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Policy Implications of Population Ageing in Hong Kong in the UN Decade of Healthy Aging

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Abstract

This article explores the societal consequences of population ageing, and how strategies promoted by the United Nations as part of the Sustainable Development goals and the Decade of Health Ageing, may be applied to Hong Kong to respond to the consequences of population ageing. The consequences should not be limited to discourse on non-communicable diseases, but need to include declines in intrinsic capacity or frailty, and how physical and social environments may aggravate or mitigate age-related changes in functioning, as metrics of healthy ageing. This vision involves redesigning health and social care systems, workforce training, a fit for purpose policy and mode of financing with sustainability. There is existing infrastructure on which these changes may be developed, and there are various encouraging initiatives, albeit un-coordinated with questionable financial sustainability. Much more needs to be done along these trajectories of development, at a pace that matches the speed of ageing and the rise in the absolute numbers of the very old. Using the term 'Tsunami' to describe the potential scenario when community response failed to match needs, may well be appropriate and not and expression of ageism.

Keywords: Population ageing; Healthy life expectancy; Health inequality; Healthy ageing; Ageism

Background

It has been estimated by the United Nations that Hong Kong will have the world's oldest population by 2050, with 40.6% aged 65 years and older. The health and social care implications of this demographic change has been discussed among health and social care service providers, mainly in the context of long waiting list for outpatient appointment, insufficient acute and long-term care beds, and long waiting list for residential care homes as well as quality of care. Sporadic papers from academia since 1990 have attempted to draw attention to the need for policy response [1-3]. However, in recent months, this demographic change, together with various reports of dire consequences of lack of help among older adults in the community, have resulted in an increasing number of articles in the media drawing attention to this issue [4]. Currently health and social care for older adults are provided by two separate government departments with separate funding. The Department of Health is responsible for some preventive care in the form of annual health checks for a fee; he Hospital Authority is responsible for outpatients and hospital services, as well as Infirmary care. These services are largely borne by the government, with a very small co-payment, which may be waived if it is not affordable. The Social Welfare Department is responsible for Residential Care Homes and various community centers. The majority of primary care is provided by doctors working in the private care setting. This situation is unlike other developed Asian economies, where financing from insurance, more integration between health and social settings, and a more equitable primary care system are in place [5].

Although Hong Kong is part of China, policies are distinct from China under the one country two systems model. China appears more responsive to what is needed in response to rapid population ageing, such as the setting up of health insurance in urban areas, integrated care for older people; following closely the World Health Organizations recommendations on Integrated Care for Older People [ICOPE]. Furthermore, health equity features in policy documents.

This is surprising since Hong Kong had been governed by the United Kingdom for 150 years, so that one may expect services to follow that of the UK. This was true up till 1997 when Hong Kong was returned to the PRC. The health and social care system and principles remain essentially unchanged, but since then appear to have progressed slowly in response to rapidly changing needs, with an emphasis on maintaining the status quo. There are few studies of changing needs of an

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ageing population and care models. The approach is reactive rather than pro-active in anticipating problems or developing new models. For example, the development of Day Care vouchers was in reaction to long waiting lists for residential care.

One can only speculate on the underlying reasons, such as the existence of wide wealth inequity with the 'elite' being in charge of policy and little understanding of unmet needs. Ageism may also be a factor in fewer health and social care professionals opting for care of older people, and placing an emphasis on the young with well-developed maternal and child health policies, which contributed to the lowest infant and maternal mortality figures and indirectly to the long total life expectancy. A very materialistic approach advocates that since land is cheaper in the Greater Bay area of the PRC, which includes Hong Kong, older people should move to China as cost of living is cheaper as are the costs or long-term residential care.

This article explores the societal consequences of population aging, and how strategies promoted by the United Nations as part of the Sustainable Development goals and the Decade of Health Ageing, may be applied to Hong Kong to respond to the consequences of population ageing.

Population ageing consequences

Hong Kong has the longest life expectancy in the world; but is it accompanied by increasing health span. There is no government data relating to health span. Only statistics on total life expectancy at birth and mortality from various non communicable diseases are available. Sporadic papers from academia provide some approximate estimations. Mortality from NCDs appear to be declining in a recent study, largely attributed to anti-smoking legislation [6], and suggested as a cause for increasing life expectancy. However, papers examining health span in various forms generally shown increasing trends of impairments in physical and cognitive function, frailty, and disability [7-10]. Available evidence thus far suggests that total life expectancy at birth is not accompanied by a similar or higher rate of increase in health span. A measure of healthy ageing according to the World Health Organization's definition is healthy/total life expectancy. In Hong Kong the implications of declining HALE/TLE ratio would be an increasing burden of dependency, compounded by the increase in the prevalence of both non-communicable diseases as well as age-related physical and cognitive function impairment-a burden which is increasing faster than predicted from prevalence percentages estimated from chronological age. Absolute numbers of people with dependency may be extrapolated from a study of centenarians over the period 2011-2020: Over half were frail; over 75% had three or more chronic illnesses; over 70% reported marked cognitive deterioration and 40% reported a diagnosis of dementia in the previous 12 months. Only 25% were independent in all activities of daily living [11].

Current healthcare systems and mode of financing are unlikely to be sustainable. The low-cost government subsidized system is responsible for 80% to 97% of hospital care while the private sector is responsible for 70% of outpatient visits. Furthermore, funding to different districts is not determined by population needs. From January 2022 to December 31st, 2022, the median waiting time for specialist consultations vary between 22 to 56 weeks, with the 95th percentile varying between 47 to 95 weeks. It has been estimated that out-of-pocket payment represents 30% of healthcare expenditure, while 20% is met by privately purchased or employer-based insurance schemes [12]. A seemingly equitable health care system that is free to all in need, actually aggravates health inequities for older adults in an ageing population.

Shifting resources to primary care from secondary and tertiary care is a reasonable strategy only if it is not just focused on prevention of non-communicable diseases, but also on 'geriatric syndromes' where the response needs to be a combination of medical and social models [2]. Preventive strategies for the latter will have equal impact on adverse health outcomes and dependency, since these syndromes per se increase hospital and outpatient utilizations [13].

Changing health and social care paradigm (WHO Healthy Ageing concept)

The World Health Organization promoted the concept of healthy ageing in 2015, which emphasized functioning as the outcome rather than the absence of diseases. This paradigm change has been adopted by many countries and endorsed by the United Nations, culminating in the UN designating the ten-year period 2020-30 as the decade of healthy ageing [14]. Metrics have been proposed as indicators of progression towards healthy ageing. These fall under four main areas: Tackling ageism, promoting age-friendly environments, Integrated Care of Older Persons in the community (ICOPE), and long-term care. Different technical working groups in the WHO are developing measurement metrics for each of these areas. For example, for ICOPE, the indicator is measurement of intrinsic capacity, consisting of measurement of each of five domains: sensory, psychological, locomotor, vitality, and cognition [15]. The WHO has already published reports relating to ageism [16], Age Friendly Cities [17], as well as ICOPE [15]. These may be regarded as reference for goals to be attained through various policies. Some of these topics may be regarded as not relevant to healthcare. However, it has been pointed out that older people themselves take a view that ageism exists in healthcare. A study in the US showed that 11% of older adults in the Health and Retirement Study experience some form of discrimination in the healthcare setting [18]. Ageism may occur as acts of commission or omission, with the ultimate result being poor health outcomes for older adults, in terms of increased costs, de-prioritization of resources, poor communication and adherence [19]. Omission as a form of ageism is seldom recognized but may be the more prevalent form with respect to healthcare policies. There are many examples in Hong Kong, particularly during the COVID pandemic, where older people's needs had not been taken into account during restrictive public health measures as well as promotion of mass vaccination [20].

There is a need to include social determinants of health in formulating policies, since social gradient in all healthy ageing outcomes exists [21]. Contrary to the WHO Healthy Ageing Framework, health policies tend to equate health with healthcare services, targeting chronic diseases and adopting a medical approach. Adopting this somewhat narrow approach ignores local findings that social isolation, which may occur in up to 40% of older adults, is related to poorer physical functioning [22]. Small size of living space is associated with increased risk of hypertension [23], while extreme hot weather is associated with rise in suicide rate of older adults [24]. The latter may be mitigated by proximity to social centers [25]. Policy responses to population ageing have failed to consider that age-related physiological decline per se, even in the absence of chronic diseases, may result in physical and/or cognitive impairments leading to dependency and increased use of hospital as well as social services. Analogous to non-communicable diseases, these changes may be detected through community screening programs, followed

by non-pharmacological interventions, with improvements [26,27].

Recognition and management of geriatric syndromes in the community (prevention, health promotion, screening... as for NCDs)

Geriatric syndromes describe a list of conditions encountered in patients as a result of age-related changes, with or without co-existence of chronic diseases. Cellular senescence, giving rise to physiological impairment in homeostasis, results in the clinical phenotype of frailty [28]. Frailty leads to disability, dependency, and mortality. In the past 2 decades, frailty has been established as a condition that may been screened for in the community, that is amenable to intervention, with functional improvements. The body of research so far suggest that it should be managed as for chronic diseases. Health policies need to take geriatric syndromes into account instead of considering only diseases. For example, among 606,392 older adults discharged from hospitals during 2007-2017 in Hong Kong, 4.7% experienced at least one fall within the 12 months post discharge, with one third resulting in visits to the Accident and Emergency Department and two thirds requiring hospital admission. Related annual health care costs has been estimated to exceed USD 26.5 million [29]. Reducing bed rest with various types of physical activity during hospital stay may improve functional capacity and minimize adverse events post discharge [30]. The health benefits of blood pressure control is undisputable in increasing life expectancy. Yet a recent modelling study showed that the decline in hypertension prevalence paradoxically led to a small increase in dementia burden, as a result of more individuals living to older ages [31].

The WHO healthy ageing metric of Intrinsic Capacity [IC] extends this concept of functional measurement, consisting of five domains of sensory, psychological, cognitive, and locomotor function, together with vitality. IC may be regarded as further upstream to frailty measures, since it may be assessed at all ages, showing decline from about age 65 years [32]. The construct of IC has been validated in a longitudinal Chinese cohort [33]. The vitality domain was the strongest predictor of incident frailty, while having high scores on both vitality and locomotor domains was associated with the lowest risk of incident frailty in a longitudinal cohort study of community-living older adults aged 60 years and over [34]. IC impairments were found to be highly prevalent in community-living older adults in Hong Kong (85%), with cognitive domain being the most commonly encountered (71%). IC impairments increased the risk of polypharmacy, incontinence, poor/fair self-rated health, and problems with instrumental activities of daily living [35]. There are social determinants of rate of decline in IC, in addition to occurrence of chronic diseases, suggesting that monitoring of IC in the community may be as important as the current emphasis on screening and monitoring for hypertension and diabetes [36]. Finally, IC is also a predictor of ten-year mortality [37].

Redesigning systems: Possible models

Health and social care systems need to be re-designed towards integrated medico-social models rather than focusing on individual diseases. For example, the recent rise in elderly suicides was commented on in the media, those in the 60+ age group representing 44% of the total number in 2022. A medical/psychological approach to preventing suicides as a mental illness is unlikely to be effective, given that among older adults, the triggers may consist of chronic pain, loneliness, caring for spouse with disability/dementia, poor access to community support and information [38]. Suicides also increase with increase in temperature [25]. Complex interventions are necessary even in the healthcare setting, for improving independent living and quality of life among community-living adults [39].

While detection and intervention for frailty, or assessment for IC and intervention are clearly important as strategies for healthy ageing in response to ageing populations, community management of frailty will vary between countries due to different health and social care systems and financing. International consensus and guidelines provide a direction, but each country/city needs to develop a model that is complementary to existing services, with evaluation of effectiveness [28]. For example, community nutrition and exercise programs have been evaluated in New Zealand using a randomized control design [40]. For such programs to have long lasting effect beyond the duration of the trial, participants need to achieve life style changes [27]. In Hong Kong, such frailty prevention programs have been implemented, shown to result in improvement in physical and cognitive function, but most important of all, has been integrated successfully as a regular program in the community center setting [26]. The WHO concept of integrated care is possible in the Hong Kong setting, since there is a wide network of various types of community centers, who are willing to adopt the ICOPE approach. However, work force capacity building, coordination with health care providers, and funding are challenges that need to be considered [41]. Nevertheless, closer linkages with existing government funded nurse-led district health centers in all the districts could provide an infrastructure for further development. Another example of an integrated model is the combined primary and day care services of the Cadenza Hub, where government health or day care vouchers may be used with come co-payment [42]. The majority of users of the Day Care Section are persons with dementia. Currently community support and care for persons with dementia and their families is inadequate to meet the needs of Hong Kong's ageing population. An affordable community dementia care model has yet to be developed, similar to the Medicare Dementia Care model that enhances care coordination and increase support for caregivers, that has recently been announced in the US [43]. In Hong Kong many community services are provided by non-government organizations, which rely on project funding to various charitable organizations for development. However, it is very difficult to continue such services on a self-financing basis without government funding.

Workforce training

There has been little discussion relating to training of a workforce in response to the needs of populations. To date discourse revolve around the shortage of doctors and nurses, and the shortage of staff working in residential care homes for the elderly. There is no overall vision of what the needs of the ageing population are, nor the type of health and social care workforce that is needed in response to health and social care of populations. For example, in the United Kingdom, a report has been compiled to reflect the state of health and care of older people in England in 2023 [44]. The National Health Service also published a Long-Term Workforce Plan in June 2023 [45]. This is in response to the projection that between 25 and 50% of people aged over 85 will have frailty, compared to around 10% for those over 65. Average public health spending was five times greater for an 85-year-old than a 30-year-old in 2015, and for every 10 years beyond age 70, the risk of admission for an inpatient episode rises rapidly [45]. The plan points out the need to challenge the current specialized approach to medicine which has enabled successful treatment of single diseases, to adopt medical and other clinical professionals with generalist and

core skills to manage and support patients with multimorbidity and frailty. An age-friendly health system needs to include diverse elements of care from teams. For example, the 4M bundle for hospitalized patients supported by the John A Hartford Foundation and the Institute of Health Improvement consists of identifying what matters to the patient, mobility, medication, and mentation [46]. At the medical undergraduate as well as trainees' level, structural and social determinants of health are being incorporated into required curricula [47]. These cover neighborhood and built environments, economic stability, education access and quality (or health literacy), healthcare access and quality, and the social and community context.

A fit for purpose policy, mode of financing and sustainability

The WHO has mapped out a blue print for the approach to healthy ageing as a response to population ageing for all countries during the current UN decade of Healthy Ageing. Policies in response to population ageing need to go beyond health systems alone, to consider the four areas of ageism, age-friendly environments, integrated primary care for older people, as well as long term care. These policies need to be guided by the principle of health equity, included as one of the sustainable development goals. At a joint symposium between the UN and the US National Academy of Medicine, Science and Engineering in May 2023, the four pillars of the UN Decade of Healthy Ageing were re-affirmed and various countries shared examples of how they are moving forward according to these principles. It was pointed out that there were inequities in healthy ageing, and that the cost of ignoring this is huge. Transformation in all systems is needed, adopting a life course approach. It was stated that the opportunities outweigh the challenges. A plea was made to listen to the voice of older people. From preventive to palliative care, services need to be re-aligned around people, incorporating equity in access, choice, psychosocial interventions, social determinants, community and co-production. Changes are needed in various areas: medical education, dealing with services fragmentation, adding an experiential dimension to service quality and safety, reviewing the financing system for under and over servicing, developing effective healthcare usage that may involve new service models, involvement of the community, raising health literacy and empowerment. The Health Minister of Singapore described their commitment to promoting age-friendly living environments, tackling various retirement issues technology to harness productivity, optimizing the pension system and savings, and strengthening primary care. Kuwait described a whole of society approach, to include, continuum of care by establishing ICOPE as a primary care model nationwide with implementation in primary care centers, focusing on needs of individuals receiving care, and the social and environmental factors influencing access to care. A National survey was started to understand the needs of the ageing population.

There is much to be done in Hong Kong. As described earlier, the current response is focused on hospital bed numbers, building more hospitals, increasing the number of doctors and nurses without specifying in what area, and the number of beds in long term residential care (whether in Hong Kong or the Greater Bay area). Lip service is being paid to patient centered care when the system is one of medical dominance, system centric, paternalistic, and ageist by omission in policy/service development. A whole of society approach, following the WHO guide to the four domains of healthy ageing, would be needed. Raising health literacy regarding the ageing process ultimately will reap dividends in behavioral change in lifestyle, that would retard declines in physical and cognitive function, at the same time reducing the incidence of chronic diseases. Supportive social and physical environments, especially in places where people grow old, would mitigate the onset of functional impairments to enable independent living for longer.

Conclusion

Currently Hong Kong is yet to adopt a whole society approach to the consequences of population ageing: Instead, population ageing is viewed as a medical issue around chronic diseases, and as social care issue, in contrast to the WHO's paradigm of healthy ageing. Documenting unmet needs on a regular basis and devising solutions with participation from government, NGOs, and older people themselves, would be needed.

There is existing infrastructure on which these changes may be developed. The widespread network of NGO run community centers, the District Health Centers and their network, involvement of building developers and urban planners, emerging self-financed services and use of government vouchers with copayment following the principles of proportionate universalism in service access, are all encouraging beginnings. Much more needs to be done along these trajectories of development, at a pace that matches the speed of ageing and the rise in the absolute numbers of the very old. Using the term 'Tsunami' to describe the potential scenario when community response failed to match needs, may well be appropriate and not and expression of ageism.

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