

FACTORS AFFECTING TRENDS IN SOCIETAL INDICATORS OF AGEING WELL IN HONG KONG: POLICIES, POLITICS AND PANDEMICS

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Abstract: *Objectives:* To document the trend in a quality of life indicator for the older Hong Kong population as an assessment of the impact of age friendly city policies, political conflicts and the covid-19 pandemic. *Design:* Random telephone survey and collection of government data over four years (2017-2020). *Setting:* Community living older people. *Participants:* People aged 50 years and over. *Measurements:* The Hong Kong Quality of Life Index covering four domains of income security, health status, capability and enabling environment. *Results:* From 2017-9, improvements were seen in various domains in parallel with the adoption of the World Health Organization's Age Friendly City concept by government policy together with a territory wide initiative supported by a major philanthropic organization. However scores of all domains dropped markedly as a result of political conflicts as well as the onset of the pandemic. *Conclusion:* The documentation of the trend in HKEQOL shows that while it may be used as a macro indicator that is able to reflect policies affecting the well-being of older people, it is also able to reflect the impact of societal unrest and pandemics, and that the latter may override the effect of existing ageing policies. It also follows that during social unrest and pandemics, specific policies targeting older people may be needed to maintain well-being.

Key words: Hong Kong Elder Quality of Life Index, age friendly city, income security, capability, health.

Introduction

The Hong Kong population is ageing rapidly, with the proportion of those aged 65 years and above rising from 17% in 2016 to 37% in 2066 with a concomitant fall in those under aged 65 years from 83% to 63% (1). Currently it also has the longest life expectancy at birth in the world (2). This demographic change has impact on health and social services policy and provisions, to meet likely increasing societal burdens (3). The usual discourse focuses on chronic disease and disability burden, together with social and economic impacts arising from disease and disability as well as demands on health and social services, monitored by routinely collected data. Less attention has been placed on the series of desirable goals and policy framework articulated by the World Health Organization, from Active Ageing in 2002 (4) to Healthy Ageing in 2015 (5). The underlying theme of healthy ageing promotion emphasizes the maintenance of function as a goal, rather than the absence of diseases.

The theme of ageing well features in both social and medical discourse, where terms such as successful ageing, followed by active ageing and positive ageing have been used. Inclusion of the views of older adults is an important dimension to be included in the choice of indicators of ageing well, and these may be influenced by culture. Thus in Chinese societies, ageing well includes a caring and productive form of engagement with society, in addition to illness avoidance and independent functioning (6, 7), and is a concept distinct from having a healthy lifestyle (8).

It is clear that achieving the goal of ageing well depends

on multiple domains other than medical and social sectors, and that the use of some societal indicator would be useful to monitor the effectiveness of ageing policies, if any, or the need to formulate such policies. Domains common to indicators that have been proposed include measures of income security, health status, capability, enabling environment, equity and cohesion (9). Although there are common items that are applicable to many countries, such as the Active Ageing Index study carried out in the European Union (10), the Global Age Watch Index comparing 96 countries world-wide (11), and the Ageing Society Index (or Hartford Ageing Index) mainly covering the USA and Europe (12), application of these indices to countries with different cultures and health and social care systems may not be appropriate, especially in the context of intercountry comparisons, and that countries may need to develop their own indicators (13-15). Nevertheless, the adoption of one indicator that has been applied world-wide, such as the Global Age Watch Index, as a first step in the development of an appropriate ageing well indicator for benchmarking purposes by comparison with many other countries in the world would be useful in raising awareness of the need for societal indicators for ageing populations (11).

Thus using the methodology of the Global Age Watch Index commissioned by HelpAge International in 2014, we examined Hong Kong's position in the ranking in relation to 96 countries, in order to inform policy regarding areas for improvement. Although the overall ranking was 24 among 97 countries, some individual sub-domains were ranked very low, such as poverty rate in old age (95th), pension income security (60th), psychological health (79th), social connections (73rd),

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employment of older people (59th), and educational status (47th) (16).

At about the same time, the largest philanthropic organization in Hong Kong, the Hong Kong Jockey Club Charities Trust, initiated a territory-wide project in 2015 to promote the World Health Organization network of Age Friendly Cities (17) through a multi-prong strategy of lobbying policy makers, businesses, and engagement of older people themselves through local district networks (18). Development of age friendly cities is particularly relevant in mitigating health inequalities, which are common among older people (19). The Hong Kong government included the age-friendly cities concept in the Chief Executive's Policy Address in 2016 as one of key themes for different bureaus. In order to evaluate the impact of these initiatives, we incorporated some indicators of age friendly cities that have not been included in the Global Age Watch Index, to form a composite indicator for Hong Kong, the Hong Kong Elder Quality of Life Index (HKEQOL) in 2017. This indicator was compiled yearly from 2017 to 2020, in order to monitor changes and trend of changes in different domains, to inform the effectiveness of policies and community promotion efforts targeting constituent indicators.

Methodology and data collection

The HKEQOL is developed based on the same four domains used for the Global Age Watch Index: income security, health status, capability, and enabling environment. Each domain consists of a variable number of indicators that may be captured from available government statistics. Details of these indicators and the method used are provided in greater detail in the Report on Age Watch Index for Hong Kong 2014 (16). In constructing the HKEQOL, selected indicators suggested by the WHO Age Friendly City Initiative were included (20) while indicators that are not adaptable to the local Hong Kong context, and those where data is not readily available from government sources were excluded. Other locally significant indicators relevant for measuring quality of life in older adults were also included. Details of the adaptation are provided in the Report on Age Watch Index for Hong Kong 2016 and Hong Kong Elder Quality of Life Index (21). In order to measure changes in trend, the total baseline score of the index is set at 100. Each of the four domains were weighted equally with a score of 25. Each indicator within each domain was also weighted equally. To estimate change in subsequent years, the score of each indicator was calculated based on percentage change of value ($\text{New score} = (1 + (\text{New value} - \text{Base value}) / (\text{Base value})) \times \text{weight}$). All indicator values are expressed as positive values so that higher values represent better outcomes. The following indicators were reversed to reflect this: poverty rate, hospitalization, frailty and mental health i.e., $\text{New score} = (1 - (\text{New value} - \text{Base value}) / (\text{Base value})) \times \text{weight}$. The total scores of the index and each domain are computed by summing the score of individual indicators.

Data required for constructing scores were obtained from published government sources, as well as annual telephone survey carried out between April and May by the Telephone Survey Research Laboratory of the Hong Kong Institute of Asia-Pacific Studies of the Chinese University of Hong Kong. Subjective data were collected from telephone surveys of 1200 of the general population aged 50 and above. The telephone numbers were randomly drawn from the residential telephone directories. When there was successful contact, one household member aged 50 or over will be selected as the respondent.

Results

Table 1 shows the scores for each of the four domains together with the indicators used. 2017 was the first year in which the HKEQOL was compiled, and for subsequent comparison a total score of 100 was assigned. An annual report including details of indicators and the source of information was compiled for each of the years 2017-9 (21-23), while the report for 2020 is currently being finalized. Overall there is a trend towards improvement in the total score from 2017-9, with a marked deterioration in total and all domain scores, as well as deterioration in most individual indicators between 2019-2020.

Discussion

This pattern of change reflects the impact of major drivers of HKEQOL: government policies and philanthropy, societal cohesion or conflicts, and occurrence of disasters (natural or otherwise). With respect to policies, under the income security domain, examples include income inequalities and social welfare policies that may mitigate the consequences of such inequalities and poverty within the income security domain, health policies and a system meeting needs of older people, labour, education, leisure and technology policies that cover older people's needs, housing, transport and urban planning policies that constitute the domains of the Age Friendly Cities concept. It is possible that the territory wide Age Friendly Cities Project initiated by the Hong Kong Jockey Club Charities Trust raised awareness among older people themselves, local and central government, as well as policy makers in related government departments such that an 'age-friendly theme' may have been incorporated into policy decisions in different government departments. For example, with respect to income security, although there is no pension system, there exist various allowances for old age, disability, comprehensive social security, low cost rent for public housing, various cash allowances, means tested vouchers for health care, day care and home visits. For 2017-9 the scores for all indicators improved with the exception of preparation for contingency expenses.

Under the health status domain, Hong Kong continue to enjoy the highest life expectancy at birth world-wide, and this indicator continues to improve consistently up till the latest survey. Yet between 2017-9, hospitalization, self-rated health,

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Table 1
 Scores for domain and indicators

Domain and indicators	2017 score	2018 score	2019 score	2020 score	Change (2019-2020)
Income Security	25.00	25.19	25.27	24.73	-0.54
Pension income security	6.25	6.25	6.43	6.52	+0.09
Poverty rate in old age	6.25	6.38	6.43	6.49	+0.06
Satisfaction with financial status#	6.25	6.29	6.32	5.92	-0.40
Preparation for contingency expense#	6.25	6.27	6.09	5.79	-0.30
Health Status	25.00	24.99	23.85	22.06	-1.79
Life expectancy at 60	4.17	4.17	4.25	4.27	+0.02
Elderly hospitalization	4.17	4.22	4.09	4.18	+0.09
Self-rated health condition#	4.17	4.08	3.94	3.65	-0.29
Frailty#	4.17	4.37	4.01	3.41	-0.60
Mental health#	4.17	4.02	3.50	2.72	-0.78
Subjective well-being: Life satisfaction#	4.17	4.14	4.07	3.82	-0.25
Capability	25.00	26.43	27.83	22.82	-5.01
Employment of older people	4.17	4.23	4.31	4.29	-0.02
Educational status of older people	4.17	4.34	4.46	4.58	+0.12
Use of ICT#	4.17	4.06	3.97	4.50	+0.53
Social participation#	4.17	4.45	4.87	2.54	-2.33
Civic participation#	4.17	4.74	5.06	2.84	-2.22
Lifelong learning#	4.17	4.60	5.16	4.07	-1.09
Enabling Environment	25.00	24.37	24.00	23.61	-0.39
Housing#	4.17	3.88	3.93	3.76	-0.17
Satisfaction with public transport#	4.17	3.87	3.79	3.65	-0.14
Physical safety#	4.17	4.17	4.12	3.74	-0.38
Satisfaction with leisure activities and events#	4.17	4.35	4.32	4.31	-0.01
Satisfaction with health services#	4.17	3.83	3.60	4.08	+0.48
Social connections#	4.17	4.27	4.24	4.07	-0.17
Total	100.00	100.99	100.95	93.22	-7.73

Note: individual cells may not sum to total due to scores are presented in 2 decimal places; # Subjective indicators

mental health and subjective well-being indicator showed a steady decline. It has been shown elsewhere that the increasing trend in life expectancy at birth, with concomitant static or declining incidence of chronic disabling diseases (24, 25), has not been accompanied by increased duration of healthy life expectancy. Rather the trend in dependency and frailty appears to be increasing (26, 27), with an increasing societal burden for health and social care that is not being met. Furthermore, existing health and social care systems need to be redesigned to meet the needs of rapidly increasing number of frail older people.

Regarding the domain of capability, during the past 5 years, the age of retirement has been slowly increasing after the government took a lead in raising the retirement age,

followed by various quasi-government institutions. As a result the percentage of older people aged 65 years and over being employed has risen from 11.0% in 2017 to 12.4% in 2020 (28). The Elderly Commission that advises the government on ageing matters also introduced a scheme supported by government grants, to create life-long learning opportunities using schools and universities. Other educational or non-government organizations (NGOs) provided various courses where the fees are subsidized by the government. The latter also provide a great variety of community social activities. However the development of information and communication technology has largely neglected the needs of a significant sector of frail older adults who may not have the physical and cognitive capacities to make use of various devices, nor be able to afford the costs.

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This indicator is the only one in the capability domain to show a deteriorating trend from 2017-9.

Under the enabling environment domain, the age friendly cities movement has generated much activity that is frequently reported in the media, which is reflected by increasing scores in the leisure activities and events and social connections indicators. This is counter balanced by deteriorating scores in housing (rising costs leading to unaffordability; ageing of buildings and poor maintenance); transport (likely increasingly crowded, increasing incidence of system breakdowns); and satisfaction with health services (inaccessibility and crowded inpatient facilities due to demand exceeding supply).

The marked change in scores for 2020 is an illustration of how societal cohesion and natural disasters may override the impact of existing policies, age-friendly or otherwise. Hong Kong had been a British colony from 1841 to 1997, when it was handed back to the People's Republic of China [One country two systems]. The decision was made after a visit to Beijing by the then British Prime Minister Margaret Thatcher in 1984. The colonial government administered Hong Kong with top down policies from the United Kingdom implemented by the Civil Service. Under the post 1997 arrangement, Hong Kong came under the sovereignty of China but maintained its existing local government operations. Nevertheless in the approach to 1997, there was mass emigration due to fear of a living under communist rule. This period of social instability may have accounted for the excess peak in mortality among older men over (29). Since 1997 Hong Kong continued its trajectory in developing as a society predominantly Westernized in outlook, particularly those born after that period, lacking or resisting any national identity with China. These changes culminated in a periods of social unrest in 2014 for 2 months, and a prolonged period starting in June 2019 that became violent with widespread destruction of public and private facilities, involving the use of weapons and triggering police response using tear gas etc. The impact of these events resulted in a major mental health burden of depression and post-traumatic stress (30). Intergenerational and intra family conflicts were frequently observed. Social unrest was halted only by the arrival of the COVID-19 pandemic in January 2020. This brought along a different type of adverse societal consequence other than fear of the disease, as a result of public health disease containment measures. These led to loss of employment, isolation and loneliness, aggravating existing health inequalities (31).

The 2020 survey was carried out after 6 months of social unrest and 4 months of the pandemic, and with few exceptions these two factors likely accounted for a drop in score among many indicators across all domains. Two indicators showed marked improvement: the use of ICT and satisfaction in health services. During the pandemic, the use of ICT markedly increased, as a means for remote socializing, virtual entertainment, online shopping and ordering take away meals, educational events, and receiving healthcare and social support.

The Hospital Authority is the main provider of health care and anyone who had been tested positive received appropriate care promptly either in a hospital or quarantine facility. The deterioration in frailty status was not surprising, since many community and day care centres were closed, all forms of social gathering were severely restricted and outdoor exercise areas were cordoned off.

There are limitations to the study, in that HKEQOL is a composite indicator, and does not represent large scale epidemiological study of older people that is representative of all social economic groups with detailed questionnaire and focus groups. Nevertheless, the domains and indicators used had been derived from various focus groups held worldwide in the development of the Global Age Watch Index as well as the Age Friendly Cities checklist (17). We were also able to incorporate indicators relevant to Hong Kong.

The documentation of the trend in HKEQOL shows that while it may be used as a macro indicator that is able to reflect policies affecting the well-being of older people, it is also able to reflect the impact of societal unrest and pandemics, and that the latter may override the effect of existing ageing policies. It also follows that during social unrest and pandemics, specific policies targeting older people may be needed to maintain well-being.

Conflicts of interest: The authors declare no conflicts of interest.

Ethical standards: The surveys were approved by the Survey and Behavioural Ethics Committee of the Chinese University of Hong Kong and was performed in accordance with relevant guidelines and regulations.

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