities to meet and collaborate with other researchers in ageing (Bartlett et al. 2007).

With the support of the Ageing Well Network, ERA appointed a part-time co-ordinator and the range of activities expanded to include trialling a mentoring scheme, developing the ERA website (www.era.edu.au), and regular newsletters and email updates to members. The primary ERA activity is its annual conference, which is the only national conference in Australia that showcases exclusively the work of postgraduate students doing research in ageing. The conference is hosted by leading ageing research centres and regularly attracts between 100 and 150 postgraduate student presenters and attendees, along with a variety of academics, policy-makers and stakeholder representatives. The ERA conference also regularly attracts student researchers from Asia keen to interact with their Australian peers. It provides excellent opportunities for postgraduate researchers in ageing to network with their peers and with more senior people in the field, and to keep abreast of contemporary trends in ageing research.

Another major ERA activity has been a two-day master class, held in 2008 and 2009 for students in mid-candidature. These master classes were facilitated by research leaders and covered networking, collaboration, career pathways, dissemination, publishing and grant writing. Both the master classes and the mentoring schemes haves been evaluated and demonstrate that such activities are useful and valued by emerging researchers (Bartlett and Peach, 2007; Henwood et al. 2011). More recently, workshops covering topics such as grant writing, academic publications and mixed methods research have been provided prior to the ERA conferences.

The final core ERA component is the Virtual Seminar Series, which uses high-definition videoconference technology to allow emerging researchers to "meet" with peers across the country and hear from senior academics

and policy-makers about the latest trends. This has helped to break down some of the isolation previously reported. The seminar series has expanded to include New Zealand nodes and a special Australia-UK seminar. Each seminar involves up to 15 nodes and up to 50 participants.

In addition to the above, ERA has supported a range of other activities including:

– A travel exchange programme that supported emerging researchers seeking to undertake an extended work program with academic experts in other universities in Australia or internationally;

– The Council on the Ageing (COTA) Postgraduate Research Awards, which supported and disseminated policy-relevant research papers;

– The Emerged and Established Researchers in Ageing National Survey (EMRANS), which builds on the earlier NERAS survey and aims to gather data on how emerged and established researchers in ageing developed their careers and the steps that can be taken to build capacity in ageing research in Australia for the future. The results from this survey are currently being analysed.

The important capacity building role played by the ERA initiative has been recognised by the new ARC Centre of Excellence in Population Ageing Research, which is providing ongoing support for ERA from 2011. This support will allow ERA to continue to grow to meet the changing needs of emerging researchers and plan a range of different activities, including the following possible developments:

– Expanding the ERA virtual seminar series to include participants in more diverse locations, including involving participants in neighbouring Asian countries;

– Postgraduate research scholarships co-funded by key external organisations;

–   Internships with industry and stakeholder organisations to provide research students with a solid grounding in policy and practice and facilitate the translation of research;

–   Two-way ERA exchanges — expanding the current exchange scheme by providing support for international students to come to Australia to build research and expertise;

–   Facilitating a more co-ordinated pathway into ageing research by working with the related CEPAR programmes supporting Honours students and postdoctoral researchers.

The National Dementia Initiative

An outstanding example of a successful research and stakeholder partnership is that led by Alzheimer's Australia, which has worked closely with leading Australian researchers over two decades to build an ongoing focus on dementia. This has included commissioning reports on the economic impacts of dementia and advocacy to government during the 2004 election. This concerted effort saw dementia being made a national health priority in 2005, with funding of AU$320 million over five years to the Dementia Initiative, resulting in funding for dementia research grants, collaborative research centres and training study centres. More recently, a National Quality Dementia Care Network has been established and work is underway to establish a Consumer Dementia Research Network.

In addition to driving the Dementia Initiative at the national level, Alzheimer's Australia has played a key role in facilitating international connections, particularly in the Asia-Pacific region. This collaboration resulted in the publication *Dementia in the Asia Pacific: The Epidemic is Here*, commissioned by Alzheimer's Australia on behalf of the 15 Asia Pacific member countries of Alzheimer's Disease International (Access Economics, 2006). The report concludes that by 2050 there will be nearly 65 million people living with dementia in the Asia Pacific region.

The success of this initiative can be attributed to long-term partnership between researchers and stakeholders, and strategic use of information

— particularly highlighting the economic implications for government. In addition, unlike the broader ageing field, the initiative focuses on a disease state, which is easier for people (including policy-makers and funders) to engage with. Unfortunately, despite the prevalence of dementia increasing, the Dementia Initiative was not successful in obtaining further funding from the Australian Government, leading advocacy groups, community organisations and researchers to demonstrate in October 2012.

KEY INFLUENCES AND BARRIERS TO CAPACITY BUILDING

In 1999, the UN International Year of Older People and other international efforts highlighted the importance of ageing. This message was adopted by key policy-makers who drove the agenda early in the decade and brought the research and policy sectors together, requiring both to think more broadly and work collaboratively. This developing collaboration resulted in government support to build the research agenda, fund the Ageing Well Network, AWAP round, etc., but this support has since tapered off.

There are also a number of barriers which have impeded capacity building efforts, including the multidisciplinary nature of the research field of ageing, which makes it a challenge to build capacity across so many areas and harder to fund research within the discipline specific funding streams. The large number of stakeholders with different agendas means that there is often competition for attention. In addition, the three-year electoral cycle makes it difficult to build a sustained policy focus; after some success in bringing ageing to public attention during the early 2000s, other long-term issues like sustainability and climate change have now taken priority.

One of the major challenges in building and maintaining a major national capacity building efforts like the Ageing Well Network, ERA or the National Dementia Initiative is the need to look beyond individual research interests to see the broader national and international research agenda. In large part, this broader vision has been held by only a small number of key individuals and teams who have driven the development of the different initiatives, shouldering a considerable load above and beyond their core. Without the

dedicated work of these visionaries, the research agenda for ageing in Australia would be poorer in breadth and depth.

Finding funding for national capacity building efforts such as these requires the same sort of vision from the various funding bodies and centres and all three initiatives have struggled and in most cases failed to maintain ongoing funding support. Whilst the Australian government should be congratulated for providing some funding for capacity building efforts, the focus needs to shift from one-off commitments to more sustained support. As noted previously, the ERA initiative has recently obtained ongoing support for its core operations from CEPAR. Were it not for the national scope of this new centre, ERA would have struggled to locate new funding, as it is difficult for individual universities to justify investment in programmes that focus on broader capacity development.

CONCLUSION

After the initial successes early in the 2000s, there is a danger of losing momentum in research on ageing with the previously broad focus becoming restricted to specific ageing issues, which are in turn replaced by other issues (as in the shift away from a focus on dementia to the economic implications of population ageing) or away from ageing to issues like climate change. Further dedicated and longer-term investment in ageing research capacity is needed to increase quality and scale of the research effort. In particular, support is needed to increase the uptake of the evidence on healthy ageing at both an individual and population level.

Due in part to the efforts of the Ageing Well Network, there has been some progress in building multi-disciplinary collaboration, as seen in the funding of the new Centre of Excellence, but ongoing efforts are required to promote this collaborative approach and to broaden the focus. More strategic alliances between key stakeholders and researchers are also required so that they can work together to sustain policy attention and leverage funds.

There are lessons to be drawn from the capacity building efforts of the UK, where the research funding councils have a long history of collaboration

and establishment of funding programmes; or Canada, where the Institute of Aging was formed as part of the Canadian Institutes of Health Research. No such ongoing collaboration between the funding bodies, nor a dedicated research funding stream for ageing has emerged in Australia. Only one-off commitments to the Ageing Well Network and the AWAP round have occurred. Researchers continue to compete in a national grant process that favours discipline-specific proposals. On a positive note, research translation is becoming a priority through the ARC Linkage and NHMRC Partnership schemes, but there is a long way to go.

Finally, if we are to retain emerging researchers in the field and attract new researchers, there is a need to provide new opportunities including post-doctoral fellowships, continued networking and mentoring opportunities. It is vital to build the ERA initiative so that it can continue to meet this need. It is also important to monitor research capacity so that accurate information about the research workforce is available in order to inform lobbying efforts to policy and funding bodies.

While this paper has focused largely on the Australian experience, population ageing is becoming an increasingly critical issue for Asian countries so there is a clear need for a major capacity building effort across the region. It is pleasing to see that the importance of building connections between Australia and neighbouring Asian countries has been recognised by key Australian initiatives such as the ERA and Dementia initiatives. Both initiatives provide important insights into research capacity building, which would be relevant to Asia. These include: putting structures in place to support the emerging cohort of ageing researchers and providing opportunities for them to connect with peers, both within the country and internationally; building strong connections with consumers, stakeholders and policy-makers; and regularly surveying participants to ensure that their needs are being met. Building cross-national research programmes with combined research funding schemes could also be important capacity building strategies. Opportunities to develop collaboration can be fostered through international exchanges between researchers and conferences. Major international conferences such as the 2011 IAGG Asia/Oceania Regional Congress go some way to fostering these connections in the region, but more opportunities could be created.

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5

Building Research Capacity in Social Gerontology in Asia: an NPO Perspective

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INTRODUCTION

Population ageing has different connotations to different people. For policy-makers, population ageing, especially those from developing countries and emerging economies, is a phenomenon that seems to evoke more fear and worry than jubilance and a cause for celebration. For service providers, population ageing seems to provide them with a continuing battle between quality and quantity. For the business community, population ageing remains an unchartered territory — something that they know can mean more demand for products and services and therefore more profits but continues to remain elusive in terms of what, where and how to capitalise on those business opportunities. For the younger population, having more older people seems to evoke a fear of burden of care and to continued testing of their social values, especially that of filial piety.

Connotations aside, there are a lot of things that we now know about population ageing in Singapore and in most countries all over the world. Everywhere, people are living longer and growing older. This is true for both men and women, with women having about three to five years of advantage (on average) against men. We know as well that countries like Singapore are ageing very fast, faster than others like Australia, South Korea, the UK and the US; and that by 2030, one out of five Singaporeans will be aged 65 and above (ILC-Singapore 2011).

This means that Singapore only has 19 more years to understand the situation of older people, build the necessary social and physical infrastructures that will allow each and every one of those one million older Singaporeans to age well. As a society, we have started thinking of ageing and what it may mean since the early 1980s, when the first Inter-Ministerial Committee (IMC) on Ageing Population was set up to study the phenomenon of ageing in Singapore and identify policy directions to address its challenges. By 1999, the first IMC presented its policy recommendations in a report that defined the major policy framework by which our government is addressing the different challenges of an ageing society (MCYS 1999).

Since then, and up to its most recent evolution into a Ministerial Committee, the policies set out in that landmark 1999 report have guided the Singapore government in translating them into concrete programmes and services. And yet we still seem to struggle and continue to be challenged as an ageing society. The more we age as a society, the less we seem to know about how to address the different and specific needs of the older Singaporeans. Why? It is primarily because all those years we have not developed our research capability and capacity at the same pace. Research on social gerontology is a crucial component in the translation of policy into programmes and services that will make sense to most, if not all older Singaporeans. We missed this window of opportunity early on in developing our research capacity and capability to fully understand the issues of our older population.

TSAO FOUNDATION AND ITS ROLE IN BUILDING RESEARCH CAPACITY IN SOCIAL GERONTOLOGY

What is Tsao Foundation?

Tsao Foundation is a not-for-profit organisation with a vision to foster a society for all ages that supports active ageing, values the contributions of older people and provides for a secure old age. We foster this vision by advancing services, skills and knowledge of individuals and communities in eldercare; facilitating older people's participation in society; and promoting their views for policy planning.

As an organisation, we are dedicated to enhancing the quality of life for older people by alleviating the challenges of ageing through our community health services; promoting successful ageing; and pioneering new approaches to ageing and eldercare throughout Singapore and the region. We aim to be a catalyst for constructive change by addressing population ageing and eldercare issues at the policy level.

The foundation pursues a strategy founded upon three pillars of eldercare: Service, Education and Collaboration. Firstly, the foundation identifies key services that are lacking and has taken on the role of the primary facilitator and an active provider of eldercare services in the community. Since its inception in 1993, the foundation has identified and set up services for different profiles of older people — from the frailest to the most active. All our services — ranging from social to community health — are delivered under our Hua Mei Centre for Successful Ageing, or HMCSA. HMCSA is one of the three major initiatives of the foundation and focuses on providing a one-stop centre for older people and their families. Secondly, the foundation reinforces and extends the network of carers by reaching out with training and education to embrace families, professionals and volunteers. All our training and education programmes are delivered under the Hua Mei Training Academy, or HMTA. HMTA is the second major initiative of the foundation and is a leading training provider on eldercare. Thirdly, collaborations, partnerships and networks are promoted at many different levels so that a seamless continuum of eldercare can grow and expand. This has been the focus of

the Interagency Collaboration Division of the foundation. Since 2010, the Interagency Collaboration Division has been formally transformed into the International Longevity Centre-Singapore with an added value of providing evidence through research to support policy-makers and programme planners and to facilitate discussion and conversations amongst these different stakeholders.

Why Has Tsao Foundation Taken on Research and Building Research Capacity on Social Gerontology As One of Its Major Initiatives?

From 1993 until early the 2000s, there were only a handful of researchers conducting studies on ageing in Singapore. All of them were faculty members from the National University of Singapore, or NUS. During this period, Tsao Foundation has been engaging these researchers in a number of ways. One is the Tsao Ng Yu Shun Awards for Excellence in Ageing Study. Students from the Departments of Architecture, Economics, Psychology & Social Work, and Sociology may submit their theses or module projects to their department for the awards. Each department is allowed to give out two awards every year; one for undergraduate students and one for graduate students. The winners are selected by the Head of the Departments and Tsao Foundation. Through this awards programme, the foundation has been able to continue to engage the few researchers who were working on ageing.

Other initiatives to engage researchers are through our annual MCYS-Tsao Foundation Experts Series on Successful Ageing Programme and our Distinguished Scholars' Programme. Both platforms aim to bring overseas scholars and experts from the academe mostly to Singapore, so they can share their knowledge and expertise on ageing-related issues and to give us the opportunity to give inputs on national policy and programme deliberations. Some of the experts and distinguished scholars we have brought to our shores include: the late Dr Robert N. Butler, President and CEO, ILC-USA and Pulitzer Prize-winning Author[1]; Professor Ursula Lehr, Director, German Centre for Research on Ageing, University of Heidelberg, Germany[2]; Dr

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[1] Dr Butler's presentation was on "The impact of the longevity revolution".
[2] Prof. Lehr's presentation was "A passion for life: the elderly and families meeting challenges for the 21st century".

James Birren, Professor Emeritus of Gerontology and Psychology, University of Southern California[3]; Mr Shiro Yamasaki, Director, Planning Division, Welfare for the Elderly, Ministry of Health and Welfare, Japan[4]; Dr Victoria Velkoff, Chief, Ageing Studies Branch, US Census Bureau[5]; Dr Estelle James, Lead Economist, World Bank and Social Security Expert[6], to name a few. These experts and distinguished scholars came and engaged our policy-makers, professionals and community partners on different aspects and issues of ageing. Every time we invite an expert and a distinguished scholar to Singapore, we always seek out what issue our ministry is grappling with. We also seek out what it is that the community could learn from. Even at that time, we were playing the role of the "dot connector" — creating the platform and the opportunity whereby we can engage our policy-makers and at the same assist in raising the awareness of our community partners.

By 2007, during our strategic planning, we realised that beyond the awareness and in addition to raising the understanding on ageing issues, there is a need to create platforms whereby we can learn how to transform policies into programmes and services and also provide evidence through research to support our continued advocacy. We believe that, moving forward, there is a need to catalyse more research on ageing. Leveraging on our relationship with the university, the foundation decided to form a partnership with NUS to catalyse research on ageing. In June 2009, the Tsao Foundation endowed a total of S$750,000 to the Faculty of Arts and Social Sciences, or FASS at NUS for three years (2009–2012). Named the Tsao Foundation Ageing Research Initiative at NUS, it is headed by Associate Professor Angelique Chan from the Department of Sociology. The research programme has identified specific research themes to focus on, namely, healthy ageing; long-term care; caregiving; women and ageing; and programme evaluation. Our strategy is that we will use the endowment to develop research proposals

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[3] Dr Birren's presentation was on "Psychological perspectives on the challenges of an ageing society".

[4] Mr Yamasaki's presentation was on "Long-term care insurance — the Japanese experience".

[5] Dr Velkoff's presentation was on "Older men are from Mars, older women are from Venus — policy issues on health, income security and social support".

[6] Dr Estelle James' presentation was on "Women and ageing: policy implication for health and income security in later life".

and leverage this with other research funding that can be tapped on through the university. By partnering with NUS, we are also able to mobilise other researchers from the different disciplines and faculties within FASS. We believe that through this research programme, more data and evidence will be generated that could support better policy translation and programme planning to address ageing issues in Singapore and the region.

While the research programme with FASS aims to catalyse greater research on ageing, the foundation has also decided to enhance and bring its policy advocacy and community engagement to its next level by transforming its Interagency Collaboration Division unit into the International Longevity Centre-Singapore. In August 2011, the International Longevity Centre-Singapore was formally launched as the third major initiatives of the Tsao Foundation. The decision to join the ILC Global Alliance is strategic as it will allow us in Singapore to have access to more data and information from other ILC centres in 13 other countries as well as access to a network of researchers on ageing that we can tap into and with whom we can collaborate.

The International Longevity Centre-Singapore (ILC-Singapore)

Vision: The vision of ILC-Singapore is for the development of policies and programmes that can support individuals to maximise their full potential throughout their life course.

Mission: ILC-Singapore works towards the development of strong evidence-based practice and policy-making in Singapore through research and intersectoral collaborations.

Strategic Thrusts:

1. To stimulate and conduct high impact policy- and programme-relevant interdisciplinary research on ageing, to identify important emerging trends and to generate necessary evidence and knowledge to inform policy and practice

2. To engage with and create stakeholder platforms and networks for ongoing knowledge exchange, discussions on trends, issues and possible solutions

3. To pilot innovations that can serve as catalysts for positive change in how we view and work with older people, identify their needs and address their issues

4. To promote awareness and knowledge of ageing issues in Singapore and the region and learn from the international arena

5. To support policy-makers, community leaders and service providers in strengthening service delivery — both in improvement of current models as well as development of new models and systems of effective services

6. To contribute to the development of leadership in the ageing field

ILC-Singapore is part of the International Longevity Centre Global Alliance. We have 14 partners across the globe in Argentina, Brazil, China, Czech Republic, Dominican Republic, France, India, Israel, Japan, Netherlands, South Africa, US and the UK. The Alliance is a multinational research and educational consortium, united in a common purpose to understand and address the consequences of population ageing and longevity in positive and productive ways. Our unique alliance undertakes joint studies and symposia as well as country-specific activities to engage and inform a wide variety of stakeholders from across the globe. Our overarching aim is to articulate a call to action — from an interdisciplinary, intergenerational and life course perspective — and promote and highlight the opportunities and challenges that population ageing presents to modern society.

WHAT ARE WE LEARNING SO FAR?

As a foundation, we are seeing initial signs of good results from having ventured into research and building research capacity in social gerontology through the Tsao Foundation Ageing Research Initiative at NUS and the International Longevity Centre-Singapore. As an NPO providing direct service to older people in the community through our Hua Mei Centre for Successful Ageing or HMCSA, we continue to generate data and information directly from our clients and participants. With these data and information, we are able to provide feedback to the research that we are conducting. We are also able to ensure that older people are able to participate actively in research and studies being conducted on them. In addition, we are able to facilitate better research planning and conceptualisation as well as ensure smoother implementation of research projects although there is a learning curve for both sides — from researchers as well as our colleagues in service delivery. The ILC-Singapore then acts as the middle person — we have been facilitating, mediating and brokering between the two sides.

The partnership with the university is working well though not yet fully maximised. We have yet to mobilise other researchers within FASS. There has been an effort made in bringing in other faculty members who have some interest and experience on ageing and on the priority themes identified.

Through our partnership with NUS, the ILC-Singapore was able to set up a network, the Ageing Research Network or ARN, through which we are aiming to catalyse more research on ageing outside of Singapore. Through ARN, we have plans to carry out training for junior researchers as part of our contribution towards building research capacity by facilitating their participation and involvement in comparative research.

Our membership with the ILC Global Alliance is also working well. Through this, we are able to participate in global policy advocacy on ageing as well keep abreast of what is happening elsewhere. ILC-Singapore is taking on the lead role in facilitating more research on ageing and especially comparative research between our region and those from other parts of the world where other ILC centres are located.

CONCLUSIONS

Building research capacity in social gerontology is one of the critical components in addressing the challenges of an ageing society. We need to have more researchers and a more robust research community in order to give us more opportunities to create platforms for discussion and engagements. Research to a certain extent can be potent in this way as the results of it can either mean success or failure in policy formulation or in programme implementation or service delivery. We cannot emphasise enough the importance of good and solid evidence that research can provide. We therefore welcome workshops and fora like this as this allow us the space to advocate for more research and for more investment in research training in Singapore and hopefully, for the region, as well.

Tsao Foundation will continue to play a lead role in catalysing more research on ageing in Singapore and the region, primarily through the ILC-Singapore, the Tsao Foundation Ageing Research Initiative at NUS and the Ageing Research Network. We also have plans to build research capacity through the collaborative research projects we are undertaking with researchers from other institutions and universities within our region and within the ILC Global Alliance.

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6

Translational Research, Social Issues and Social Gerontology

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BACKGROUND

In this paper, we attempt an examination of the ways in which social gerontology research can be translated into practical methods to address social issues. Many of the models that have been developed for what has been called variously translational research knowledge transfer and applied research have risen from laboratory-based science, which then requires practical application in clinical and health care settings. Whilst this is a good starting point there are important differences between this and social research. Here we will begin by examining this original template and how a number of social initiatives have modified the task.

Both approaches create an evidence base, which is to be translated, but social gerontology also examines the assumptions behind policy and practice and attempts to take social and cultural contexts into account. It is not then a universalist endeavour as is arguably the case for pure science. When dealing with social issues one looks at research policy and practice and asks what is the relationship between them and also what might be the alternatives

to existing social practices. As Robert Butler has pointed out gerontology is an amalgam of advocacy and science and this combination of attempting evidence-based social change is perhaps a distinctive feature of translational social research (Moody 2002).

To use the analogy of building a bridge in a literal as well as a symbolic sense, you can say that while medically oriented gerontology asks how can we build a better bridge, social translation adds questions why are we building a bridge and why are we building a bridge here. If we ask how translation makes sense for social gerontological research, it may be interesting to examine it in three areas: interconnection, application and influence. These three areas will be discussed later in the paper. The first part of the paper will examine the origins of translational research in medical science and go on to look at two models that modify the approach for use in social gerontological settings.

Translation implies communication and it also implies taking one language or way of thinking and making it understandable in another. So, for current purposes, this includes translating theory into evidence and evidence into practice and practice into innovation, which then folds back into theory.

WHAT IS TRANSLATIONAL RESEARCH?

While translational research is a relatively new field, a common understanding has quickly emerged under the leadership of the National Institutes of Health (NIH) in the United States.

According to NIH (2007):

> … translational research includes two areas of translation. One is the process of applying discoveries generated during research in the laboratory, and in preclinical studies, to the development of trials and studies in humans. The second area of translation concerns research aimed at enhancing the adoption of best practices in the community. Cost-effectiveness of prevention and treatment strategies is also an important part of translational science.

The approach has its roots in bioscience, and most recently has been used to reap the benefits of genetic research. An example of translation into clinical practice, which the NIH has called "from bench to bedside", can be seen in the model produced by the Translational Research Working Group (TRWG) of the National Cancer Institute (NCI) in the United States. Here, it is stated that: "Translational research transforms scientific discoveries arising from laboratory, clinical, or population studies into clinical applications to reduce cancer incidence, morbidity, and mortality". The NCI model shows the interaction between laboratory, clinic and population, which translates into new tools and new applications through a process of feedback between these components.

Figure 1. The NCI model of translational research
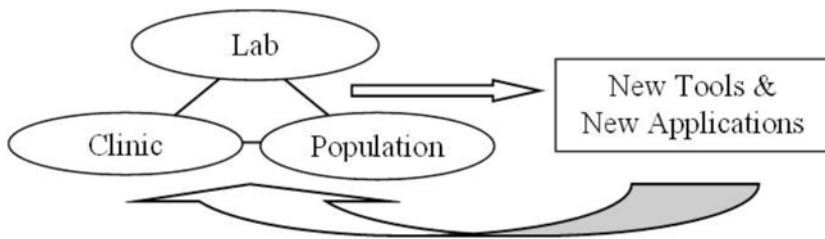
Source: The figure above is based on the model by Hawk (2006).

According to this definition, translational research refers to a "bench-to-bedside" approach, whereby the aim is to translate the scientists' research on the "bench" and the clinical research on a patient's "bedside" into actual medical practice. The end point is the production of a new drug, treatment option or device that can be "brought to the market" (Woolf 2008). There are often significant financial incentives behind the "bench-to-bedside" approach to translational research, and its progress rarely extends to social implications.

The NCI model is further elaborated in Figure 2 to show that there is also a strong linear element to this model, which moves from basic science discovery through to adoption in practice. It lines the relevant disciplines in

a row from bioscience partnerships with industry to clinical trials in health service, through to clinical use and adoption by end users, healthcare providers, patients and the public. It is based on a well-formed ideology of scientific advancement including evidence-based practice and controlled clinical trials.

Figure 2. TRWG translational continuum

Basic Science Discovery	Early Translation	Late Translation	Dissemination	Adoption
• Promising molecule or gene target • Candidate protein biomarker • Basic epidemiologic finding	• Partnerships and collaboration (academia, government, industry) • Intervention development • Phase I/II trials	• Phase III trials • Regulatory approval • Partnerships • Production and commercialization • Phase IV trials – approval for additional uses • Payment mechanism(s) established to support adoption • Health services research to support dissemination and adoption	(new drug, assay, device, behavioral intervention, educational material, training) • To community health providers • To patients and public	• Adoption of advance by providers, patients, public • Payment mechanism(s) in place to enable adoption

TRWG Activity

Source: Reproduced with permission from President's Cancer Panel (2005).

TRADITIONAL TRANSLATIONAL RESEARCH

Traditionally, translational research has had its origins in "blue sky" thinking within "big science". Its take-off has accompanied the growth of bioscience and especially genetic research. It is based on an obvious rationale that "everyone wants a cure for cancer", and a clear ideology of medical progress and for putting scientific discovery to good use. It is also accompanied by significant financial incentives around the development of patents and financial exploitation of the product. The approach rarely extends to the social causes or implications of the identified problem.

In many ways it would have the same aims as social gerontological translation: developing a cadre of specialist researchers, setting up research centres as incubators for new ideas, methods and approaches, and application in applied environments. The differences lie in the way that social science also takes into account how certain understandings of a problem become prominent, the drivers or stakeholders shaping the agenda and the influence of social context on the effective production of solutions.

SOCIAL GERONTOLOGY AND TRANSLATIONAL APPROACHES – TRANSLATING TRANSLATIONAL RESEARCH

So, how can the translational research approach be used in social gerontology? Perhaps the two most developed examples can be found in the Cornell Institute for Translational Research on Aging (CITRA) and the National Initiative for the Care of the Elderly (NICE) based at Toronto University.

The Cornell Institute for Translational Research on Aging (CITRA) definition of translational research draws a picture of collaboration between social science, clinical research and mental health. It unites researchers from Cornell's Ithaca campus with research clinicians in geriatric medicine and human service providers in the five boroughs of New York City. Further, their website states that, "This tie between community based organisations, social scientists, and medical researchers provides a living learning laboratory where research is conceptualised, conducted, and disseminated with continuous feedback from invested stakeholders".

The CITRA approach to translation can be seen in Figure 3. It describes a feedback model including basic theoretical and empirical research, the design of interventions and the analysis of results.

Figure 3. The CITRA approach to translation
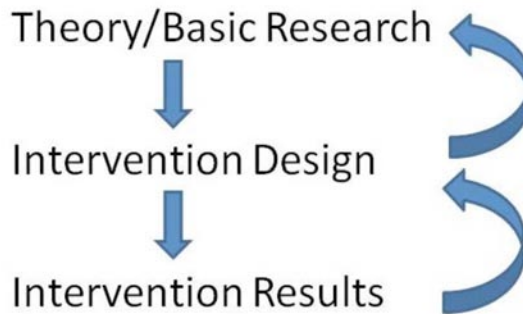
Note: Based on Pillemer et al. (2003)

CITRA's objective, in a broad sense, is to generate high quality research, a dynamic research infrastructure between disciplines and to support partnerships with the health and aged-care industry and community organisations.

The National Initiative for the Care of the Elderly (NICE) model includes "an international network of researchers, practitioners and students dedicated to improving the care of older adults, both in Canada and abroad". "[Their] members represent a broad spectrum of disciplines and professions, including geriatric medicine, gerontological nursing, gerontological social work, gerontology, rehabilitation science, sociology, psychology, policy and law".

The NICE model emphasises networking and knowledge transfer in order to "get good research into practice". It therefore has three main goals: to help close the gap between evidence-based research and actual practice, to improve the training of practitioners in geriatrics and to interest new students in specialising in geriatric care, plus to effect positive policy changes for the care of older adults. This model, in contrast to CITRA, has a nation-wide Canadian remit and emphasises training and continuing education as a central mechanism for taking the evidence-base into practice. The relationship between training and translational research has been emphasised by Rubio et al. (2010).

When compared to the traditional model, these approaches are less linear and more like a spiral, where each level interacts with and is interdependent on feedback from the others. As such they represent a way of operationalising Robert Butler's earlier statements, which attempt to place the analysis and solution of social issues on a firm evidence-base. It is also — and this is where the influence of social science comes in — an attempt to negotiate between different stakeholders and influence wider social and policy agendas. This process is inherently reflexive and relies on effective forms of feedback and interaction between levels.

These models are marked by four elements:

1. Maintaining ties between research and discipline, agencies and localities, which tends to assume interdisciplinary interaction in the process of research. This is typical of the social gerontological endeavour, which tends to emphasise problem-solving approaches on a multidisciplinary basis and de-emphasise disciplinary boundaries.

2. The continuous feedback embedded in research process allows research to inform practice and practice to inform research. When dealing with social issues, the perception and understanding of the implications of research are as important as its scientific reliability and validity, thus requiring close attention to communication.

3. A focus on the interaction of values, beliefs and evidence base. An example of such an interaction can be found within the partner organisation of CITRA, the National Academy for Psychosocial Health on Ageing (NAPHA) at Cornell University. Here, emotional and social problems are premised on a belief in addressing the needs of the whole person focusing on the relationship between professionals, informal caregivers and older adults.

4. Recognising the value of collective knowledge arising from both research and practice, which in social work parlance is often referred to as "practice wisdom". The important point here is that the interaction between research evidence and its application in practice, itself influences and improves educational methods in the service of translation.

THREE SPECIFIC EXAMPLES OF TRANSLATIONAL RESEARCH IN SOCIAL GERONTOLOGY: INTERCONNECTION, APPLICATION AND INFLUENCE

Next we present three examples of the use of translational research in social gerontology, indicating interconnection, application and influence. By interconnection, we refer to creating means of communication and collaboration between different disciplinary groups so that a common language and understanding can emerge. Understanding will include agreement on the problems to be addressed and ability to communicate across boundaries and generate solutions which make sense to stakeholders from different backgrounds. By application, we mean the interaction between an ongoing data collection exercise and the extraction of evidence that is relevant to particular social issues. This organisation of the data is then placed within an interactive means of communication, in this case a publicly available website, where users can examine the influence of different variables on the life chances of vulnerable groups and individuals. By influencing, we refer to the process by which evidence and accumulated wisdom can be used to generate a novel policy agenda. In each, we will describe the initiative, its objectives and tasks, the mechanism used for translation in each context and their outcomes.

The first example focuses on the development of a research culture that can support translational research in social gerontology and comes from the Ageing Research at King's network (ARK) at King's College London, initiated by the first author. The second centres on the application of translational research at the Brotherhood of St Laurence through its interactive website in collaboration with the Melbourne Institute of Applied Economic and Social Research generated by Paul Smyth and Michael Horn. Our third example highlights the use of translational research approach in influencing policy making through the Australian Treasury's Advisory Panel on the Economic Potential of Senior Australians.

Interconnection: The Ageing Research @ King's Network (ARK)

Ageing Research @ King's network (ARK) is "a cross-divisional virtual research group which brings together scholarship and expertise on ageing in several complementary areas. Ageing consists of complex systems at the level of biology, psychology and society. In order to understand the processes of ageing and the nature of old age itself, it is important to bring together learning and research from a number of key disciplines. ARK is uniquely positioned to address the challenges of an ageing world and provide answers."

ARK began as a collaboration between the directors of the Institute of Gerontology, which is principally social science based, and the Wolfson Centre for Age-Related Diseases, which specialises in blue-sky bio-scientific and genetic research. At the time, there was a large amount of age-related research going on within King's College, including pure science, medical, clinical and social research that was disconnected and not presented as a coherent whole. Also, a number of areas, including teaching and learning, practice in the field and research collaboration, were becoming increasingly interdependent. Establishing the ARK network would increase the attractiveness of the College to external stakeholders as a base for stakeholders in research, education and practice. The ARK was developed in the context of increased awareness of population ageing and pressure from research sponsors to form interdisciplinary teams. ARK provided a virtual meeting place for researchers who were already loosely in contact via the Institute of Gerontology contact list. The ARK initiative consisted of four elements: an interactive website for upwards of eight existing research groups, a series of multidisciplinary seminars launched by the Deputy Principal of the College, a doctoral student programme premised on interconnection between students enrolled in different disciplines, and a platform for generating complex research bids drawing on a number of disciplines.

Translation between disciplines really took off when a champion emerged from one of the fields and administrative support was provided. Both of these events allowed the ARK to evolve from a series of structures to a working translational framework. A key factor was collaborative working on

multidisciplinary research bids and attracting a new cohort of doctoral students willing to work across disciplinary boundaries plus shared supervision.

Thus, the objectives and tasks of ARK were to engage in interdisciplinary translational research, bring together fragmented groupings; begin conversations across disciplines; and work towards a common language and identity. Again, this approach is more spiral than linear. It combines a "how-to" mentality with the beginning of an interdisciplinary conversation. The mechanisms used included a website, support from the top, local champions, doctoral seminar series, research council policy, interdisciplinary bids and shared research applications. The outcomes of the ARK network in its first years of existence were to develop a shared research culture, a new cohort of gerontologically informed researchers, a working relationship between bioscience, clinical and social science institutes and a series of combined research initiatives in the areas of mental competency, stroke and ethnicity plus elder abuse, among others.

Application: The Brotherhood of St Laurence's interactive Website on Social Exclusion

The Brotherhood of St Laurence's (BSL) Social Exclusion Monitor is an approach to measure social exclusion in Australia. The monitor was developed with the collaboration of the University of Melbourne and the Melbourne Institute of Applied Economic and Social Research (MIAESR). Since 2008, the BSL and MIAESR had developed a working relationship around a number of initiatives linking large data sets and measures of poverty. A series of projects had evolved addressing social exclusion at different points in the life course. The original data set arising from the nationally representative Household, Income and Labour Dynamics in Australia (HILDA) surveys was divided into seven "domains" of life, including material resources, employment, education and skills, health, social connections, community and personal safety. Twenty-nine components of disadvantage were selected as "indicators of exclusion". These indicators allow the overall level of social exclusion to be measured.

The tasks that the BSL Social Exclusion Monitor has taken upon itself are to produce a user-friendly means of tracking socially relevant data that monitors

social exclusion, and to locate and build a relationship with an academic institution. This is where the link with the HILDA study, a nationally funded initiative, managed by the Melbourne Institute of Applied Economic and Social Research at the University of Melbourne, came into the picture. The HILDA Survey, a household-based panel study started in 2001, collects information annually from a representative sample of Australians about their economic and subjective well-being, their relationship to the labour market and their family dynamics. Since 2008, the BSL Social Exclusion Monitor has been using this data for reports and analysis, the website having become available to the public in 2010.
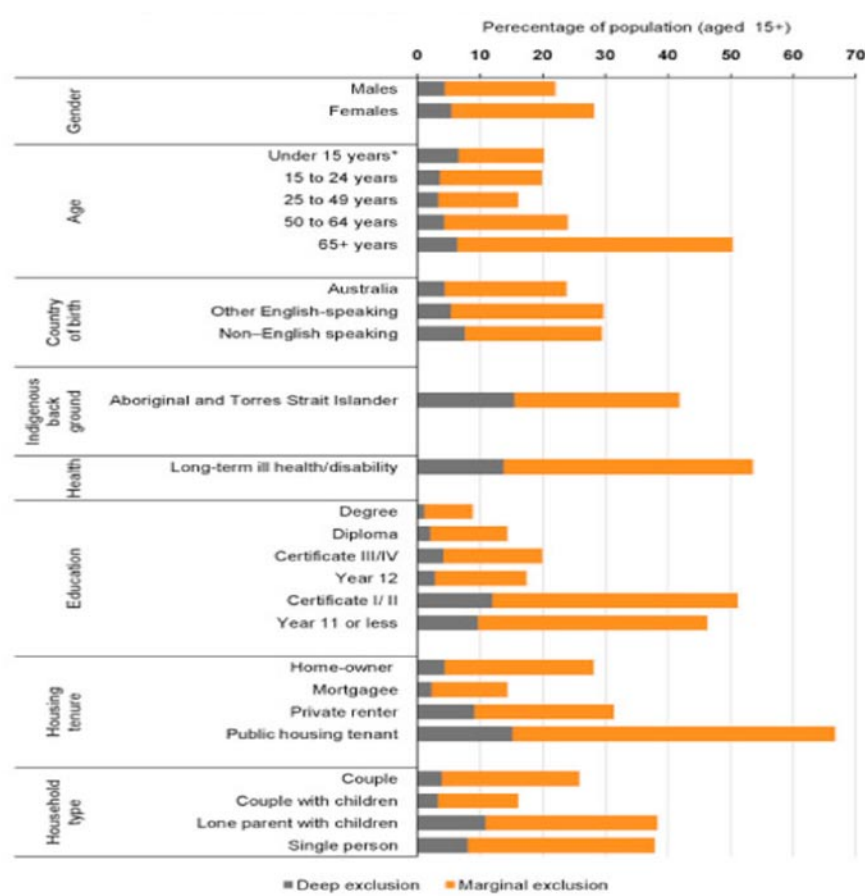
The BSL Social Exclusion Monitor is used to demonstrate how exclusion is an outcome of a variety of overlapping factors, including health, age, housing, education and financial status. It is an ongoing project, whereby the BSL and the academic institutions have a continued research relationship because of its mutual benefits. For the academics, it provides an application and efficient use of existing data. For the NGO, it provides an evidence base for an ethical agenda centring on social justice.

Thus, the objectives of the BSL Monitor were to create an evidence base for non-governmental and not-for-profit organisations, interpret the evidence and to influence agenda, and influence government and inform the public and the policy community. The mechanisms for action included sponsored staff appointments to undertake analysis, creating an interactive website, updating the evidence base and generating newsletters, blogs and other social media usage. The project has received regular board approval and support. The outcomes of the BSL Monitor provide tailored evidence that is then dispersed through the website, a continued research relationship, and a basis for policy influence. It provides a means for increasing communication on socially important issues including retirement and later life, which is made publicly available in a way that presents complex research findings in an accessible manner. The website is often used by government officers, pressure groups and the media as a point of reference.

As an example of the type of the presentation of data in the BSL Social Exclusion Monitor, Figure 4 presents a Monitor webpage indicating key factors in exclusion across the life course. Users can focus in on particular
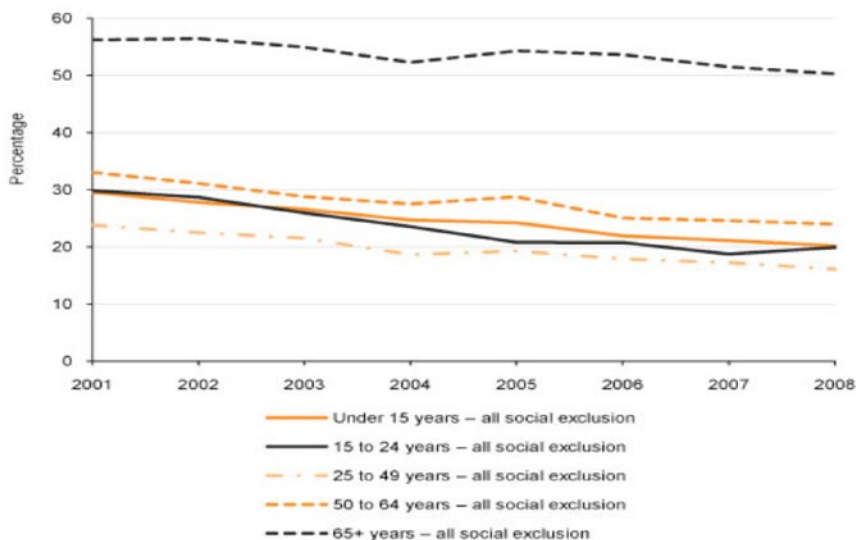
life transitions and factors in exclusion to create their own profiles. Figure 5 demonstrates one of the ways that a user can choose to present data over time.

Figure 4. Social exclusion among selected groups in Australia (2008)

Source: BSL Social Exclusion Monitor website

Figure 5. All social exclusion in Australia by age group (2001–2008)

Source: BSL Social Exclusion Monitor website

INFLUENCING POLICY-MAKING: AUSTRALIAN TREASURY'S ADVISORY PANEL ON THE ECONOMIC POTENTIAL OF SENIOR AUSTRALIANS

In 2011, the Australian Federal Government established the Advisory Panel on the Economic Potential of Senior Australians (EPSA) to "examine how Australia can best harness the opportunities that much larger, and more active, communities of older Australians bring" (The Treasury 2011).

The tasks and objectives of the EPSA series included creating a new policy understanding of population ageing based upon a scientific evidence base. This included interpreting evidence from current gerontological thinking, engaging in a process of public debate and building a policy platform. The mechanisms included the appointment of an expert panel and a series of consultations with key research institutions and subject experts plus

community and industry expert groups. Translation first took place via a series of reports drafted by public servants and based on academic advice. The first was a "scene setter", to encourage debate on the issues. The second report highlighted the barriers facing older Australians and four key areas were identified: preventive health; housing design and the problem of homelessness; participation of older people through work and volunteering and through family and neighbourhood engagement; and lifelong learning extending to self care and the use of information and communication technologies.

The second translational phase, contained in a third report, collated these findings into a series of recommendations to the government. It encourages governments, industry and community organisations to work together to respond to these recommendations and "to re-shape workplaces, communities and society to facilitate the contribution of senior Australians rather than to reinforce outdated approaches that create barriers to their participation and lead to disengagement and social isolation" (The Treasury 2011). The government then responded to the recommendations. Figure 6 shows the front page of one of the reports. The reports were presented in a way that took the latest scientific thinking and translated it into a format that was intended to be both attractive and easy to read. These were used as part of a public consultation exercise.

**Figure 6. Realising the economic potential of senior Australians:
Changing face of society (The Treasury 2011)**
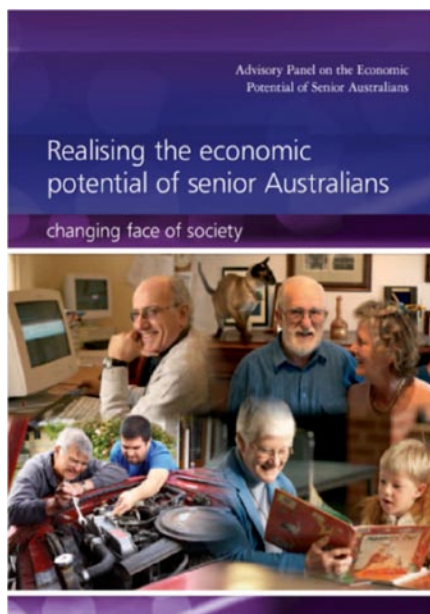
The hoped-for outcomes were to respond positively to the increased numbers of older Australians, provide a holistic overview in response to population ageing and to reposition ageing as a policy agenda. This repositioning intended to emphasise the opportunities rather than the threats arising from demographic change. The reports and recommendations were partially accepted in the 2012 Commonwealth budget. They resulted in the appointment of a minister with special responsibility for ageing, a strengthening of the newly appointed role of commissioner for age-discrimination and measures to increase work force participation and volunteering amongst older adults. While these outcomes clearly reflect global policy trends they do indicate a process whereby social gerontological evidence can be translated into a format that results in a particular interpretation and policy formulation.

SUMMARY AND CONCLUSIONS

In this paper, we have compared a traditional model of translational research with initiatives from social gerontology. The gerontological models emerge as being more interactive and less linear in their structures and broader in their objectives in so far as they often include elements beyond research collaboration and product development. The influence of social science and social problem-solving can be seen in the extension of translational activity to education and training and policy development. We went on to examine three elements of the translation process: one to look at interconnection, second to look at application and third to examine influence. We conclude that social gerontology can learn from the bioscience approach as a means of combining pure research, clinical and social applications but includes an additional factor: the increased awareness of multiple influences in interaction with wider societal phenomena.

Applied Social Gerontology is inherently interdisciplinary and problem-focused. This is often seen as a disadvantage. However, within the context of translational research, these qualities prove to be an advantage.

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7

Translational Research in Social Gerontology in Asia: Bridging the Gap between Research and Practice

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TRANSLATIONAL RESEARCH

Research has traditionally been dichotomised as "basic" (also called "fundamental" or "pure") research and "applied" research. The speculative nature of basic research means that it usually takes decades before its practical usefulness is evident. When it is, it usually represents paradigm shifts in thinking and breakthroughs in scientific applications. "Applied" research based on current or extant state of scientific knowledge usually has immediate or short-term impact in making incremental improvements to current systems, processes or practices.

"Translational research" is born out of a constant refrain in the biomedical sciences about the lamentable gap in translation and long lag-time between a significant basic research finding and its practical applications and impact. The paradigm of translational research in the medical field seeks to move, as quickly as possible, research "from bench to bedside", that is from laboratory experiments through clinical trials onto point-of-care patient applications. Attempts are therefore made to shorten the time lag between the discovery

of a new potentially useful molecule in the laboratory to the first human experiment and trial, although this may by necessity still take more than just a few years, perhaps even a decade or more. The same could not be said of the results of clinical trials and its applications and impact in clinical practice. Not uncommonly, important findings in clinical research fail to make any or only limited impact on clinical practice and outcomes or only very much later, because they were largely ignored by clinical practice that continued unchanged on its own course. There are many examples of widely accepted medical treatments and practices that were abandoned or became obsolete only many decades after the research evidence of their ineffectiveness or even harmfulness first became available.

The barriers that explain these phenomena are many and complex, and will be alluded only very briefly in the discussion below. Suffice to say here, they have been and are being addressed in the recent two decades through movements and initiatives such as evidence-based medicine and practice guidelines (which aims to close the gap between empirical science and clinical practice), and health service research (which aims to close the gap between potential effectiveness, or efficacy, under ideal clinical trial conditions to actual effectiveness under real world conditions of clinical practice as well as the evaluations of economic and social implications of such applications).

Outside the medical realm, watch words like "translational research", "evidence-based practice" and "outcomes research" have spread to the fields of education, behavioural and social science (Brownson et al. 2002). The driving momentum on the whole appears to be the failure of social theories and basic research to be relevant or to address many real world problems of society; and of industry and services to fully appropriate the methods and findings of applied research in the social sciences in advancing the standard and quality of social services. In the field of social gerontology particularly, the past decade has seen an increasing momentum to bridge the gap between basic research and practical programmes that address societal problems of population ageing.

Translational research has become all the more important and relevant for social gerontology in Asian societies, given the facts of their exceptionally

rapid rate of population ageing. The vast differences in cultural backgrounds and societal needs and issues in Asian countries from those in the West mean that culture-bound theoretical assumptions and research findings in the West may not be applicable to elderly Asians. This makes it imperative that original research conducted in Asian older populations should provide a firm basis for policies and practice. Particularly in the area of successful ageing, branded the "new gerontology" (Baltes and Baltes 1990) and hailed as the guiding theme in social gerontology, it is especially important that the search for practical solutions to problems of ageing is based on good science and rigorous research conducted in Asian populations.

APPROACHES AND STRATEGIES

The perception of a disconnection between theory, research and applications has largely driven the push towards translational research in social gerontology. There are two broad classes of translational research cited in social gerontology literature. One is the generic testing of scientific theories in academic research and the applications of research findings in innovative policy initiatives or novel interventional programmes, while evaluating their relevance and applicability in real world situations. This assumes fundamentally that more effective outcomes of policies or programmes will be achieved if there were more practitioner-application of research information in developing theoretically grounded and evidence-based recommendations or interventions. This may perhaps include research findings that debunk entrenched ideas and practices as being ineffectual or perhaps even harmful (something that is not uncommon in medicine). Taking the corollary of "health service research", this may be called "gerontological service research", and it includes policy studies that shape policy thinking, resource allocation and provisions of services, and psychosocial, behavioural and health intervention studies that shape approaches and practices in community service programmes for the elderly.

The other is so-called "action research", which is usually conducted on an established base of extant knowledge and accepted standards of practice, and aims to improve practice and deliver better outcomes. It is increasingly popular to conduct action research involving the partnership of researchers from academic institutions with service practitioners in the research process,

called "participatory action research", or PAR (Israel et al. 2003; Minkler & Wallerstein 2002). As vividly enunciated by Wadsworth (1998), PAR is essentially research that involves all relevant parties in actively examining a current "action" (problem or process) in order to change and improve it. "Participatory action research is not just research which is hoped that will be followed by action. It is action which is researched, changed and re-researched… (iterative cycle) by participants. In PAR, practitioners who are helped are active co-researchers. Academic researchers do not merely try to get practitioners to do what is thought best for them — whether it is to implement a policy or an organisational or service change" (Wadsworth 1998). Proponents of PAR emphasise researchers and practitioners or community, together identifying major issues, concerns and problems, initiating research, taking action, evaluating the action and repeating the cycle of new research and action in a continuous process. Taken as such, PAR is allied to the approaches and settings of hospital clinical quality improvement studies, based on principles of quality management and continual quality improvement (CQI),which have their roots in the ideas of Edward Deming and Joseph Juran. Examples of community-based PAR in gerontology include research that aimed to improve the physical health of older adults (Estabrooks et al. 2005); to enhance screening programmes for problems among older adults and their caregivers (Kaye et al. 2003); and to develop new methods of training the elder care workforce (Cotter et al. 2003).

BARRIERS AND CHALLENGES

Researchers and practitioners in the social sciences often live in different worlds. Studies have shown that there is a measure of indifference or worse, occasional hostility between the worlds of research and practice (Gillan and Schvaneveldt 1999; Levy-Leboyer 1988). In social gerontology, such conflicts appear to be less evident because of a tradition of collaboration and co-operation between the scientific and practice communities (Pillemer et al, 2003). However, the connection between research and practice in social gerontology still leaves much to be desired. It is still not common to see research results being used to guide the design of innovative social interventions and programmes. For translational research to drive advances and progress in social gerontology, multidisciplinary collaboration among

researchers of different disciplines and between researchers and practitioners is essential. Yet, there are well-known barriers and challenges in establishing cross-disciplinary collaboration.

On the researcher side, there is the academic culture that over-values social theories and basic research at the expense of pragmatic field research. Perhaps this is a perversion of Kurt Lewin's famous dictum that there ''is nothing so practical as a good theory''. When building theories "become excessively elitist, obscure and socially marginal", few academic researchers attempt to make their theories and basic research relevant and applicable in the real world, while service practitioners generally believe that research is irrelevant (Seidman 1992, 64).

However, the intellectual counter-culture in the service world is the utter disregard of science or at best a superficial appreciation of scientific methods and findings. Service practitioners fail to find time to be updated on current thinking or the latest research findings. The importance of policies, programmes, products and services that are scientifically grounded on sound theory and good research evidence does not resonate deeply with many policy planners, industry suppliers and service practitioners. This could not be more true than with the "new" gerontology of successful or active ageing, which is particularly vulnerable to the appropriation of "pseudoscience" in promoting "anti-ageing" products and devices, and the relative lack of pragmatic research in guiding innovations, evaluation and re-engineering of services and programmes.

Even if researchers and practitioners are prepared to bring their research ideas for a meeting of minds in the middle ground, there are gaps of reality perception. Outside their laboratories and ivory towers, researchers may be deterred by the very real problems and the costs and expense on the ground in collaborating with practitioners in recruiting subjects, getting space and facilities to conduct the study, informed consent, and others. On the other hand, practitioners who have fervent ideas about practical innovations are rudely awakened to the realities of a sound or rigorous research design, such as the requirements for control group, random assignment, methodical development and testing of measurement scales, lengthy interviews, and costs and resource requirements.

MOVING FORWARD

Develop a Research Culture

Translational research can only flourish in a knowledge-based and innovation-driven ecosystem. A healthy respect for science, creative thinking and an analytical mindset are essential for research and innovation to thrive. The research culture should percolate all arenas of activities, be they in education, training, policy planning and implementation, creation of products and services or day-to-day practice. In this scenario, educators and teachers expose students in social science, engineering and computer sciences to applying scientific research methods to solve real-world problems of societal ageing. Graduated from a research-based education, policy planners, entrepreneurs and service providers are informed and conscious about developing policies, programmes, products and services that are based on good science and good evidence. It should be possible for multidisciplinary groups of social workers, case managers, nurses and therapists to identify real world problems and deficiencies in their elder care facilities, apply "scientific methods" to find solutions, make innovative changes, re-engineer processes and improve outcomes in measurable ways.

Information Exchange and Communications

Social gerontology is a distinctive multidisciplinary field that involves the applications of biology, health science, demography, sociology, psychology, economics, anthropology, political science, engineering and computer science. Translational research calls for collaborations among researchers across different disciplines to share and contribute their special domain areas of expertise and between researchers and practitioners networking together to identify and solve practical problems of societal and individual ageing. A free flow of data and information is requisite for the communication and cross-fertilisation of ideas between the scientific and practice communities. In the context of social gerontology, scientists should help practitioners to understand and apply scientific methods and research findings in their day-to-day work. Practitioners should provide inputs and guidance to scientists and engineers about real world problems and issues of ageing that science and technology can help to solve. Such dialogue and interaction among

researchers and practitioners provide new insights to old problems that generate innovations and changes. For example, in Singapore, the Agency for Science, Technology and Research (A*STAR) Healthcare & Lifestyle Programme regularly organises forums to serve as platforms for doctors, engineers, scientists and industry to meet, network and explore potential collaborations. A recent theme of this forum was "Neuro-Rehabilitation", which focuses on the use of neurotechnology to improve rehabilitative care and assisted and enhanced living for the elderly.

Research Capacity Building and Infrastructure

Capacity building and infrastructural support for translational research in social gerontology is essential. In Singapore, the government plays a dominant role in providing massive funding resources for research and development (R&D) in many areas including innovations and technology in healthcare for an ageing population. It also provides small grant funding for research projects to improve social service delivery and outcomes. Public sector institutes of higher learning provide academic research grant funding for staff and students. There is therefore no lack of public funding support available for research in social gerontology.

There is clearly much scope to vastly expand vertically and horizontally the pool of people who do research in social gerontology. Research scientists and academicians in the health and social sciences, in associations with engineering and computer sciences can focus their collaborative research interest in numerous vital areas of needs of an ageing society, such as system modelling of long-term care for dementia patients, assistive technology for enhanced living, neuro-rehabilitation, active ageing, and so on. Service planners, social workers, case managers, nurses, psychologists and therapists can acquire or upgrade their scientific and research skills to find systemic solutions to problems in their care facilities to which they are familiar with, or dialogue with engineers or computer scientists on "disruptive" technology that change the landscape of aged care and services.

However, for such a scenario to be a sustainable reality, research activities must be "expected, valued and rewarded" n every arena of social gerontology (Closs and Cheater 1994). The incentives and rewards for research scientists

and academicians to pursue active research in ageing-related science and technology tend to follow the scent of the national agenda of research priorities and available research funding opportunities. The incentives and rewards for industry and service practitioners to pursue action research projects that improve the processes and outcomes of care and services are less tangible but no less achievable. Among allied health professionals in the healthcare sector, clinical quality improvement and health service research projects are becoming increasingly common in hospitals, helped in parts by peer expectations, professional status upgrading and promotions, and ample institutional grant funding support. There must be institutional support for practitioners to do research by providing "protected" time for learning higher order research skills and planning and performing service action research projects. In hospitals now, performance appraisal and salary bonuses at individual and departmental levels have begun to be based additionally on research performance scorecards.

To close the loop between research and practice, translational research activities should be complemented by research translation activities. There should be settings and processes for the meeting of minds from the scientific and practice communities to bridge the gap between aging-related research and practice.

A research-practice consensus-workshop model has been described by the Cornell Institute for Translational Research on Aging (CITRA) at Cornell University, which adapted the traditional scientific consensus workshop model to involve practitioners in the process of translation of the research findings into nontechnical language, and applying them to the specific issue such as falls prevention among community-dwelling older adults (Sabir et al. 2006).

Translational research is not a present reality in social gerontology in Singapore. However, the barriers and challenges are not insurmountable. Substantial long-term commitment and investment in infrastructural support and capacity building are required to create the foundation of a sustainable research culture for the enterprise.

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Annexes

Asian Gerontology Experience

**Asian Gerontology Experience (AGE)
Workshop cum Expert Group Meeting:
Capacity Building in Social Gerontology Training
and Translational Research in Asia**

15 – 16 November 2011
Orchard Parade Hotel, Singapore

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Annex 1

Programme

Day One: 15 November 2011 (Tuesday)	
8.30 am – 9.00 am	**REGISTRATION (Welcome Coffee & Tea)**
9.00 am – 9.20 am	**OPENING REMARKS** **Mr Janadas Devan** Director Institute of Policy Studies, Lee Kuan Yew School of Public Policy National University of Singapore, Singapore *and* **Mdm Chua Foo Yong** Board Member Council for Third Age, Singapore
9.20 am – 10.10 am	**KEYNOTE ADDRESS: Social Gerontological Training and Research in Asia** **Ms Thelma Kay** Senior Advisor on Ageing Issues Elderly, Disability and Gambling Safeguards Division Ministry of Community Development, Youth and Sports, Singapore; and Former Director, Social Development Division United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) **QUESTION & ANSWER SESSION**
10.10 am – 10.40am	**Coffee & Tea Break**

Day One: 15 November 2011 (Tuesday)	
SESSION 1A:	**TRAINING AND EDUCATION IN SOCIAL GERONTOLOGY IN ASIA**
	Session Chairperson: **Dr Tan Ern Ser** Associate Professor Department of Sociology, National University of Singapore; and Faculty Associate Institute of Policy Studies, Lee Kuan Yew School of Public Policy National University of Singapore, Singapore
10.40 am – 11.10 am	Paper Presentation 1: **Professor Alfred Chan** Chair Professor of Social Gerontology Department of Sociology and Social Policy; Director of the Asia-Pacific Institute of Ageing Studies (APIAS) and Director of Office of Service-Learning (OSL) Lingnan University, Hong Kong
11.10 am – 11.30 am	1st Discussant for Paper Presentation 1: **Professor *Tri Budi* W. Rahardjo** Director Ageing Research Centre University of Indonesia, Indonesia
11.30am – 11.50 am	2nd Discussant for Paper Presentation 1: **Dr Aline Wong** Academic Advisor President's Office SIM University, Singapore
11.50 am – 12.20 pm	**Discussion Structured With Desired Outcomes (Paper 1)**
12.20 pm – 1.30 pm	**Lunch**

Day One: 15 November 2011 (Tuesday)	
SESSION 1B:	**TRAINING AND EDUCATION IN SOCIAL GERONTOLOGY IN ASIA**
	Session Chairperson: **Dr Tan Ern Ser** Associate Professor Department of Sociology, National University of Singapore; and Faculty Associate Institute of Policy Studies, Singapore
1.30 pm – 2.00 pm	Paper Presentation 2: **Associate Professor Tengku Aizan Hamid** Director Institute of Gerontology Universiti Putra Malaysia, Malaysia *(co-authored paper with Siti Farra Zillah Abdullah, Research Officer, Universiti Putra Malaysia)*
2.00 pm – 2.20 pm	1st Discussant for Paper Presentation 2: **Dr Peggy Hui-Chuan Wei** Professor, Department of Adult & Continuing Education Director, Institute of Educational Gerontology National Chung Cheng University, R.O.C. Taiwan
2.20 pm – 2.40 pm	2nd Discussant for Paper Presentation 2: **Dr Phua Kai Hong** Associate Professor of Health Policy and Management Lee Kuan Yew School of Public Policy, Singapore
2.40 pm – 3.10 pm	**Discussion Structured With Desired Outcomes (Paper 2)**
3.10 pm – 3.40 pm	**Coffee & Tea Break**

Day One: 15 November 2011 (Tuesday)	
SESSION 2A:	**BUILDING RESEARCH CAPACITY IN SOCIAL GERONTOLOGY IN ASIA**
	Session Chairperson: **Professor Gavin W. Jones** Asia Research Institute National University of Singapore, Singapore
3.40 pm – 4.10 pm	Paper Presentation 3: **Professor Helen Bartlett** Pro Vice-Chancellor and President (Gippsland) Monash University, Australia *(co-authored paper with Dr Matthew Carroll, Senior Research Fellow, Monash University)*
4.10 pm – 4.30 pm 4.30 pm – 4.50 pm	1st Discussant for Paper Presentation 3: **Professor Simon Biggs** Professor of Gerontology and Social Policy University of Melbourne, Australia 2nd Discussant for Paper Presentation 3: **Professor Barry Halliwell** Deputy President (Research and Technology) National University of Singapore, Singapore
4.50 pm – 5.20 pm	**Discussion Structured With Desired Outcomes (Paper 3)**
5.20 pm	**END OF DAY 1**

Day Two: 16 November 2011 (Wednesday)	
8.30 am - 9.00 am	**Welcome Coffee & Tea**
SESSION 2B:	**BUILDING RESEARCH CAPACITY IN SOCIAL GERONTOLOGY IN ASIA** *(continued from Day 1)*
	Session Chairperson: **Professor Gavin W. Jones** Asia Research Institute National University of Singapore, Singapore
9.00 am – 9.30 am	Paper Presentation 4: **Mrs Susana Concordo Harding** Director International Longevity Centre Singapore, Singapore
9.30 am – 9.50am	1st Discussant for Paper Presentation 4: **Ms Wang Xiao Yan** Founder and Director *Community Alliance*, China
9.50 am – 10.10am	2nd Discussant for Paper Presentation 4: **Professor Alfred Chan** Chair Professor of Social Gerontology, Department of Sociology and Social Policy; Director of the Asia-Pacific Institute of Ageing Studies (APIAS) and Director of Office of Service-Learning (OSL) Lingnan University, Hong Kong
10.10 am – 10.40 am	**Discussion Structured With Desired Outcomes (Paper 4)**
10.40 am – 11.10 am	**Coffee & Tea Break**

Day Two: 16 November 2011 (Wednesday)	
SESSION 3A:	**TRANSLATIONAL RESEARCH IN SOCIAL GERONTOLOGY IN ASIA**
	Session Chairperson: **Dr Thang Leng Leng** Associate Professor Department of Japanese Studies National University of Singapore, Singapore
11.10 am – 11.40 am	Paper Presentation 5: **Professor Simon Biggs** Professor of Gerontology and Social Policy School of Social and Political Sciences University of Melbourne, Australia
11.40 am – 12.00 nn	1st Discussant for Paper Presentation 5: **Professor Gyounghae Han** Director Translational Gerontology and Retirement Research Center Department of Child Development and Family Studies College of Human Ecology Seoul National University, South Korea
12.00 nn – 12.20 pm	2nd Discussant for Paper Presentation 5: **Dr Giang Thanh Long** Vice Dean School of Public Policy and Management National Economics University; and Researcher Vietnam Development Forum, Vietnam
12.20 pm – 12.50 pm	**Discussion Structured With Desired Outcomes (Paper 5)**
12.50 pm – 2.00 pm	**Lunch**

Day Two: 16 November 2011 (Wednesday)	
SESSION 3B:	**TRANSLATIONAL RESEARCH IN SOCIAL GERONTOLOGY IN ASIA**
	Session Chairperson: **Dr Thang Leng Leng** Associate Professor Department of Japanese Studies National University of Singapore, Singapore
2.00 pm – 2.30 pm	Paper Presentation 6: **Associate Professor Ng Tze Pin** Head Gerontological Research Programme National University Hospital System (NUHS); and Associate Professor Department of Psychological Medicine National University of Singapore (NUS), Singapore
2.30 pm – 2.50 pm	1st Discussant for Paper Presentation 6: **Dr Takao Suzuki** Director Research Institute National Center for Geriatrics and Gerontology, Japan
2.50 pm – 3.10 pm	2nd Discussant for Paper Presentation 6: **Dr Nugroho Abikusno** Associate Professor Faculty of Medicine Trisakti University; and Head for InResAge Center for Community Health and Population Studies Trisakti University Research Institute, Indonesia
3.10 pm – 3.40 pm	**Discussion Structured With Desired Outcomes (Paper 6)**
3.40 pm – 4.10 pm	**Coffee & Tea Break**

Day Two: 16 November 2011 (Wednesday)	
SESSION 3B:	**TRANSLATIONAL RESEARCH IN SOCIAL GERONTOLOGY IN ASIA**
4.10 pm – 4.45 pm	**SESSION 4: GENERAL DISCUSSION ON CAPACITY BUILDING IN SOCIAL GERONTOLOGY IN ASIA AND WRAP UP**
4.45 pm – 5.00 pm	**CLOSING REMARKS** **Mr Janadas Devan** Director Institute of Policy Studies, Lee Kuan Yew School of Public Policy National University of Singapore, Singapore *and* **Mdm Chua Foo Yong** Board Member Council for Third Age, Singapore
5.00 pm	**END OF WORKSHOP CUM EXPERT GROUP MEETING**

Annex 2

List of Participants

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Annex 3

Report on the Asian Gerontology Experience (AGE) Workshop cum Expert Group Meeting:
Capacity Building in Social Gerontology Training and Translational Research in Asia

Ng Kok Hoe[1]

INTRODUCTION

1.   On 15–16 November 2011, the Council for Third Age and the Institute of Policy Studies jointly organised the Asian Gerontology Experience (AGE) Workshop cum Expert Group Meeting. Participants included international and regional experts who explored the theme of advancing social gerontology through education, training, and research. The central message from the presenters was the need to develop knowledge in a way that is relevant to policy and practice, in particular social service and healthcare programming. The strategy for achieving this — translational research — and the challenges it faces became the common thread as participants shared conceptual models, local experiences, and proposals.

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[1] Ng Kok Hoe is a PhD student of the Department of Social Policy, London School of Economics and Political Science. He was attached to IPS over the period 19 September–30 November 2011 while on a LSE-NUS Research Exchange programme for his doctoral research.

2.   In the keynote address, Ms Thelma Kay, Senior Advisor on Ageing Issues, Elderly and Disability Division at the Ministry of Community Development, Youth and Sports and former Director of the Social Development Division at the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), outlined the priorities and challenges facing social gerontology in Asia. She made three key points. First, drawing on her background as the former Director of the Social Development Division at UNESCAP, she highlighted the progressiveness of the thinking on ageing issues at the international level. These can be seen in broad efforts to frame ageing issues, such as the Madrid International Plan of Action on Ageing (MIPAA), which advocated the integration of ageing concerns with social development approaches, as well as more execution-oriented initiatives like the Shanghai Implementation Plan, which covered data-gathering frameworks and NGO participation. Yet progress is uneven at the national level. For instance, social gerontology training often lags behind geriatrics training, particularly in developing Asia. Ms Kay challenged researchers to influence the policy process with their work and to put ageing on the agenda of political entities like ASEAN.

Speakers and participants at the Asian Gerontology Experience (AGE)
Workshop cum Expert Group Meeting in Singapore, November 2011.

EDUCATION AND TRAINING
IN SOCIAL GERONTOLOGY

3.   In a review of over 250 educational institutions, Dr Alfred Chan, from the Asia-Pacific Institute of Ageing Studies at Lingnan University, found that gerontology is still not a common course offering among universities internationally. Where it is offered, teaching often focuses on selected aspects of gerontology, such as biological ageing and care provision, or takes the form of specialisations within other disciplines such as health science and nursing. He called for a new applied social gerontology diploma programme in the Asia-Pacific to prepare professionals for a career in elderly social services. The proposed one-year course should cover life-cycle theory, introductory sociology and policy considerations for ageing societies such as in health, social care and housing. He emphasised the cultural, linguistic, and religious diversity across societies even within Asia, and proposed a flexible modular approach that combined a core curriculum with varied electives that account for the unique ageing experiences of individual societies. In the same session, Professor Tri Budi Rahardjo from Universitas Indonesia shared about past collaborations between the Ageing Research Centre in Indonesia and schools in Loughborough and Oxford to cultivate postgraduate students. She also suggested that educational efforts in future could focus on intersections between social gerontology, medical gerontology and gerontechnology.

4.   Next, Tengku Aizan Hamid, PhD Director and Professor at the Institute of Gerontology in Universiti Putra Malaysia, presented three models of education using the example of Malaysia. First, in terms of gerontological education, Universiti Putra Malaysis has taken the lead by establishing the Institute of Gerontology in 2002 that is currently the only institute of higher learning to offer academic degrees in gerontology in Malaysia. The institute faces the challenge of recruiting students into both the master's and doctoral programmes. The second model is retirement-preparation for mature workers among university staff as well as in private corporations. The training course covers early preparation in areas such as health and spirituality, as well as retraining and skills upgrading for sustaining employment. Third, the institute promotes lifelong learning among older adults through the University of the Third Age, which does not confer degrees but instead provides education

for leisure and personal growth, through courses on topics like nutrition and assistive technology.

5.   The two papers attracted comments from discussants who shared experiences from other countries, such as Singapore. Dr Aline Wong from SIM University, which recently launched a Master of Gerontology course, suggested that the range and delivery of gerontological training should match the target student group. For example, university-based degree courses are more appropriate for managers and leaders in gerontology-related fields, while certificate and diploma courses taught at academies may be more useful for current practitioners and service providers. Professor Peggy Wei from Taiwan's National Chung Cheng University spoke about various forms of educational programmes — academic, practitioner-focused and catering for older learners. She suggested that educational providers for older people should consider their ways of knowing and learning. A proven strategy has been to target those aged 45 and above, segmented by socio-economic profile. Dr Phua Kai Hong from the Lee Kuan Yew School of Public Policy observed that the ageing agenda in Singapore relies heavily on government direction and urged universities to take a more active stance. He pointed out that academics can help to inform policy directions by initiating thinking, and they have important roles not just in teaching and research, but also in service through consultancy and in society at large by providing intellectual leadership and authority.

BUILDING RESEARCH CAPABILITY

6.   Between the presentation and response by Professor Helen Bartlett (Monash University) and Professor Simon Biggs (University of Melbourne & Brotherhood of St Laurence), respectively, two common themes emerged. Firstly, considerable progress has been achieved in gerontological research in Australia over the past decade. The International Year of Older Persons in 1999 and other international developments marked the beginning of a period of capacity building in ageing research at the national level, reflected in strategic papers released in the early 2000s, such as the National Strategy for an Ageing Australia. Prominent efforts include the Building Ageing Research Capacity (BARC) project in 2003 which stimulated collaboration and organised

major national symposia in 2003 and 2006, and the Emerging Researchers in Ageing (ERA) initiative that provides a forum for research students to network and collaborate. Secondly, research development has now reached a stage where it needs fresh impetus. Although there are approximately 30 university-based ageing research centres in Australia today, most are small, have time-limited funding, and do not always work well together. Universities have also faced difficulties attracting enrolment for ageing-specific courses. Professor Biggs suggested that the field of gerontology may itself be growing old and needs to develop a new cohort of gerontologists.

7.   In response, Professor Barry Halliwell, Deputy President of the National University of Singapore, proposed a strategy for advancing the gerontological research agenda in Singapore. For the government, work and productivity are foremost concerns. Therefore, economic arguments are important to promoting gerontological research, not just social arguments. The goal has to be one of developing social, behavioural, economic and technological interventions to delay the average age of infirmity and retirement. Research to identify factors for ageing well can help elderly persons remain in the workforce, control public healthcare expenditure and create new markets and growth opportunities for elderly-related services. This approach can galvanise and energise policy-makers and the research community. Ageing is currently one of five thematic NUS research clusters, with more than 200 researchers from 50 research units coming together through the Virtual Institute for the Study of Ageing (VISA). The key to building ageing research will be the coming together of government, industry and charities, with the university playing a role in the examination of issues and evidence.

8.   Mrs Susana Concordo Harding, Director, Interagency Collaboration Division-Singapore, an initiative of Tsao Foundation, presented the NPO perspective on research capability building in her paper on the International Longevity Centre-Singapore (ILC-Singapore) that was set up by the Tsao Foundation in 1993. ILC-Singapore has been advocating elderly issues and promoting research by sponsoring student awards and hosting visiting experts. She identified as priorities the nurturing of junior researchers to conduct cross-disciplinary and culturally-informed research as well as service evaluation that can be readily applied to enhance programme delivery. Ms Wang Xiao Yan, who heads China-based NGO Community Alliance,

echoed the call to develop a younger generation of researchers. She also pointed out considerations unique to China, such as the importance of public research funding since the government plays a central role in most aspects of public life, and the need to engage local governments that control policy implementation within communities. Both speakers urged researchers to listen to older people's views when developing their research agenda.

TRANSLATIONAL RESEARCH

9.   Professor Simon Biggs opened the discussion on translational research by tracing its roots in bioscience, with the rationale of bringing research "from bench to bedside". Translational research in social science, on the other hand, is a mixture of the moralising advocacy agenda of social agencies and the scientific evidence base that justifies political action. He then presented examples of interconnection, application, and influence in social gerontological research. For instance, the Ageing Research at King's intiative, centred at the Institute of Gerontology, provided a common language, identity and collaborative platform to researchers on ageing from different disciplines. It led to an alliance between bioscience, clinical and social science institutes over time and shared PhD supervision for a new cohort of gerontology researchers. In Australia, the Brotherhood of St. Laurence, an anti-poverty pressure group, collaborated with the University of Melbourne by sponsoring university professors who worked part-time at the Brotherhood. That helped to develop a research culture at the Brotherhood and combined the social kudos of charity work with a hard evidence base. One of the outcomes was a user-friendly monitor of social exclusion, which proved to be useful in influencing the government.

10.   In contrast, translational research faces different challenges in developing Asian countries. Dr Giang Thanh Long, Vice Dean at the School of Public Policy and Management in Vietnam's National Economics University, shared that from his experience in Vietnam, the first challenge is to produce high quality and timely research. Developing Asian countries often have limited financial and human resources. Since 1995, there have only been about 40 papers published on ageing in the country. The pace of ageing research is lagging behind the pace of population ageing in the region. The second

challenge is for the research to reach policy-makers. Many policy-makers perceive researchers to be academic instead of practical, and do not pay attention to their work. The government also tends to prefer simple findings and recommendations instead of theoretical or technical information. In South Korea, one of the forms of translational research has been a range of educational programmes for older people that arose from community-based research collaborations. In her comments, Professor Han Gyounghae from Seoul National University also highlighted opportunities to engage governments and corporations through research by targeting issues that are of mutual interest, such as social isolation and next-generation vehicles.

11.   In the final paper of the workshop, Professor Ng Tze Pin, Co-ordinator at the Gerontological Research Programme at the National University of Singapore, explained that translational social research is borne of the perceived failure of theoretical research to address practical problems, and of the gap between research findings and social service provision. One of the barriers to realising translational research is that academic culture sometimes prizes social theories over more pragmatic field research. This can create an impression of elitism and obscurity, and result in practitioners regarding research as irrelevant. Collaboration between researchers and practitioners may be hampered by the costs of fieldwork associated with research that is closer to the ground, or by practitioners' lack of preparation for the demands of rigorous research. He proposed that advancing translational research would require the development of a research culture. This includes the inculcation of research thinking across all activities, such as education, policy planning and service improvement. Research activities must be "expected, valued and rewarded", and translational research activities need to be accompanied by research translation activities. In their responses, Dr Takao Suzuki, Director for the Research Institute of the National Center for Geriatrics and Gerontology, Japan gave examples of translational research in the form of randomised control trials in Japan on the prevention of geriatric syndromes such as falls, incontinence, and dementia, while Dr Nugroho Abikusno, head of InResAge at Jakarta's Trisakti University, reported on a literature review of educational gerontology covering education for older persons, for practitioners and for the public, and called for greater networking in the region.

Question-and-answer sessions at the AGE workshop

CONCLUSION

12.   The AGE workshop provided a timely opportunity to review the progress and challenges in the field of social gerontology in this region, just as ageing issues are gaining increasing prominence in public discourse and policy circles. In the area of education and training, the participants noted an increase in academic degree courses in gerontology in recent years. But it remains a challenge to attract students into the courses. Internationally, it is still more common for ageing-related courses to fall within the curriculum of other disciplines. Efforts to build research capability are well underway in the region, in the form of research centres, research events and even student networks. However, the participants agreed that the research community needs to nurture the next generation of gerontology researchers. In some contexts, pointing out the possible economic benefits of ageing research, such as in helping older adults to stay in the workforce and remain in good health, may persuade policy-makers to give greater support to research

efforts. Translational research that brings knowledge to bear on real world problems will be particularly important as a conduit between academic endeavour, policy concerns, and service efficacy. Much more needs to be done in this respect to develop a culture that embraces research. Academics can contribute by paying greater attention to research translation and to how they can make their work more influential on the policy processes in their societies.

About Council for Third Age (C3A)

Set up in May 2007, C3A promotes active ageing in Singapore. The Council plays a catalytic role in driving the trust towards creating an active ageing culture in Singapore. C3A aims to create a vibrant pro-age Singapore through public education, outreach and partnership – a society where seniors can participate as integral members according to their interests and abilities. With its focus on Lifelong Learning, Social Gerontology and Instilling Optimism on Senior Employability, C3A has developed initiatives to meet the needs of seniors. To cultivate a culture of Lifelong Learning, the Intergenerational Learning Programme (ILP) encourages intergenerational bonding by matching youths and seniors in a learning environment. Through learning, seniors can make new friends and youths can learn character building as well as build confidence communicating with seniors. In order to promote the concept of successful ageing and its importance, Practical Social Gerontology programme (PSG) delivers the curriculum in a palatable manner where seniors can feel ease in learning about topics related to active ageing. Last but not least, C3A encourages seniors to build an optimistic mindset towards employability as staying in workforce can keep seniors connected with the society and acquire a healthy lifestyle. To find out more about C3A's initiatives and programmes, you can visit www.c3a.org.sg.

About Institute of Policy Studies

The Institute of Policy Studies (IPS) was established in 1988 to promote a greater awareness of policy issues and good governance. Today, IPS is a think-tank within the Lee Kuan Yew School of Public Policy at the National University of Singapore. The Institute adopts a multi-disciplinary approach in its analysis and takes the long-term view in its strategic deliberation and research. It studies the attitudes of Singaporeans, and looks at domestic policy challenges across a variety of fields. The Institute bridges and engages its diverse stakeholders through its conferences and seminars, closed-door discussions, publications, and surveys of public perceptions.