

# Development of elderly care services in Hong Kong: challenges and creative solutions

Jean Woo

**Jean Woo** MD FRCP  
FRACP FPPM FHKAM,  
Professor of  
Medicine and Head  
of Division of  
Geriatric Medicine,  
The Chinese  
University of Hong  
Kong, Prince of  
Wales Hospital,  
Hong Kong

*Clin Med*  
2007;7:548–50

**ABSTRACT – Elderly care services in Hong Kong began in the mid-1970s, with health and social services modelled on the UK experience. A major difference is the lack of a well-developed primary care system. As a result, geriatric service has evolved to encompass primary care, to include outreach geriatrics and psychogeriatric support to long-term residential care homes as well as frail elderly people living at home. There is room for innovation in the provision of community care, led by geriatricians, especially in management of chronic disease, incorporating the components of self management and use of telemedicine. Various models could be developed and evaluated to define which best meet the needs of the ageing population. The results would guide future government policy for health and social services for the elderly population in the community setting.**

**KEY WORDS:** chronic disease management, day hospital, elderly care services, telemedicine

## Introduction

Hong Kong was a British colony from the time of the Opium War (1842) to 1997 when it was returned to China, as a special administrative region, without major societal changes. British influence is universally evident, and the health and social care systems are no exception. The first government geriatric unit was established in 1975 in the Princess Margaret Hospital, near Lai Chi Kok, with two wards of 74 beds, followed by the establishment of a geriatric day hospital. The first geriatricians went to the UK for training, and this tradition was maintained even though in later years, trainees also went to Australia, New Zealand, and the USA. Within 25 years, all regions of Hong Kong were served by geriatric teams covering acute, post acute, and rehabilitative inpatient services, as well as day care, specialist outpatients, and community outreach services supporting care homes and the frail elderly still living in their own homes. This was accompanied by rapid development in structured specialist training locally under the auspices of the Hong Kong College of Physicians, and academic pro-

grammes (both undergraduate and postgraduate) in the medical faculties of the Chinese University of Hong Kong and Hong Kong University, together with the establishment of a very active research community. This article describes how Hong Kong met the challenges of an ageing population, initially by following the UK model, but more recently by continuously adapting the health and social services according to local needs in a flexible and creative way, adopting suitable elements of care from all over the world.

## Demography, health and social services, and needs

In 2006, the total population of Hong Kong was 6.97 million, with 12.2% (852,000) aged over 65. This figure is expected to increase by 163% to 26.8% (2,240,000) by 2033. Life expectancy at birth for men is 78.8 years and 84.4 years for women. Health and social services are modelled after the UK. Direct financial assistance is provided in various forms, such that 8 out of 10 elders aged 65 and above receive assistance: 460,901 receiving non means-tested old-age allowance; 52,216 receiving non means-tested disability allowance; and 186,938 receiving means-tested comprehensive social security assistance. In addition, the government subsidises about 90% of elders living in residential care homes for the elderly (RCHE). Approximately 9% of the elderly population reside in RCHEs. Community-based services are also available, consisting of day care centres, and home-based care teams (social and healthcare support). The current government policy is to promote community living and reduce the demand for RCHEs. Primary care is predominantly provided by the private sector (>85%) while hospital services are largely provided by the government (>95%) at very low cost. Healthcare is free for those who cannot afford to pay. The needs of the ageing population are similar to those in developed countries with disease and disability burden from non-communicable disease such as, for example, hypertension, arthritis, stroke, heart disease and hip fracture.<sup>1</sup> Of particular concern is the increasing number of elderly people with dementia.<sup>2</sup>

## Inpatient services

When geriatric medicine in Hong Kong was first established, separate wards in acute hospitals were allocated. Shortly after, increasing pressure for integrated acute service resulted in the abolishment of these wards over a 20-year period. Indeed, during this time when new hospitals started operation, the specialty operated within one medical unit together with other specialties, and no one specialty had dedicated beds. Geriatricians participated in acute takes as other specialty physicians. This ensured that the latest medical technologies were available to all. Due to the pressure on beds, however, the average duration of stay was approximately four to five days, so that the service emphasis became that of stabilising the medical condition and carrying out investigation or procedures, while most of the geriatric care could only be practiced on transfer to a paired non-acute hospital, with average duration of stay of 17–20 days. In some acute hospitals, a geriatric nurse specialist carries out rounds of all new medical admissions and, together with a geriatrician, forms a roving team. Combined ward rounds with the orthopaedic team were also introduced in some hospitals, as elderly patients with fracture may occupy up to half of the female orthopaedic wards. Psychogeriatric services were developed in the 1990s, with close interface with geriatric medicine. In 2000, with evidence of better outcomes of dedicated service units, patients with similar needs were grouped into different cubicles in wards, for example stroke units. Ongoing developments include sections for patients with delirium.

Most acute hospitals are paired with a non-acute hospital where most of the geriatric assessment and subsequent management of elderly patients are carried out by healthcare professionals trained in the care of the elderly. In such settings, service initiatives such as continence, falls and end-of-life care have developed. Rehabilitation medicine and palliative medicine under the Hong Kong College of Physicians were developed in these hospitals, pioneered by geriatricians.

## Accident and emergency service

As a result of underdeveloped primary care services in Hong Kong up to 30% of those attending the accident and emergency (A&E) unit could not be classified as 'emergencies'. Until recently, A&E units were open 24 hours a day and were entirely free. Although referral systems to geriatric outpatients, day hospital, and community services existed, few referrals were made, largely a result of pressure of workload and lack of appropriate training. In recent years, the overwhelming numbers of elderly people presenting with geriatric syndromes resulted in various collaborative services between geriatricians and A&E specialists, such as screening by geriatric teams in A&E, or daily geriatric ward rounds in the A&E observation ward. These initiatives have reduced admissions and have allowed referrals of patients to appropriate community support services. Geriatric emergency medicine is developing and geriatrics training for A&E specialists has also been initiated in the teaching hospital of the Chinese

University of Hong Kong supported by a charitable endowment fund.

## Day hospital

Day hospitals were initially modelled on the UK facilities, but while those in the UK face an uncertain future those in Hong Kong have a vital function as a venue where comprehensive geriatric assessment, investigation, therapeutic trial of treatments, and monitoring of treatment effects can be carried out in addition to the rehabilitative components.<sup>3,4</sup> Their future is secured as no other primary care setting exists where this assessment could be done, and specialist outpatients are too crowded, allowing an average of 10 minutes or less per consultation. As most day hospitals are located in a hospital, access to investigations or specialised treatments, or admissions if indicated, are facilitated. This 'medical' component of the day hospital, in filling the gap in primary care, is not well understood by administrators, and there is constant pressure to move this activity to community centres, minus the medical/nursing component, to allow room for more inpatient beds.

## Outpatients and community service

Geriatric outpatient services began as an arbitrary age-based service, but soon many regions changed to a needs-based service, dealing with problems of the frail elderly patient rather than simple chronic diseases, avoiding multiple referrals to different specialties. As a result, geriatricians needed to continually update their knowledge regarding management of the common chronic conditions such as chronic neurodegenerative disease, heart and lung disease, and osteoporosis and fractures. A striking example of the change is that in the 1980s, few people with dementia were found in specialist geriatric outpatients, and in the 1990s, most were looked after in the psychogeriatric clinic. Now, the capacity of the psychogeriatric service is saturated, and geriatric specialists now see those with cognitive impairment.

In the 1990s, as a result of the increasing flow of patients from RCHes into acute hospitals, the hospital authority started an initiative to send teams of doctors and nurses to RCHes to attempt to reduce A&E attendance and hospital admissions with initially promising results. The shortage of manpower was circumvented through telemedicine.<sup>5–8</sup> This modality of interaction is still used today. The benefit was derailed, however, by the severe acute respiratory syndrome (SARS) epidemic in 2003, after which a fear of infectious disease and close surveillance by the government resulted in a low threshold for hospitalisation for residents with any fever (up to 90% were admitted).

The increasing pressure on hospital services stimulated many new community service initiatives. The Department of Health (DH) set up elderly centres for health education and promotion, offering yearly health screening at low cost. Eighteen visiting health teams for the elderly, including doctors and nurses, were set up to support RCHes. The social welfare sector began to adapt their community centres, to develop day care, dementia day care, and enhanced home care consisting of visits to frail

elderly people by nurses (liaising with hospital geriatricians). Various models of care with evaluation were carried out targeting community management of chronic disease, but in general, the impact on hospital readmission or other indicators of service use has been modest or absent,<sup>9,10</sup> while benefits to patients were more obvious.<sup>11</sup> Recent development in community management of chronic disease in the absence of a well-developed primary care system, include group exercise/activities,<sup>12–17</sup> incorporating the component of self management<sup>18</sup> and drawing on the Wagner model.<sup>19</sup>

Care of the elderly in the community is a major area of the government's current health policy. In the absence of rigid pre-existing structures, there is room for much innovation. An ideal community model of easily accessible centres, consisting of a one-stop service for those with health/social problems using a trained needs-based case manager interfacing with for example hospitals, social services, outreach services, patient support groups, chronic disease management, counselling, and rehabilitation, cutting across all disciplines and organisations could be established. The centres could also include 'wellness' activities to promote healthy lifestyles as well as create self-learning opportunities. Income-generating enterprises that would contribute to self-sustainability, such as for example provision/repair of equipment, employment agency for carers, setting up of neighbourhood skills registry for home repairs/re-decoration could also be explored. Skilful harnessing of existing community resources (volunteers, non-government organisation, DH, social welfare department, hospital authority, community rehabilitation network, and funding from charitable organisations) may allow such models to develop, and to allow cost-effectiveness and cost-benefit analyses in future.

## Conclusion

Geriatric services in Hong Kong have developed rapidly in the past 30 years. There are many problems with resource limitation, increasing demands, and constant competition for resources from other specialties. There are still opportunities, however, for creative solutions to meet the needs of the ageing population, particularly drawing on models successfully introduced in other countries.

## References

- 1 Woo J, Ho SC, Lau E. Care of the older Hong Kong Chinese population. *Age Ageing* 1998;27:423–6.
- 2 Chiu HF, Lau LC, Chi I *et al*. Prevalence of dementia in Chinese elderly in Hong Kong. *Neurology* 1998;50:1002–9.
- 3 Hui E, Woo J, Or KH, Chu LW, Wong KH. A geriatric day hospital in Hong Kong: an analysis of activities and costs. *Disabil Rehab* 1995;17:418–23.
- 4 Lum CM, Hui E, Woo J, Kay RLC, Or KH. Outcomes of elderly stroke patients: day hospital versus conventional management. *Stroke* 1995; 26:1616–9.
- 5 Tang WK, Chiu H, Woo J, Hjelm M, Hui E. Telepsychiatry in psychogeriatric service: a pilot study. *Int J Geriatr Psychiatry* 2001;16: 88–93.
- 6 Hui E, Woo J, Hjelm M, Zhang YT, Tsui HT. Telegeriatrics: a model of care delivery to nursing home residents. *Gerontol* 2001;47:82–7.
- 7 Chan WM, Woo J, Hui E, Hjelm WM. The role of telenursing in the provision of geriatric outbreak services to residential homes in Hong Kong. *J Telemed Telecare* 2001;7:38–46.
- 8 Corcoran H, Hui E, Woo J. The acceptability of using telemedicine for podiatric intervention in a residential home for the elderly. *J Telemed Telecare* 2003;9:146–9.
- 9 Kwok T, Lum CC, Chau HS *et al*. A randomized controlled trial of an intensive community nurse support discharge program in preventing hospital readmissions of older patients with chronic lung disease. *J Am Geriatr Soc* 2004;52:1240–46.
- 10 Kwok J, Lee J, Woo J, Lee TFD, Griffiths S. A randomized controlled trial of a community nurse supported hospital discharge programme in elderly patients with chronic heart failure. *J Clin Nursing*, in press.
- 11 Lee DTF, Lee IF, Mackenzie AE, Ho RN. Effects of a care protocol on care outcome in older nursing home patients with chronic obstructive pulmonary disease. *J Am Geriatr Soc* 2002;50:870–6.
- 12 Hui E, Yang H, Chau LS *et al*. A community model of group rehabilitation for older patients with chronic heart failure: a pilot study. *Disabil Rehab* 2006;28:1491–7.
- 13 Woo J, Chan W, Yeung F *et al*. Community model of group therapy for the older patients with chronic obstructive pulmonary disease: a pilot study. *J Eval Clin Prac* 2006;12:523–31.
- 14 Lau JCK, Woo J, Hui E, Chan WM. Telerehabilitation – a new model for community-based stroke rehabilitation. *J Telemed Telecare* 2004;10: 199–205.
- 15 Wong YK, Hui E, Woo J. A community-based exercise programme for older persons with knee pain using telemedicine. *J Telemed Telecare* 2005;11:310–5.
- 16 Poon P, Hui E, Dai D, Kwok T, Woo J. Cognitive intervention for community-dwelling older persons with memory problems: telemedicine versus face to face treatment. *Int J Geriatr Psychiatry* 2005; 20:285–6.
- 17 Chan WM, Woo J, Hui E *et al*. A community model for care of elderly people with diabetes via telemedicine. *Applied Nursing Res* 2005;18: 77–8.
- 18 Bodeheimer T, Long K, Holman H, Grumbach K. Patient self-management of chronic disease in primary care. *JAMA* 2002;288: 2469–75.
- 19 Wagner EH. Chronic disease management: what will it take to improve care for chronic illness? *Eff Clin Pract* 1998;1:2–4.