Health Futures Forum

SHAPING THE FUTURE OF HEALTH
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**Keywords**

Health Information Systems / Health Policy / Regional Health Planning / Social Determinants of Health - Trends
Executive Summary

Countries in the World Health Organization (WHO) Western Pacific Region adopted a shared vision for building more resilient health futures, which is described in For the Future: Towards the Healthiest and Safest Region. This landmark document lays out the Region’s commitment to putting the future up front as countries aim towards desired futures for health, well-being and health systems, through better anticipating alternative futures, leveraging opportunities and mitigating risks.

As governments across the Region were recognizing the need to think differently about planning for the future of health, the coronavirus diseases 2019 (COVID-19) pandemic was also highlighting the risks of failing to anticipate and adequately prepare for such challenges. Leaders around the world increasingly recognize the need to break the cycle of panic and neglect sometimes seen when pandemics end, to ensure the world better prepares for health emergencies while continuing to advance towards universal health coverage.

The Health Futures Forum: Shaping the Future of Health, hosted by WHO on 24–26 August 2021, was a landmark event in that regard. The Forum encouraged participants to imagine alternative health futures and seek to understand the dimensions of change that shape them. The virtual event also raised the profile of futures-oriented policy along with the urgency of learning how to better anticipate health-related challenges and opportunities. This report summarizes the rich discussions that emerged from the Forum. It synthesizes the ideas, exchanges and insights that participants shared as they explored the future of health around four main themes: 1) society, 2) technology and innovation, 3) economy, and 4) health. The report is designed to foster an engaging policy discussion about the future of health, well-being and health systems by highlighting key implications, challenges and opportunities for countries in the Region. We also hope it stimulates in-depth thinking on practical ways to build resilient policy and programmatic solutions that respond to and proactively address tomorrow’s needs and obstacles.
Six key messages emerged from the exchanges facilitated over the three-day virtual event. These cross-cutting messages are summarized below.

1. **Changing societal expectations as an opportunity to rethink health**

   Community expectations in relation to health systems, service delivery and well-being are shifting. This shift could offer a real opportunity for health ministries across the Region to rethink their approach to health and well-being, driving a more equitable health future that is fit for purpose.

2. **Cities as drivers of change for health**

   The historical perspective provided during the Forum underlined the opportunity for cities to participate in driving the health rethink in countries. With over half of the world’s population now living in urban settings, cities are uniquely positioned to drive and impact change in public health.
3. **Technology and innovation as drivers of health, health care and well-being**

Technological innovation can drive health sector transformations, but it will require a mindset shift. New and expanded models of engagement – for example, with private data service providers and knowledge borders – will be critical to this process. The pace of change in policy and regulation will also need to be accelerated and more agile if the public health-care sector is to adapt effectively to rapidly emerging social and technological changes.

4. **Paradigm shift: healthy country, healthy economy, healthy people**

The devastating impact of the COVID-19 pandemic is forcing a change in economic thinking that better reflects the complex interlinkages between human health, economic health and planetary health. Governments in the Region are increasingly looking at indicators of community well-being and environmental health alongside GDP to measure a country’s success.

5. **A strategic opportunity for transforming health systems from the outside in**

The COVID-19 pandemic has increased the public demand for quality health service provision, including more personalized care options. If health systems are slow in adapting to this trend, entrepreneurial stakeholders may seize on the unfulfilled demand as a business opportunity. The likelihood of this happening is much higher among younger demographic cohorts who are generally less risk-averse to adopting new service offerings.

6. **Taking bold and innovative action today to prevent health inequalities in the future**

It is critical to consider “who is not in the room” when policy decisions about the future of health, well-being and health systems are being made. Moreover, the public health sector must look beyond the so-called expert view and initiate strategic dialogues with more diverse perspectives in shaping the future of health.
Introduction

The Western Pacific Region of the World Health Organization (WHO) incorporates a diverse group of countries and areas with different cultural, political, social and economic backgrounds. The WHO Regional Office for the Western Pacific, with broad consultations with Member States, published its strategy for the Region, *For the Future*, in 2019. The white paper provides a vision for WHO’s work in the Western Pacific across four thematic areas: 1) health security, including antimicrobial resistance (AMR); 2) noncommunicable diseases and ageing; 3) climate change, the environment and health; and 4) reaching the unreached – people and communities still affected by infectious disease, and high rates of maternal and infant mortality.

Effectively addressing these challenges for a better future requires actions in the present and new ways of working. At the turn of the decade, foresight and strategic planning through backcasting were high on the agenda of WHO in the Western Pacific Region. By endorsing For the Future in 2019, the 37 countries and areas in the Region committed to putting the future up front and equipping their health systems to face it.

In 2020 the COVID-19 crisis hit. Health systems in the Western Pacific and across the world struggled in varying degrees to cope with the unprecedented levels of infection, as staff, facilities and supplies faced prolonged challenges. Economies buckled under the weight of enforced travel restrictions, business closures and a vast range of sociocultural impacts.

Additionally, the pandemic has shined a spotlight on and exacerbated persistent inequalities of social protection, population mobility, wealth distribution, digital access and well-being at the community level. This divergence highlights the urgent need to devise different approaches to health, well-being and health systems. It also raises difficult questions about how best to prepare for an unpredictable future.

Traditional planning generally strives to overcome issues faced in the present using experience from the recent past. This retrospective approach can result in short-sightedness that may not meet the challenges posed by a rapidly changing and uncertain world, as evidenced by the experience of the COVID-19 pandemic. Decision-makers have a window of opportunity to create the conditions for building a more resilient health future. In practice, this means cultivating a forward-looking mindset
that makes use of the value of futures thinking and strategic foresight. Futures thinking can help make sense of sources of change and areas of uncertainty in the long term to build resilience and leverage opportunities for the future.

The **Health Futures Forum: Shaping the Future of Health** was organized with those challenges and opportunities in mind. The Forum brought together health policy experts, historians and futurists who shared their knowledge and insights over three days of keynote speeches, facilitated conversations and panel discussions. The participants represented a wide range of perspectives and experiences, with a view to **imagine alternative health futures and seek to understand the dimensions of change shaping them**. The virtual event also aimed to raise the profile of futures-oriented policy.

This report synthesizes the ideas, exchanges and insights shared during the three-day virtual Forum. It summarizes the overarching themes that emerged from the Forum discussions.

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### Organization of the Forum

The Data, Strategy, and Innovation (DSI) group of the WHO Regional Office for the Western Pacific hosted its first Health Futures Forum from 24 to 26 August 2021. The three-day virtual event was organized so that Member States, partners and stakeholders could exchange insights and perspectives about the future of health in the Region. The virtual sessions were organized around **four main themes**:

- social
- technology and innovation
- economy
- health

The Forum discussions reflected a diversity of viewpoints and experiences that challenged many core assumptions about health systems, health-care delivery and individual well-being. The Forum agenda and list of speakers are provided in Annex 1 and Annex 2, respectively.
What we Heard and Learnt at the Forum

The Forum explored different ideas about changes in society, innovation and technology, and economy, and their relationship with health. The speakers highlighted the incredible potential to harness futures thinking and to build resilient health systems that anticipate tomorrow’s health needs. Six overarching messages about the future of health emerged from the discussions among participants and the interactions of speakers with Forum audience members. The cross-cutting messages are described in the following sections.
Changing societal expectations as an opportunity to rethink health

Community expectations and needs in relation to health, well-being and health systems are shifting. In terms of expectations, this could offer a real opportunity for ministries of health to rethink the approach to health and well-being to ensure a more equitable and fit-for-purpose health future. The key messages from the Forum included:

◇ Social contracts are being redrawn

They do not just exist between individuals, communities and the state. Increasingly, there are expectations around the roles and responsibilities of employers and the private sector at large for human and planetary health. History has shown that in moments of crises (for example, cholera epidemics), societies in turmoil renegotiate social contracts. History provides examples of great changes in the expectations of communities and profound paradigm shifts that were catalysed by health crises. For instance, in many European countries, the health and welfare sector was reshaped in the aftermath of the Second World War. Changing social contracts allows us to rethink the language around health and stimulate great change in the way we think about and provide for health and well-being in the future.
Health is a shared responsibility

There is an increasing expectation that health is a shared responsibility. It cannot rest only with the individual. Governments, the private sector, communities and individuals will be expected to share the responsibility for well-being and health in the future. In the economy section, this idea was reinforced during a discussion about who will pay for health in 2040. The panel concluded that all sectors will have to contribute to ensuring the health and well-being of communities.

Ownership and responsibility for health are shifting, and diverse sectors and business will be increasingly involved

The increased value of health means there are more opportunities for business in health. This is not just about altruism but also about profitability, given the increasing demand from communities for health and well-being. As a result, stakeholders in the traditional health sector may be radically different in the future (for example, the gaming industry involved in pain relief).
A key message that emerged from the Forum is that social contracts are being redefined to reflect evolving relations between individuals, communities and the state. The participants noted that changes in social relationships, lifestyles, behaviours, family structures and social institutions could have profound and unexpected impacts. There was consensus that while social contracts are continually being negotiated, historical crises (for example, cholera epidemics) can serve as catalysts for both positive and negative change, even if the beginning and end of those events may not be self-evident. Historian Dora Vargha iterated that when reflecting on past events, it is important to understand that the “endings may land at different points for different people”. By learning from historical lessons and the current health emergency, policy-makers have an unprecedented opportunity to advance people-centred solutions (for example, gender-specific solutions) and to rethink the language around health (for example, “bringing hospitals to our homes”) with a view to strengthen the social contract, particularly among underserved populations. As the COVID-19 pandemic has shown, health-care systems are designed for “sick care” rather than the “cultivation of health”. Participants expressed concern that this is eroding trust in social institutions precisely when strengthening resilience to unpredictable shocks is crucial.

**Policy-makers have an unprecedented opportunity to advance people-centred solutions and to rethink the language around health**
Another important message is that the responsibility for **HEALTH-CARE PROVISION AND WELL-BEING WILL LIKELY BE SHARED AMONG MULTIPLE PUBLIC AND PRIVATE SECTORS ACTORS** in the future. This viewpoint is based on a growing expectation that future **HEALTH-CARE SYSTEMS WILL NEED TO BECOME MORE DIVERSIFIED, DISTRIBUTED AND RESPONSIVE** to the changing needs of diverse population groups.

As long-time futurist **Sohail Inayatullah** stated, “**the best futures thinking is always rooted in deep patterns of change**”. Because individual lifestyle choices will likely intersect in ways that are extremely difficult to forecast or predict, building additional hospitals and clinics or making services more affordable will not be sufficient to meet shifting public expectations. For that reason, keynote speaker **Jemilah Binti Mahmood** stressed, “**the business of health care should not be centralized in the medical industry**”. Moreover, universal policy prescriptions are likely to produce unsatisfactory results in a fast-moving health emergency like an infectious disease outbreak. In the coming decades, fundamental **HEALTH-CARE DESIGN AND OWNERSHIP CHOICES MUST BE MADE WITHOUT COMPROMISING THE EQUITABLE DELIVERY OF ESSENTIAL SERVICES**. Designing a health future that is fit for purpose could mean that policy-makers will deal with radically different stakeholders in the future than today.
Cities as drivers of change for health

The historical perspective provided during the Forum underlined the opportunity for cities to participate in driving the health rethink in countries. With over half the world’s population now living in urban settings, cities are uniquely positioned to drive and impact change in public health. The key messages from the Forum included:

- **Increased urbanization and a focus on urban health will drive changes in the future**

  The growth of cities due to industrialization, migration and economic development has led to urban-specific changes. Urbanization is increasingly being seen as a determinant of health. Urban populations in low-income countries are at risk of carrying a double burden of health problems from communicable diseases and health problems more commonly associated with economically advanced societies, such as chronic diseases, road injuries and violence. Historically, urbanization resulted in the spread of pandemics and epidemics. These, coupled with changes in collective lifestyles, triggered major shifts in rethinking what cities might look like. Changing notions and information on disease pathways led to sanitation movements to improve life in cities.
The future of cities, lifestyles, behavioural choices will affect health, well-being and health systems

Changes in lifestyles and behavioural choices have a significant impact on health and well-being. Building anticipatory or smart cities will require reimagining urban design to meet increasingly complex health needs for diverse demographics. Urban design factors can affect public health in many ways – including physical activity, traffic accident risk, pollution exposure, access to resources, mental health and affordability. An anticipatory city could affect behavioural choices – for example, food choices, tobacco and alcohol intake – which play a significant role in the shift of disease burden to noncommunicable diseases (NCDs).

Cities will drive changes in public health and health systems

Historically, cites have been a driving force in the development of health-care systems and public health interventions. Their importance in driving change has often been amplified because of changes adopted to manage epidemics and pandemics. Easier to steer as they are smaller than states, cities may be able to implement swifter decision-making – particularly within the health sector. Cities increasingly offer great outreach and influence over residents, with greater scope for governments to reach their constituents rapidly. Public health officials and urban planners must work together to address threats to the welfare of individuals and communities while also steering social development toward more efficient and equitable health futures.

Communities want to experience cities in a way that supports health and well-being

The shift towards a greater emphasis on well-being has – in part – led to major changes in trends within consumer health, such as the rise of the self-care industry. Urban communities and populations now demand a growing range of services, broadening the expectations of health and well-being beyond simply hospitals and including industries and infrastructure.
The historical perspective provided during the Forum underlined the **OPPORTUNITY FOR CITIES IN THE REGION TO PARTICIPATE IN DRIVING THE HEALTH RETHINK IN COUNTRIES**. Rapid urbanization has always been linked to the geographic spread of pandemics and disease and, at the same time, socialization and economic innovation. Participants reflected on how the changing notion and responsibilities of public health and knowledge of disease pathways have led to remarkable improvements in public health (for instance, sanitation and personal hygiene). A key lesson of the Forum was that **URBAN-SPECIFIC CHANGES AND THE DETERMINANTS OF PUBLIC HEALTH REMAIN CLOSELY INTERCONNECTED AND COMPLEX**. However, it is important to be mindful of significant differences. For example, low-income urban populations face a double burden of health problems that include communicable diseases as well as NCDs commonly associated with sedentary lifestyles, traffic injuries and physical violence.

The Forum also underscored that the future **FORM AND FUNCTION OF CITIES WILL BE CLOSELY LINKED TO LIFESTYLE TRENDS, BEHAVIOURAL CHOICES, AND THEIR DIRECT IMPACT ON HEALTH AND WELL-BEING**. Examples of urban design factors that can affect public health and well-being include pollution exposure, traffic accident risk, availability and access to wellness resources, physical activity, mental health and affordability. Changes to the built environment that enable more active lifestyle choices offer some of the biggest opportunities to reduce chronic disease risks and promote healthier lifestyles. It was also noted that behavioural choices (for example, food and alcohol consumption) play a significant role in the shift of disease burden to NCDs.
In the future, urban residents may place a higher value on policies and programmes that support health and, more broadly, well-being. This could mean that smart city development projects will require a **reimagining of urban design to meet the increasingly complex health needs of urban population groups**. The economics of health are also important to consider, given the growth potential of the self-care industry. Policy-makers will have to consider how changes in public expectations around health and well-being will extend beyond traditional health settings to include office spaces and industrial sites. **Cities that excel at anticipating and adapting to these shifts will enjoy a significant advantage in steering social development** towards a more efficient and equitable health future.
Technological innovation can drive health sector transformation, but we need a mindset shift to deliver on this outcome. The increased pace of change in policy and regulation will require new investments in capacity-building that enable responsiveness and adaptability among legacy institutions. Critical to this process will be expanded models of engagement, including with private data service providers.

- **The traditional health sector will need a new model of engagement in the future**

  For example, the increasing wealth of data available about a person’s health is most powerful if it is harnessed for health. Most of these data are outside the health sector because it is generated by various applications and wearable devices often owned by private companies. The public sector will require new policies, regulations and models of partnership and collaboration to be able to harness this knowledge to design better services.
New models and mechanisms for developing policy and regulation will be needed

There is an opportunity to provide more accessible and tailored health-care and prevention services; however, this poses a challenge to policy and regulation. The pace of change in policy and regulation will need to speed up and be more agile to keep up with changes in technology and society. Technology trends focused on efficiency and effectiveness may be easier to adopt, but policy and regulation that can transform systems will be harder to move.

Resource-limited environments may be better placed to use technology to transform health care than developed countries

Resource-limited settings may be better positioned to leapfrog and transform health systems with technology. Meanwhile, developed countries might have a harder time using technology to transform and may see more incremental change due to legacy systems.
The Forum highlighted how important it will be for the traditional health sector to **DEVELOP NEW ENGAGEMENT MODELS** in the future. Participants discussed how technology and innovation drivers are accelerating **SYSTEMIC CHANGE IN HOW HEALTH SERVICES ARE ACCESSED AND DELIVERED**. Technology-based drivers, such as the proliferation of digital platforms and the seamless connectivity of Internet-based services like telemedicine, are forging new business-to-business opportunities and facilitating new doctor-patient relationships. The technology roundtable talked about how an ageing demographic combined with a nursing shortage is driving new demand for social robots and automated services. Keynote speaker Kristin Alford explored dialogue around how enabling technologies like language translation software are used to expand the market for customized wellness (for example, improved sleeping and eating habits) and scale up the efficiency of health services across different population groups. Forum participants also reflected on how the proliferation of self-managed therapies raises new governance and regulatory challenges, particularly in terms of managing the wealth of personal health data generated from privately owned sensory devices and wearable technologies (for example, fitness trackers).

**technology-based drivers are forging new business-to-business opportunities and facilitating new doctor-patient relationships**
Another precaution related to governance and regulation of digitalized health-care services highlighted that an aversion to risk-taking in the public health sector could undermine policy innovation and ingenuity, with deleterious effects. The pressure to adopt novel technologies may increase as they expand options for personalized services and enable individual control over health-care decisions. At the same time, the participants acknowledged that while enabling technologies designed for improved efficiency may have the advantage of ease of adoption, new models of policy and regulatory development (for example, vaccine certificates) are needed to drive systems-level change. Low-income countries that are less invested in 20th-century health systems may be better positioned to leverage the advantages of people-centred approaches and leapfrog away from the incrementalism that inhibits transformative change among many high-income countries.
COVID-19 is shaping a rethink of economic models. There is increasing recognition of the link between human health, planetary health and economic health. Governments in the Region are increasingly looking at indicators of community well-being and environmental health alongside GDP to measure a country’s success.

◇ Well-being is a major driver of change and a measurement of success

Well-being is no longer just an aspiration; it is a driver of change. Societal and economic signals indicate that the value of wellness across society is shifting. Individuals, communities and sectors outside health, including the private sector, see well-being as an essential part of a healthy life and a healthy workforce. Various sectors outside health are looking at well-being as an additional measure of success.
There is a “fundamental failure of the global system”

This failure is highlighted by the uneven and inequitable roll-out of COVID-19 vaccines. At present, the highest possible return on investment is the procurement and delivery of COVID-19 vaccines to enable global economic activity to resume fully. Discussions have already begun about how the global economic system, whose purpose is to create the conditions to sustain economic activity, can be adapted to be able to address this failure.

The measures of economic development are likely to expand to include natural resources, planetary health and human health as part of a paradigm shift

There is a global recognition that the planet’s natural resources and biodiversity are being depleted, and alongside human health, this poses a serious risk and challenge to the sustainability of life and economic activity. Economists are discussing how economic progress is best measured given the planet’s limited natural resources. In addition to GDP, a measure of natural capital is likely to be developed, and potentially human health.
A recurring message at the Forum reverberated that the COVID-19 pandemic has exposed deep structural flaws in the global health system and that the world’s most vulnerable populations have suffered disproportionately both socially and economically. There was broad acceptance that global inequality has been further exacerbated by failures and gaps in global governance, including the slow and uncoordinated distribution of COVID-19 vaccines. While it may be years before the long-term impacts of depressed and asymmetric growth are understood, the global policy failure will undoubtedly hurt the ability of some governments in the Region to provide for essential health services when and where they are most needed. As keynote speaker Erik Berglof said, “This is the moment to invest in health.” This is a particularly salient message for the Region. For countries in the Western Pacific, an ageing demographic means that the economic burden of health is likely to fall on a smaller population base just as expenditures begin to escalate. Discussions have already begun on how the global economic system, whose purpose is to create the conditions to sustain economic activity, can be adapted to mitigate these intersecting risks.

A related point raised at the Forum was that reducing the economic burden of health and developing methods to track and communicate real-time changes will become an even bigger policy priority in the future. To that end, there was consensus on the need to replace narrowly defined metrics prioritizing economic efficiency and unbounded growth with a more holistic development model that addresses underlying health inequities and institutional shortfalls. There is also a growing recognition that fundamental design and financial choices will have to be made while taking care that the equitable delivery of essential services is not compromised.
Another key takeaway concerns the close interlinkages between the economy, the environment (climate change, biodiversity crisis) and health, as revealed in the wake of the COVID-19 pandemic. Economists are having to recalibrate their thinking on economic progress, given the limitations that finite planetary resources will impose on future growth potential. **Alongside traditional metrics like GDP, future measures of economic development are likely to include natural capital, planetary health, and indicators of community well-being as part of a paradigm shift.** The adoption of more holistic performance indicators could spur financial investments in global green bonds and the personal well-being market, which support healthier lifestyle choices while advancing progress on the Sustainable Development Goals (SDG).
The COVID-19 pandemic has increased the public demand for quality health service provision, including more personalized care options. This trend is higher among younger demographic cohorts, which are less risk-averse when adopting innovative service offerings. If health systems are slow in adapting to this trend, entrepreneurial stakeholders may seize on the unfulfilled demand as a business opportunity.

Multiple signals of future change occurring both inside and outside health systems were also a prominent discussion topic. There was consensus that health-care service providers need to prepare for a more complicated and unpredictable future.

**The value of health in communities has been increasing, accelerated by the experience of the COVID-19 pandemic**

Communities are looking for and expecting health sectors to transform to meet individual and community needs. The focus is not just on curative care but on living healthier lives. Future communities will expect lifelong opportunities to achieve overall well-being and physical and mental health. When people need access to care, they will expect to receive high-quality personalized care that treats the individual and not just the disease.
Changes in the way we live, work and play are driving changes in expectations around how people access health and health-care services

People are looking for more flexible service delivery options, moving away from traditional hospitals and clinics to something that meets them closer to home. In particular, young people are looking for rapid access to the health sector supported by technological solutions.

The traditional health sector model needs rethinking

The traditional health sector is increasingly out of step with changes in society. There is a disproportionate focus on providing more effective and efficient treatment services in centralized and vertical health-care facilities. Social changes in many countries will require the health sector to enable a different kind of health. It will need to be more holistic and promote health and well-being (rather than treating disease and trauma), with services that are co-designed with the communities they serve, and with the needs and lifestyles of those communities taken into account.

New financing models for health will be developed

The double COVID-19 economic crisis has resulted in contracted fiscal space to support government investment in health (and other goods) at a time when achievement of the SDG targets are only 10 years away. At the same time, many poor and near-poor people have increased constraints on being able to pay out of pocket for health and health care. There is a need to finance the promotion of health and well-being (to reduce a growing NCD burden, among others) as well as consider investments by other sectors and business to create environments for work, life and play that promote healthier living.
The challenge of adapting to the necessity of providing preventative, flexible and timely health care in countries in the Region should not be downplayed. The competing demands of new health-care investments and meeting the SDG targets, less than a decade away, presents a significant dilemma for policy-makers. One of the key messages that resonated at the Forum is that **the traditional health sector is increasingly out of step with changes in society, technological innovation, and emerging health trends.** As future requirements exceed the limited resources of public health, policy-makers are likely to face renewed pressure to **adopt whole-of-society approaches in both the design and delivery of health-care services.** Enabling a different kind of health-care delivery model that is co-designed with local communities and workplaces offers a strategic opportunity to promote healthier lifestyles and living.

*co-designing with local communities and workplaces offers a strategic opportunity to promote healthier lifestyles and living*
Acting today to prevent health inequalities in the future

When decisions about the future of health, well-being and health systems are being made, policy-makers need to ask: “Who is not in the room?” It will be important for the health sector to look beyond the expert view and identify other voices that will be instrumental in shaping the future of health. The key messages from the Forum included:

- **A significant risk is associated with not engaging widely with all parts of the population**

  For example, if communities are not engaged in shaping the digital community today, the diagnostics, treatment options and service design options of the future may disadvantage those groups leading to a new form of inequality.

- **There is a real risk that unequal vaccine roll-out and unequal economic recovery will cement the growing inequalities that the COVID-19 economic crisis has exacerbated**

  The differential ability to return to work, to economic activity or to school, and the increased poverty and sale of household assets for survival, could combine to result in protracted inequalities. This is especially so if fiscal subsidies and support are withdrawn too quickly.
A key message that arose from the Forum is that **THE PUBLIC HEALTH SECTOR NEEDS TO LOOK BEYOND THE SO-CALLED EXPERT VIEW** and systems where the health practitioner “has all the knowledge” and rethink long-standing policy assumptions. The passive adoption of global health systems and legacy institutional practices that were forged in an earlier and more predictable era poses both operational and strategic risks for the Region. For example, marginalized communities that are overlooked and excluded from smart technologies, such as health diagnostics, treatment options and service choices, could experience **NEW FORMS OF INEQUITY IN THE FUTURE**, especially if precarious households are forced to sell off assets to pay for expensive medical interventions.

Since the onset of the COVID-19 pandemic, the **DIFFERENTIAL ABILITY TO EARN AN INCOME AND TO SECURE AN EDUCATION COULD RESULT IN PROTRACTED INEQUALITIES WITHIN AND BETWEEN COUNTRIES**. For many low-income households, this situation risks becoming worse if fiscal subsidies and income supports are withdrawn prematurely. Under the current circumstances, **THERE IS A RISK THAT THE UNEVEN AND UNCOORDINATED DISTRIBUTION OF COVID-19 VACCINES WILL FURTHER DELAY THE RECOVERY OF WESTERN PACIFIC COUNTRIES**, reinforcing the social and economic inequalities exacerbated by the global health emergency. Keynote speaker Prateeksha Singh expressed the need for policy-makers to abandon linear ways of thinking and to “**consider all possible interactions with society**”. She also stressed the need for “**robust strategies that thrive in many diverse scenarios**”.
The Forum also posited how Preventing Health Inequalities in the Future Does Not Have to Be an Expensive Proposition. Alongside capital-intensive investments in data collection and research and development (R&D), participants explored expanding the policy design process with citizen-based science and design-based thinking. Gitanjali Rao, a 15-year-old scientist and TIME magazine’s 2020 Kid of the Year, described the ambitious and creative innovations that she designed as a serial entrepreneur of inexpensive health-care devices (for example, sensors that detect lead in drinking water). Since a More Resilient Health Future Rests with Visionary Thinking and More “Participatory Forms of Engagement”, policy-makers should carefully consider whom best to consult when translating policy ideas into action.
Strategic Foresight for Health

The Forum culminated with a session dedicated to strategic foresight and its application to health settings. The capstone discussion examined strategic foresight principles and the practical application of participatory foresight methods to advance innovative policy design and outcomes. The value of strategic foresight methods to test current strategies, anticipate catastrophic events like the COVID-19 pandemic, and bridge diverse viewpoints around a shared vision and a common purpose was explored. Approval for immersive foresight experiences that “bring scenarios to life” was also expressed. Panellists discussed the use of strategic foresight methods and tools to stimulate fresh thinking around health futures, bridging diverse viewpoints around a shared vision, while noting that the “process is more important than the outcome”. The participants identified some key success factors, expressing broad support for embedding foresight practices across the public sector.

Reflecting on these success factors, they highlighted that the process of building the future should be participatory and horizontal to create space enabling discussion around sometimes uncomfortable subjects. Reflecting on the utility factor, the panellists touched upon the value of translating ideas into action and innovation. As Cheryl Chung put it, “It is not just about futures thinking, it is also about futures making.” Networking outside the health-care system, the presence of decision-makers and maintaining a learning approach in futures exercises were also considered success factors. Another shared insight was that strategic foresight offers a “rich toolbox” to anticipate unexpected change, including catastrophic events like the COVID-19 pandemic. Finally, the benefits of embedding strategic foresight methods in the policy development process were highlighted using concrete examples from the Philippines, Singapore and Thailand.
Conclusion

All people, regardless of where they came from or what they do, care deeply about the future of health. However, the COVID-19 pandemic has demonstrated that transformative change is incredibly complex to forecast and implement. When they occur, global health emergencies can evolve in ways that are entirely unexpected and hard to imagine. This uncertainty underscores why it is imperative for policy-makers at all government levels, and in the public and private sector, to find creative solutions in preparing for tomorrow’s health challenges and opportunities.

To that end, the Health Futures Forum was a landmark event that encouraged Member states to imagine alternative health futures and to better understand the dimensions of change driving and shaping them. The Forum helped raise the profiles of futures-oriented policy and futures thinking in the Region. It explored options and approaches for improved and strengthened health systems and outcomes. Finally, the Forum highlighted the need to think about health futures not just as an opportunity but also as an obligation.

Although the Forum has concluded, the dialogue is ongoing. In many ways, the hard work of transitioning towards a more resilient health future is just beginning. As the Forum indicated, health resilience starts with a purposeful and inclusive vision of the future. It is now time for policy-makers and health practitioners to leverage the lessons and shared insights in shaping positive health outcomes. A key part of the solution set is ensuring that today’s health policy decisions are not the source of tomorrow’s problems. As reflected in this report, the best way to achieve that objective is through bold and thoughtful actions that are timely, consequential, and effectively exploit novel opportunities for systemic change.
## Annexes

### Annex 1: Health Futures Forum programme agenda

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Annex 2: Speaker bios

**Society**

**Prateeksha Singh** is a multidisciplinary practitioner whose practice sits at the confluence of systems + foresight + design research. She collaboratively explores how applying a living systems lens can provide additional tools and perspectives for working with complex yet adaptive challenges. She is driven to working with diverse voices and harnessing inclusive and plural images of the future, and her work in the past has focused on issues of gender, youth, (in)equity and nature.

She is currently based in Bangkok as Head of Experimentation with the UNDP Asia-Pacific Regional Innovation Centre, where she supports the building of institutional innovation capabilities within regional UNDP offices, and with external partners. These capabilities range from foresight to reflecting on cohesion of current portfolios, systems change theory, and public policy innovation.

Prateeksha holds a Master of Design in Strategic Foresight & Innovation from OCAD University in Toronto. She sits on the board of the Association of Professional Futurists (APF), chairs the annual virtual APF Futures Festival, and is the 2019 Next Generation Foresight Practitioners global award recipient for her work on equity-based plural futures.

**Dora Vargha** is Professor of History and Medical Humanities based at the Department of History and the Wellcome Centre for Cultures and Environments of Health at the University of Exeter, a WHO Collaborating Centre for Cultural Contexts of Health.

From September 2021, she will be jointly based at Humboldt University, Berlin as a senior researcher. Her work spans from the politics of epidemic management to public health systems and access to therapeutics.
A political scientist, **Sohail Inayatullah** is Professor at Tamkang University, Taipei (Graduate Institute of Futures Studies); Associate at Melbourne Business School (Mt. Eliza Executive Education); and Adjunct Professor at the University of the Sunshine Coast (Faculty of Social Sciences and the Arts).

In 2015, Professor Inayatullah was awarded the first UNESCO Chair in Futures Studies. In 2010, he was awarded the Laurel award for all-time best futurist by the Shaping Tomorrow Foresight Network. In March 2011, he was awarded an honorary doctorate by Universiti Sains Malaysia, Penang. He received his doctorate from the University of Hawaii in 1990. Inayatullah has lived in Islamabad, Pakistan; Bloomington, Indiana; Flushing, New York; Geneva, Switzerland; Kuala Lumpur, Malaysia; Honolulu, Hawaii; and Brisbane and Mooloolaba, Australia.

Inayatullah is Editor-in-Chief of the Journal of Futures Studies and is on the editorial boards of Futures, Prout Journal, East-West Affairs, World Future Review and Foresight.

**Chie Shinohara** is an expert on science and technology policy at Japan’s Ministry of Education, Culture, Sports, Science and Technology (MEXT). Her experience of 11 years in the Government of Japan includes a secondment as a researcher to the Economic and Social Research Institute of the Cabinet Office. At the Institute, she conducted research from 2011 to 2013 on the forecast of Japan’s education and lifestyle in 2030 and organized a workshop involving professors, journalists, architects and university students.

She was among the authors of the White Paper on Science and Technology in 2014 and in 2015. She was engaged in the launching of a human resources development programme for future leaders in Fukushima prefecture, which was seriously affected by the Great East Japan Earthquake and the Fukushima Daiichi NPP Accident at the Reconstruction Agency. She is currently serving as Deputy Director of the Nuclear Damage Compensation Dispute Resolution Center of MEXT.
Aarathi Krishnan is a strategic and applied foresight adviser for the humanitarian and development sector. A seasoned expert with over 15 years of experience globally, she works at the intersection of humanitarian and development futures, strategic foresight, and anticipatory institutional transformation.

She is currently Strategic Foresight Advisor for UNDP, where she is designing the integration of a systems approach to foresight across the Asia Pacific Bureau to build anticipatory capacities, decision-making and programmatic offers to see, manage and respond to short- and long-term risk signals, policies and investments so that development futures can be flourishing for all.

She is also an Affiliate at Berkman Klein Centre for Internet and Society at Harvard University as well as a 2020-21 and 2021-22 Technology and Human Rights Fellow at the Harvard Carr Centre for Technology and Human Rights. The focus of her research is Foresight and Decolonial Tech Ethics in Humanitarian Tech Governance.

Previously, she has supported a range of international humanitarian organizations, including the UN Resident Coordinators, UNV, the World Bank, UNHCR, MSF, ICRC and IFRC, on embedding institutional foresight and global strategy to drive institutional and systems transformation.

Dr John A Sweeney is an award-winning futurist, designer and author. He serves as Director at the Qazaq Research Institute for Futures Studies. He consults widely and has delivered keynote presentations, seminars and training courses in 45 countries on six continents.

As a futurist, John focuses on the impact of new technologies, organizational strategies for surviving and thriving in an increasingly complex world, and transforming policy, planning and strategy development processes by “using the future” as a resource. John has led, organized and facilitated strategic planning and foresight projects for a range of clients, including numerous humanitarian and development agencies, government innovation units and Fortune 500 companies.
As a believer in education, **Byambajargal Ayushjav** cofounded Faro Education, one of Mongolia’s largest language training school networks, in 2014. She chose the name “Faro”, which means lighthouse in Spanish, to convey the company’s goal of being a beacon of light for promoting education in the country. As an advocate of digital literacy, Ayushjav also founded Faro Foundation Mongolia to raise awareness and run training programmes on digital literacy. Ayushjav was educated at Beijing’s Tsinghua University.

**Preeti Jha** is an award-winning journalist who has been reporting across Asia, including South-East Asia, for the last several years. She was previously a Bangkok-based South-East Asia correspondent for AFP, and an editor on the agency’s Asia-Pacific desk in Hong Kong SAR (China). Earlier, she was a politics journalist for the BBC in London and a reporter for The Indian Express in New Delhi. She holds an MSc in Social Anthropology from the University of Oxford, where she focused on South-East Asia.

For the last 13 years, she has been reporting globally for The Guardian, Al Jazeera English, The Washington Post, Foreign Policy and other outlets. In 2009, she won The Guardian’s International Development Journalism Award for a feature exploring how climate change was affecting nomadic herders in Kenya and Ethiopia. In 2016, Preeti was part of an AFP team awarded a Human Rights Press Award for their reporting of the Rohingya migration crisis. And in 2017, she was long-listed for a One World Media award for her feature about hijabi cosplayers.
Gitanjali Rao, 15, is a teenage scientist and inventor who was named Time magazine's first-ever Kid of the Year in 2020. She was chosen from more than 5000 nominees for the landmark title. Gitanjali has invented numerous technologies, including a device that can identify lead in drinking water and an app that detects cyberbullying. She hopes to inspire others to come up with ideas to “solve the world’s problems”.

Dr Kristin Alford is a futurist and Director of MOD. at the University of South Australia. MOD. is an immersive museum of discovery, a place to be and be inspired. Kristin leads a team dedicated to creating dynamic, changing exhibitions showcasing the edge of knowledge and emerging technologies. MOD. opened in May 2018 to the surprise and delight of young adults, opening new possibilities and pathways so that we can all live prosperously and sustainably. Prior to this role, Kristin was the founding director of foresight agency Bridge8, facilitating futures and engagement on water sustainability, nanotechnology, health, advanced manufacturing, clean technologies and climate futures for governments, corporations and not-for-profit organizations.

Kristin has had various careers in engineering, human resources, strategy and product development for companies including BHP Billiton, Ansett-Air New Zealand, the Royal Agricultural Society of Victoria and Nanotechnology Victoria. She holds a PhD in process engineering and a Master of Management in Strategic Foresight. She is a graduate of the Australian Institute of Company Directors and a fellow of the Governor’s Leadership Foundation.
Shan Xu is Head of the WHO Collaborating Centre for Digital Health, a senior executive of the E-Health Department of Cloud Computing & Big Data Research Institute, China Academy of Information and Communications Technology (CAICT).

She is vice-chair of the ITU&WHO Artificial Intelligence for Health focus group, co-chair of the ad-hoc group on digital technologies for COVID health emergency (AHG-DT4ER), was elected to the roster of WHO digital health experts, and serves on the WHO Smart Vaccination Certificate (SVC) working group and cybersecurity working group of the International Medical Device Regulators Forum (IMDRF).

Steve Leonard is CEO of Singularity University since May 2020. He is the former founding CEO of SGInnovate, a private-limited company wholly owned by the Singapore Government, founded in 2016 to lead deep tech projects and help entrepreneurial scientists to build technology-intensive products borne out of science research.

Prior to working for the Singapore Government on nation-building priorities, Leonard served in executive leadership positions in the technology industry for almost 30 years, much of that time based in Europe or Asia. He has scaled up information-technology businesses for enterprise and consumer-facing companies in software, hardware, services and consulting. As a passionate advocate for constructive debate about technology and the future of humanity, Leonard is a regular speaker at UNDP and Economic and Social Commission for Asia and the Pacific (ESCAP) events. He is also a frequent on-stage and on-air contributor at a wide range of technology events hosted by leading media groups, including WSJ, Forbes, CNBC, Bloomberg, BBC and The Economist.
Mary Augusta Brazelton is a University Lecturer in Global Studies of Science, Technology and Medicine. She has published work on the history of penicillin development and tuberculosis control in China, as well as the history of Peking Union Medical College. She is the 2019 recipient of the Zhu Kezhen Senior Award from the International Society for the History of East Asian Science, Technology, and Medicine. Her research interests lie broadly in historical intersections of science, technology and medicine in China and around the world.

At Cambridge, she is an affiliated lecturer in East Asian Studies in the Faculty of Asian and Middle Eastern Studies and a member of the World History Subject Group in the Faculty of History, as well as a Research Fellow at the Needham Research Institute. She received her PhD at Yale and has taught at Tufts University.

Rushdi Abdul Rahim is Senior Vice-President of the Malaysian Industry-Government Group for High Technology (MIGHT), a technology policy think tank under the Prime Minister’s Department of Malaysia. He is also Director of myForesight® (Malaysian Foresight Institute). Through MIGHT’s foresight, trend and horizon scanning activities, Rushdi spends most of his time working with organizations – private and public – understanding and exploring the future impacts of trends as well as disruptions.

Rushdi led the completion of major foresight and futures initiatives that shaped Malaysia’s national policy development, including: Youth Defined-Shape the Future, the engagement of youth in foresight; Future Rail 2030, a foresight project for the development of rail industry in Malaysia; Future of Malaysian Public Service – Beyond 2020, a collaborative project with UNDP and the Public Service Department (JPA); and as Future of Work – Work, Workforce, Workplace, looking at the impact of 4th Industrial Revolution to the nature work, workforce required and the work environment.
**Will Knight** is a senior writer for WIRED, covering artificial intelligence. He was previously a senior editor at MIT Technology Review, where he wrote about fundamental advances in AI and China’s AI boom. Before that, he was an editor and writer at New Scientist. He studied anthropology and journalism in the United Kingdom of Great Britain and Northern Ireland before turning his attention to machines.

**Dr Erik Berglöf** is Chief Economist at the Asian Infrastructure Investment Bank. Berglöf sets the vision and strategy for the Economics Department and leads the planning, implementation and supervision of its work plan in support of the Bank’s mandate. He is the Bank’s inaugural Chief Economist. Prior to joining AIIB in September 2020, he was Director of the Institute of Global Affairs, London School of Economics, and Chief Economist of the European Bank for Reconstruction and Development from 2006 to 2015, where he was part of creating and co-led the Vienna Initiative, a European crisis response team credited with mitigating the impact of the 2008 Global Financial Crisis. He is an expert in transition economics and institutional transformation through private sector development. He holds a PhD in Financial Economics and an MA in Business and Economics, both from the Stockholm School of Economics. Berglöf is from Sweden.
Roger Dennis consults in foresight, innovation and large-scale change. Based in New Zealand, he supports government bodies and companies across Asia, Europe and Australasia.

Roger became a Senior Fellow (non-resident) at the Scowcroft Centre at The Atlantic Council in late 2020.

In early 2020, he was appointed by ministers to the Digital Council of New Zealand Aotearoa. The Digital Council advises the Government on how to maximize the societal benefits of digital and data-driven technologies to increase equality and inclusivity, well-being and community resilience.

Susann Roth works on the Asian Development Bank's innovation and knowledge management agenda. She holds a Medical Doctor degree and a PhD in medical science from the University of Heidelberg in Germany, and a Master of Public Health degree from the University of the Philippines. She did her internship at Duke University and Baylor College in the United States of America. She is board certified in emergency medicine.

In her role at ADB, she supports the implementation of Strategy 2030, which calls for more applications of technology, innovation, and strengthening knowledge management in ADB operations. She also works on corporate foresight to enhance the capacity of ADB and its clients to respond to and plan for emerging trends.
Krishna Srinivasan is Deputy Director of the Asia-Pacific Department, International Monetary Fund. In this capacity, he oversees the IMF’s work on several countries and areas in Asia and the Pacific, including China, Hong Kong SAR (China), Mongolia, the Republic of Korea, and Pacific island states.

Prior to this, he oversaw the IMF’s work on Brazil, Canada, Costa Rica, Mexico and Peru, as well as the Regional Economic Outlook for Latin America and the Caribbean. He also led the IMF’s work (Mission Chief) on the United Kingdom and Israel, and beforehand was in the IMF’s Research Department, where he was Chief of the Multilateral Surveillance Division, focusing on issues relating to the G-20 economies.

Dr Seongwon Park leads the Innovative Growth Research Group of the National Assembly Futures Institute of the Republic of Korea. He focuses on policy planning and decision-making through practices of foresight activities as well as futures research methods based on scenarios, emerging issue analysis, and scanning, among others.

Park has authored several books, including Futures Studies: How to Adapt to Changes of Unprecedented, Uncertain, Unwanted, as well as What Alternative Futures Do We Want? and The Future is My Power.

He was named The Outstanding Young Futurist by World Futures Studies Foundation, and his work was named Best Paper by the Association of Professional Futures.
Gwen Robinson is Chief Editor of the Nikkei Asian Review, the English-language journal and website of Nikkei Inc.

She is also Senior Fellow at the Institute of Security and International Studies at Chulalongkorn University in Bangkok, specializing in Myanmar and the South-East Asian region. She was a senior editor and correspondent at the Financial Times from 1995 to 2013, including postings as correspondent in FT’s Japan, South-East Asia, New York and Washington bureaus and FT’s London headquarters, where she was the paper’s Comment editor (2003–2007) and News Editor of FT.com (2001–2003). In 2004, she was a senior fellow at the Lowy Institute in Sydney. Her last FT post was as Bangkok bureau chief covering mainland South-East Asia.

In 1993–1995, she was a North Asia correspondent for The Times of London, and in 1990–1993, an editor/writer at the Nikkei Weekly in Tokyo. In the 1980s, she covered South-East Asia from Manila and Bangkok for American, Australian and United Kingdom media organizations. She attended the Australian National University in Canberra in 1977–1980 (BA in Asian history, sociology).
Dr Jemilah Mahmood is a medical professional with more than two decades of experience managing crises in health, disasters and conflict settings. She is currently Professor and Director of the newly established Sunway Centre for Planetary Health in Malaysia. She was Special Advisor to the Prime Minister of Malaysia on Public Health and a member of the Government of Malaysia’s Economic Action Council and Climate Action Council.

Her previous appointments include Under Secretary-General for Partnerships at the International Federation of Red Cross and Red Crescent Societies (IFRC), Chief of the World Humanitarian Summit secretariat at the United Nations, and Chief of the Humanitarian Response Branch at the United Nations Population Fund. She is the founder of MERCY Malaysia, a southern-based international humanitarian organization.

Jemilah was appointed a Senior Fellow of the Adrienne Arsht-Rockefeller Foundation Resilience Centre in 2020. She is currently on the board of the Employees Provident Fund of Malaysia and ALAM Foundation.

Mary Fissell is a professor in the Department of the History of Medicine at Johns Hopkins University, with appointments in the history of science and history departments.

Her scholarly work focuses on how ordinary people in early modern England understood health, healing and the natural world. Her first book examined how health care for the poor functioned in an 18th-century British city, arguing that Bristol’s working people shaped an urban health-care system through the choices they made – limited though those choices may have been. More recently, she has focused on how ordinary people understood their bodies, particularly reproduction, by looking at cheap print. Vernacular Bodies (Oxford, 2004) explored how everyday ideas about making babies mediated large-scale social changes, because talking about the reproductive female body was also a way to talk about gender relations and thus all relations of power. Her current work continues to examine vernacular knowledge – ideas about the natural world that ordinary people used, made, shaped and practised.
Dr Hana Hayashi is co-founder and CEO of Down to Earth, Inc., a research and consulting project that maximizes the use of public health and environmental evidence in the real world to create a healthier and more environmentally friendly lifestyle and society.

Prior to establishing DTE, Hayashi participated in global health promotion and communication projects in both developed and developing countries, and managed public health campaigns at McCann Health, one of the largest global advertising companies, based in New York. She earned a Bachelor of Arts from the School of Social Sciences at Waseda University, a Master of Education from Boston University, and a Master and Doctor of Science from Harvard T.H. Chan School of Public Health. While at Harvard, she was a scholar of the Joint Japan/World Bank Graduate Scholarship Program.

Hayashi serves as an adjunct instructor at Tokyo Medical and Dental University, a visiting research fellow at the University of Tokyo, as well as a researcher at the Society and Health Lab at Harvard T.H. Chan School of Public Health. In 2018, Hana was chosen by the Asia Society as a representative from Japan for the Asia 21 Young Leadership Program, dedicated to fostering networking among leaders in Asia. In 2020, she was selected as Eisenhower Global Women’s Leadership Program Fellow by the Eisenhower Foundation.

Dr Helena Hui Wang is Asia Executive Editor of The Lancet. She has over a decade of editorial experience in The Lancet and is responsible for regular and fast-track manuscripts, editorials, commissioned reports, The Lancet-Chinese Academy of Medical Sciences Health Conference, and The Wakley-WuLien Teh Prize.

Wang is also experienced in facilitating academic collaboration within China and globally, and often presents at health conferences. She is an ex-council member of the Committee on Publication Ethics. She received her Medical Degree at Tongji Medical College of Huazhong University of Science and Technology. The division for health systems and health security in the WHO Country Office in Beijing, China. In November 2019, Martin joined the WHO Regional Office in Manila as Director of Health Systems and Services.
Professor Vivian Lin joined the LKS Faculty of Medicine as Executive Associate Dean in March 2019. She is concurrently Professor of Public Health Practice. She has more than 30 years of experience in public health, with a variety of leading roles in policy and programme development, health services planning, research and teaching, and senior administration in complex organizations.

Vivian was Chair of Public Health from 2000 to 2013 at La Trobe University in Melbourne before serving as the Director of Health Systems at the WHO Regional Office for the Western Pacific in 2013–2018, where she led on the global priorities of universal health coverage and Sustainable Development Goals, cross-cutting priority issues of antimicrobial resistance, ageing, and gender-based violence, and on health system development issues including health financing, health law and ethics, health workforce, traditional medicines, service delivery, and health information systems.

Vivian has also worked at the senior executive level in health policy in several Australian jurisdictions, including as Executive Officer of the National Public Health Partnership. She has also consulted widely for the World Bank, UK Department for International Development, Australian Agency for International Development, WHO and various Australian governments at state and federal levels. In these roles, she developed the first Australian health sector aid strategy for China, the WHO framework for people-centred health care for the Western Pacific Region, and the ASEAN Healthy Lifestyle Strategy.
Dr Peter Black is a foresight practitioner and veterinary epidemiologist who combines strategic foresight, One Health and Ecohealth approaches to address the interconnected challenges of emerging infectious diseases, climate change, sustainability and food systems. Since 2018, he has worked as a private consultant from his base in Queensland, Australia. From 2014 to 2018, he was the Deputy Regional Manager of the Emergency Centre for Transboundary Animal Diseases (ECTAD) based in Bangkok with the Food and Agriculture Organization of the United Nations (FAO). This role managed the implementation of the Emerging Pandemic Threats Programme with a wide range of government and nongovernmental partners across 10 countries in South and South-East Asia.

Before joining FAO, he worked for the Australian Government Department of Agriculture in various roles, including Director of One Health and Director of Emergency Animal Disease Preparedness. Peter has worked to introduce more strategic foresight-focused approaches in both FAO and the Australian Government Department of Agriculture over a number of years. Peter is on the editorial board of the Journal of Futures Studies.

Martin Taylor is Director, Health Systems and Services and Acting Director, Data Strategy and Innovation at the WHO Regional Office for the Western Pacific. Martin has worked as a strategist, adviser and manager on global health and development assistance for health for 20 years, with a strong focus on supporting countries to strengthen health systems.

He has worked for the UK Department for International Development (including four years in Beijing as lead on United Kingdom cooperation with China on health systems, HIV/AIDS and tuberculosis) and was part of the team that established the Global Fund to Fight AIDS, Tuberculosis and Malaria. He studied at the University of Cambridge and the London School of Hygiene and Tropical Medicine. From 2013 to 2017, Martin was head of the division for health systems and health security in the WHO Country Office in Beijing, China. In November 2019, Martin joined the WHO Regional Office in Manila as Director of Health Systems and Services.
Cheryl Chung is Programme Director of Executive Education Singapore Futures at the Lee Kuan Yew School of Public Policy, National University of Singapore. She oversees the School’s training and consulting business for the Singapore and open-enrolment markets. She is also building the futures and strategic foresight capacity at the School with the “Singapore Futures Programme”. Her interests focus on the intersection of technology, economic and regulatory policy and on capability development in futures thinking for policy-makers. She joined the School in 2015 to head its strategic planning and government relations functions.

Prior to her transition to the higher education sector, Cheryl worked in the Singapore Government where she led futures projects across several ministry portfolios. Cheryl’s last ministry posting was to the Ministry of Transport where she helped to start the Ministry’s futures team and led the development of their policy framework for autonomous vehicles.

Ora-Orn Poocharoen is founding Director of the School of Public Policy at Chiang Mai University (January 2018 to present). She is has been appointed to the United Nations Committee of Experts for Public Administration (CEPA) (January 2018 – July 2021). Her current research interests are in public policy, public management, sustainable governance, well-being and the public sector.

She has spearheaded numerous workshops on strategic foresight, covering topics such as higher education, travelling, innovation landscape and Thailand’s governance systems. Her organization has developed and executed foresight training programmes that blend critical approaches, complexity thinking, creativity and design thinking to strategic foresight. She is a firm believer in the need to be future ready. Her work aims to influence policy-makers and public officials to adopt new mindsets to be more open to new possibilities. She holds a PhD in Public Administration from the Maxwell School, Syracuse University.
Health Futures Forum Recap

After his engineering and doctoral studies in France and the United States, Laurent Bontoux worked for a few years in industry (equipment R&D, chemical risk assessment). He joined the European Commission in 1993, where he spent most of his efforts dealing with research and science to inform policy-making. He worked especially on health and environmental risk assessment and dealt with issues as diverse as nanotechnologies, antimicrobial resistance and the potential health effects of electromagnetic fields. This led him to gain hands-on experience in stakeholder engagement and on how to apply scientific evidence in policy-making.

Laurent is now heavily involved in bringing future-oriented systemic thinking into European Union policy-making by applying classic foresight methods and developing innovative foresight approaches.

Roger Dennis consults in foresight, innovation and large-scale change.

Based in New Zealand, Dennis was appointed by ministers to the Digital Council of New Zealand Aotearoa in 2020, advising on ways to maximize the societal benefits of digital and data-driven technologies to increase equality and inclusivity, well-being and community resilience.

In 2006, Dennis co-led the Shell Technology Futures programme for the GameChanger team in The Hague and was part of the core team for Future Agenda - the world’s largest foresight programme. Prior to that, Dennis was at Egg – the pioneering European internet bank, where he worked in London on areas as diverse as the online gaming industry and deploying financial services on smartphones.
The honorable Ms Pia S. Cayetano is Senator of the Philippines and a leading voice for health and wellness in the Philippines as she chairs the Philippine Senate’s first ever Committee on the Sustainable Development Goals, Innovation, and Futures Thinking. This new committee incorporates futures thinking in policymaking and legislation, and advances reforms to help the country fulfill the SDGs.

Ten years ago, Cayetano fought for the enactment of the country’s first Responsible Parenthood and Reproductive Health Law. Today, this landmark measure has been credited for empowering Filipino mothers and couples by ensuring their access to a full range of family planning information and services from the government.

Senator Pia is working to strengthen the public health system, and prepare it for future emergencies and pandemics. The creation of a center for disease prevention and control, a national medical reserve corps, establishment of a vaccine passport, and the ‘Build, Build, Build’ infrastructure program for health - are among the bills that she has been pushing, as the country deals with the COVID-19 pandemic.

As Chair of the Committee on Ways and Means, Cayetano backs higher taxes on ‘sin’ products - including alcohol, e-cigarettes, and tobacco - to protect the youth and provide additional funding for health services.

In addition, her Safe Pathways Network bill seeks to create a network of bicycle lanes and slow streets to promote active mobility and healthy means of transport among Filipinos.

A lawyer, economist, triathlete, and mother, Senator Pia S. Cayetano continues to lead initiatives towards an inclusive and sustainable future for the Philippines.
Gabriel Leung is a physician and epidemiologist serving as the 40th Dean of Medicine (2013-), is the inaugural Helen and Francis Zimmern Professor in Population Health and is Chair of Public Health Medicine at the University of Hong Kong (HKU).

Leung is one of Asia’s leading epidemiologists and global health exponents, having authored more than 500 scholarly papers with an h-index of 69 (Scopus). His research defined the epidemiology of three novel viral epidemics, namely SARS in 2003, influenza A(H7N9) in 2013 and most recently COVID-19. He led the Hong Kong government’s efforts against pandemic A(H1N1) in 2009.

He was founding co-director of HKU’s WHO Collaborating Centre for Infectious Disease Epidemiology and Control (2014–2018) and currently leads the Laboratory of Data Discovery for Health at the Hong Kong Science and Technology Park.

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From 2007 to 2017, Alejandro was a visiting associate professor in the Department of Politics and Public Administration at the University of Hong Kong. As a Hong Kong-based independent consultant from 2001 to 2017, he worked with several foundations and international organizations, including the G20 Business Summit, the Clinton Global Initiative, the World Economic Forum and the US-Asia Institute, as well as some corporate clients. He has edited or written several books, including a short history of Manila in the closing days of the Japanese occupation, an Asian investment guide, and a survey of the financial services sector in Asia. He began his professional career as a journalist with Asiaweek Magazine, part of Time Inc., where he worked from 1988 to 2001 in Hong Kong SAR (China) and Singapore.
Annex 3: What is strategic foresight?

Strategic foresight is an action-oriented interpretive framework for anticipating the complex interaction of global trends, emerging change drivers, and generating breakthrough insights about the potential consequences of these intersecting forces.

Strategic foresight creates the intellectual space to ask “what if” questions that test core planning assumptions regarding the expected future. Unlike traditional forecasting methods that rely on historical data to make straight-line projections about the future, strategic foresight infuses non-linear and creative thinking into the planning process. Furthermore, strategic foresight establishes a context to design innovative policy and programme solutions using proven techniques such as environmental scans, early warning indicators, scenario planning and backcasting. As a strategic planning instrument, strategic foresight also enables the creation of “leading indicators” for use in deciphering “weak signals” about transformative change in the foreseeable and long-range future.

Properly executed, strategic foresight methods support effective policy design by mitigating emergent risks (for example, cognitive biases, group think, overconfidence, incrementalism) and facilitating a better understanding about latent or unrealized opportunities (for example, emerging markets, next-generation technologies). By adopting a multiple futures perspective, decision-makers and knowledge managers can strengthen their capacity for anticipatory thinking, proactive decision-making and risk communication.