Indonesia: a primary health care case study in the context of the COVID-19 pandemic

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Executive summary

Primary health care (PHC) is broadly acknowledged as the backbone of strong health systems. The World Health Organization’s (WHO) global initiatives on PHC – which have evolved from the Alma-Ata Declaration of 1978 (1), to the World Health Report 2008 on PHC (2), and the 2018 Astana Declaration on PHC (3, 4) – have built a foundation for strengthening PHC. These global initiatives set out the values and principles for guiding solid health systems for all countries, rich and poor, including low- and middle-income countries such as Indonesia.

This country case study examines Indonesia’s PHC efforts in the context of the COVID-19 pandemic through 2020 and 2021. Study findings suggest that PHC played an important role in the COVID-19 response while meeting people’s basic health care needs. Multisectoral collaboration was central. Cooperation among families, communities and workplaces through to the wider community enabled people to work together and help each other, with the support of technology.

Building on study findings, key PHC enablers are identified to support efforts to strengthen health system resilience and accountability during health emergencies.
Introduction and national context

Aim and methods

The aim of this case study is to examine Indonesia’s PHC efforts in the context of the COVID-19 pandemic between March 2020 and December 2021. The desk-based work involved a review of academic literature, guidelines relevant to PHC and COVID-19, and documentation and data published by the government. Media reports were also accessed and included in the review. Data analysis was conducted against the three PHC components in the Astana Declaration on PHC (3, 4).

PHC efforts

Indonesia, which is the world’s largest archipelago comprising more than 17,000 islands, is the fourth most populous country. It has a diverse population of more than 270 million people (5) who speak over 700 local languages. The Indonesian health system is comprised of a mix of public and private health care providers and financing. The public health care system is administered in line with the decentralized government system in Indonesia that was initiated in 2001. Community health centres (pusat kesehatan masyarakat, hereafter puskesmas) and associated subdistrict facilities are central to PHC. There are also a range of private health care providers, including network clinics managed by nonprofit and charitable organizations, for-profit providers, and individual practice doctors, midwives and nurses who may engage in dual practice (i.e., they have roles within both a private clinic and a public health care facility) (6,7).

The 2017 Primary Health Care Systems (PRIMASYS): Comprehensive Case Study from Indonesia (6) describes how four sets of PHC reforms have been implemented, on: universal coverage, service delivery, public policy and leadership reforms. In practical terms, these reforms are evident in: 1) implementation of Jaminan Kesehatan Nasional (JKN) since 1 January 2014 (7, 8); 2) the accreditation of primary care clinics through Ministry of Health (MoH) Decree No.46/2015 to improve primary care performance (9); 3) the development of national health programmes to promote a paradigm shift from curative to preventive measures to achieve healthier communities (which includes the Community Movement for Healthy Living (Gerakan Masyarakat Hidup Sehat or Germas) (10, 11), and 4) the establishment of the National Act No.20/2013 on Medical Education, which underscores the role of general practitioners (GPs) as specialists who perform a gatekeeping function (12).

PHC is mainly provided through three types of first-level health facility (Fasilitas Kesehatan Tingkat Pertama or FKTP): 1) government-owned (public) puskesmas; 2) private primary care clinics (klinik pratama); and 3) private individual GP practices (dokter praktik perorangan or DPP) (8). Puskesmas were developed in the 1960s to provide promotive, preventive and curative care at the subdistrict level. In every subdistrict there is a minimum of one or two puskesmas, depending on the size of the population, including auxiliary puskesmas.
Introduction and national context

(puskesmas pembantu or pustu), integrated health posts (pos pelayanan terpadu or posyandu), mobile puskesmas (puskesmas kecil or pusling), village-level labour/delivery posts (pondok bersalin desa or polindes), and village health posts (pos kesehatan desa or poskesdes). Puskesmas have multi-cadre teams that include GPs, dentists, nurses, midwives, public health practitioners, pharmacist assistants, nutritionists, physiotherapists, laboratory analysts and other support staff. Moreover, there are also empowered health cadres in the community who help puskesmas to run community-based programmes (i.e., posyandu, poskesdes).

Private klinik pratama began to flourish from 2014 following implementation of the JKN scheme. However, these private clinics are concentrated in urban areas and more densely populated cities in Java island provinces, in contrast to the distribution of public sector facilities through the puskesmas network (7).

Most puskesmas and klinik pratama are led by GPs, while some are led by dentists, nurses or public health practitioners. Klinik pratama have less varied and fewer numbers of health personnel compared to puskesmas (6, 13). Unlike in many well-resourced countries, GPs in Indonesia do not normally undergo postgraduate training or specialize in family medicine or general practice before going into practice in primary care (2, 14, 15).

In an effort to upgrade the capacities of GPs as gatekeepers of the national health insurance system, at the end of 2019 the Association of Indonesian Family Doctors (Perhimpunan Dokter Keluarga Indonesia or PDKI) and the College of Family Medicine Indonesia (Kolegium Imu Kedokteran Keluarga Indonesia or KIKKI) introduced a national programme for family medicine specialists in primary care (Spesialis Kedokteran Keluarga Layanan Primer or Sp.KKLP), particularly for GPs who have practiced for more than 10 years. Approximately 600 GPs, mostly from puskesmas from 18 of Indonesia’s 34 provinces, participated in the programme. Those who passed were inaugurated as family medicine specialists on 29 February 2020 in Jakarta, with the expectation that they would practice as family doctors (16).

The COVID-19 caseload in Indonesia

The first two cases of COVID-19 were confirmed on 2 March 2020 (17, 18). From March through to the end of December 2020, the number of confirmed cases gradually increased to around 8000 cases per day. Cases then surged in mid-January 2021 to more than 14 000 daily confirmed cases during a second wave, before declining to between 3000 and 7000 cases per day until the end of May. As the Delta variant spread in many countries including Indonesia, the country experienced a third wave of COVID-19 – daily confirmed cases peaked at 56 757 on 15 July (19) and then decreased again to 20 000–40 000 daily confirmed cases by mid-August (20).

The daily death toll from COVID-19 gradually increased to between 50 and 80 deaths per day in mid-July 2020, climbing to 127 daily deaths on 19 July. The mortality rate continued to increase to between 100 and 200 deaths per day from COVID-19 by the end of December 2020, and then increased further to
476 deaths on 28 January 2021. Daily deaths fluctuated between 100 and 400 per day until the end of June, before increasing sharply to a peak of 2069 daily deaths from COVID-19 on 27 July 2021 (21). Throughout July–August, Indonesia often recorded the highest daily death toll from COVID-19 globally (22).

Indonesia's testing ratio per million population was quite low in 2021 compared with other countries with fewer cumulative confirmed cases. Daily testing between June to mid-August 2021 was far below the global average at that time (23). The testing ratio per million population in mid-August 2021 stood at around 106 000–107 000 tests (24). Indonesia's daily positivity rate using polymerase chain reaction (PCR) tests and rapid molecular tests during early June to mid-August 2021 showed a range of 40–70% (20, 25). With rapid antigen tests included too, the positivity rate ranged from 14% to 34% (24, 29), which is still far above the WHO recommendation of below 5% to indicate that virus transmission is under control (26).

Coordination and governance of the COVID-19 response

A Task Force for the Acceleration of Handling COVID-19 (Gugus Tugas Percepatan Penanganan COVID-19) was established on 13 March 2020. The Task Force was led by the President, with a steering committee that included four ministers (Coordinating Minister for Human Development and Culture; Coordinating Minister for Politics, Law and Security; Minister of Health; and Minister of Finance). The Body of Disaster Risk Management (Badan Nasional Penanggulangan Bencana or BNPB) coordinate the pandemic programme in cooperation with multiple sectors including local governments and community initiatives (27–30).

Various health promotion programmes were introduced with preventive measures to reduce transmission (i.e., masks, handwashing, physical distancing, avoiding large gatherings and stay-at-home orders; commonly abbreviated as 3M and 5M measures) (31–33). Alongside this, the newly recognized family doctors, especially those working in puskesmas, contributed to the national 3T (test, trace, treat) programme through the provision of health education and COVID-19 consultations to empower communities during the pandemic (16).

One of the initial measures introduced to prevent the spread of COVID-19 was a regulation on large-scale social restrictions (pembatasan sosial berskala besar or PSBB) that came into force on 7 April 2020. The PSBB aimed to limit the activities in areas that had high numbers of suspected cases. This regulation placed limitations on schools, work places, places of worship, activities at public facilities and modes of transportation for a period of 14 days. The PSBB was implemented by regional governments with approval from the central government, and it could be repeated as needed. Restrictions were also introduced on international travel in an effort to limit cross-country transmission of COVID-19 (34).

At the beginning of 2021, the government replaced the PSBB with a policy on the enforcement of restrictions on public activities (pemberlakuan pembatasan kegiatan masyarakat or PPKM), which enabled certain restrictions to be relaxed.
How primary care and essential public health functions are responding to COVID-19

This decision was taken because the public had become tired of the PSBB, especially informal sector workers who depended on social activities outside their homes for their livelihoods. The PPKM was considered a more appropriate choice for the circumstances at the time than the PSBB, and regions were expected to implement the new policy based on particular measures, namely: rate of active cases above the national average, recovery rate below the national average, death rate above the national average and occupancy rate of hospital intensive care units (ICUs) and isolation rooms above 70% (35). These parameters allowed the enforcement of social restrictions on a smaller scale, down to the smallest unit in cities or villages. The national police (Kepolisian Negara Republik Indonesia or POLRI), armed forces (Tentara Nasional Indonesia or TNI) and civil service police units (Satuan Polisi Pamong Praja or Satpol PP) oversaw public health protocols and prepared health care facilities and isolation units for confirmed cases of COVID-19 as well as people arriving from overseas.

An Emergency PPKM (PPKM Darurat) was implemented between 3 and 25 July 2021, particularly on the islands of Java and Bali to limit the spread of the Delta variant (36, 37). After further evaluation, the PPKM Darurat was relaxed to level 4 from 26 July to 2 August 2021, with weekly evaluations (38). Following the enforcement of the PPKM Darurat, the number of daily confirmed cases gradually dropped, although the daily death toll continued to fluctuate within a range of 1400 and 1900 deaths per day (20). The PPKM was evaluated weekly (39, 40).

The government also made adjustments to policies, programmes, activities, budget allocations and social assistance schemes in villages and rural areas. One breakthrough was the adjustment to existing Village Funds to increase the socioeconomic resilience of the community and improve COVID-19 prevention measures in the villages (41–43). This policy adjustment was also supported by the formation of COVID-19 Alert Villages (Desa Siaga COVID-19) and volunteer teams in villages (31, 44).

How primary care and essential public health functions are responding to COVID-19

By 2 April 2020, Indonesia had reached 1790 confirmed cases of COVID-19 (45) (Fig. 1). At that time the trend in cases was unclear, and it was believed that Indonesia had not finished even its first wave of the virus. Infection rates stood at around 5000–10 000 daily new confirmed cases in 2020. By mid-2021, Indonesia was considered to have experienced its second wave with up to 21 000 confirmed cases per day (45).

In the initial response, COVID-19 patients were cared for in infectious disease hospitals in Jakarta and other big cities. Local governments also built emergency hospitals for COVID-19 patients when mandatory quarantine requirements could not be met at home or when medical treatment was necessary. However, as hospitals reached maximum capacity to treat COVID-19 patients in March 2020, the government decided to empower puskesmas to provide COVID-19
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Figure 1. Average daily confirmed cases (September 2020–June 2021)


care, education and surveillance for the communities, while more critical COVID-19 cases were managed by hospitals (45). Following this, the PHC system maintained normal service delivery for people while also reducing the COVID-19 infection rate.

Three guidelines from the MoH set out the protocols for the delivery of PHC during the pandemic: Petunjuk teknis pelayanan puskesmas pada masa pandemi COVID-19 (47) (Guideline for primary care services), Petunjuk teknis pelayanan kesehatan di klinik pada masa adaptasi kebiasaan baru (48) (New normal guideline for primary care services) and Pedoman bagi ibu hamil, bersalin, nifas dan bayi baru lahir di Era Pandemi COVID-19 (49) (Maternal services under the COVID-19 pandemic). The PHC system also prepared for COVID-19 vaccine distribution for the wider Indonesian community.
How primary care and essential public health functions are responding to COVID-19

Standard procedures and protocols for puskesmas to provide routine vaccinations and services for maternal health, sanitation, food safety and nutrition were modified according to COVID-19 safety measures. Cadre meetings were held via teleconference or only a limited number of staff attended meetings in puskesmas. Patients attending puskesmas were examined if they displayed influenza-like symptoms, and were only seen by appointment. Maternal health and antenatal services were delivered using two models: telemedicine through phone communication and face-to-face appointments with infection prevention and control (ICP) measures in place. Regions with good Internet access and phone coverage, such as in Java, did not face significant challenges in accessing these services. However, those regions with limited access to technology continued to rely on face-to-face meetings with people following ICP and public health measures (48). Further innovations across the different operational levels of the PHC Operation Framework are summarized in Tables 3 and 4.

Implementation of the 3Ts and vaccination

PHC was tasked with performing the 3Ts (testing, tracing and treatment) as part of the pandemic response, as well as promoting the 5M strategy to communities (memakai masker (masks), mencuci tangan (frequent handwashing), menjaga jarak (maintaining distance), menjauhi kerumuman (avoid crowds) and mengurangi mobilitas (limited travel).

Contact tracing was conducted to establish close contacts of confirmed cases of COVID-19. Patients were tested using rapid antibody tests, antigen tests and PCR tests, and puskesmas collaborated with their affiliated hospitals and laboratories. Following identification, close contacts of confirmed cases were isolated, tested and received treatment as needed. Puskesmas were also responsible for education and health monitoring of patients in self-isolation. Antiviral drugs were provided to confirmed COVID-19 patients in addition to medication to treat symptoms, multivitamins, zinc, chloroquin and azithromycin.

Up to 80 000 laboratories were able to conduct COVID-19 tests, and some laboratories carried out pool tests to increase test capacity if the positivity rate was below 15%. Indonesia faced challenges in individuals agreeing to be tested, however, due to various reasons including stigma. Yet, as public understanding about the virus increased and negative perceptions reduced, the number of tests increased significantly from 24 000–34 000 people per day in November 2020 to 73 000 tests per day in February 2021 (50).

The COVID-19 vaccination programme began on 11 January 2021 when the President received the first vaccine. The programme was carried out in four phases: phases 1 and 2 were conducted simultaneously from January to April 2021 to vaccinate the health workforce and the military (TNI-POLRI); phases 3 and 4 were conducted from April 2021 to March 2022 to vaccinate vulnerable people and priority groups among the elderly, public services, school teachers, market and hotel workers, and other communities. During phase 4 the vaccine could also be purchased by groups of companies or institutions. Originally, the vaccine
target was set at 67% of Indonesia’s 167 million population aged between 18 and 59 years (107 million). However, at the end of April 2021, vaccines had been distributed to only 15% of this target group (51).

At the beginning, Sinovac and Astra Zeneca vaccines were administered. By the beginning of May 2021, more than 12 million doses had been administered to priority groups such as health workers, teachers, the elderly and public servants, with serious adverse effects being rare (51). At the time of writing, these vaccines had not been administered to adolescent and young people under 18 due to limited data and trial results.

The availability of vaccines was very limited in 2021, however, with only one source for the inactivated virus Sinovac vaccine. The AstraZeneca DNA vector vaccine only arrived in early May 2021, to be administered to people in phase 3 of the immunization programme. The Pfizer messenger ribonucleic acid (mRNA) vaccine was not commonly used due to challenges around storage and distribution. By 25 August 2021, vaccination coverage had reached 23% of the population aged over 18 years for a first dose and 12% of this population for two doses (51). A target of 1 million vaccinations per day was postponed due to poor supply of sufficient doses.

**Models of care**

Patient care was delivered throughout 2020 and 2021 based on the guidance issued by the MoH (47, 48). Consultations were conducted face-to-face or via telemedicine and were covered by the JKN public insurance scheme. PHC staff triaged patients based on screenings for signs and symptoms, contact history and temperature checks, and physical distancing was utilized between health care personnel and other patients.

Despite challenges in access to PHC telehealth services in some regions, this service proved essential to reduce unnecessary visits to PHC clinics while meeting the needs of patients and protecting individuals. Telehealth services were not popular before the pandemic, even though regulations for this service had been published by the MoH in 2019 (48, 52). Payment for telemedicine services were also still under discussion as part of the JKN scheme; however, during the pandemic, this service was covered and promoted by the insurance provider.

Challenges in telemedicine persist in relation to access to technology (e.g., expensive phones, phone credits and limited technological literacy) (53–55). Another issue was the limited guidance issued by the MoH on telemedicine in primary care. Despite wide promotion of telemedicine during 2020 and 2021 to reduce face-to-face encounters, only the MoH regulation from 2019 existed at the time of writing (52).
The PHC workforce

One of the key factors that determines the success of PHC is the skill of health providers in primary care. Efforts were made by the PDKI and the Indonesian Society of teachers in Family Medicine (ISTFM) to up-skill health providers during the initial period of the pandemic in 2020 by providing a series of training sessions for primary care doctors on COVID-19 management.

Doctors who joined this programme were trained online by the specialist associations and colleagues and they also received trainings on best approaches to engage communities. At the end of the training, the doctors were asked to record and test suspected COVID-19 cases in their practice and, in collaboration with the local puskesmas, to educate their communities about the virus. The doctors were also asked to monitor patients and discuss their cases with other doctors to enrich their knowledge and skills on COVID-19 case management. During the training, doctors were equipped with strategies on how to use more common terms when communicating with the community and how to involve them more appropriately.

Nurses, midwives and other health care staff at the community level were also involved in the pandemic response in puskesmas, working in collaboration with the doctors to deliver COVID-19 care and other PHC services. Community health workers helped families through community outreach programmes to deliver PHC; however, many of these services were paused and/or modified using virtual platforms such as neighborhood WhatsApp groups.

The Indonesian Medical Association (Ikatan Dokter Indonesia or IDI) and other specialist colleges also conducted training and streamed sessions online (56–58).

Physical infrastructure

Physical PHC infrastructure for the COVID-19 response and vaccination programme proved to be inadequate throughout the pandemic in 2020 and 2021. Inpatient wards, ventilators and oxygen facilities in puskesmas were lacking - usually, puskesmas have only two or three wards with one ventilator and oxygen supply, which meant that health facilities could not always meet patient needs during the pandemic (59). Many puskesmas in rural areas also have limited power and clean water supplies, poor internet connections and insufficient human resources, particularly in areas such as Papua, East Nusa Tenggara and Maluku. By May 2021 12 million doses of the COVID-19 vaccine had been administered (51).
While *puskesmas* were issued with technical guides on preparing and delivering PHC services under the so-called new normal, the government faced challenges in preparing the basic infrastructure needed for vaccine distribution and storage across Indonesia. Access to vaccines was better in urban Indonesia and large islands such as Java, Bali and Sumatra than in rural areas and the east of the country. Furthermore, most *puskesmas* were not equipped with proper vaccine storage facilities for mRNA vaccines (60, 61).

**Medicines and other health products**

Due to limitations on activities and movement restrictions set by the government in 2020 and 2021 to minimize COVID-19 transmission, supply of medications for other diseases were disrupted (45, 62). Shortly before the initial outbreak of COVID-19, the government reduced the availability of certain PHC medicines, including the withdrawal of nifedipine on prescription from *puskesmas* to treat hypertension (63). If patients need medications outside this formulary, they needed to be referred to hospitals or purchase the drugs out of pocket (64).

### How multisectoral policy and action are responding to COVID-19

#### The formation of national, regional and local task forces

The government’s policy response throughout 2020 and 2021 covered four components: 1) strengthening the health sector; 2) protecting community groups and business; 2) reducing pressure on the financial sector; and 4) restoring economic resilience and people’s livelihoods as part of a new normal.

The multisectoral response to COVID-19 began with the formation of the Task Force for the Acceleration of Handling COVID-19 (*Satgas Nasional*) (65, 66, 83) to translate WHO pandemic risk management guidelines for implementing a whole community approach and to align these to the existing disaster management system. The *Satgas Nasional* was led by the Head of the BNPB and consisted of civilian and military organizations (TNI-POLRI). There were 34 ministries involved with the *Satgas Nasional*, and activities focused mostly on health-related problems (66, 69).

Taskforces were also established at the province and district level (*Satgas Daerah*), as well as at the subdistrict (kecamatan) and village (kelurahan) levels (68–70). Government and nongovernmental organizations (NGOs), including offices, primary to tertiary health facilities, youth and community organizations, professional organizations, and schools and universities also formed COVID-19 task forces for local coordination of the pandemic response (66–68).
A cluster approach for multisectoral coordination

Since 2014, the BNPB and several government ministries and agencies agreed to implement a cluster approach to coordinate responses and resources for humanitarian issues. The national cluster system was expected to work before, during and after a disaster (83). Eight national clusters were formed as part of this approach (see Fig. 2).

Considering the magnitude of the COVID-19 crisis, implementation of the national cluster approach was adjusted to incorporate a much broader coordinating system and other ministries to accelerate the pandemic response. The activities of the national cluster were also facilitated and supported by members of the Humanitarian Country Team (HCT), which consisted of the United Nations (UN) agencies for humanitarian affairs, the International Federation of Red Cross and Red Crescent Societies (IFRC), the Indonesian Red Cross (Palang Merah Indonesia or PMI), and representatives of national and international NGOs. The HCT activities were led by the UN Resident Coordinator in Indonesia. Members and partners of the national cluster collaborated with the regional task forces through the sectoral government offices of the Task Force for the Acceleration of Handling COVID-19 (66).

An Indonesia Multisectoral Response Plan for COVID-19 (73) was developed that aligned with the WHO Strategic Preparedness and Response Plan (74), the UN Global Humanitarian Response Plan (75) and the UN Framework for an Immediate Socio-Economic Response to COVID-19 (76). Table 1 summarizes the seven priority areas defined in the Plan.
Figure 2. Multisectoral cluster approach to coordinate humanitarian responses in Indonesia, including COVID-19

BNPB: Badan Nasional Penanggulangan Bencana, or the Body of Disaster Risk Management

Source: The authors.
## Table 1. Multisectoral coordination against the seven priority areas in Indonesia’s Multisectoral Response Plan for COVID-19

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<th>Priority area</th>
<th>Multisectoral coordination</th>
<th>Goals</th>
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2. Provide care and support for patients affected by COVID-19 and their families.  
3. Ensure continuity of essential health services during the pandemic.  
4. Strengthen health system resilience at the provincial and district levels. |
|   | Partners: UN Children’s Fund (UNICEF), Médecins Sans Frontières (MSF), Humanitarian Forum Indonesia (HFI), International Committee of the Red Cross (ICRC), UNAIDS, International Organization for Migration (IOM), UNHCR, Save the Children, Nahdlatul Ulama, Muhammadiyah. |       |
| **2.0 Risk communication and community engagement (RCCE)** | BNPB Ministry of Communication and Information UNICEF IFRC | 1. Build public trust in national authorities on public health information and instructions related to COVID-19.  
2. Provide an RCCE guiding framework and coordinated approach to enable effective country responses.  
3. Ensure all RCCE approaches, messages and materials are shared at all levels.  
4. Promote and facilitate participatory community involvement to increase community involvement.  
5. Enhance RCCE approaches at national and subnational levels to promote and sustain critical behaviour during various phases of response: Respond – Recover – Restore. |
| **3.0 Logistics** | Kementerian Pembangunan Manusia dan Kebudayaan (Coordinating Ministry for Human Development and Cultural Affairs - PMK) BNPB World Food Programme (WFP) | 1. Support government-led national logistics cluster.  
2. Develop a logistics operation concept based on existing logistical and capacity gaps.  
3. Support the government and the humanitarian community in facilitating private sector engagement. |
|   | Partners: PMI, Save the Children, MPBI |       |

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### 4.0 Food security

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<th>Priority area</th>
<th>Multisectoral coordination</th>
<th>Goals</th>
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|                               | Coordinating Minister for Economic Affairs, Ministry of National Development Planning, Ministry of Agriculture, Ministry of Maritime Affairs and Fisheries, WFP, Food and Agriculture Organization (FAO) | 1. Support the Government of Indonesia through an up-to-date and real-time analysis of the impact of COVID-19 on Indonesia’s overall food security and livelihood food system.  
2. Support the efforts of government agencies in ensuring the continued availability and accessibility of food commodities. |
|                               | **Partners:** Rumah Zakat, BAZNAS, Yayasan Kemanusiaan Madani Indonesia (YKMI), Asia Muslim Charity Foundation (AMCF), Human Initiative, PGI |                                                                      |

### 5.0 Mitigation of the socioeconomic impact of the crisis

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<th>Priority area</th>
<th>Multisectoral coordination</th>
<th>Goals</th>
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|                               | Kemenko PMK, the Coordinating Minister for Economic Affairs, Ministry of National Development Planning, BNPB, United Nations Development Programme (UNDP) | 1. To provide effective and timely support to governments at national and local levels in addressing the socioeconomic impacts of COVID-19.  
2. Provide advice to the Government of Indonesia on effective policies and adjustments.  
3. Provide support to key stakeholders, especially the business community and small and medium-sized enterprises (SMEs).  
4. Provide direct support to Indonesia’s most vulnerable population. |
|                               | **Partners:** UNICEF, International Labour Organization (ILO), UN Women, UNFPA, IOM, UN Industrial Development Organization (UNIDO), Asian Development Bank (ADB), CARE, OXFAM, UNAIDS, UN OCHA, FAO |                                                                      |

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<th>Priority area</th>
<th>Multisectoral coordination</th>
<th>Goals</th>
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<tr>
<td><strong>6.0 Essential multisector services</strong></td>
<td>Kemenko PMK, International Organization for Migration, IFRC, UNICEF</td>
<td>1. Support to ensure infection-free, continuous and safe essential services.</td>
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<td>3. Support the delivery of multisectoral assistance to vulnerable populations.</td>
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<td></td>
<td>4. Advocate measures to overcome the pandemic in camps and camp-like places.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Support providing an information management platform available to respondents to identify and coordinate multisectoral responses.</td>
</tr>
<tr>
<td><strong>7.0 Protection of vulnerable groups</strong></td>
<td>Ministry of Social Affairs, BNPB, Refugee Task Force, Ministry of Women’s Empowerment and Child Protection, National Commission on Human Rights (Komnas HAM)</td>
<td>1. Ensure and strengthen protection mechanisms including continuation of critical services and referral pathways to vulnerable groups.</td>
</tr>
<tr>
<td></td>
<td>UNHCR, UNFPA</td>
<td>2. Provide key basic hygiene materials to the most vulnerable groups.</td>
</tr>
<tr>
<td></td>
<td>Humanity &amp; Inclusion, UNAIDS, UN Office on Drugs and Crime (UNODC), UNAIDS, UNICEF, Rumah Zakat, Adventist Development and Relief Agency Indonesia (ADRA Indonesia)</td>
<td>3. Ensure that all COVID-19 policies, regulations and guidelines are inclusive and nondiscriminatory.</td>
</tr>
</tbody>
</table>

Source: the authors, and (73).

**How communities are responding to COVID-19**

The COVID-19 pandemic led to substantial socioeconomic and cultural disruptions. Key impacts were experienced across key dimensions, including: economic vulnerability; social vulnerability; mental vulnerability, coping and adaptation; and access to information and PHC.

A key impact of the pandemic on communities was job losses and income loss, which made it difficult for individuals to meet their daily needs. A change has been observed in the number of poor people in Indonesia (77).
Despite these challenges, the pandemic also created social solidarity as individuals helped each other when friends became infected with COVID-19.

A critical component of community empowerment is the concept of *gotong royong* or cooperation. *Gotong royong*, from the Javanese language, encourages a spirit of participation, togetherness, solidarity and synergy between individuals and communities. It strengthened the community response to the health crisis and associated disruptions. Specific activities were also used to empower communities as part of the pandemic response. Examples include COVID-19 alert villages (*Desa Siaga*), as established in 15 villages or subdistricts in Muna Regency, Southeast Sulawesi, to educate communities about the risks of COVID-19 and ways to prevent transmission, and also *Sambatan Jogja* (SONJO), which is a humanitarian movement focused on helping vulnerable communities at risk of COVID-19 in the Special Region of Yogyakarta (81, 82, 84-89). Table 2 summarizes these and other examples.

**Table 2. COVID-19 community activities**

<table>
<thead>
<tr>
<th>Name</th>
<th>Activity</th>
<th>Initiator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alert villages (Desa Siaga)</td>
<td>Education about the spread of COVID-19 and preventive measures.</td>
<td>Community</td>
</tr>
<tr>
<td><strong>SONJO</strong></td>
<td>Humanitarian movement that helps vulnerable communities at risk of being affected by the spread of COVID-19.</td>
<td>Community</td>
</tr>
<tr>
<td>Ecomasjid Programme</td>
<td>Holds trainings and seminars related to COVID-19 and empowering the poor.</td>
<td>Youth in the community</td>
</tr>
<tr>
<td>Women Farmers Group</td>
<td>Provides food supplies and helps the local economy.</td>
<td>Community</td>
</tr>
<tr>
<td>Ada Amari COVID-19 (Activate Your Village/Subdistrict to be Self-Alert for COVID-19)</td>
<td>A model community response system that educates and tracks populations at high risk and that has been integrated within the local health system.</td>
<td>Educational institution</td>
</tr>
</tbody>
</table>

Source: the authors
Conclusions and lessons learned

Educational institutions were also involved in community empowerment during the pandemic in 2020 and 2021, while information technology was used for tracing, surveillance and education among communities. One application that was widely used in West Java is Amari Unpad COVID-19 to detect and monitor transmission of COVID-19, while Padjadjaran University also introduced the Ada Amari COVID-19 programme (81-82).

The Center for Tropical Medicine of Gadjah Mada University launched the Resilient Village COVID-19 Community Book. This book was created to help identify and organize various activities at the district or village level (24).

Academics from several faculties of the University of Indonesia (UI) are members of the Mahadata UI Synergy Team for COVID-19 Response under the Directorate of Innovation and Science Techno Park (DISTP UI). This team created a map of community mobility and COVID-19 cases from which various insights were obtained. The learnings were then developed into a database to provide policy recommendations to reduce the rate of increase in COVID-19 cases (79).

Conclusions and lessons learned

PHC played an important role in the COVID-19 response while meeting people’s basic health care needs. However, findings suggest that PHC service provision could be strengthened, particularly in triage, social distancing and protecting health workers and patients from COVID-19 transmission and other infectious diseases. Health professionals, schools, universities, institutions, businesses and the community adapted to new, healthier behaviours, but supplies of essential medicines, vaccines and PPE could enable safer services.

Multisectoral cooperation and collaboration were central to efforts to respond to COVID-19, especially through the preventive principles applied and a shared sense of recovering together. Cooperation among families, communities and work places through to the wider community enabled people to work together and help each other, with the support of technology.

Table 3 summarizes practices in primary care clinics and lessons learned about their perceived strengths and weaknesses based on WHO guidance on the role of primary care in the COVID-19 response (80). Based on the WHO Operational Framework for PHC and key findings relating to Indonesia’s response to COVID-19 through 2020 and 2021, Fig. 3 summarizes key enabling factors for PHC to create a more resilient and accountable system for service providers, health workers and communities during health emergencies.
Table 3. Lessons learned about perceived strengths and weaknesses of primary care clinics in the COVID-19 context in 2020 and 2021

<table>
<thead>
<tr>
<th>Practice</th>
<th>Service characteristics</th>
<th>Lessons learned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triage and COVID-19 guidance</td>
<td>Limited; social distancing and mask wearing in place, but limited surveillance/monitoring and tracing of patients.</td>
<td>Screening and triage could be strengthened. Patients with symptoms or known contacts of positive cases should delay their visit to PHC facilities until they have a negative COVID-19 test.</td>
</tr>
<tr>
<td>Supply of PPE</td>
<td>Limited</td>
<td>Adequate supply of PPE could be ensured through domestic production and COVID-19-safe import protocols.</td>
</tr>
<tr>
<td>Appointments</td>
<td>Most patients do not make appointments when seeking medical care. Many clinics see patients on a first come, first served basis.</td>
<td>An appointment system could be introduced for all patients visiting PHC facilities, unless for a walk-in clinic.</td>
</tr>
<tr>
<td>Telehealth</td>
<td>Not widely used in Indonesia and limited guidance on telehealth services.</td>
<td>Telehealth could form an important part of Indonesia’s integrated PHC services.</td>
</tr>
</tbody>
</table>

Source: the authors.

Figure 3. Summary of PHC enablers in the COVID-19 context

- Strong government leadership
- Support of local leaders
- Rules and regulations

- Adequate clinical resources and infrastructure
  - Telehealth
  - COVID-19 safe guidance and triage for face-to-face encounters

- Community initiatives program (e.g., Gotong Royong)
- Community-based research
- Family doctors as the backbone of PHC collaborate with other PHC providers

- Partnership with a strong and responsive community

- Accountable and responsive services
- Resilient health care workers
  - COVID-19 training and drills
  - Peer supports and incentives
  - Taskshifting
  - Monitoring

Source: The authors.
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This case study was developed by the Alliance for Health Policy and Systems Research, an international partnership hosted by the World Health Organization, in collaboration with the WHO Regional Office for South-East Asia (SEARO) and WHO country offices. In 2015, the Alliance commissioned the Primary Health Care Systems (PRIMASY) case studies in twenty low- and middle-income countries (LMICs) across WHO regions. This case study builds on and expands these previous studies in the context of the COVID-19 pandemic, applying the Astana PHC framework considering integrated health services, multisectoral policy and action and people and communities. This case study aims to advance the science and lay a groundwork for improved policy efforts to advance primary health care in LMICs.