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Universal Health Coverage and COVID-19 Preparedness and Response in Asia and the Pacific

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Universal Health Coverage and COVID-19 Preparedness and Response in Asia and the Pacific

Soonman Kwon[1] [2] and Eunkyoung Kim[1]

Abstract

Coronavirus disease 2019 (COVID-19) has disrupted all aspects of our global society and economies and progress towards universal health coverage (UHC), further worsening structural fragilities and deepening inequalities. Some countries that have designed their health systems for universality based on a so-called whole system approach with a unified information platform and provider payments were better prepared and more resilient and performed better in responding to the pandemic. To make health systems more resilient to shocks and crises, it is critical for governments to invest in core health system functions such as financing, service delivery and governance. Ensuring sufficient resources for health is necessary for basic infrastructure, human resources for health, and essential medicines, including vaccines; the overall level of health expenditure and the public sources of funding are important. In particular, funding for public health services, including infection prevention and control, surveillance and information systems, is fundamental to ensure health systems are prepared for and responds to health emergencies. More importantly, funding should be made available for a quick and effective response to emergencies, requiring a supportive flexible public financial management system. Moreover, it is essential to mitigate the potential risks of health system collapses through innovative ways of responding to health security issues and mobilizing private sector providers. Vulnerable groups who are even more impacted during crises need special attention; no one is safe until all are protected during a pandemic. Multisectoral cooperation among the public and private sectors, all ministries and levels of government, and development partners is paramount to progress towards UHC as well as health system resilience and during pandemic response.

Key words: COVID-19; universal health coverage (UHC); health system; preparedness and response; Asia and the Pacific.

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1. Introduction

Coronavirus disease 2019 (COVID-19) has disrupted our global modern society and progress towards UHC. Far beyond a health crisis, the COVID-19 pandemic has been affecting all aspects of societies and their economies and demonstrated the inextricable linkages between human wellbeing and the economic development.

This pandemic has been exposing structural fragilities and deepening pre-existing inequalities in the health systems and within a country and across countries[1]. Due to the COVID-19 crisis, the growth rate of the world economy in 2020 is projected to decrease by 6-7 percentage points with 90% of countries experiencing negative growth rates. The pandemic crisis may have a negative impact on poverty rates and inequalities; with conservative estimates, 48 million to 135 million people will be pushed into poverty globally by the economic contraction[2]. Impacts from increasing poverty and decreased income would go beyond the monetary well-being and lead to a deleterious impact on health, education, nutrition, and living conditions particularly for the poor and the vulnerable. The COVID-19 pandemic may affect low-and middle-income countries (LMICs) disproportionately; with the large informal sectors, limited fiscal space, and poor governance, LMICs are more vulnerable to the deleterious impact of the COVID-19 pandemic and the containment measures[3].

Investments in health systems for UHC can build resilience to shocks like the COVID-19 pandemic. As seen in the Ebola outbreak in the three West African countries, reduced funds to their health systems and reduced numbers of health providers prior to the Ebola outbreak weakened their health systems; as a result, the countries poorly coped with the outbreak and experienced substantial fiscal deficits[4]. As countries are coping with the COVID-19 pandemic, some of the countries that have been invested in health systems and achieved UHC appeared to have been better able to cope with health emergencies and the COVID-19 crisis. Progress towards UHC not only facilitates development of resilient health systems, but also provides an essential basis for sustainable and inclusive growth.

UHC is an important foundation to deal with health security like COVID-19. UHC ensures that all people can access essential continuum of care (from preventive care, curative care, to rehabilitative care) without financial hardship due to out-of-pocket payments for health services; this principle of UHC holds in response to COVID-19. Now, more than ever, sharing lessons learned from the responses and pathways forward for achieving UHC is important for the COVID-19 preparedness and response and to prepare for the post COVID-19 society in Asia and the Pacific.

This article aims to examine the importance of financing UHC towards resilience to emergencies and summarize the impact of COVID-19 in Asia and the Pacific. It also aims to provide the practical approaches to strengthen sustainable financing for UHC and health system resilience. In the last sections, we discuss key lessons learned.

2. Importance of Financing UHC in Low-and Middle-Income Countries towards Resilience to Emergencies

2.1. Benefits of investing in health system strengthening towards UHC

Builds Human Capital and Fosters Economic Growth

Investing in health systems and UHC contributes to economic outcomes by improving health, which is an important element of human capital. Human capital is a critical driver of economic outcomes on the individual and national level[5]. Improving human capital, including skills, health, knowledge, and resilience, can make people more productive, flexible, and innovative. At an individual level, on average, additional years of school lead to higher earnings, and the payoffs can be large in low-and middle-income countries. The benefits of human capital extend to others and across generations, and the individual payoffs of human capital accumulate at the aggregate level. About 10-30% of per capita gross domestic product (GDP) differences come from cross-country differences in human capital[6].

Improved health contributes to economic growth through higher productivity at all life stages. Children with better health are likely to achieve higher educational attainment and better job opportunities, suffering less from school absenteeism and drop-outs[5, 7-9]; investing in health and nutrition in early childhood are related to adult wage incomes[10]. Adults with better health are expected to be more productive; more physically and mentally healthy and active people could make a better and efficient use of technology, machinery or equipment, and be more flexible and resilient in changes and multiple tasks[5, 8-10]. If wages are associated with productivity, improved health could be expected to increase wages, which creates incentives to increase labor supply[5, 10].

Enhances Labor Market Mobility, Employment, and Formalization of the Economy

The nature of work has changed with flexible employment, holding multiple jobs at the same time, switching jobs more often than before[11]. Lack of portability of health insurance coverage can restrict labor market mobility. People are likely to remain in their jobs longer and are less likely to move their residence place for work if changing their jobs or residence place for work may cause to lose their insurance, resulting in financial risks [12]. Progress towards UHC ensures financial protection regardless of the employment status or residence place, leading to enhancing labor market mobility.

The demand for health workers is likely to increase in the future and create around 40 million new health worker jobs by 2030, particularly in high-and middle-income countries. Health employment has multiplier effects on the wider economy providing goods and services in the health sector, including building infrastructure facilities, purchasing equipment, supplies, and technologies, and other non-sector specific jobs (from information technology and finance position to drivers)[8, 9, 13]. As for paid employment, International Labour Organization (ILO) estimated that each health occupation job (physician, nurse, physiotherapist) created 1.5 additional jobs for non-health support occupations (administration, cleaning, manufacturing)[13]. Investment in the health sector can generate opportunities for creating formal jobs in a country.

Reduces Poverty and Strengthens Equity

UHC and the health sector contribute to poverty reduction in all countries and is part of country strategies of poverty reduction towards achieving Sustainable Development Goals (SDGs). It is

especially the poor who are most vulnerable to ill-health; they most benefit from national strategies to improve access to health care and reduce financial burdens due to higher OOP from health care. Poor health not only decreases the ability to earn income, but it also causes higher financial burden to household budgets, leading to exacerbating poverty. Incidence rates of catastrophic health payments and impoverishments are generally higher in countries with limited resources with the lack of prepayment systems[14, 15]. Investing in the health system and financing UHC would contribute to improvement of health and financial protection by removing financial barriers and increasing access to health services without catastrophic expenditure and impoverishment.

Improves Efficiency and Fiscal Discipline

Efficiency and fiscal discipline in the health sector are important because the size and growth rate of the health sector have an impact on a country's overall fiscal outlook. An increase in general government funding for health is necessary to achieve the goals of UHC and the health system. Robust public funding for UHC can contribute to improved efficiency, transparency, and fiscal discipline. Given the size of the health sector, impacts of efficiency gains and cost containment in the health sector on the overall government spending and fiscal discipline can be huge[12, 16].

Strengthens Health Security

UHC with well-functioning health systems protects a country's economy from health security, such as epidemic threats and climate change. For example, in the Ebola outbreak in the three West African countries, decreased funds for their health systems and reduced numbers of health providers prior to the Ebola outbreak were attributed to weak health systems; without adequate capacities for coping with the outbreak, the countries poorly dealt with the outbreak, resulting in substantial fiscal deficits[4]. The financial impact of the Ebola pandemic has been substantial; it caused declines in revenues and increases in Ebola-related and health expenditure. The fiscal deficits in 2015 are estimated at 9.4% of GDP in Guinea, 8.5% in Liberia and 4.8% in Sierra Leone[17]. Investment in health systems for UHC ensures sufficient funding and effective service delivery for pandemic preparedness and response, which reduces the risks of an outbreak occurrence, enables quick response and protects the vulnerable, and contributes to increased social stability and prosperity[12].

2.2. UHC and Health Systems Resilient to Emergencies

To make health systems more resilient to shocks and emergencies and/or in their responses to emergencies, governments need to invest in core health system functions such as financing, service delivery, and governance. Health financing policies should be in place, supporting the scaling-up and delivery of health services by ensuring sufficient funding for common goods for health and reducing financial barriers to health services[18]. Health systems across the countries are being overwhelmed by the surge in the needs for health care resources related to COVID-19. While responding to health security like COVID-19, it is important to maintain essential health service delivery through establishing effective patient flow, such as triage and targeted referral of COVID-19 and non-COVID-19 patients, and innovative ways of responding to COVID-19 with engagement of the private sector. Flexibility of public financial management is crucial to minimize the risk of the health system collapse by enhancing health system capacity[19]. Special attention should be paid to the vulnerable groups, such as women, children, people living with disabilities, the elderly, the poor, and other minority groups, who are even more affected by COVID-19 containment and mitigation measures, e.g., unemployment and limited access to care. Multisectoral cooperation among the public and private

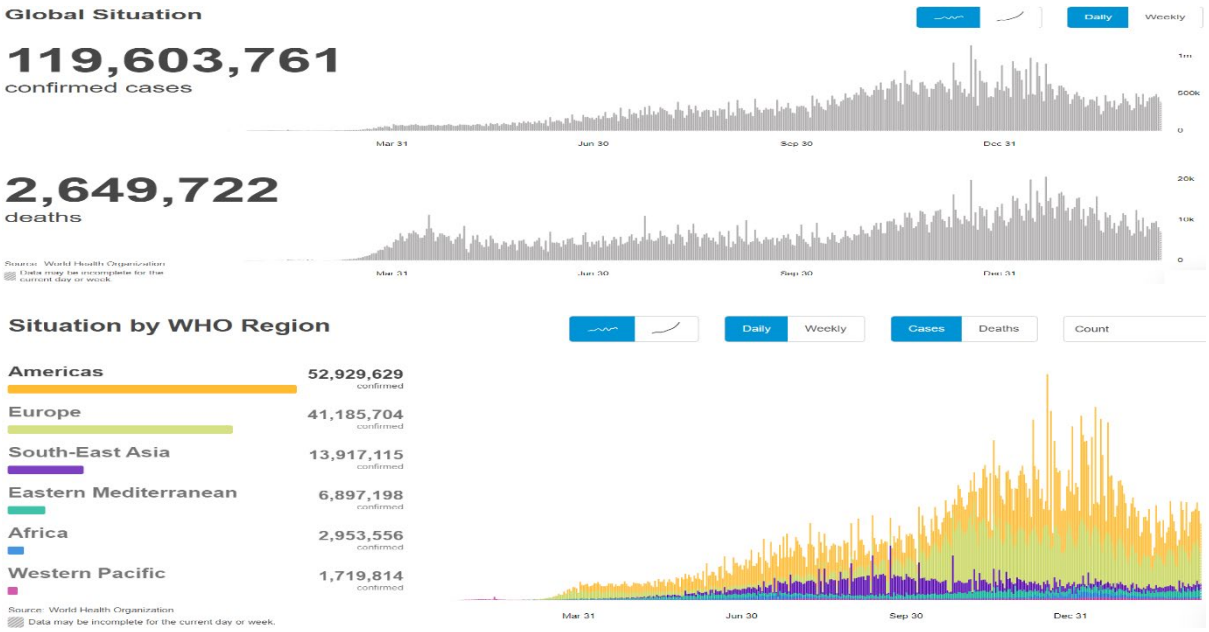
sectors, central and local governments, and across various ministries in the government is paramount to cope with health security including COVID-19 and achieve UHC.

3. COVID-19 Pandemic and Impacts in Asia and the Pacific

3.1. COVID-19 pandemic and global impacts on health and economies

On 31 December 2019, a few cases of pneumonia of unknown cause was reported in the People's Republic of China (China or PRC). WHO announced the coronavirus outbreak a public health emergency of international concern when 7,736 confirmed cases in China and 83 confirmed cases in 18 countries and territories outside China were reported. Officially named COVID-19 on 11 February, the spike of COVID-19 cases has occurred in the Republic of Korea (ROK) in mid February, and the COVID-19 outbreak began to spread in Europe in late February. WHO declared COVID-19 as a global pandemic on 11 March 2020, and the United States (US) became the most affected country by 29 March[20]. It took 67 days from the first reported case to reach 100,000 cases; 11 days for the second 100,000, and just four days for the third 100,000 globally. On 4 April, the million mark was reached, and two weeks later, the level of infection reached 2 million. As of 15 March 2021, more than 119.6 million cumulative confirmed cases and more than 2.6 million deaths of COVID-19 have been reported; about 13% of total COVID-19 confirmed cases have been in the WHO South-East Asia and Western Pacific regions (Figure 3-1)[21].

Figure 3-1. Global COVID-19 cumulative confirmed cases and deaths and COVID-19 cumulative confirmed cases by WHO region

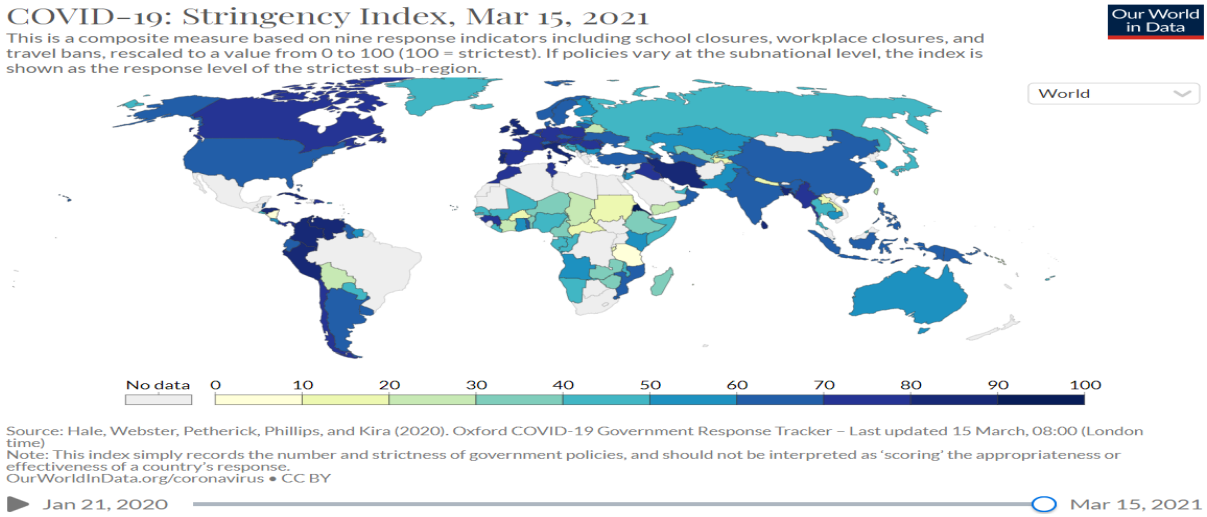


Source: Adapted from WHO COVID-19 Dashboard (accessed on 15 March 2021).

From the very beginning, many countries have taken proactive and strategic measures to contain the pandemic, including non-pharmaceutical interventions (NPIs) such as closing borders, schools and businesses, workplaces, and restricting movement and gatherings, as well as conducting active surveillance, contact tracing and case management. China was the first country that imposed

restrictions, including lockdowns in Wuhan (11 million population) and restrictions on movement across Hubei Province (57 million population)[22]. As of 17 April 2020, more than 120 countries have implemented suppression measures; East Asia & Pacific countries started implementing suppression measures around March 25 (median date); South Asia, March 26; Europe & Central Asia, March 22. Countries in Europe and Central Asia have started suppression measures at later stages of their epidemics than other regions in terms of per-capita cases and deaths[23]. By April 2020, more than 80% of countries in the world imposed strict containment and mitigation measures to suppress the spread of COVID-19; now, almost all countries have imposed containment measures (Figure 3-2)[22]. A strong gradient in the timing of containment policies with income status was found; LICs and lower-middle-income countries initiated suppression measures earlier than upper-middle-income countries or HIC[23].

Figure 3-2. COVID-19 Government Response Stringency Index



Source: Adapted from Hale, Webster, Petherick, Phillips, and Kira, 2021 (accessed on 15 March 2021).

These containment measures for the COVID-19 response have disrupted all aspects of societies and economies. Figure 3-3 shows impacts of COVID-19 on health systems and economies. Globally, many health systems are being overwhelmed by the response to COVID-19 even in relatively highly resourced settings; governments are also struggling to maintain essential health service delivery through establishing effective patient flow in order to mitigate the risks of health system collapses[1]. Governments have made efforts to secure medical supplies including personal protective equipment (PPE), masks and essential medicines. Overall health expenditure for the COVID-19 response was estimated in the range of US$234 to US$387 billion (or 0.3% to 0.5% of global GDP)[20].

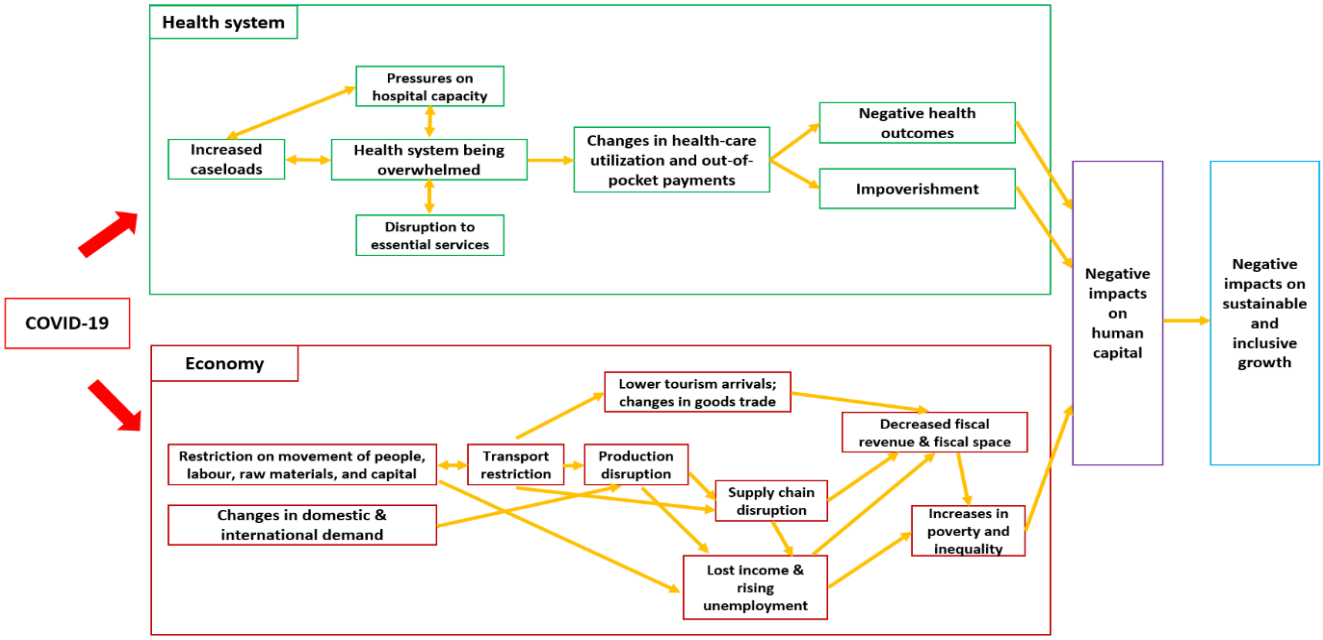
However, preliminary evidence has emerged to show that essential services have been directly and indirectly disrupted due to COVID-19 globally. Based on the WHO's preliminary results of rapid assessment of service delivery for NCDs during COVID-19, 120 countries reported disruption in NCD services[24]. Service delivery of maternal and child health, HIV, tuberculosis, and malaria is at risk of being halted or reduced in scale in LMICs because of lack of resources and restrictions on movement. Evidence showed that reductions in coverage of about 15% for 6 months would cause a 9.8% to 44.7% increase in under-five child deaths per month and a 8.3% to 38.6% increase in maternal deaths per month across the 118 countries[25]. In high-burden LMICs, deaths due to HIV, tuberculosis, and

malaria over 5 years could be increased by up to 10%, 20%, 36%, respectively, in comparison with no COVID-19 pandemic situation[26].

The COVID-19 pandemic and associated containment and mitigation measures have also disrupted global supply chain and economic activities. Restrictions on movement of labor and transportation affected the economy's production (supply shocks), leading to massive job and income losses (demand shocks). Border closures and cancellation and reduction of flights have reduced movement of people as well as goods across borders[20, 27]. According to the International Monetary Fund (IMF), the global economy is projected to contract by 4.4% in 2020 and to grow by 5.2% in 2021[28]; overall, 2021 GDP would grow 6-7 percent points lower than in the pre-COVID-19 projections made in January 2020[29]. The World Bank also estimated that a 4.3% contraction in global GDP in 2020 is projected, leading to the deepest global recession in 80 years; the global GDP is expected to grow by 4% in 2021[30].

The poorest will be disproportionately affected by the health and economic crises due to the COVID-19 pandemic. Consequently, the pandemic will have an impact on poverty and inequalities; 48 million to 135 million people will be pushed into poverty globally by the economic crisis[2]. If the Gini efficient increases by 2% in all countries, which is not unusual during a crisis, 83 million to 200 million people will be pushed into poverty, and the income growth rate of the lower 40% of the population would decrease by an additional 2.7 percentage points on average[3]. Impacts from increases in poverty and decreases in income, particularly among the poor and the vulnerable, would be harmful to health, education, nutrition, and living conditions, seriously affecting human capital development.

Figure 3-3. Impacts of COVID-19 on health systems and economies



Source: Compiled by the authors.

3.2. Regional description of health, economic, and other challenges associated with COVID-19

Health Sector Impacts (Impacts on service delivery)

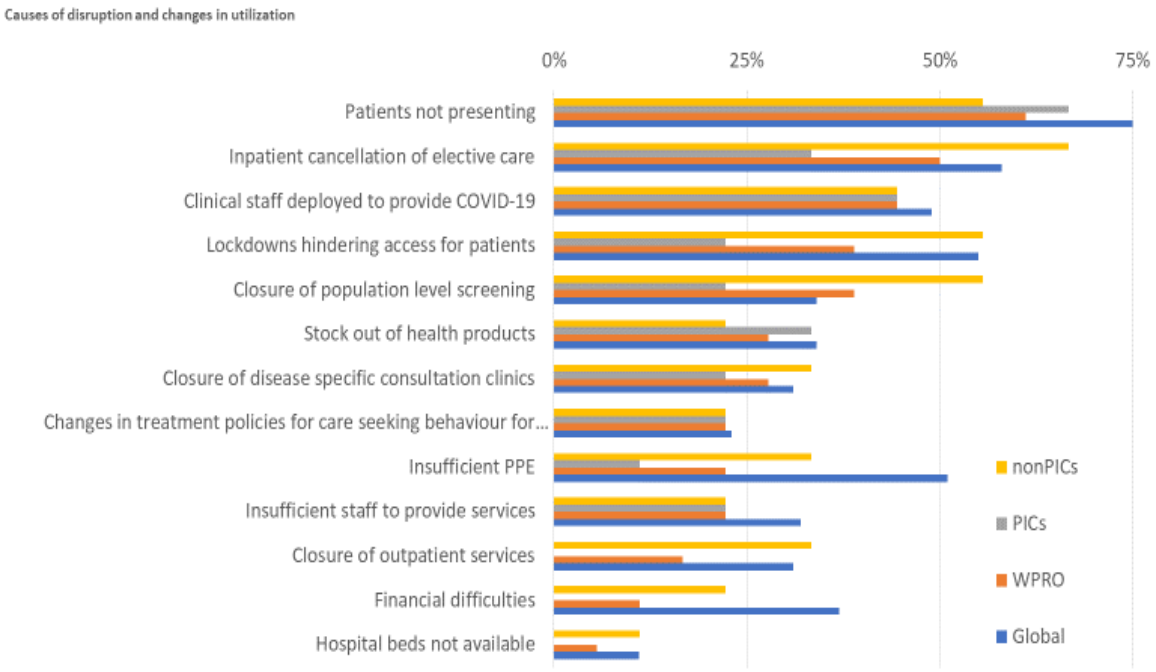
The COVID-19 pandemic has placed a severe strain on health systems in the world, which may have a more severe effect on health systems in LMICs with limited health system capacity. Evidence showed that there is a strong correlation between hospital bed capacity and countries' income status; hospital beds per 1000 population was estimated at the lowest in LICs with median 1.28 beds per 1000 and the highest in HICs with median 4.68 beds per 1000; a range of median 1.77 and 2.63 hospital beds per 1000 population on average was estimated for middle-income countries. The share of intensive care units (ICU) in hospital beds was estimated at the lowest in LICs (1.47% on average) and the highest in HICs (3.3%); 2% and 2.88% for lower-middle-income and upper-middle-income countries, respectively[23]. The implementation of non-pharmaceutical interventions (NPIs) to mitigate the spread of COVID-19 can contribute to enabling governments to prepare and enhance health system readiness for COVID-19 by flattening the epidemiological curve as seen in many countries.

However, in many countries, implementation of NPIs has affected disruptions to essential health services, such as NCD services. Based on the WHO's rapid assessment of service delivery for NCDs in the COVID-19 pandemic, partial or complete disruptions to NCD services were reported in 120 countries by May 2020; rehabilitation services were mostly disrupted (more than 60% of countries), followed by hypertension management (more than 50%), diabetes and diabetic complication management (about 50%), asthma services (about 50%), palliative care services (about 50%), urgent dental care (about 45%), cancer treatment (more than 40%), and cardiovascular emergencies (about 30%)[24].

According to the WHO analysis, disruption to essential health services, including immunization, family planning, dental and antenatal care, communicable diseases services as well as non-communicable diseases services, was reported. Countries in the Western Pacific region except the Pacific Island countries (PICs) reported larger disruption because of cancellation of elective surgery, lockdowns hindering access to health facilities, closure of population-level screening programs, and patient not presenting. Relatively less disruptions were reported in PICs; main causes of disruption were patient not presenting, clinical staff deployed to provide COVDI-19 services, and inpatient cancellation of elective care (Figure 3-4).

The COVID-19 pandemic will cause the growing backlog of health services deferred in the future. During the pandemic, hospitals have reduced elective surgery for protecting patients and health workers from risks of infection of COVID-19. According to COVIDSurg Collaborative et al. (May 2020), expert opinion and regression analysis for 190 countries show the 12-week cancellation rate for benign surgery, cancer surgery and Caesarean sections would be 81.7%, 37.7%, and 25.4%, respectively; High-income countries are likely to have higher cancellation rates for benign surgery and lower cancellation rates for cancer surgery and C-sections (Table 3-1). It could take a year or more for countries to clear the backlog (excluding cancelled C-sections cases)[31].

Figure 3-4. Causes of disruption to and changes in utilization of essential health services



Source: WHO, 2020.

Table 3-1. Best estimates for cancellation rates during peak 12 weeks of peak disruption due to COVID-19 (%)

	Benign disease	Cancer surgery	Obstetric surgery (C-sections)	Total
World	81.7	37.7	25.4	72.3
High income	83.6	30.3	20.1	72.7
East Asia and Pacific	84.6	28.7	21.7	73.4
Europe and Central Asia	83.7	30	20.9	72.7
Upper-middle income	80.4	43.4	26.4	72.1
East Asia and Pacific	79.6	47.8	27.9	72.8
Europe and Central Asia	81.5	37.8	23.2	70.2
South Asia	82.1	45.1	24.6	72.2
Lower-middle income	78.8	56.8	29.5	71.6
East Asia and Pacific	79.5	55.3	28.6	73.2
Europe and Central Asia	80.8	48.3	24.4	73.7
South Asia	79	60.1	28.9	70.9
Low-income	75.1	70.2	34.6	67.7
Europe and Central Asia	78.6	57.2	30.4	70.7
South Asia	75.2	69.8	34.4	68

Source: COVIDSurg Collaborative et al., May 2020.

Alternative strategies for maintaining health services have been implemented in most countries. According to the WHO rapid assessment of service delivery for NCDs services, triaging of COVID-19 and non-COVID-19 patients to determine priorities has been implemented in more than 60% of countries participating in the survey. Among the countries reporting disruptions to NCDs services, 58% of countries are now implementing telemedicine, and 42% of low-income countries is using telemedicine[32].

Health systems face the physical and mental exhaustion of health workers in response to COVID-19. As the frontline workers for the fight against COVID-19, health workers are at greater risk of infection. Excess workload/work hours, inadequate PPE, feeling inadequately supported were major reasons for adverse psychological consequences due to COVID-19[33]. Any losses and adverse psychological consequences among health workers have negatively affected health system capacity in countries.

Socio-economic Impacts

Containment measures for the fight against COVID-19 have significantly disrupted economic activities. Growth rate in developing Asia is projected to contract by 0.7% in 2020, which will be the lowest regional growth rate since 1961; growth is projected to be at 6.8% in 2021. Excluding the newly industrialized economies, such as Hong Kong, China, Republic of Korea, Singapore, and Taipei, China, the regional growth is projected to contract by 0.5% in 2020 and to grow by 7.2% in 2021. Growth is expected to contract in all subregions except East Asia[34]. East Asia is projected to grow by 1.3%; growth for China is projected at 1.8% in 2020 and at 7.7% in 2021. Growth in South Asia is projected to contract by 6.8% in 2020 and grow by 7.1% in 2021; India is expected to contract by 9% in 2020 and grow by 8% in 2021. Southeast Asia is expected to contract by 3.8% in 2020 and grow by 5.5% in 2021. The Pacific and Central Asia are projected to contract by 6.1% in 2020 under a global tourism collapse and by 2.1% in 2020, and to grow by 1.3% and 3.9% in 2021, respectively. Regional inflation will be expected at 2.9% in 2020 and 2.3% in 2021 because of depressed demand and lower oil prices[35].

Based on the analysis using the Global Trade Analysis Project model covering 96 outbreak-affected countries and territories with more than 1000 infections of COVID-19, global economic impact of COVID-19 is estimated to reach US$5.8 trillion (6.4% of global GDP) under a 3-month containment scenario, and US$8.8 trillion (9.7% of global GDP) under a 6-month containment scenario. Economic impact on Asia and the Pacific could reach US$1.7 trillion (6.2% of regional GDP) under a 3-month containment scenario and US$2.5 trillion (9.3% of regional GDP) under a 6-month containment scenario; the regional economic impact of COVID-19 accounts for 30% of the overall decline in global GDP[20].

A huge impact of the COVID-19 pandemic is massive job and income losses. In the PRC, about 5 million people are estimated to lose their jobs in January and February 2020[20]. Based on the analysis using the Global Trade Analysis Project model, 158 million to 242 million jobs will be lost under the 3-month and 6-month containment scenarios (6% to 9.2% of total employment), which is more than 7 times the drop in employment over the period of 2008-2009 global financial crisis. The drop in employment could reach 109 million to 167 million jobs (70% of total employment losses globally) in Asia[20].

The International Labour Organization (ILO) estimated that about 1.6 billion informal economy workers (76% of informal employment) worldwide, which is nearly 50% of the global workforce, are greatly affected by the decline in working hours due to lockdowns. In Asia and the Pacific, about 1 billion informal economy workers (73% of informal employment) are impacted by job and income losses; in HICs, about 86 million informal workers (73% of informal employment) are affected; in

upper-middle-income countries, 395 million informal workers (55% of informal employment); in lower-middle-income countries, 914 million informal workers (94% of informal employment); and in low-income countries, 197 million informal workers (77% of informal employment). Women were heavily affected; among informal economy workers affected, 42% of women are in highly affected sectors compared to 32% of men. According to ILO, income losses for informal workers are estimated to be massive; in the absence of income support measures, earnings are projected to decrease by 60% in the first month of the COVID-19 pandemic globally; 28% in upper-middle-income countries; 82% in lower-middle-income and low-income countries; 76% in high-income countries; and 22% in Asia and the Pacific[36].

Remittances to Asia and the Pacific are important and stable sources of income for households, amounting to US$315 billion in 2019. The COVID-19 pandemic is likely to decrease remittances in Asia and the Pacific. In 2019, 6 of the 10 largest remittance recipients worldwide came from this region, including India, PRC, the Philippines, Pakistan, Bangladesh, and Viet Nam. Particularly, Tonga, Samoa and other Pacific countries have relative higher share of remittances in their economies and households' income. Total remittances to Asia are likely to decrease between US$31.4 billion (baseline) and US$54.3 billion (worst-case) in 2020, which is about 11.5% and 19.8% of baseline remittances, respectively. This could push many people into poverty[37].

The COVID-19 pandemic is bound to affect poverty. With conservative estimates, 49 million to 135 million of people will be pushed into poverty worldwide dud to COVID-19[3]. The Word Bank estimated that at least 11 million people in East Asia and the Pacific would fall into poverty, particularly in South Asia[38]. Informal sector workers are one of the most vulnerable groups because of lack of government benefits and rescue packages[3, 27]. Without any income support, lost earnings would cause an increase in relative poverty for informal workers and their families by 34% globally; 21% in upper-middle-income countries; 56% in lower-middle-income and low-income countries; 52% in high-income countries; and 14% in Asia and the Pacific[36]. Countries with weak social protection are expected to have a greater increase in inequality in income and access to jobs and benefits, and an increase in poverty rates[27].

From the beginning of the COVID-19 pandemic, many governments were quick to increase spending on health and other affected sectors. Governments have made efforts to secure medical supplies, such as PPE, ventilators, medicines, and masks, and to implement containment measures. Governments also announced various economic stimulus packages in response to COVID-19, including income supports, cash transfers, in-kind supports for the poor, loans and tax assistance policies. On average, direct income support accounts for 42.8% of economic stimulus packages in ADB developing member countries and 33.8% for advanced economies. The 68 ADB members and the EU pledged US$4.7 trillion (6.6% of their cumulative GDP) for direct income support; Central Asia (7.5% of their cumulative GDP); Southeast Asia (4.1%); East Asia (3.7%); the Pacific (2.2%); and South Asia (1.2%). These economic stimulus packages are projected to raise global GDP by US$1.7 trillion to US$3.4 trillion (1.9% to 3.7% of global GDP). Asia could raise US$339 billion to US$675 billion (1.3% to 2.5% of the region's GDP) through these packages. Government policy measures could mitigate the impact of COVID-19 by 30-40%, decreasing the global economic loss to US$4.1 trillion-US$5.4 trillion (4.5%-5.9% of global GDP)[20].

4. Sustainable Financing for UHC and Health System Resilience

The current crisis has tested the features of sustainable financing of health systems and their pandemic preparedness. Resilience in revenue raising, pooling, purchasing and service delivery has proven to be key in responding to such crises. Countries need to evaluate the existing arrangements in light of their current experiences to rebuild and prepare for future crises as well to improve efficiency and access to health care.

4.1. Revenue raising

Public health functions are a key component of preparedness for a pandemic. Tax funding is more efficient than contribution-based systems to enhance pandemic preparedness, especially when contributory schemes do not cover an entire population or when it is based on multiple separate pools, which is the case in many LMICs. Compared with contribution-based financing, government funding has a higher capacity to swiftly implement countercyclical fiscal measures and adjust entitlements to ensure access to care during a pandemic.

In a pandemic crisis, general revenue declines because the economic activities shrink. External revenue for LMICs is likely to decrease when economies of high-income countries are also hit hard by a pandemic. Revenue for social health insurance systems (SHI) also declines due to unemployment and decrease in wages, and financial health and reserve fund of contributory schemes can help quickly respond to a pandemic. Falling into unemployment and the inability to pay contributions harm financial protection of the unemployed as well as on the fiscal stability of the contributory financing system. To overcome the decline and unpredictability in the revenue generation in health financing, a government's willingness and flexible PFM rules and processes are necessary to facilitate quick reprioritization and reallocation of public funds and emergency injection of additional funds to the health sector. Otherwise, a potential under-investment in the health system and slow-down of the progress to UHC would be expected.

4.2. Pooling

In general, a bigger pool is more efficient and equitable than a fragmented system of multiple pools. A single pool is more efficient for pandemic preparedness, which is related to externality across regions/districts and population groups. Fragmented pools may be reluctant to invest in preparedness that benefits the enrollees in other pools. A single pool can effectively steer and govern the development, investment and implementation of preparedness and coordinate the response across all relevant stakeholders[39].

In a response to a pandemic, a big single pool can also work more efficiently to purchase from health care providers and cover services across different localities and pools. Even in a single pool of contributory financing, coordination between contributions and government budget is important during a pandemic response. In a system of multiple pools, harmonization of entitlements and service coverage across pools, risk equalization, and uniform information systems are strengthening health system preparedness and resilience during a health crisis[40]. Efficiency gain from pooling also contributes to additional fiscal space.

4.3. Purchasing

Service Coverage

Health financing should provide comprehensive coverage and access to essential medicines and health services, which include pandemic preparedness. Some key public health functions, capacities, tests and PPE, among others related to a pandemic response, should be available as an entitlement without financial barriers[18]. A PFM system needs to include special arrangement and procedures that allow fast and transparent flexibility to reallocate funds or purchase goods and services to meet changing needs in the response to a pandemic, such as for the elderly, the poor and vulnerable. Purchasing arrangements need to be in place for such crises to ensure minimum disruption during a pandemic the provision of essential health care, such as vaccination, mental health, NCD, and reproductive, maternal and child health services. They also need to protect healthcare providers to adjust to changing demand.

In Asia and the Pacific, COVID-19 services in most countries have been funded by government budgets and public insurance systems. In China, Indonesia, Malaysia, Mongolia, Viet Nam, for example, government budgets were used for both regular and emergency purposes. In Timor-Leste, funding from the Petroleum Fund (a national wealth fund used for emergency purposes) was used for an extraordinary transfer to the state budget to fund COVID-19 health services. Indonesia earmarked a national emergency stimulus package to tackle the COVID-19 outbreak for healthcare spending. Conversely, resources from (public) health insurance systems have played a critical role, such as the Universal Coverage Scheme (UCS) in Thailand, the National Health Insurance (NHI) system in the Republic of Korea, the National Health Insurance Program (NHIP) of the Philippines, and the Pradhan Mantri Jan Arogya Yojana (PM-JAY) in India, among others[41].

During the COVID-19 Pandemic, co-payments for the test and treatment associated with a pandemic need to be reduced or exempted, if any. Australia, Cambodia, China, Japan, Republic of Korea, Malaysia and Singapore (in the public sector), Mongolia, the Philippines, the Lao People's Democratic Republic, Thailand, Viet Nam provide testing and treatment of COVID-19 free of charge. In China, all drugs and services (including tests) in the National Health Commission (NHC) guideline for diagnosis and treatment of COVID-19 are reimbursed and all costs of comorbidities treatment and follow-up visits for COVID-19 patients are also covered. According to the Public Health Ministry announcement in Thailand, all hospitals, public and private, may not charge patients but can bill the National Health Security Office (NHSO) later[41]. In Bhutan, private hotels and businesses have provided their services free of charge to the government to be used as quarantine facilities.

Payment System for Providers

Quick and flexible purchasing in times of a pandemic includes making available additional public resources to front-line service providers in a timely manner. Resilient health systems have quickly adjusted PFM rules and procedures as well as fiscal arrangements, including advance payments or direct budget transfers, that aimed at accelerating the release of funds to providers have been implemented. The public insurance system in Thailand and Indonesia used standard claim-based disbursement arrangements; advance payments to providers were used in the PhilHealth in the Philippines. The Philippine Health Insurance Corporation, or PhilHealth, under the interim reimbursement mechanism released funds paid to health care facilities equivalent to three months worth of claims based on historical data, which will be accounted for in the future claims[42].

A mix of payment methods for COVID-19 related services were used by purchasers and payers to offer service delivery alternatives. Fee for services (FFS) seem to be the most commonly used payment method, particularly, for testing, consultation and ambulance services. For hospital care that is more complex, many different payment methods have been applied such as case-based payment, line-item budgets, fee for services and per diem payment. Resilient strategic purchasing also needs to consider the risk of fluctuating demand that provides face under different types of payment systems during the pandemic, e.g., high risk of decreased demand under fee-for-service. Moreover, purchasing also needs to be flexible with adequate incentives to purchase emerging and new types of services, including telemedicine and online consultation and health care by private providers. In Thailand, the Ministry of Public Health introduced telemedicine services to mitigate the potential risk of COVID-19 infection in healthcare facilities, which are paid on the basis of a fee schedule[41].

As countries have imposed restrictions on non-urgent services to free up hospitals for COVID-19 patients, patterns of health care utilization, especially non-COVID-19 essential services can be significantly changed. Although this is necessary in the short term, this has affected providers who rely on volume-based payment methods such as FFS, suffering cash-flow issues[43]. Temporary compensation for providers for unexpected changes in cash flow is needed to enable smooth, effective adaptation. Pandemic preparedness may need a risk sharing mechanism between payers and providers to maintain access to essential services during pandemics as well as surge capacity where necessary. The role of different payment systems for providers in a pandemic crisis depends on contexts, but capitation can better withstand the decline in demand while fee for service is very sensitive to changes in demand and exposes providers to high risks, similar for DRGs.

Purchasing Arrangement for Private Providers

Countries in Asia and the Pacific show considerable variation in private sector participation in service delivery. Regardless of the income level, the private sector has played a significant role in service delivery. In some countries, the private sector accounts for the majority of health service providers, including Republic of Korea, Japan, the Philippines, Cambodia, India, Indonesia, and Bangladesh. In other countries, such as Viet Nam, China, and the Lao People's Democratic Republic (Lao PDR), the private sector has recently been growing in the health sector[44]. On the other hand, countries such as Thailand, Bhutan, Timor-Leste, Sri Lanka and the Pacific Island countries largely depend on public providers[41].

A surge of patients during a pandemic requires mobilizing many health providers for a whole-of-country approach. Based on quality and performance, having in place a contracting system for private providers would be an important element of pandemic preparedness. Incentive and payment systems for private (and public) providers as well as legislation, accreditation and regulation for the quality of healthcare providers constitute pandemic preparedness as well as improve overall performance of health care delivery with synergies and the uniform policy framework. A country can introduce a law to allow a mandatory mobilization of private providers in a health emergency related to a pandemic. A PFM system need to include contracting arrangements with private providers during a pandemic if such rules are not in place. The role of the private sector is also important to rapidly expand the supply of PPE, diagnostics, and medicines.

Except for the Republic of Korea and Japan, in the first few months into the pandemic, many governments heavily depended on public providers to provide COVID-19 related health services. Several countries have first investigated the public-sector readiness and gaps with respect to the

required services, including COVID-19 testing, ICU beds and ventilators, hospital case monitoring and home care, and made decisions to integrate the private sector. Some countries, like the Philippines, India, Nepal and Thailand, made it mandatory that all designated private hospitals treat COVID-19 patients based on their capacity when and where required. By June 2020 private providers in most countries in Asia and the Pacific had already been mobilized to support the COVID-19 response actions to some extent, including testing (in health facilities and laboratories), consultations, dispensing of outpatient medicines, ICU care, hospital admissions and quarantine and self-isolation measures[41]. In addition, the private sector has participated in response to COVID-19 as the main producer and supplier of essential medical products, including drugs, ventilators and PPE. As governments strive to contain the spread of COVID-19, they need to ensure increased and continued supply of various essential medical products, from testing kits, masks and other PPE items to oxygen and ventilators.

Relationships between the purchaser and providers vary depending on a country's health financing systems. In some countries, the Ministry of Health (MoH) also served as the purchaser of private health services, including Cambodia, Viet Nam, Lao PDR, Mongolia, Sri Lanka, Nepal, Bangladesh and Timor-Leste. In other countries, public health insurance agencies has been the purchaser from both public and private providers, such as the Thailand's National Health Security Office (NHSO), NHIS in the Republic of Korea, PhilHealth in the Philippines, Indonesia's Badan Penyelenggara Jaminan Sosial (BPJS) and the PM-JAY in India. For patients that are not covered by PM-JAY, the Ministry of Health and Family Welfare purchases COVID-19 related health services in India[41].

Most countries have resorted to more straightforward and faster processes of selecting private providers than before and approved lists of private health facilities for COVID-19. In Thailand, the Ministry of Public Health issued lists of qualified testing laboratories and approved hospitals for COVID-19 care. In Indonesia, the BPJS certifies private hospitals based on a set of criteria suggested by the Ministry of Health. In Thailand and Indonesia, the hospital capacity in terms of the number of ICU beds, ventilators, and health workers has been used as selection criteria. In other countries, such as Nepal, the criterion is more straightforward, and all designated private facilities licensed as tertiary level hospitals are allowed to treat COVID-19 patients. In the Philippines, admission to accredited or non-accredited private facilities are allowed as long as they are licensed or certified by the Departments of Health (DOH), and treatment and management allowed by accredited or non-accredited health care professionals who are duly licensed by the Professional Regulations Commission. In India, the state health authorities within PM-JAY have the flexibility to select the criteria of empanelment based on their specific situation[41].

Payment rates for private providers have been adjusted to generate incentives for more accessible COVID-19 services. According to the survey results among WHO SEAR countries, private providers in some countries indicated some reluctance to provide ICU services for COVID-19 patients at the existing payment rates. In Bangladesh, private facilities had to hire consultants and other health workers at seven to eight times higher rates because health personnel were reluctant to provide COVID-19 services. Therefore, the tariffs for services need to be aligned along with the existing payment level, with the possibility to increase them in order to incentivize health providers. In India, payment rates for COVID-19 related services were upwardly adjusted considering the increased costs.

Monitoring mechanisms have been guided by governments, and increased engagement has contributed to openness and transparency in response to COVID-19. Although monitoring mechanisms vary, the public health emergency regulatory agencies such as Disease Control Departments as well as the purchaser and payer are more closely involved in monitoring COVID-19

service delivery compared to normal times in most countries. In Viet Nam, Sri Lanka, and Mongolia, the Ministry of Health provided comprehensive guidelines to hospitals and health facilities on screening, admission and isolation of confirmed or suspected COVID-19 cases, establishment of isolation areas in hospitals, etc. The Centre for Disease Control and Prevention (CDC) in the Republic of Korea and Thailand's Disease Control Department issued clinical practice guidelines for all health facilities[45]. Following these guidelines, reporting is mandatory for all types of providers in all countries in the region, requiring a specific set of data related to COVID-19 to be timely and transparent. New monitoring mechanisms and information platforms have also been developed to ensure timely and complete reporting of information on COVID-19 related cases. The Indian National Health Authority introduced a dedicated and separate platform to collect and analyze data to monitor changes in the behavior of private providers [41].

4.4. Service delivery innovations in improving access to care

Efficient Service Delivery

Pandemic preparedness calls for special wards and hospitals for the treatment of patients, and the health system requires flexibility in infrastructure, logistics and human resources to respond to a pandemic situation. Primary care needs to play a key role in prevention, detection, treatment, referrals, so on, and can also help ensure access to essential services[19]. During the COVID-19 response, the majority of COVID-19 patients are mild cases and need not be hospitalized. Setting up a patient triage system and sending mild patients to non-hospital facilities, including home care and social care institutions, can make hospital beds available for patients with severe and critical illness (e.g., Japan and Korea), and the coordinated continuum of care can reduce mortality. Treatment pathways are needed, and separate paths for respiratory patients, especially for the outpatient care, can also minimize the potential infection in health facilities.

Digital health

The role of digital health has increased in a pandemic crisis. Social distancing or lockdowns are barriers to health care access, and health care providers also worry about potential infection by a patient visit. Digital health has shown to enhance access to health care during a pandemic in many countries. For digital health to succeed, adequate payments and incentives for both providers and patients, as well as a system to ensure quality, safety and privacy, should be considered.

In China, telemedicine was incorporated in China's 10-year health reform to improve access to quality care in remote areas and primary care facilities. Before the COVID-19, more than 13,000 health facilities across the country had telemedicine platforms in place with various levels of implementation. Each Province set up regional telemedicine centers to support the sharing of regional medical resources with a national platform launched for cross-regional coordination. A mechanism was already in place to convene expert panels to provide remote assistance, thus using telemedicine for the COVID-19 response was less challenging. Provincial health commissions take the responsibility of coordinating implementation activities with participating hospitals, clinical experts, and telecom providers[46].

Moreover, using technologies and monitoring systems in service delivery has been critical to quickly and efficiently respond to COVID-19. As all people and health providers are required to participate in the NHI system in the Republic of Korea, Health Insurance Review and Assessment (HIRA) under the NHI system produces health- related big data, available to the public, health providers, and the

government. HIRA can track all resources, including test kits, vacancies in negative pressure wards, supplies of medicines, and the number of health providers and pharmacies available at the central and local levels on a real time basis. HIRA developed a monitoring system for tracking buyers' purchasing records to monitor the distribution of masks[47].

5. Key Lessons and Pathways Forward

The COVID-19 pandemic has exposed the intrinsic value of health and the resilience of the health sector, the importance of the sufficient investment in health, and the interconnectedness of health and the economy. Countries that had ingrained pandemic preparedness in their resilient health systems, which are rooted in the values of UHC, were able to better deal with the pandemic as well as to provide access to essential services and continuum of care, including key public health functions, without financial barriers. Temporary fiscal pressure due to the economic impacts of COVID-19 may require increased fiscal space for the response, but such investments can lead to increased efficiency, quality, and access, furthering progress towards UHC. Investment into strengthening health systems is a fundamental solution for pandemic preparedness and response. COVID-19 can create an opportunity to transform existing financing and service delivery towards UHC by increasing efficiency, prioritization, quality and access for the poor while improving health security and economic reconstruction.

A very effective strategy to cope with a pandemic is to have capacity of preparedness and early response so that rapid infection is controlled, i.e., the epidemiological curve is flattened, and health system can still function without being overwhelmed by the overflow of severe patients. They are "common goods" for health as step zero towards UHC, which goes beyond covering individual services[48]. Multisectoral cooperation is critical, including between public and private sectors, between central and local governments, and across different ministries and sectors, particularly the health and finance ministries. In a health emergency like COVID-19, leadership and technical authority by the central government can quickly increase the response capacity of a country. Trust, awareness, and participation of the public are all vital to build a resilient system for infectious disease prevention and control. Transparency, communication and community engagement also contribute to an effective multisectoral approach to cope with a health crisis.

When countries make progress towards UHC, they need to make sure that people are entitled not only to individual services but also to population and public health services, such as prevention, preparedness, and treatment of infectious diseases and pandemics. In an effective response to a pandemic, resilience and adaptability of service delivery and financing is critical in terms of payment methods/rates, incentives, upfront payment, contracting, and risk-sharing mechanisms. Government budget or PFM needs to be flexible as well as accountable to mobilize financial resources and increase spending to the health sector during a health emergency. Government's willingness and capacity to rapidly and effectively make a prioritization decision and allocate human and physical resources across different levels of care and different regions is also crucial.

Strengthening primary care is a cost-effective policy for prevention, surveillance and early detection, and treatment of infectious disease patients. The role of innovations in service delivery through digital health would be also important to maintain or improve access to essential health services and minimize potential excess mortality from non-COVID-19 health problems. Countries also need to introduce a purchasing mechanism and regulation to make sure that private providers contribute to a nation's health in a health emergency. As robust pandemic preparedness entails all stakeholders, including employers, non-government organizations (NGOs), the health and other sectors under clear

governance structures and legal framework, UHC financing and service delivery need to have such plans and arrangement integrated in their operations and aligned in the financing arrangement, contracting relationship, regulatory framework, and training of human resources.

UHC guarantees no one is left behind. Governments will have to pay close attention to the protection of vulnerable population, such as the elderly, those with existing conditions and the poor, who suffer much more than others from a pandemic. The poor, migrant workers and those who live in vulnerable environments, such as urban slums, need to be better protected because they already have worse health conditions, have limited access to health protection, and face more barriers to practice personal hygiene and social distancing. A targeted approach to protect the poor, the elderly and those with pre-existing medical conditions is more efficient, because once the most vulnerable group is protected, young and middle-aged groups, who have lower fatality, can join economic activity more quickly. In addition, health measures need to be accompanied with other social assistance measures to provide more effective protection for the vulnerable.

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