ECONOMIST IMPACT

Easing the disease burden in ageing Asia

Implementing integrated healthcare and promoting self-care in China, India, Japan, Singapore and South Korea

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About this report

"Easing the disease burden in ageing Asia: implementing integrated healthcare and promoting self-care in China, India, Japan, Singapore and South Korea" is an Economist Impact report, sponsored by Johnson & Johnson Pte. Ltd. This report aims to examine integrated care in five countries across Asia and explore the integral role of self-care in promoting integrated care within these health systems.

Economist Impact developed a policy traffic light to illuminate the status and progress of integrated care, with self-care as an enabling factor, and conducted in-depth interviews with experts for country-level insights. For a full description of the traffic light see Appendix 1.

Several key experts and stakeholders were engaged in the process. We would like to thank the following individuals (listed alphabetically) who have generously contributed their views and insights for this report:

- Bo-Yung Kim, professor, Department of Saemaeul Studies and International Development, Yeungnam University, Korea
- Etsuji Okamoto, research managing director, National Institute of Public Health, Japan
- Hou Zhiyuan, associate professor, School of Public Health, Fudan University, China
- Liang Di, assistant professor, Fudan University, China
- Monika Arora, director, Health Promotion Division, Public Health Foundation of India

- Nachiket Mor, economist, commissioner on the Lancet Commission on Reimagining Healthcare in India
- Sekyung Park, senior research fellow, Department of Social Services Policy Research, Korea Institute for Health and Social Affairs
- Sun Xizhuo, professor, The Third Affiliated Hospital of Shenzhen University, China
- Woan Shin Tan, senior principal research analyst, Department of Health Services and Outcomes Research, National Healthcare Group, Singapore

Economist Impact bears sole responsibility for the content of this report. This research was led by Gerard Dunleavy and Rohini Omkar. Contributing research analysts included Yogita Srivastava and Jocelyn Ho. The report was written by Paul Tucker and edited by Rohini Omkar. The findings and views expressed in the report do not necessarily reflect the views of the sponsor.

Executive summary

Faced with rapidly ageing populations, and a rise in non-communicable diseases (NCDs) and chronic conditions, countries in Asia have been pursuing an integrated care approach to keep health services effective and sustainable. For some, that has involved a greater emphasis on preventive, community-focused care; stronger linkages between health and non-health services; and enhanced patient empowerment. Despite many improvements, however, progress has been uneven, both within and across countries. Research by Economist Impact assessed progress on the integrated care agenda across five countries: China, India, Japan, Singapore and South Korea. We found vast differences between the leaders and stragglers, as well as gaps and inconsistencies across all five.

One area of particular focus was self-care. It offers health systems a way to make up for their own shortfalls and fill gaps at relatively low cost without placing major additional burdens on healthcare providers. Practised by individuals, families and communities for thousands of years to maintain health, treat illness and manage disability, nowadays self-care is bolstered by a wealth of tools, technology and information available to people.

Our research uncovered the following key factors as integral to the improvement of integrated care:

- **Patient empowerment and self-care**
  Patient empowerment is lacking in many Asian countries. Weaknesses include a lack of overall efforts to improve health literacy (especially among poorer people),as well as limited awareness among patients of the options available to them when navigating health services. In addition, self-care is an under-used tool in the countries we studied, despite its clear utility and relatively low cost.
- **Political will**
  Political backing for integrated care is a mixed bag. Some countries (Singapore being a prime example) dedicated funding and policymaking space 10-15 years ago, putting them on a stronger footing. Elsewhere progress has been made in recent years, with rapid catch-up in some cases. In India, commitments have been extremely limited, and the lack of progress is clear.
- **Implementation**
  Implementation of integrated care and self-care is dependent on two specific areas: a move towards community-based services

and improved data infrastructure. In terms of the former, the countries studied have made great strides in establishing extensive networks of community-care facilities. In terms of data infrastructure, the picture is less rosy, with fully integrated, live-updated Electronic Health Records (EHRs) a rarity. Some countries lack any EHR infrastructure, while others operate numerous systems, split between regions, different public or private providers, and individual facilities. These same fault lines also complicate the flow of financing, hindering the integration of services for individual patients.

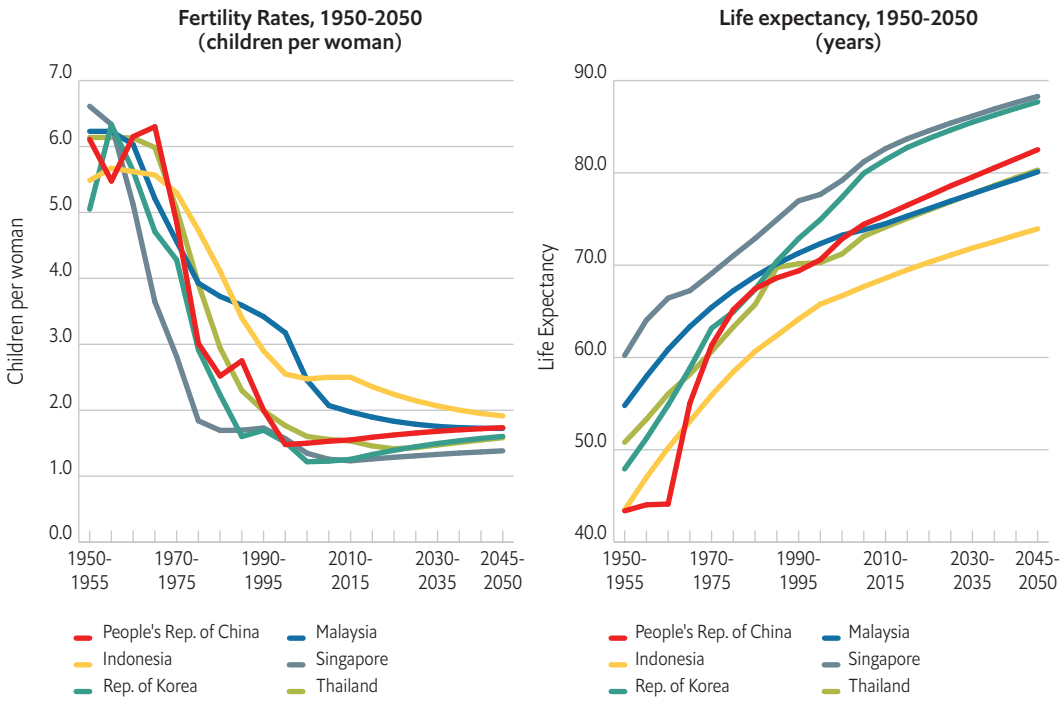
In this report, we detail four key actions that will help countries in Asia to eliminate disparities and fill gaps in terms of integrating care, therefore, preparing their health systems for the increased burden arising from population ageing, rising NCDs and chronic conditions, and, in all likelihood, further infectious disease outbreaks following the COVID-19 pandemic:

- **Carve out a central space for self-care**
- **Educate people about the care continuum and optimal treatment options**
- **Welcome patient organisations as stakeholders in policymaking**
- **Develop robust data infrastructure—namely interoperable, real-time EHRs**

Introduction

It is perhaps unsurprising that over the past 10-15 years, much progress has been made across Asia in terms of modernising public health. The region faced the impacts of infectious diseases long before COVID-19 struck the rest of the world, and it is rapidly catching up with the Western world in terms of population ageing—the proportion of the region that is 60 or over is expected to rise from 12.4% in 2016 to about 25% by

Figure 1: Declining fertility and rising life expectancy in Asia



Source: Asian Development Bank

The proportion of the region that is 60 or over is expected to rise from

12.4% in 2016
to about
25% by 2050.

2050.[1] Accompanying this is a rise in non-communicable diseases (NCDs), chronic conditions and a greater long-term burden on health services.

Many Asian countries have made steps to improve the robustness of public health in recent years by moving towards an integrated healthcare approach, characterised by a greater emphasis on preventive and community-focused care, stronger linkages between health and non-health services (such as local authorities, housing and employment), and enhanced patient empowerment. As research conducted by Economist Impact across five countries shows, however, progress has so far been uneven. Assessed across four domains (governance and accountability, transformation, participation and coordination), the gulf is vast between wealthy Singapore, the leading country in our research, and India, where a hugely fragmented care system results in widespread single-episode

Table 1. Integrated care policy traffic light in five Asian countries

Domain	China	India	Japan	Singapore	South Korea
1. Governance and accountability					
2. Transformation: reorienting care models					
3. Participation: enabling people and communities					
4. Coordination: Integrating services and creating an enabling environment					

Low High

care and out-of-pocket payments, paralysing attempts to integrate care. In between, China, Japan and South Korea all find themselves at different stages. But, to some extent, care delivery remains fragmented across the board.[1] With the health burden set to increase in the coming years, countries must commit to filling the gaps.

One area of integrated care that can potentially bridge the divide between countries in capabilities and healthcare burden, while providing significant benefits for even the wealthiest of countries, is self-care. Self-care as a means to maintain health, and prevent illness and disability, has been practised by individuals, families and communities across the world for thousands of years. Nowadays, the traditional tools of self-care are backed up by a wealth of modern products, information and technologies. Diet, hygiene, exercise, medicine and digital aids make up a vital set of self-care tools that can empower people to take control of their own health, consequently reducing the burden on healthcare systems. All of this has been dramatically demonstrated since COVID-19 first swept across the world, forcing people to adopt rigid hygiene routines, as well as manage their own physical and mental health as both came under a level of strain that has been, for many people, unprecedented. However, with a lack of robust support systems in many places, this has had varied effects on adequately managing one's health.

Yet, we discovered a limited focus on self-care in the countries that we covered. By increasing health literacy, providing up-to-date health advice, and empowering health and social care providers, pharmacies, schools, businesses and a whole range of other stakeholders to support self-care, governments can head off significant impacts from upcoming health challenges. Overall, our research points to three key areas that must be focused on to improve the integration of care:

- Patient empowerment and self-care
- Political will
- Implementation—specifically in terms of moving towards community-based care and improving data infrastructure

Putting people first: ensuring patient engagement and empowerment

Amid the many moving parts that must be accommodated in an integrated health system, those served by it must be its central component. Patient-centredness primarily relates to access: if people do not feel able or welcome to access healthcare services, the system fails, at least for a percentage of the population. It is no coincidence that our study's high-performers, Japan, Singapore and South Korea, are all in the top decile globally when it comes to universal health coverage (UHC), whereas China is in the third decile and India sits in the eighth.[2]

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China is in the 3rd decile and India sits in the 8th

Beyond this fundamental hurdle, there are more complex challenges, including ensuring that people are empowered, both as owners of their own wellness and with regards to the decisions made about their healthcare. On an individual basis, this partly relates to a combination of health literacy and shared decision-making: to what extent does a patient have a say in the decisions made about their care or treatment, and how informed are they about the options at each stage? (The UK's vision for shared decision-making is grounded in the mantra: "No decision about me without me.")[3]

The other way that improved health literacy can empower patients is to facilitate self-care. Self-care behaviours empower people to take control of many aspects of their physical and mental health and wellness, including illness prevention, management of minor ailments, and management of chronic conditions. The self-care tools at people's disposal cover broad areas, including over-the-counter medicines (such as painkillers and drugs for birth control or nicotine cessation), medical devices (such as glucose test kits and blood pressure monitors), vitamin and mineral supplements,

and medicated toiletries (such as dandruff shampoo and skin creams for eczema). In recent years, there has also been a rise in digital tools, such as meditation and anti-anxiety apps, to manage emotional wellbeing.

Bolstered by this rise in health literacy, information availability, and new medical products and technological tools, self-care offers a prime opportunity to put people's health in their own hands. Successful uptake would also be a major preventive tool that would reduce the future burden on health systems by helping to minimise the effect of choices that would otherwise lead to people needing direct care.

Patient empowerment is currently limited

Empowered, educated patients are among the most fundamental assets that a health system can count on to improve health on an individual and population level. Empowered patients are better prepared to manage their own health and are more active stakeholders when they require any form of treatment. Yet, patient empowerment is one area in which all five of our countries struggle to some extent. For example, in three countries (China, South Korea and Singapore), we found no evidence of patient or patient organisation involvement in policy development in recent years, while India, China and Japan also lack national policies related to shared decision-making. With China lacking on both counts, Hou Zhiyuan, of Fudan University's School of Public Health, acknowledges that the role of patients is "limited" in the country. However, Sun Xizhuo, of the Third Affiliated Hospital of Shenzhen University, points to the shift from curative treatment to health promotion represented by the Luohu Model, an approach to people-centred, integrated care in urban settings, pioneered in Shenzhen City in 2015.[4] Dr Sun says that health literacy in patients—which will ultimately empower people— in the region served by this model has improved to the extent that it is now over double the rate reported in the rest of China. However, there is no specific focus in the Luohu Model on shared decision-making involving patients.[4]

Another theme that repeatedly arose in our discussions with experts was a lack of patient awareness about the types of service and the optimal treatment choice available to them. As we will see, the range of services that are available in each country varies; however, in all of the countries we studied, a preference for being treated in hospitals is a cultural aspect that has yet to be overcome—despite the fact that a range of community-based options, including local primary-care clinics, pharmacies and support groups, exist to provide care that is easier to access and often more effective. "Literacy about medical care and health is satisfactory," says Etsuji Okamoto, research managing director at the National Institute of Public Health of Japan, "but when it comes to literacy [regarding] the healthcare system, I don't think most Japanese people understand the system, [or] what an efficient and effective system would be."

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Etsuji Okamoto, research managing director at the National Institute of Public Health of Japan

Figure 2. The Luohu Model

Source: Wang, Sun, Gong et al. The Luohu Model: a template for integrated urban healthcare systems in China.

The solutions to this problem are two-fold, says Dr Hou. "On one hand, we need to educate our residents and improve their health literacy—we aim to change residents' idea that community healthcare centres are not as good as hospitals in big cities. On the other hand, we will strengthen the medical services of community healthcare centres to enhance trust in them."

In India, says Monika Arora, director of the Health Promotion Division of the Public Health Foundation of India, there is little action on health literacy. "There are basic fact sheets and resources" on government health websites, she says. "But in terms of patients being able to understand their condition [or] take responsibility for their own health, that is a concept which has to evolve in the Indian context, and even broadly in Asia."

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Hou Zhiyuan, associate professor, School of Public Health, Fudan University, China

Furthermore, physicians compound the issue as they operate as determined gatekeepers of information, rather than partners in the patient's care. "Many people don't even know what medication they are taking," says Dr Arora. "I feel we need to do a lot on patient engagement, as these gaps are highlighted when I talk to people who have diabetes. I say, 'What medication are you taking? Are you taking Metformin?' [They say] 'I don't know, I take something in the morning.'"

A broader disparity in knowledge—as well as the ability to act on it—is also a major issue in a country like India where many people live in poverty, especially in urban slums. Health messaging tends not to reach the poorest citizens as effectively as it does the middle and upper classes, and even when it does, it can be unsuitable for many people. "When [authorities] give out messages, like [advice to consume] five servings of fruits and vegetables in a day," says Dr Arora, "where are the means for a low-socioeconomic status family to afford those fruits and vegetables? In addition to costs, often exercise outside is not safe in slums, especially for women and girls, and the aspirational nature pinned on many unhealthy products can lead to misconceptions that a diet high in saturated fat and sugar is healthy—[people think] why else would all those wealthy people elsewhere spend so much money on soft drinks and fast food?"

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Self-care is a vital tool

Even the most well-resourced health systems cannot look after everyone all of the time, and it is far better, especially for less well-off countries, that people's need for direct care is minimised as much as possible. Equally, patient empowerment emerges outside of healthcare facilities, and separately to individual treatment journeys. In the same way that empowered patients can make informed decisions about their individual care options, broader health education relating to diet, exercise, hygiene, mental wellbeing and a host of other aspects allows people to be the primary guardians of their own wellbeing, potentially reducing the burden on health services and making vast improvements to their quality of life. Put simply, a population's health begins with self-care, as it not only allows people to manage existing conditions, but embeds illness prevention as a behavioural factor.

The World Health Organization (WHO) has defined self-care as "the ability of individuals, families and communities to promote health, prevent disease, and maintain health and cope with illness and disability with or without the

support of a healthcare provider."[5] The WHO has also stated that the advancement of self-care requires a bottom-up approach, and that its adoption would not only reduce healthcare costs, it could also improve equity in health. As another WHO report points out, "self-care can play a vital role in preventing and reducing underlying risk factors, optimising treatment and managing complications."[6]

Rarely has the benefit (and the necessity) of self-care been so apparent as during the COVID-19 pandemic. People across the world have washed hands, donned face masks, self-isolated, turned to vitamin-rich diets and exercised on a scale likely never seen before in an attempt to head off the threat and effects of both the virus and the secondary challenges, such as the physical and mental impacts of being stuck at home, prevented from accessing health procedures or forced to endure lengthy recovery periods from

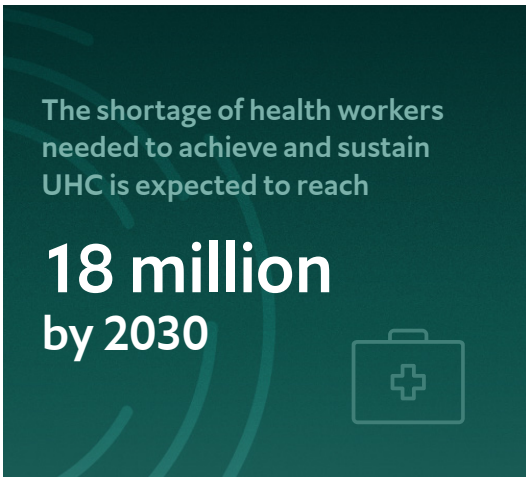
Figure 3. The seven pillars of self-care

Source: The International Self-Care Foundation.

COVID-19. As health systems have feared collapse, populations have acted to look after the health of themselves and others, in the process significantly reducing the impact of a pandemic that would have otherwise killed many more millions of people and left behind a set of health consequences even worse than those that we are being forced to deal with.

In June 2021, as the world continued to exercise self-care in the face of COVID-19, the WHO published a comprehensive set of guidelines on self-care interventions, designed to provide "evidence-based normative guidance that will support individuals, communities and countries with quality health services and self-care interventions based on primary healthcare strategies, comprehensive and essential service packages and people-centredness."[7] These cover pregnancy, childcare and fertility, sexual health, sexually transmitted infections and gynaecological morbidities, and NCDs. In addition, the consolidated guideline provides a conceptual framework for self-care interventions that details the key principles, places of access for help with self-care, the factors that form an enabling environment and areas of accountability (see figure 4).

Demonstrating the important role of self-care, the WHO links it to seven of the 17 UN



Sustainable Development Goals, and points to an expected shortage of 18m healthcare workers by 2030, 100m people plunged into poverty because of out-of-pocket care, and the existing 4.3bn people who have insufficient access to sexual and reproductive health services.[8]

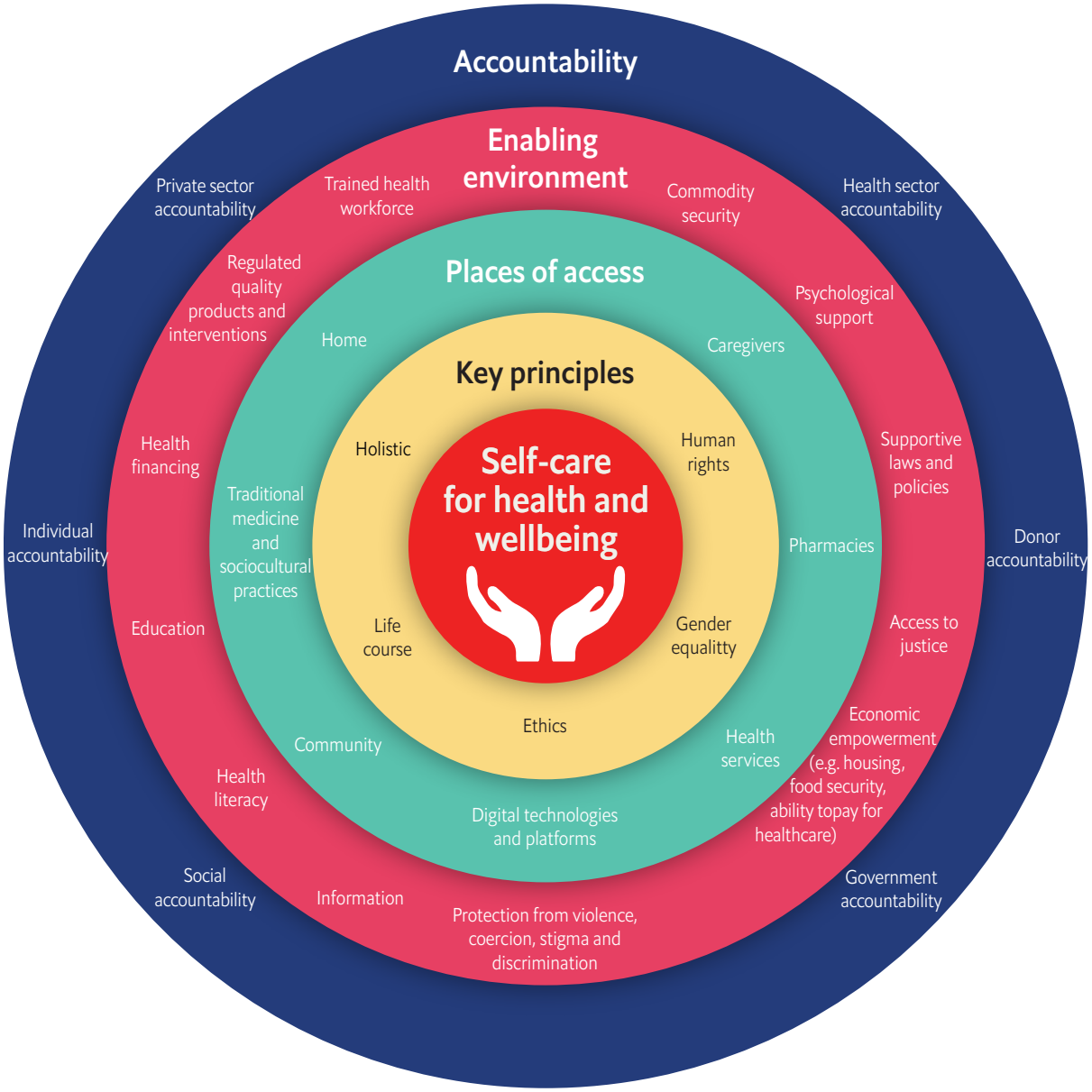
Self-care is under-used

Despite its clear importance as a major public health tool, across the region, attitudes to self-care present a challenge. In Singapore, says Woan Shin Tan, senior principal research analyst in the Department of Health Services and Outcomes Research at National Healthcare Group, one of three public

"Much more effort is needed to educate people about dietary habits, dementia and frailty; these are areas where we can prevent and/or manage well to improve overall health."

Woan Shin Tan, senior principal research analyst in the Department of Health Services and Outcomes Research at National Healthcare Group, Singapore

Figure 4. Conceptual framework for self-care interventions



Source: World Health Organization

healthcare clusters in Singapore says, "much more effort is needed to educate people about dietary habits, dementia and frailty; these are areas where we can prevent and/or manage well to improve overall health. But people say, 'There is a natural process of ageing, so why do I need to eat better? Why do I need to exercise?' So there's a knowledge gap there and a need for a concerted, multifactorial effort to encourage individuals to own their health."

In India, too, Nachiket Mor, an economist and a commissioner on the Lancet Commission on Reimagining Healthcare in India, acknowledges deficiencies in this area. Conversely, however, he points to what he describes as "natural behaviours" among Indians as something to build from, especially in terms of good hygiene. During the COVID-19 pandemic, he says, "it has not been hard to persuade people to wash their hands, for example, or to leave shoes outside the home … Infectious diseases are very much a living part of what we do. It's embedded knowledge." Echoing one of the key principles alluded to in the WHO's conceptual framework, Dr Arora points out that the combination of modern and more traditional health cultures unique to India could be better integrated. "Allopathic, ayurvedic medicine, homoeopathy, neuropathy, they all remain drastically different," she says. "And we need to have a transformational change when we talk about these various systems of medicine … I think we need to look at health not only as medical health, but as social, spiritual, mental and medical components of the health system. So a more holistic approach needs to be adopted."

Ultimately, the sweet-spot that policymakers in any country should aim for is the delivery of integrated people-centred healthcare services combined with effective, informed self-care. And despite challenges, our assessment of these five countries' health systems does demonstrate some consistency with regards to health promotion, even if there is scope for improvement. This suggests that all five countries at least recognise that improved wellness and an enhanced focus on illness prevention will make the road easier to

Where there is political will there is usually a way

navigate, even if the journey might be bumpier for some than others.

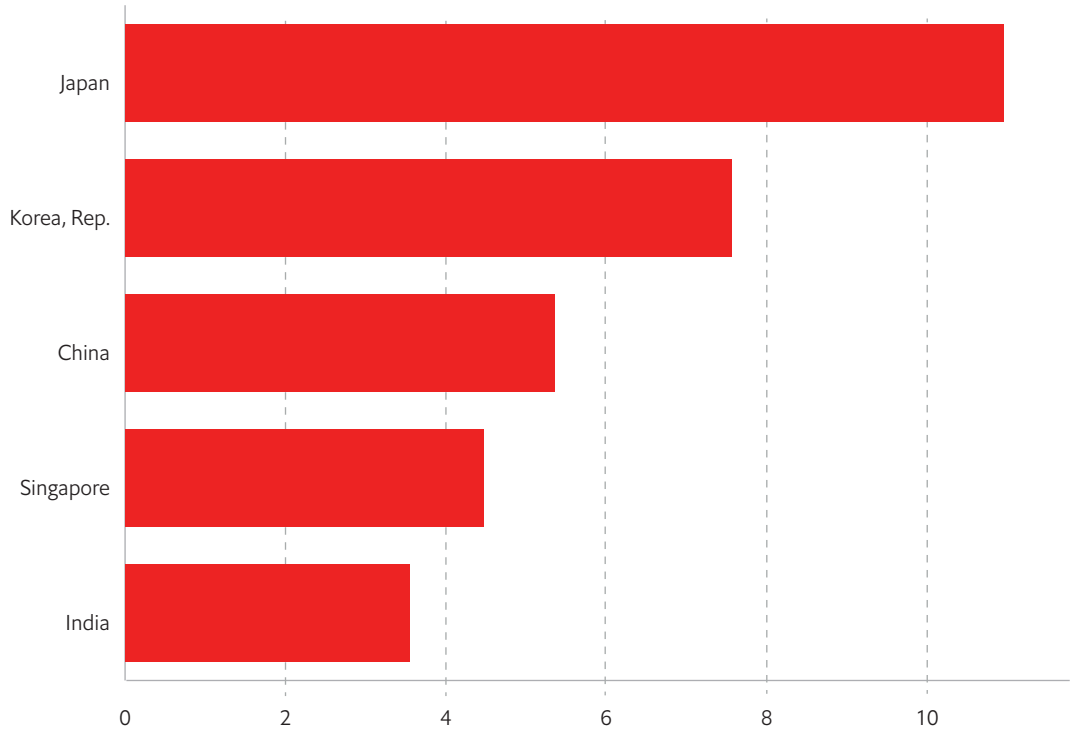
Healthcare modernisation is driven by political will, and integrated care is no different. Government spending on health, as well as policies on care delivery, financing, health education and innovation, forms the bedrock on which a fully integrated, prevention-focused and universally accessible health service—and a health-empowered population—is built. In this sense, Japan and Singapore are already reaping the rewards of a strong commitment to integrated and long-term care.

In many ways, **Singapore** is the benchmark for the region. With the highest GDP per head and smallest population, it is perhaps not surprising that the city state has been able to progress farther than other countries, even while spending comparatively less than other advanced economies on healthcare.[9] However, its early support for integrated care has been equally important. The government set up a specialist body, the Agency for Integrated Care, in 2009, followed by six Regional Health Systems, later reorganised into three clusters.[10, 11] Perhaps surprisingly for a relatively small nation with several large, well-staffed and well-equipped hospitals, Singapore has placed a firm emphasis on the development of community-based services led by community nurses and primary-care clinics.

Spending almost 11% of GDP each year, **Japan**'s government is easily the biggest spender on healthcare.[12] Japan also has the highest proportion of elderly citizens in the world, meaning that the impetus to develop integrated care is strong. Within the Ministry of Health, Labour and Welfare there is a designated body for elderly care, which maintains the long-term care insurance system and develops welfare policies. The country also has a national policy to implement integrated care, and a national system to monitor its implementation, not to mention around 1,700 publicly funded Regional Integrated Care Centres. With relatively high healthcare spending (7.6% of GDP in 2018) and an ageing populace, **South Korea** has clear similarities with Japan.[13, 14] South Korea also has dedicated resources to long-term care for the elderly, including a supplementary long-term care insurance programme and a national policy on integrated care. However, progress is hampered by the fact that the many policies and resources have been managed separately.

India is at the bottom end of the scale when

Figure 5. 2018 healthcare spending (% of GDP)



Source: World Bank.

it comes to political governance. There are national policies to provide services to the elderly and, separately, broader coverage in terms of screening and secondary preventative care for common NCDs, community-centred care, and palliative care.[15] However, India is "not even at the beginning" of the process of moving towards an integrated care approach, says Mr Mor. Patients are largely left to choose and pay for health care on an episodic, out-of-pocket basis, and patient power is largely limited to what Mr Mor describes as a "dysfunctional" situation in which dissatisfaction manifests in anger and threats of violence against healthcare providers.

At a glance, **China**'s situation looks similar to India's—a country with a large, ageing population, geographical spread and urban/rural divide, and a relatively small healthcare spend in GDP terms.[16] In addition, financing for long-term care is not easily available in the public or private sector (notwithstanding the recent entry of some private providers, catering to the middle- and upper-classes), meaning that such services are paid for almost entirely out-of-pocket. However, China has recently made significant efforts to better integrate its health system. The Healthy China 2030 plan, a long-term guideline document announced by the government in 2016, acknowledged the need to improve

efficiency, access and equity. One example of this enthusiasm in action is the embrace by the authorities of the Luohu Model.

Overall, the countries that have committed relatively early or strongly to broad changes to financing and delivery have made the most progress. This goes beyond public spending, as shown by the successes of Singapore and the progress made by China. But, as India demonstrates, tightened purse strings are hard to ignore without the sort of infrastructure that Singapore boasts. However, improvements do not happen without political action, and there are obvious long-term economic and social reasons to invest in a prevention-focused, integrated health service; these should more than counter historical feet-dragging or political short-sightedness.

The great reshaping: implementing integrated care

Once concrete national-level plans and investments have been established, the next stage in developing integrated care is implementation. Given that the shift towards integrated healthcare has only advanced relatively recently (and, in some cases, in an extremely limited fashion) in most of the countries in our study, it is perhaps not surprising that progress on implementation is mixed.

Community-focused care models and multidisciplinary teams are central aspects

At the root of the reshaping of care models is reshaping the workforce, making for a more complicated equation in terms of overall numbers. Singapore has only 2.4 doctors per 1,000 population, for example, yet leads the other four countries in its overall progress.[17] Partly this is because of a dedicated shift towards community-based care and multidisciplinary team (MDT) working, incorporating workers from both within and outside of the mainstream healthcare system.

The picture elsewhere is mixed. Neither China nor India have established MDT structures nationally, although regional models have shown some promise in the former.[18] China's overall commitment to integrated management frameworks is well developed: its medical alliances of regional hospital groups (often including one tertiary hospital and several secondary hospitals) and primary-care facilities provide primary care for patients. Furthermore, the Luohu model ended a higher reimbursement rate for inpatient services and incentivised patients to seek care initially at community health facilities.[19]

Japan is arguably the leader of the pack, with a well-resourced network of Community Care Centres. "We have so many staff," says Dr Okamoto. "Three different professionals, community nurses, social workers and care managers, – that's the policy." South Korea, which, like Singapore, has a relatively low numbers of doctors, is in the process of rolling out its own Community-Based Integrated Care plan, with implementation planned by 2025.[20]

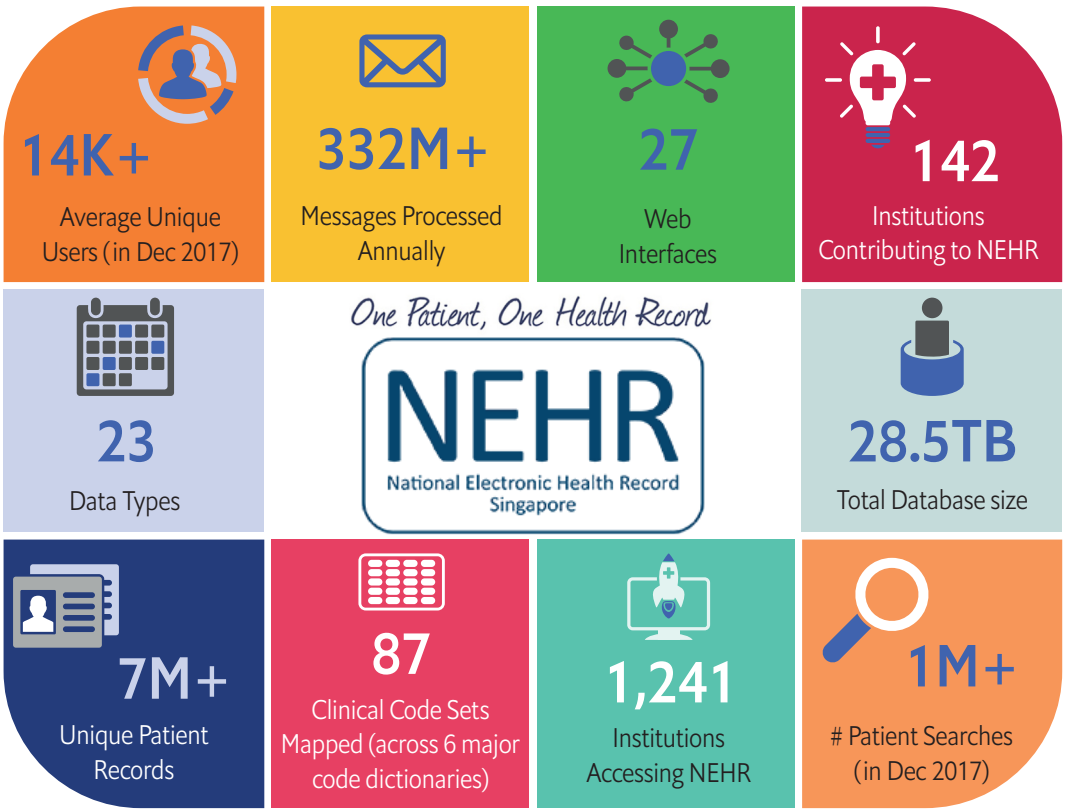
Progress is needed on electronic health records and data infrastructure

Data infrastructure is another key area, and one that requires work on the part of nearly all five countries in our study, to some extent.

Neither India nor Japan has developed a system of electronic health records (EHRs). Although the Indian government published an EHR standard in September 2013, adoption has been slow. Mr Mor points out that often, if a patient record exists at all, it does so in hard-copy form, carried from appointment to appointment by the patients themselves. Although EHRs are used in South Korea, they are generally neither interoperable nor updated in real-time.

Singapore again excels in this area. Since 2011, the National Electronic Health Record has been progressively deployed to both public and private healthcare institutions to support the centralised One Patient, One Health Record programme, which collates over 7m records from different healthcare providers.[21] Singapore also has a well-developed landscape of patient registries.[22] In fact, across all five countries, four (China, Japan, Singapore and South Korea) have patient registries that collect data on interventions and outcomes of chronic and/or geriatric conditions.

Figure 6. Usage statistics for Singapore's National Electronic Health Record in 2017



Source: Ministry of Health of Singapore.

Financing presents a complicated picture

Another challenge for any country seeking to implement integrated care is the integration of financing. Although we found evidence of integrated and value-based financing models in all five countries, our discussions with experts revealed a more complicated picture. This includes the obvious complications linked to out-of-pocket payments and episodic care in India—even while the country operates the Pradhan Mantri Jan Arogya Yojana (PM-JAY) health insurance scheme, which provides cover for secondary and tertiary care to the lowest 40% of the population by income.[23]

Even in Singapore, complications arise from the mixture of public and private insurance and the high involvement of private organisations in care delivery. The impact of this spans top-level administration down to issues such as MDTs working on the ground, which often incorporates team members from a variety of different specialist providers. "The money doesn't flow in the same way across the different providers," says Dr Tan. "So the patient may be faced with different eligibility checks because every service has different criteria."

Countries also need to oversee a shift in incentives to ensure the long-term success of integrated treatment plans and reward positive results. Dr Okamoto is envious of the health maintenance organisation model used in the US, where insurers cover health services for a fixed annual fee, "with the hope that by providing effective disease management they can eventually save the long-term medical care costs." In Japan, he says, "we cannot achieve consensus on how we can measure the quality of care, or, in other words, the outcome."

In both China and Singapore, experiments with bundled-payment models have demonstrated success. In the case of China, they serve to optimise funding flows between hospitals and community facilities, whereas in Singapore the need to involve various providers has necessitated a model that ensures financing covers all aspects of the care continuum.[24]

The flow of funds in a system dictates just how integrated care can be. It is positive, regardless of the challenges and limitations, that each country has developed some form of value-based payment model or reimbursement for integrated care. But gaps and inefficiencies remain.

Leading from all fronts: the multi-stakeholder aspect of driving change

Policymakers, funders and the leaders of health institutions will remain key players amid any push towards integrated care. However, other health and non-health stakeholders will also play a vital role. Leaders in all of these sectors must realise that they will ultimately benefit from helping to drive the rise of integrated health and self-care. They must also work together.

Policymakers

Policymakers overseeing a shift to integrated care must be committed to building strategy for the long term; this could mean making decisions that do not pay off until long after, for example, an electoral cycle has played out. This will require leaders to stake their reputation on the promise of improvements to come—as well as making politically tough funding decisions. However, as shown by the achievements of Singapore on integrated care (and more recent progress in China), strong political commitment to change can be a decisive counter to budgetary limitations—especially when there is significant economic and social evidence in its favour. A key commitment of such a long-term approach is accountability. By laying out clear, progressive targets and measuring success on reaching them, policymakers can demonstrate the value (and ensure the impact) of longer-term strategies.

Health institutions

Leaders working in health institutions—whether overarching organisations such as large hospital groups or smaller, community-level facilities—are responsible for the local and grassroots implementation of plans to integrate care and drive up adherence to self-care. They must implement and manage effective data infrastructure, and enhance the visibility of the public health sector. In the latter case, this should include ensuring that health institutions educate people about how best to navigate their own care—including through self-care, where appropriate. Within health institutions, healthcare workers, especially clinicians, have a responsibility to practice prevention-focused care and educate patients about how to maintain their wellbeing.

Community networks

These include local and disease-specific advocacy groups and patient organisations. If empowered, they can educate and inform. Health information can also be validated by trustworthy individuals and community organisations—charities, citizens' advice organisations and local religious leaders, for example—thus bridging gaps between health institutions and the people that they serve.

Industry

Industry leaders can work with funders and policymakers to spread information and support service provision where appropriate. This offers health services and communities much-needed support, while also aligning industry with the drive towards integrated, preventive care. In addition, private-sector firms have a unique opportunity to expand and support research and development (in the sector technology as well as in health), and to boost knowledge and uptake of self-care.

Non-health institutions

Non-health-sector organisations have a clear role to play—and benefits to gain—from taking a leadership role. Employers, by providing health information and services (such as flu vaccinations or access to counselling, for example), gain from a healthier, happier and, ultimately, more productive workforce. Similarly, by ensuring access to adequate housing, jobs and education, local authorities reduce the burden on health and social services. Finally, media and communications organisations can become leading providers of quality health guidance and updates, in the process boosting their own reputation as trusted information outlets.

Conclusion: every gap is an opportunity

Despite clear differences and disparities in a range of areas, integrated care is being actively pursued in all of the countries that we studied. Even while Singapore performs well on our assessment of steps taken to commit to and implement integrated care, Dr Tan told us that the results are not yet definitive when outcomes are assessed; this is still work in progress, she said, with much more to be done. This demonstrates the need to take a long vie…w towards establishing integrated healthcare within a country's health system—which hinges on investing in the country's people and enabling a culture of self-care.

Equally, as Mr Mor suggests, there are enough positives amid the challenges that even seemingly major barriers can be regarded as areas for action. "[In India] we have some advantages. We have enormous access to modern technology that other developing countries don't have. We have the ability to manufacture our entire gamut of medicine. We have enormous engineering capacity." He acknowledges the gaping lack of monetary commitment from the public and private sectors. "But again, I see it as an opportunity."

"Where is the US$20bn health system in India, the corporate-owned, integrated health provider? There isn't one—our largest barely crosses maybe a billion. Right now, that's a gap. But I see it as an opportunity."

Nachiket Mor, economist and commissioner on the Lancet Commission on Reimagining Healthcare in India

Political will is clearly a must for any systemic injection of new impetus into a health system. But if governments cannot see the benefit for themselves, they must be shown how investments will be implemented for the long-term economic, public health and social health of their country, even if benefits do not materialise immediately. It is also true that while differing approaches will be needed for individual countries, there are certain fundamental factors to operating integrated care successfully within any health system. With this in mind, we have identified four areas that we believe offer scope to further the progress of integrated healthcare in all the countries that we studied.

- **Carve out a central space for self-care**
  In many ways, individual and population-level health begins with self-care. Whether through diet and exercise, hygiene practices, help-seeking or knowledge about medical self-management, self-care helps to ensure that people are physically and mentally fitter, more empowered and less likely to require direct involvement with the health system, thus easing the overall burden. A sound self-care ecosystem, backed by input from stakeholders in the public and private sector, including healthcare professionals, government agencies, community pharmacists and patients, is vital. Ultimately, the delivery of integrated, people-centred healthcare becomes much easier in even the most challenging of environments if the people served are largely able to manage their own wellness.

- **Educate people about the care continuum and optimal treatment options**
  Implementing integrated care involves changing the treatment options available to people—most notably, with a move away from hospitals as the default point of access towards community-based care through, for example, primary-care clinics, over-the-counter treatment and peer support groups. This will necessitate a cultural shift. Going hand in hand with efforts to improve and expand community-level care should be initiatives to improve the knowledge that people have about available care options, and why, for example, visiting a hospital might not necessarily be the best option. Better-informed patients are able to become more active participants in their own care, increasing satisfaction, accountability and outcomes.

- **Welcome patient organisations as stakeholders in policymaking**
  Although some countries do better than others, limitations regarding patient organisation involvement in policymaking are evident across the board. Just as individuals ought to have a say in their own treatment, broader decisions about health systems and their evolution are better informed, and even legitimised, when patients and advocacy groups are welcomed as stakeholders.

- **Develop robust data infrastructure—namely interoperable, real-time EHRs**
  It is striking that India and Japan, two countries at quite different stages in the evolution of their health systems, both lack an established EHR system. This, as with the lack of interoperability and/or real-time capabilities in other countries' EHR usage, demonstrates a key shared weakness. EHRs reduce duplication and unnecessary treatments, empower patients to control personal information and advocate on their own behalf, and provide a wealth of data to assess and improve services. Singapore's success at implementing EHRs is a key reason that integrated care is possible amid a relatively complex public/private healthcare landscape. Where EHRs don't exist or lack interoperability and real-time accuracy, policymakers should prioritise their development.

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Appendix

Integrated care policy traffic light: Domain weighting

Domain	Scoring Range	Low	Intermediate	High
1. Governance and Accountability	0-5	0-1	2-3	4-5
2. Transformation: Reorienting Care Models	0-8	0-2	3-5	6-8
3. Participation: Enabling People and Communities	0-5	0-1	2-3	4-5
4. Coordination: Integrating Services and Creating an Enabling Environment	0-4	0-1	2-3	4

Methodology

Domain	Indicator	Aim/Rationale
1. Governance and Accountability	1.1 Healthcare spending	To assess government spending on health
	1.2 Government commitment	To assess government commitment on health
	1.3 Policy for integrated care	To assess the existence of a national policy for integrated care
	1.4 Implementation of integrated care	To assess the implementation and monitoring of integrated care
2. Transformation: Reorienting Care Models	2.1 Healthcare workforce	To assess the number of healthcare professionals caring for the population
	2.2 Evidence of Integrated Healthcare teams providing care	To assess the organization of healthcare that provide care to the population
	2.3 Information infrastructure	To assess the availability, interoperability of real time electronic health records
	2.4 Patient registries	To assess the availability of patient registries
	2.5 Evidence of integrated financing and/or management frameworks	To assess support functions and activities around service delivery
3. Participation: Enabling People and Communities	3.1 Patient advocacy	To assess the involvement of patient/patient organization in policy development
	3.2 Shared decision making	To assess the existence of national policies that address shared decision making
	3.3 Access to health care	To assess the status of universal health coverage
	3.4 Health literacy and patient empowerment	To assess the presence of programmes/campaigns to improve or advance health literacy
4. Coordination: Integrating Services and Creating an Enabling Environment	4.1 Integrated care guidelines	To assess the existence of national clinical practice guidelines for integrated care
	4.2 Integrated payments	To assess the existence of national level policy to reimburse integrated care services
	4.3 Integration with other services	To assess the coordination of other services to deliver holistic care
	4.4 Promoting innovation	To assess the focus at national level for innovations in healthcare delivery

Country scoring

Domain	Question	Scoring	China	India	Japan	Singapore	South Korea
1. Governance and Accountability	What is the government spending on health as a percentage of GDP?	5% or higher=1 Less than 2.5%= 0	1	0	1	1	1
	Has the government committed resources to geriatric/chronic care? For example, is there an entity at the national level that coordinates care for the elderly?	Yes= 1 No= 0	0	1	1	1	1
	Is there policy at the national level to implement integrated care?	Yes= 1 No= 0	1	1	1	1	1
	Is there evidence at the national level of a. implementation of integrated health policies? b. monitor progress of integrated health policies?	If Yes for a= +1 b= +1 If No a/ b= 0	0	0	2	2	0
2. Transformation: Reorienting Care Models	Are there adequate number of trained healthcare professionals for the population? (WHO calculates that 4.45 doctors, nurses and midwives per 1,000 population represent the minimum density needed to deliver the Sustainable Development Goals in health, which include UHC).	4.45 or above= 1 Below 4.45= 0	1	1	1	1	1
	Is there the organization of healthcare through the composition of teams or units to provide care to the population?	Yes= 1 No= 0	0	0	1	1	1
	Are electronic health records a. available? b. interoperable? c. able to be updated in real time?	If Yes for a= +1 b= +1 c= +1 If No for a/b/c= 0 (maximum score of 3)	2	0	0	3	1
	Is there evidence of patient registries for geriatric/chronic diseases to capture data on a. interventions? b. outcomes?	If Yes for a= +1 b= +1 If No for a/ b= 0 (maximum score of 2)	2	1	2	2	2
	Are there key support functions and activities structured around the service delivery to coordinate and support accountability?	Yes= 1 No= 0	1	0	1	1	0

Domain	Question	Scoring	China	India	Japan	Singapore	South Korea
3. Participation: Enabling People and Communities	Is there patient/patient organisation involvement in policy development within the last five years (eg. national plans, strategies, health technology assessment)?	Yes= 1 No= 0	0	1	1	0	0
	Are there national policies that address shared decision making among patients, health care practitioners and families?	Yes= 1 No= 0	0	0	0	1	1
	What is the percentage of universal health care coverage?	<50%= 0 50-75%= 1 >75%= 2	1	0	2	2	2
	Are there programmes/ campaigns to improve or advance health literacy?	Yes= 1 No= 0	1	1	1	1	1
4. Coordination: Integrating Services and Creating an Enabling Environment	Are there national clinical practice guidelines recommending coordinated and integrated patient care with multidisciplinary teams?	Yes= 1 No= 0	1	1	1	1	1
	Are there national policies to reimburse integrated care services (eg. movement away from fee-for-services) or to implement value-based care payment models?	Yes= 1 No= 0	1	1	1	1	1
	Is there evidence of coordination or integration with other services that are required to deliver holistic care (eg. pharmacies, allied health, social care, psychological care or local authorities)?	Yes= 1 No= 0	1	0	1	1	1
	Is there evidence of innovation at the national level to promote health care delivery (eg. e-health or m-health)?	Yes= 1 No= 0	1	1	1	1	1

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