

# Universal access to comprehensive COVID-19 services for everyone in Thailand

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## ABSTRACT

Despite Thailand having had universal health coverage (UHC) with comprehensive benefit packages since 2002, services are neither listed nor budget earmarked for COVID-19 responses. Policy decisions were made immediately after the first outbreak in 2020 to fully fund a comprehensive benefit package for COVID-19. The Cabinet approved significant additional budget to respond to the unfolding pandemic. The comprehensive benefit package includes laboratory tests, contact tracing, active case findings, 14-day quarantine measures (including tests, food and lodging), field hospitals, ambulance services for referral, clinical services both at hospitals and in home and community isolation, vaccines and vaccination cost, all without copayment by users. No-fault compensation for adverse events or deaths following vaccination is also provided. Services were purchased from qualified public and private providers using the same rate, terms and conditions. The benefit package applies to everyone living in Thailand including Thai citizens and migrant workers. A standardised and comprehensive COVID-19 benefit package for Thai and non-Thai population without copayment facilitates universal and equitable access to care irrespective of capacity to pay and social status and nationality, all while aiming to supporting pandemic containment. Making essential services available, notably laboratory tests, through the engagement of qualified both public and private sectors boost supply side capacity. These policies and implementations in this paper are useful lessons for other low-income and middle-income countries on how UHC reinforces pandemic containment.

## SUMMARY BOX

- ⇒ Since 2002, Thailand has achieved universal health coverage (UHC) of the Thai population with public health insurance schemes. UHC has yet to adapt to provide pandemic-related services to everyone including the non-Thai population.
- ⇒ The government approved significant budgets to support a comprehensive range of COVID-19 related services not covered by the UHC benefit package to everyone including the non-Thai population.
- ⇒ Effective response to the pandemic requires universal access to services by everyone regardless of nationality. Mobilising public and private healthcare providers using the same rule and regulations and payment rates reflecting cost of services prevents patient denials.

the tax-financed universal coverage scheme (UCS).<sup>1,2</sup>

For the non-Thai population, registered migrant workers are covered by the payroll tax-financed SHI scheme while voluntary premium contribution migrant health insurance, managed by Ministry of Public Health (MOPH), covers documented migrants and their dependants, though on a voluntary basis. Hence, a substantial proportion of migrant workers, notably the unregistered and their family members, are not covered by any financial risk protection systems; services are paid for out-of-pocket.<sup>3</sup>

By the 1990s, the three decades of MOPH investment in health system infrastructures had achieved full geographical coverage of subdistrict health centres in all subdistricts (with a catchment population of 3–5000). Since 2009, these health centres have been reorganised into *Tambon* health promotion hospitals, which still serve as primary health-care facilities without inpatient services.<sup>4</sup> As of 2021, there are 9774 *Tambon* health promotion hospitals, 41 health centres and

## UNIVERSAL HEALTH COVERAGE (UHC) AND HEALTH SYSTEMS CONTEXT

Since 2002, Thailand has achieved UHC of the entire population through three main public health insurance schemes. Public sector employees and dependants (7.1% of total population) are covered by the tax-financed Civil Servant Medical Benefit Scheme (CSMBS), private sector employees (17.2%) are covered by the payroll tax-financed Social Health Insurance (SHI) Scheme, and the remaining majority (75.7%) are covered by



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775 district hospitals nationwide<sup>5</sup>; district hospitals cover a catchment population of 50 000 each. Citizens have better access to quality services provided by the district health system due to their proximity.

In parallel, capacity building of the health workforce by MOPH, notably physicians and nurses, resulted in increased health workforce density—40.7 doctors, nurses and midwives per 10 000 population as of 2021.<sup>1</sup> The health workforce ensures health delivery systems function, which is the foundation for successful UHC implementation since its launch in 2002.<sup>6</sup>

Outcomes of UHC are favourable. The comprehensive benefit package<sup>2</sup> and free-at-point of services result in low and continually decreasing incidence of catastrophic health spending defined by household out-of-pocket payment for health accounting for more than 10% of household expenditure or income.<sup>7</sup> It was 6.7% in 1994 and reduced to 2.2% in 2017.<sup>8</sup> The incidence of impoverishment, additional people below poverty line resulting from health payments, reduced from 1.4% in 1996 to 0.4% of the population in 2015 (using international poverty line of US\$3.1 per capita per day).<sup>9</sup> Extensive geographical coverage of district health systems facilitates adequate and equitable access<sup>6</sup> with low levels of unmet needs.<sup>10</sup>

This practice paper analyses how Thailand has responded to the COVID-19 pandemic by applying the strengths of three UHC dimensions of population coverage that covers all non-Thai populations, notably migrant workers; a service package with a comprehensive set of COVID-19 related services and financial risk protection in the form of no copayment from users. We argue that using three dimensions of UHC and having a comprehensive benefit package with no copayment for everyone is one of the key contributing factors to pandemic containment.

### MIGRANT WORKERS: THE VULNERABILITY CONTEXT

Thailand's economy has attracted millions of migrants from bordering countries, a large majority from Myanmar, Laos and Cambodia. Migrants seek a better standard of living or have fled their countries due to national instability and end up working in fishing, agriculture, hospitality, domestic work and manufacturing/factory industries. However, migration challenges such as high costs and bureaucratic processes cause a significant amount of migrants (1–2.5 million of the estimated 4–5 million in Thailand) to enter Thailand illegally.<sup>11</sup> These populations already face increased occupational health risks due to the industries they work in,<sup>12</sup> and trafficking and illegal statuses decrease their access to care. The fishing industry, for example, sees high rates of injuries and serious health risks including mental health issues, but due to trafficking, migrant workers are often untreated.<sup>13</sup>

In addition to occupational hazards, living conditions contribute to health risks as well; migrant worker communities are crowded, often with three to five people in one

apartment room. Some communities house up to tens of thousands of workers with poor sanitation<sup>14</sup> and ventilation,<sup>15</sup> becoming epicentres for disease outbreaks.<sup>16</sup> In conjunction with living and work conditions, the low vaccination rates give rise to outbreaks such as measles in factory workers<sup>17</sup> and school children along borders.<sup>18</sup> Similarly, pulmonary tuberculosis (TB) is highly prevalent in migrant worker populations, but barriers in accessing care prevent them from getting proper treatment; illegal status and fear of arrest,<sup>19</sup> difficulty in transportation, financial restraints and lack of knowledge on where to seek treatment are all contributing factors<sup>20</sup> and migrant workers often end up self-medicating (this behaviour is not limited to TB). Lack of access to healthcare make migrant workers a potential host of infection for further transmission to their own communities and to Thai populations as carriers of diseases that are prevalent in their home countries but eliminated in Thailand, such as lymphatic filariasis.<sup>21</sup>

While public healthcare services are officially and legally available to migrant workers, utilisation remains low. Registered and employed migrant workers are eligible for the mandatory Thai social security scheme (SHI), but it covers only a small proportion of migrant workers.<sup>3</sup> The MOPH has implemented the migrant health insurance scheme covering all registered and unregistered migrants for two decades, which expanded to include dependants in 2005. This scheme is voluntary and prepaid per annum by the migrant worker. Despite that, in addition to previously mentioned challenges, language barriers, lack of identification documents,<sup>22</sup> and discrimination and alienation from healthcare workers have been reported as hurdles in accessing care.<sup>23</sup> Recognising this, the Thai government has been implementing 'migrant-friendly' service programmes, such as cultural mediation services through migrant health workers and migrant health volunteers<sup>2</sup> since 2003, though their health literacy remains a problem and needs to be promoted for the betterment of migrant health.<sup>24</sup>

Labour trafficking and the resulting fear of arrest is one of the social origins for COVID-19 outbreaks in Thailand. This is precisely what happened with the second wave of COVID-19 in Thailand originating in December 2020. Undocumented migrants who were not captured by border quarantine systems caused outbreaks starting in their industries, including fresh seafood markets.<sup>25</sup>

### FIVE WAVES OF COVID-19 BETWEEN 2020 AND 2022

Thailand responded effectively to the first wave of COVID-19, which began in March 2020. The epidemic was triggered by clusters from events at the boxing stadium and night clubs in Bangkok, which later spread to 68 provinces,<sup>26</sup> while people returning from religious trips in Malaysia and Indonesia also spread the virus to various southern provinces.<sup>27 28</sup> After 25 May 2020, evidence reported no local transmissions; all subsequent

cases were identified from international travellers in state quarantine systems.

The second wave was triggered by Thai workers working in entertainment complexes at a neighbouring country that illegally returned carrying the virus, causing it spread to several Northern provinces. In this wave, a large number of undocumented migrant workers spread the virus in factories and a large wholesales seafood market in Samut Sakhon province. The wave subsided in March 2021 through effective containment and trace-and-test implementations.<sup>25</sup>

The third wave was triggered by clusters at entertainment facilities, bars and night clubs in Bangkok and spread nationwide during the Thai New Year holidays in April 2021 as masses of people travelled to their provincial hometowns. This wave spread widely in communities, notably in crowded communities in Bangkok, factories and prisons, affecting mostly vulnerable populations.<sup>29</sup> The delta variant (B.1.617.2) was identified in Bangkok in June 2021 and accounted for 25.7% of detected cases.<sup>30</sup> The fourth wave was triggered by the delta variant, as it had 60% higher transmissibility than the alpha variant<sup>31</sup>; it resulted in an immense increase in the number of daily cases and deaths and almost overwhelmed the health systems. The fifth wave was caused by the omicron variant, starting in December 2021 with more cases but a lower mortality rate than the delta variant.

As of 14 March 2022, there were a cumulative 3.2 million COVID-19 cases, 23 781 deaths<sup>31</sup> and 225 886 current active cases under treatment,<sup>32</sup> which have greatly strained healthcare facilities, intensive care units and ventilators particularly in Bangkok.

The spread of COVID-19 is much more difficult to control in Bangkok, which is a complex metropolitan governed by the local government, 'Bangkok Metropolitan Administration'.<sup>33</sup> It has lower public health capacity to contain infections than other provinces, which are under the leadership of the provincial governor and provincial chief medical officer. Furthermore, Bangkok hosts more than 10 million people, with a population density of 6718 per square kilometre,<sup>34</sup> and a high concentration of vulnerable populations—elderly, poor households in congested areas and migrant workers in cramped dormitories and construction sites. By 21 November 2021, Bangkok was the outbreak epicentre with 445 547 reported cases (22% of total 2.064 million national cases)<sup>35</sup>; Bangkok also had highest records of COVID-19 deaths at 6708 (33% of total national reported deaths).<sup>35</sup>

### COVID-19 IMPACT ON VULNERABLE POPULATIONS

Spread in prisons is caused by asymptomatic new prisoners despite the 14-day quarantine at reception sites and asymptomatic wardens causing infection during travel between prisons to the court of justice.<sup>36</sup> On 19 May 2021, there were 12 676 out of total 311 639 prisoners nationwide that tested positive (4%). This figure is

an underestimate compared to active case findings where 10 748 out of 24 000 prisoners tested positive (45%). Due to these prison outbreaks, in-person social visitations have been entirely suspended,<sup>37</sup> potentially straining the mental health of prisoners. Furthermore, prisoners have a right to healthcare, and the Department of Corrections has long been working with MOPH and National Health Security Office (NHSO) to ensure access<sup>38</sup>; TB, for example, is highly prevalent among prisoners,<sup>39</sup> and they are a target group for TB treatment. The spread also affects their access to care for non-COVID-19 related health services.<sup>40</sup>

Migrant workers are mostly affected by COVID-19 as they live in crowded dormitories with no social distancing and low coverage of face masks, poor ventilation<sup>15</sup> and sanitation.<sup>14</sup> These migrant workers do not have the choice to work from home<sup>30</sup> and continue to work in factory assembly lines as well as fresh markets. Outbreaks in migrant worker populations have resulted in active case findings through mass testing followed by strict 14-day community quarantine, where the government and civil society organisations provide food, potable water and other necessities.<sup>29 30</sup> As businesses struggle, similar to Thai workers, low-skilled migrants are often the first to get fired and have wages and work hours reduced.<sup>41</sup> They have also reported being in debt and face psychological stress.<sup>30</sup> Those caught by immigration patrols face prolonged detention in overcrowded facilities.<sup>29</sup> There are no statistics on the proportion of infection among migrant workers specifically, but as of 25 October 2021, 336 639 cases or 18% of total 1.86 million cases were non-Thai. Among these, 38% were Burmese.

### POLICY RESPONSE: UNIVERSAL ACCESS TO COMPREHENSIVE BENEFIT PACKAGE WITH HIGH FINANCIAL RISK PROTECTION FOR EVERYONE—REAL UHC IN ACTION

#### Making services available: scaling up supply side capacity

Despite a robust health infrastructure such as having hospital beds, intensive care units and ventilators in all provinces, these are insufficient for a pandemic. RT-PCR tests, which are the key entry point of case identification for immediate public health and social measure implementation, were not sufficiently available to test all individuals suspected with COVID-19. In April 2020, there were only 39 certified RT-PCR laboratories in Bangkok with a capacity to perform 10 000 tests per day and 41 laboratories outside Bangkok with similar capacities.<sup>42</sup> Strengthening RT-PCR testing capacity, installing equipment and training scientists of the existing laboratories in MOPH regional and provincial hospitals was immediately implemented. As of June 2021, there were 317 RT-PCR laboratories fully certified by the Department of Medical Sciences, of which 124 (48 public and 76 private) are in Bangkok and 193 (147 public and 46 private) are in the remaining 76 provinces.<sup>43</sup>

The MOPH stockpiled favipiravir and remdesivir for treatment and planned for the worst-case scenario.

The initial shortage of personal protective equipment was resolved as the Ministry of Commerce announced in February 2020 that surgical masks, polypropylene and alcohol-based hand sanitisers are to be classified as 'controlled items' with legal action against price gouging, illegal stockpiling and exports,<sup>44</sup> and that there would be an increase in local production of surgical and N95 face masks,<sup>45</sup> with a new face mask production line.<sup>46</sup>

Field hospitals, supported by local governments, the Ministry of Higher Education, Science, Research and Innovation, Ministry of Defence, private sector, communities and individual donations, were rapidly built within days in existing premises in provinces heavily affected by the outbreaks, especially during the second and third waves. At the peak of the third wave in July 2021, field hospital beds increased from 8243 to 12 822, of which 20% of beds are occupied by mild cases.<sup>47</sup> At the peak of each wave, the heavily affected provinces mobilised Surveillance and Rapid Response Teams, clinicians and nurses from other provinces to manage cases. Furthermore, hospitals, makeshift hotel-turned-hospitals, were set up to accommodate the surge and vulnerable communities such as the disabled.

In the third wave, the private sector and the Royal Family donated large quantities of high-flow nasal oxygen machines. Evidence shows that high-flow oxygen machines result in increased ventilator-free days and a reduction in intensive care unit length of stay.<sup>48</sup>

#### Ensure adequate financial resources: budget acquisition

In addition to regular budget for health services by each of the three public health insurance schemes, an additional budget of 6352.5 million baht (US\$206.4 million) was approved in the first half of fiscal year 2021 for COVID-19 screening and vaccination services.

An additional budget for non-Thais was earmarked directly to the MOPH to manage payment with the same rate as for a Thai citizen. Furthermore, a new budget was allocated to the Ministry of Defence to finance international travellers, mostly non-Thai citizens for the 14-day mandatory state quarantine.

The Cabinet approved two additional tranches of 99.9 million and 959.3 million baht for all migrant workers who are not insured by any scheme.<sup>49</sup> This ensures everyone including the uninsured, undocumented migrants can access COVID-19 services.

On 1 June 2021, the Cabinet approved an additional budget of 10 569.8 million baht (US\$343.2 million) to the NHSO, which manages UCS, to finance COVID-19 health services for the second half of fiscal year 2021.<sup>50</sup> This aims to also financially compensate individuals who suffer from adverse events or mortality following COVID-19 vaccination as vaccination was rolled out to the public starting May 2021.

In line with WHO recommendations,<sup>51</sup> at the initial phase of vaccine roll out in the second quarter of 2021 when vaccines were not fully available, the Department of Disease Control (DDC) prioritised vaccination of

healthcare workers, the elderly and vulnerable people with chronic conditions such as diabetes, chronic kidney disease, cardiovascular diseases and obesity. Healthcare workers were prioritised to keep health systems functioning, while vaccination for the elderly and chronic diseases aimed to prevent mortality. In the fourth quarter of 2021 as more vaccines became available, the remaining population over 18 years old, both Thai and non-Thai migrant workers and their family members, had full access to COVID-19 vaccines. Vaccination was provided by public and private health facilities; vaccine coverage increased rapidly, reaching 80% (73% fully and 7% partially vaccinated) by April 2022.<sup>52</sup> COVID-19 vaccines were financed by the government and provided free of charge for everyone living in Thailand.

COVID-19 vaccination has been rolled out nationwide. All provinces in Thailand are providing standardised vaccination services. The vaccines have been allocated to each province based on its population size. Furthermore, additional vaccine quota was provided to provinces with high infection rates and larger non-Thai populations such as Bangkok. Additional quota was also earmarked to provinces with special target groups such as tourists and border provinces with high concentrations of migrants.<sup>53</sup>

#### Comprehensive benefit packages with high financial risk protection for Thai and non-Thai population

With reference to the *Royal Gazette* published on 2 April 2020,<sup>54</sup> a comprehensive benefit package was defined to include the whole range of COVID-19 services. For admission services (inpatient), members of each of the three public health insurance schemes are covered by their respective systems, while the voluntary migrant health insurance insures their members. Uninsured non-Thais are covered by the DDC. Additional payment for services outside the routine insurance systems such as laboratory tests, active case findings, home and community isolation, field hospitals and hospital care (hotels converted to accommodate mild cases and are affiliated with and clinically managed by private hospitals) and ambulance referral services were applied using a standard fee schedule; these payments include non-clinical services such as food and lodging where there is no copayment by patients as the fee schedule reflects cost of production by healthcare facilities. Copayment can hamper access to care for those unable to afford it, especially the poor, migrant workers and other vulnerable groups. The same benefit packages, payment rates and fee schedules are applied to all patients, Thai or non-Thai.

#### LESSONS: UHC AND PANDEMIC CONTAINMENT

This paper offers several policy and practice lessons.

First, the pandemic tests how UHC policy can support pandemic response, in particular how the differences across three public health insurance schemes can be harmonised and how the vulnerable populations especially undocumented migrant workers are covered.

Application of three dimensions of Thai UHC evidently demonstrates that universal access to COVID-19 related services with high financial risk protection for everyone contributes to effective containment of the pandemic.

Second, in the context of a public health emergency, the evidence reconfirms that no one is safe until everyone is safe; the major clusters among migrant workers in seafood markets during the second wave, construction workers and slum residents during the third wave reaffirm that effective pandemic control requires universal access to essential COVID-19 interventions by all. Vaccine provision to migrant workers in Samut Sakhon, the epicentre of the second outbreak, confirms the government statement ‘universal vaccination to all target groups who live in Thailand on a voluntary basis’.<sup>55</sup> This is a major achievement and sets precedence for insurance coverage expansion to all migrants and dependants in the future.

Third, the same benefit package for all Thais and non-Thais across their respective insurance schemes, the same payment rates to public and private healthcare facilities and the adequate rates to recover the cost-of-service provision are key contributing factors for access to services by all. Monitoring from the public media shows no incidence of patient denials, except delays in admission in Bangkok at the peak of cases reaching the maximum threshold of bed capacity. The no-fault compensation of adverse events from COVID-19 vaccination calms the negative connotation against vaccines in social media platforms.

Fourth, the prerequisite to universal access to services is the extensive availability of qualified RT-PCR tests, steady supplies of laboratory reagents and timely reporting of results within 24 hours. The availability of essential services for clinical management and timely upscale of field hospitals and bed are equally important.

These policies are useful lessons for other low-income and middle-income countries on how UHC can be applied for effective pandemic control through ensuring equitable access to health services by everyone.

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