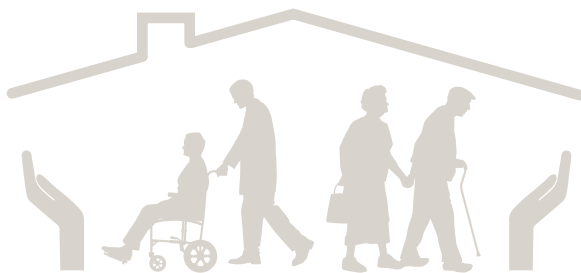


# Big Data, online portals, and community care: the future of elderly care in Hong Kong



In July 2016, Hong Kong overtook the Japanese to become the longest living population on earth. Hong Kongers can now look forward to an average lifespan of 87.32 years for women and 81.24 for men. The territory's infant mortality rate fell to 1.3 deaths per 1,000 in 2015.<sup>1</sup> Even the smoking rate has fallen to 22%, down from a recorded high of more than 45% a few decades ago.<sup>2</sup>

These developments are a testament to Hong Kong's social and economic achievements. But with age comes infirmity, and Hong Kong's global success story over recent decades has also left it at least partially a victim of its own success. Equipped with a shrinking labour force and finite resources, it must meet the needs of a growing elderly population. By 2043, close to two in five (36%) of Hong Kong's population are expected to be 65 or above, and 10% will be 85 and above.<sup>3</sup> By 2064 Hong Kong's median age is expected to rise to 51 and account for about 30% of the total population.<sup>4</sup> This is compounded by the fact that about 30% of Hong Kong's elderly population live below the poverty line.

The financial pressure of an aging population will also affect Hong Kong's broader economy, driving a 21% drop in GDP and a 10% drop in real GDP per capita by 2050 if this situation continues, according to the International Monetary Fund (IMF). As a response, the Hong Kong government remains fully committed to community healthcare, and has substantially increased Hong Kong's financial contribution to residential and home care services. Healthcare spending has risen by 525% since 1990, according to a 2013 paper from Hong Kong Domestic Health Accounts, for instance. But this commitment to public healthcare expenditure will be difficult to sustain, and service users can still expect long waiting times.

How can elderly care be best managed as the numbers of elderly grow and taxpayers decrease? Other advanced economies faced with similar demographic challenges have implemented a range of programmes and pilot projects. **Many of the most successful focus on providing highly personalised community-based care services.** Such services have **two major advantages.** Firstly **they help the elderly remain with family and friends for as long as possible, delaying their largely unwelcome move into residential care.** And secondly, **community-based programmes are much cheaper.** According to Hong Kong government statistics, residential care may be as much as six times more expensive than home or community care.<sup>5</sup>

Hong Kong's elderly care funding still overwhelmingly focuses on residential care. The number of subsidised residential care places is almost double that of community care services, while the elderly institutional rate is estimated to be as high as 6.8%.<sup>6</sup> Clearly, something is missing when elderly patients have to leave familiar surroundings, friends, and family, and move into residential accommodation earlier than they want and at far greater expense to the taxpayer.



## What should we learn from other countries' experiences?

Three elderly care programmes in particular could be of most relevance to Hong Kong. The first, Australia's *My Aged Care* programme, is an online portal based on a consumer directed health care (CDC) approach. Having also been trialled in the US, the UK, and elsewhere, the programme is widely regarded as having successfully improved user satisfaction rates of aged care services.<sup>7</sup> **The CDC approach empowers consumers to make independent healthcare choices, selecting services that are tailored to their individual needs.** In the Australian case, this means the portal acts as a one-stop-shop connecting users with individual case managers who can advise on a full suite of aged care services, ranging from pressure relieving mattresses to telehealth support and with a more flexible schedule.

There is every reason to think that such a system would also work well in Hong Kong. An existing pilot project in Hong Kong, the *Community Care Service Voucher (CCSV)* system, is based on similar lines to *My Aged Care*.<sup>8</sup> Here, elderly residents are given vouchers to purchase community health services of their choice. Though this system does not provide for care managers, positive results and feedback has seen the programme expanded into a second phase.

Another highly effective international programme is **Japan's 2025 vision**.<sup>9</sup> Not surprisingly for a country where the population aged 65 or more now make up more than one-fifth of the population (expected to increase to one-third within two decades), the Japanese government has taken the lead on elderly care.<sup>10</sup> It has taken a localised approach to try and keep the elderly in their own communities for as long as is feasible, providing them with local access to assorted advice and medical care. Still in its early stages and serving only a fraction of its total elderly population through its 4,000 facilities, 2025 vision **will see comprehensive single-point-of-access elderly healthcare and social care provided through localised and comprehensive "total" care provision.** Services include healthcare, long-term support, housing programmes, as well as preventative initiatives and advice on appropriate diet and exercise, and awareness of conditions such as diabetes and dementia.

Thirdly, the *Buurtzorg model*, which was set up in 2006 in the Netherlands. Its founder, an experienced Dutch nurse called Jos de Blok, set up the *Buurtzorg model* (Dutch for neighbourhood care) as a response to the frustration of operating in the Netherlands' fragmented network of healthcare providers in a rapidly aging society. **Small self-governing teams of about 12 nurses work with patients in their local communities to deliver a comprehensive range of home health care services, rather than relying on separate organisations to provide individual services.** Working with much reduced overheads, these nurse were able to better meet patient needs within a significantly lower time frame and cost. The programme's reputation for efficiency and for providing high quality face-to-face care has seen it grow from just a handful of nurses in 2006 to more than 850 teams caring for more than 65,000 patients across the Netherlands. It has also expanded internationally into 24 countries and counting, including Sweden, Japan, USA, and now Japan, Taiwan, and China.<sup>11</sup>

<sup>1</sup> <http://www.scmp.com/news/hong-kong/health-environment/article/1995947/hong-kong-women-and-men-enjoy-worlds-longest-life>

<sup>2</sup> [https://www.tco.gov.hk/english/infostation/infostation\\_sta\\_01.html#a1](https://www.tco.gov.hk/english/infostation/infostation_sta_01.html#a1)

<sup>3</sup> Census and Statistics Department, Baseline Population Projections up to 2064

<sup>4</sup> <http://ourhkfoundation.org.hk/sites/default/files/media/pdf/>

<sup>5</sup> <http://www.budget.gov.hk/2015/eng/pdf/head170.pdf> [https://www.ha.org.hk/haho/ho/pad/161215\\_eng1.pdf](https://www.ha.org.hk/haho/ho/pad/161215_eng1.pdf)

<sup>6</sup> Chui, EWT, 2009. Elderly Commission's study on residential care services for the elderly: final report. China: Elderly Commission.

<sup>7</sup> AMR, 2016. My Aged Care stage one wave 2 research summary of findings. Australian Department of Health.

<sup>8</sup> Social Welfare Department, 2015. Sao Po Centre on Aging, Evaluation Study of the First Phase of the Pilot Scheme on Community Care Service Voucher (CCSV) for the Elderly.

<sup>9</sup> <https://www.hsj.co.uk/topics/technology-and-innovation/japans-integrated-total-care-vision-for-an-ageing-population/5071984.article>

<sup>10</sup> <http://www.ilcjournal.org/agingE/>

<sup>11</sup> <https://www.buurtzorg.com/about-us/>



## Hong Kong's next steps

**Aside from their focus on personalised community-based healthcare, the Australian, Japanese and Dutch programmes all share something else in common: they depend on online portals to consolidate, analyse, and share data, and where services can be coordinated and accessed.** Even with the best efforts of its dedicated teams of nurses, the *Buurtzorg model* depends upon a centralised portal to connect patients and families with caregivers and healthcare professionals, and inform service providers what help elderly patients need and when they need it – before they require residential care. Note that the situation facing Dutch nurse Joss de Blok in 2006 was in many ways similar to the situation facing Hong Kong's fragmented care services and rapidly aging society more than a decade later.

A strategically located pilot programme within Hong Kong replicating the *Buurtzorg model*, or drawing elements from more than one programme, could act as a catalyst for reform of Hong Kong's entire elderly home care system. **Pre-screening data could help form a database which could then help the government track trends and areas of growth, map waiting times, and identify key service areas requiring further support. Associated data analysis could inform policy decisions on the allocation of future funding with a view to developing a financially sustainable community care-based model.**

But for Hong Kong to implement this kind of online system, it would first need to rethink its approach to online data pooling and sharing. As things stand, the Hospital Authority has the largest collection of electronic medical records, but neither non-governmental organisations (NGOs) nor private sector players are required to share patient information and health records. A combination of successful pilot studies, major policy reform, a collection of inputs and ideas from all stakeholders involved, and an ongoing review and assessment of international best practices will all be required if Hong Kong is to develop a centralised and sustainable elderly care platform.

Such a platform is critical to the delivery of high quality, financially sustainable elderly care system, bringing about long-term benefits and structural change to Hong Kong's healthcare system, finances, and also to the elderly themselves. There will be obstacles, however, and strong guidance and resolve will be required throughout the process. Consolidation and access to sensitive patient information would require resolution of other important considerations, notably intellectual property rights and patient privacy issues. The lump sum funding given to NGOs would also need to shift to a more user-centric model where the 'money follows the patient'. This would empower the patient to make more independent (yet still informed) decisions, and would likely result in more efficient and meaningful allocation of funding. Additionally, despite the current dichotomy between public and private sector funding models and levels of service, active engagement of the private sector will be central to the development of a new care model.

Finally, even after the development of a centralised portal, the elderly care environment may look materially different in a decade. Pilot studies will need to be continually carried out, policy decisions strengthened, and innovation encouraged as Hong Kong builds sustainable and effective elderly care services with the well-being of the senior at its very core.



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