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Final Report

Joint Learning on Adaptations in the Era of COVID-19: An Assessment of Intervention Adaptations and Adaptive Management Processes among USAID Health Projects

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ACRONYMS

ACF	active case finding (for TB)
AdMU	Ateneo de Manila University
AO	Administrative Order
ARH	adolescent reproductive health
BARMM	Bangsamoro Autonomous Region in Muslim Mindanao
BARMMHealth	Bangsamoro Autonomous Region in Muslim Mindanao Health Capacity Building
BHERT	barangay health emergency response team
CBDR	community-based drug rehabilitation
CDAR	context, disruption, adaptation, and recovery
CHD	Center for Health Development
CHW	community health worker
CLA	collaborating, learning, and adapting
CLAimHealth	Collaborating, Learning, and Adapting for Improved Health
COVID-19	coronavirus disease 2019
DAT	digital adherence technologies
DOH	Department of Health
ECF	enhanced case finding (for TB)
EO	executive order
FAST Plus	Finding TB, Actively, Separating safely, and Treating effectively (FAST) Plus
FB	Facebook
FP	family planning
GIDA	geographically isolated and disadvantaged areas
HCPN	Health Care Provider Network
HP	Health Project, USAID/Philippines
IATF	COVID-19 Inter-agency Task Force for the Management of Emerging Infectious Diseases
ICF	intensified case finding (for TB)
IP	implementing partners
IPC	infection prevention and control
IPC-AdMU	Institute of Philippine Culture, Ateneo de Manila University
ITIS	Integrated TB Information System
LGU	local government unit
M&E	monitoring and evaluation
MCH	maternal and child health
MOP	manual of operations

MSC	most significant change
NAP	NTP Adaptive Plan (for the COVID-19 pandemic)
NCR	National Capital Region
NTP	National TB Control Program
PDITR	Prevention, Detection, Isolation, Treatment and Reintegration (for COVID-19)
PhilHealth	Philippine Health Insurance Corporation
POPCOM	Commission on Population and Development
PPE	personal protective equipment
PREPFBLE	Purpose, risk mitigation, ease of use, policy consistency, flexibility, behavioral change, LGU support and promotion, equity in access to services
PWUD	person who uses drugs
ReachHealth	Family Planning and Maternal and Neonatal Health Innovations and Capacity Building Platforms
RenewHealth	Expanding Access to Community-Based Drug Rehabilitation
RHU	rural health unit
RTD	roundtable discussion
SMS	short message service
STRiders	specimen transport riders
TB	Tuberculosis
TB IHSS	TB Innovations and Health Systems Strengthening
TB Platforms	TB Platforms for Sustainable Detection, Care, and Treatment
TPT	TB preventive treatment
UHC	Universal Health Care
URC	University Research Council, Ateneo de Manila University
UREO	University's Research Ethics Office, Ateneo de Manila University
USAID	United States Agency for International Development
WHO	World Health Organization

EXECUTIVE SUMMARY

Study Aims and Methods. Since 2020, the COVID-19 pandemic has upended life in all corners of the world. In the Philippines, the pandemic exacerbated challenges experienced by an already-fragmented health system. To contain the spread of the virus, community quarantines were instituted at varying degrees. These extended community quarantines resulted in widespread disruptions in health service delivery as they restricted the mobility of patients and service providers alike. The national public health system struggled to cope with the continuous increase in COVID-19 cases due to the shortage of medical professionals and an inadequately prepared health infrastructure.

This study recognizes that the health sector and various institutions have been greatly affected by the COVID-19 pandemic. While some institutions are more adept than others in formulating and implementing adaptations to ensure the continuity of operations, most are trying to work their way through the spectrum of vulnerability. It is important to examine whether adaptations to the COVID-19 pandemic have helped address disruptions to the health system and achieve the National Objectives for Health despite the systemic shocks that have affected the country's health, economic, social, and other sectors. Thus, we aimed to systematically document and assess the COVID-19 program adaptations that USAID/Philippines and its partners made to the Mission's Health Project (HP) to ensure the continuity of essential health services across the continuum of care.

We conducted key informant interviews with USAID's implementing partners (IPs) and various public health personnel from the national, regional, provincial, and local (city, municipality, and barangay) levels and/or selected health programs (i.e., family planning [FP] and tuberculosis [TB]). We compared data from select USAID-supported sites with non-USAID-supported sites. Pasig City and Caloocan City were selected as study sites in the National Capital Region (NCR). Provincial-level study sites included Pampanga, Cavite, Laguna, and Rizal in Luzon; Cebu in Visayas; Misamis Oriental in Mindanao; and Maguindanao in the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM). For city-level study sites, we selected Cebu City (Visayas), Davao City (Mindanao), and Marawi City (BARMM). Findings from these were compared with the following non-USAID-supported sites: La Union (Luzon), Negros Oriental and Dumaguete City (Visayas), and Surigao del Norte and Surigao City (Mindanao). We did not have comparison sites for the NCR and BARMM because USAID has a presence throughout these regions. Apart from the key informant interviews, the research team also reviewed related policy and program documents of the IPs and conducted periodic joint learning roundtable discussions (RTDs) and a public webinar.

Disruptions. According to rapid assessments conducted by the Department of Health (DOH), the TB continuum of care continues to be displaced because of the COVID-19 pandemic. The National TB Control Program (NTP) detected and treated far fewer TB cases in the first quarter of 2020, which further illustrates the impact of the pandemic on people's health-seeking behaviors. Clients were less inclined to visit health facilities due to fear of contracting the virus as well as the stigma associated with having symptoms suggestive of COVID-19. NTP processes such as active case finding (ACF) were also reduced or discontinued because the government prioritized its pandemic response. This diverted a significant amount of the program's human resources and disrupted most of its activities.

Compared to the NTP, fewer disruptions were noted in the FP program, but it also experienced similar disruptions in service delivery. Clients were less likely to visit health facilities to get FP commodities or seek consultation. According to the Commission on Population and Development (POPCOM), this disruption contributed to a "lockdown baby boom" in 2020—a spike in pregnancies due to women's increased time at home without regular access to FP services and commodities. Cases of stockouts of FP commodities were also experienced during the pandemic due to disruptions in their procurement and delivery.

Adaptations. Certain adaptations helped both the TB and FP programs recover from the effects of the pandemic. Issuing policies and adaptive plans proved to be important, as these provided strategic direction for health programs across all levels. The NTP, with the support of USAID, crafted the NTP Adaptive Plan (NAP) for the COVID-19 pandemic and other supportive policies for the continuous provision of TB services despite the pandemic's mobility restrictions. The NAP identified most adaptations to ensure the continuity of TB program implementation, except for specific digital technology innovations, which were mostly in their pilot stages and are still being scaled up. For the FP program, DOH partnered with USAID to draft and release the "Guidelines on the Continuous Provision of FP Services During Community Quarantine" (DOH Department Memorandum 2020-0222) and the "Interim Guidelines on Continuous Provision of Adolescent Health Services During COVID-19 Pandemic" (DOH Department Memorandum 2020-0341). These two policies provided the cornerstone to ensure that both FP and adolescent reproductive health (ARH) services are sustained and are accessible to current and new FP acceptors, including young people seeking healthcare services. Two USAID activities—TB Innovations and Health Systems Strengthening (TB IHSS) and the Family Planning and Maternal and Neonatal Health Innovations and Capacity Building Platforms (ReachHealth)—were both central in crafting these two policies.

Greater reliance on technology to deliver TB and FP services was the most important and most common adaptation during the pandemic. Virtual or telephone screenings became the norm to facilitate TB diagnosis and to check for adverse events. Home-based TB treatments were also monitored through video directly observed treatment or digital adherence technologies (DAT). Mobile applications, digital analytics, and electronic forms have been developed for recording and monitoring. There has also been a shift to using electronic prescriptions instead of paper-based ones. The shift to these modes of care has necessitated the allocation of communication allowances to NTP coordinators at the Centers for Health Development (CHDs), local government units (LGUs), and health facility levels. On the other hand, FP providers have made use of short message service (SMS) as their primary communication platform for demand generation, counseling, supply pickup, and general information dissemination. Social media also became helpful in providing key messages to adolescents on ARH and mental health. DOH, CHDs, LGUs, other health facilities as well as IPs often used online platforms to conduct virtual workshops and training sessions for health personnel. However, FP workers on the ground still generally feel that FP services, such as demand generation and counseling, are best provided through face-to-face modalities.

Specific to the TB program, program recovery for TB case detection and notification was challenging. Crucial adaptations in ACF seemed to be scarce and ineffective due to the multifaceted nature of the

government's Prevention, Detection, Isolation, Treatment, and Reintegration (PDITR) strategy for COVID-19. There was a high demand for additional human resources to manage both TB and COVID-19 patients during joint ACF operations. There was also an increase in the demand for elaborate preparations in setting up ACF venues for effective infection prevention and control (IPC). Overall, the main challenge lay in effectively integrating ACF for TB with PDITR for COVID-19.

The synergistic relationships among the different stakeholders—USAID IPs, the LGUs, other government entities, specifically POPCOM, and the private sector—resulted in fewer disruptions in the FP program. In fact, many of the adaptations were partly in place before the onset of the COVID-19 pandemic. The restrictions posed by the lockdowns even encouraged the full utilization of these adaptations. Interruptions in the delivery of different FP commodities were also minimal due to POPCOM's support in terms of supply procurement and warehousing. These partnerships were easier to implement because they are supported by corresponding national policies, such as Executive Order (EO) No. 12, series 2017, also known as the Sustaining and Attaining Zero Unmet Need for Modern Family Planning through the Strict Implementation of the Responsible Parenthood and Reproductive Health Act, which stipulates the roles of major FP stakeholders, such as DOH, LGUs, POPCOM, and the private sector. The various DOH memoranda on uninterrupted FP/ARH services during the pandemic relied on these existing working partnerships.

Learnings and Recommendations.

- Invest and empower human resources for health in managing and recovering from the COVID-19 pandemic and other times of crisis. For instance, many of the TB adaptations faced challenges because of the inadequate number of health workers. There is also a need to recognize health workers' efforts as frontliners during the pandemic by increasing compensation or, at the very least, providing communications allowances.
- Develop collaborative and participative mechanisms for health workers to be involved in designing technology adaptations. The skill levels, sensibilities, and preferences of health workers as end users should be of primary importance in designing these innovations. The geographical context of the target sites for these adaptations should also be considered, particularly the presence or absence of technological infrastructure to support successful implementation.
- Innovate and restructure training for health workers, who now have increased workloads and are at increased risk for COVID-19. Because training is online, health workers must use their own devices (at times, despite the lack of communications allowance) and attend these sessions during working hours and/or within their workstations. A blended approach involving both online and in-person methods might be better to ensure maximum attention and comprehension of key training topics.
- Maintain collaborative engagements between national and local governments and agencies, the private sector (including the academe), and civil society or nongovernmental organizations, which remain pivotal during the pandemic.
- Maintain IP-provided technical assistance, which has also been crucial in creating and sustaining adaptations in TB and FP. Continuous efforts to integrate TB and FP/ARH services within the Universal Health Care (UHC) provisions and Philippine Health Insurance Corporation (PhilHealth) financing mechanisms are decisive steps to ensure long-term program sustainability.

Apart from these learnings, the study found that the variety of adaptations encountered by the team indicates possibilities for long-term sustainable changes that can be integrated into existing health delivery systems in the country. With these in mind, the team synthesized the project results into the following emerging factors of adaptation success, which affect the viability of identified adaptations:

P	Purpose	This refers to the specific adaptation's clarity of purpose.
R	Risk mitigation	This refers to the capacity of implementers to mitigate risks associated with implementing the specific adaptation.
E	Ease of use	This refers to ease of use of adaptations despite shifts in process flows at both the health service provider and patient levels. This depends on how information about the adaptation is efficiently communicated across patients and health service providers, which may require training.
P	Policy consistency	This refers to the consistency of the adaptation with existing national and local policies that would later help ensure their efficient implementation and long-term sustainability.
F	Flexibility	This refers to the flexibility of adaptations to accommodate the needs and circumstances of both health service providers and clients. The adaptation must be resilient to: ● Varying work conditions (e.g., additional duties given to health workers); ● Locations (e.g., flexible work arrangements); and ● Costs (particularly when implemented among marginalized groups in geographically isolated and disadvantaged areas [GIDA]).
B	Behavioral change	This refers to the capacity of adaptations to encourage better health-seeking behavior among clients and to provide them with clear mechanisms to help correct and reconfigure mistaken/confused beliefs and practices.
L	LGU support and promotion	In addition to support and promotion for TB and FP programs, this pertains to all other regular and special health programs implemented by LGUs. This support is seen in terms of addressing needs for technological infrastructure (given the shift to online setup), budget allocations/realignments, and reassignment of human resources for health.
E	Equity in access to services	This pertains to the capacity of the adaptation to facilitate equitable access (to health services and commodities) for all its

		intended clients (patients or health service providers) despite restrictions, changes in process, and limited resources.

These parameters are not seen as monitoring and evaluation (M&E) indicators but can certainly be used as an initial framework for M&E purposes, pending further validation and operationalization of these policy and program characteristics.

The research team maintains that the UHC Law remains the most viable mechanism for translating national adaptive plans into the local health delivery systems for sustainability and longevity. The main lesson shown in studying the TB and FP program adaptations during COVID-19 is that there is no completely novel adaptation. They build on responses shaped and defined by the governance and functional structure of the local health system. Adaptations and innovations also need to be routinely monitored and assessed in the face of an evolving pandemic situation, which is contingent on the successful implementation and installation of city-wide health systems and province-wide health systems as mandated by the UHC Law.

Lastly, multilevel integration processes should be facilitated to successfully implement adaptations that rely on technological and human resources. However, as health programs in general seem to be compartmentalized, the research team recommends that integration should be initiated from a higher level—from the national, regional, or provincial levels. This will guide partners at lower levels and allow them to receive additional resources for proper implementation of these adaptations.

1. BACKGROUND AND OBJECTIVES

1.1 Research Context

The COVID-19 pandemic has upended life in all corners of the world. The virus has claimed the lives of millions since December 2019, when the World Health Organization (WHO) was alerted to a cluster of pneumonia cases in Wuhan, China. Governments worldwide have grappled with how to respond innovatively since then and continue to do so.

The Philippines' first COVID-19 case was reported in January 2020. Since then, the country has had a total of 3,664,905 cases (as of March 4, 2022), with 56,538 people having died from COVID-19 according to the COVID-19 Tracker of the Department of Health (DOH). DOH, through the COVID-19 Inter-agency Task Force for the Management of Emerging Infectious Diseases (IATF) (at the national, regional, and provincial levels), launched a multi-sectoral response to the pandemic. The DOH and IATF have implemented various measures to restrict mobility to contain the spread of the virus. These include community quarantines that entail travel restrictions, suspension of classes and work, closure of public areas and nonessential business establishments, and the implementation of curfews, social distancing, and hygiene measures (e.g., wearing face masks and face shields). Throughout the rest of 2020, lockdowns were implemented and extended regionally and at the province level. Over the course of the same year, other COVID-19 variants emerged, causing surges of cases. With the more recent and more contagious Omicron variant, the country experienced another steep rise in cases in January 2022. Despite the initial difficulties procuring COVID-19 vaccines due to a global shortage, the official rollout of vaccines in the country began on March 1, 2021. As of January 18, 2022, a total of 120,645,514 doses have been administered, according to the National COVID-19 Vaccination Dashboard of the DOH.

The COVID-19 pandemic has exacerbated challenges experienced by an already-fragmented health system. The extended community quarantines implemented to contain the virus's spread resulted in widespread disruptions in health service delivery. For instance, lockdowns heavily restricting mobility disrupted the health system's capacity to distribute healthcare services to geographically isolated and disadvantaged areas (GIDA) and communities. Most health workers were also diverted from their original tasks to serve in the emergency response to the COVID-19 pandemic, which disrupted the operations of many other health programs.

The scarcity of health resources (human resources, supplies, and equipment) was highlighted in the face of increasing COVID-19 cases in the country. The national public health system struggled to cope with the continuous increase in cases due to the shortage of medical professionals and underfinanced health infrastructure. During the early months of the pandemic, several hospitals reached capacity in their respective COVID-19 wards. They also faced shortages of ventilators as well as personal protective equipment (PPE) for health workers. Delays and inaccuracies in reporting health information also resulted in difficulties in pandemic management. These data gaps and inconsistencies in DOH and local government unit (LGU) reporting often led to confusion and anxiety among the public (UP COVID-19 Pandemic Response Team, 2020). Coupled with the proliferation of fake news and misinformation, the

COVID-19 pandemic response faced a huge challenge in changing the public's health behaviors in the context of the pandemic.

Another impact of the pandemic, and perhaps the most notable, is on the implementation of Republic Act 11223, otherwise known as the Universal Health Care (UHC) Law. At no time was the UHC Law more needed than in the current context of the pandemic, yet its implementation was sidetracked as the time, energy, and attention of health workers were diverted to the country's pandemic response. The Philippine Health Insurance Corporation (PhilHealth) assessed that the resulting deficit in funds because of reduced payment capacities of its contributors would be felt until 2024 (Lozada, 2020; Aguilar, 2020). As such, it was estimated that the UHC Law will take at least three years for full implementation (Aguilar, 2020). Many lawmakers disputed PhilHealth's statements and emphasized the benefits of a fully implemented UHC Law in times of public health crises.

1.2 Objectives of the Joint Learning Initiative

This study recognizes that the health sector and various institutions have been greatly affected by the COVID-19 pandemic. While some institutions are more adept than others in formulating and implementing adaptations to ensure the continuity of operations, most are trying to work their way through the spectrum of vulnerability.

We aimed to systematically document in real time the COVID-19 program adaptations of the United States Agency for International Development (USAID Health Project (HP) and its partners to ensure continuity of health services across the continuum of care, pausing along the way to reflect on what is working, share lessons learned, and continue to adjust and adapt the path to achieve the HP's goals.

The specific objectives were to:

- Document the evolving adaptive responses of the HP's implementing partners (IPs) in relation to continuity of essential services for family planning (FP), tuberculosis (TB), community-based drug rehabilitation (CBDR), and related health systems functions;
- Identify and explore areas of synergy and innovation to ensure continuity of essential health services;
- Develop and employ dynamic platforms for information sharing and adaptive management among the USAID/Philippines Office of Health, IPs, and other stakeholders; and
- Recommend which adaptive responses can be shared and potentially scaled up.

2. METHODOLOGY

2.1 Research Framework

The implementation research followed the Theory of Change (ToC) process embedded in the Collaborating, Learning, and Adapting (CLA) framework adopted by USAID/Philippines Health Project 2017-2022. This aimed to strengthen key aspects of the health system that were expected to contribute to underserved Filipinos' health outcomes and to improve the country's overall health profile. It aimed to do so by addressing the needs of the individual and ensuring quality, equity, and sustainability of services and systems to develop and maintain healthy behaviors and to seek and receive quality health care. Figure 1 below shows the purpose and sub-purposes of the USAID/Philippines HP.

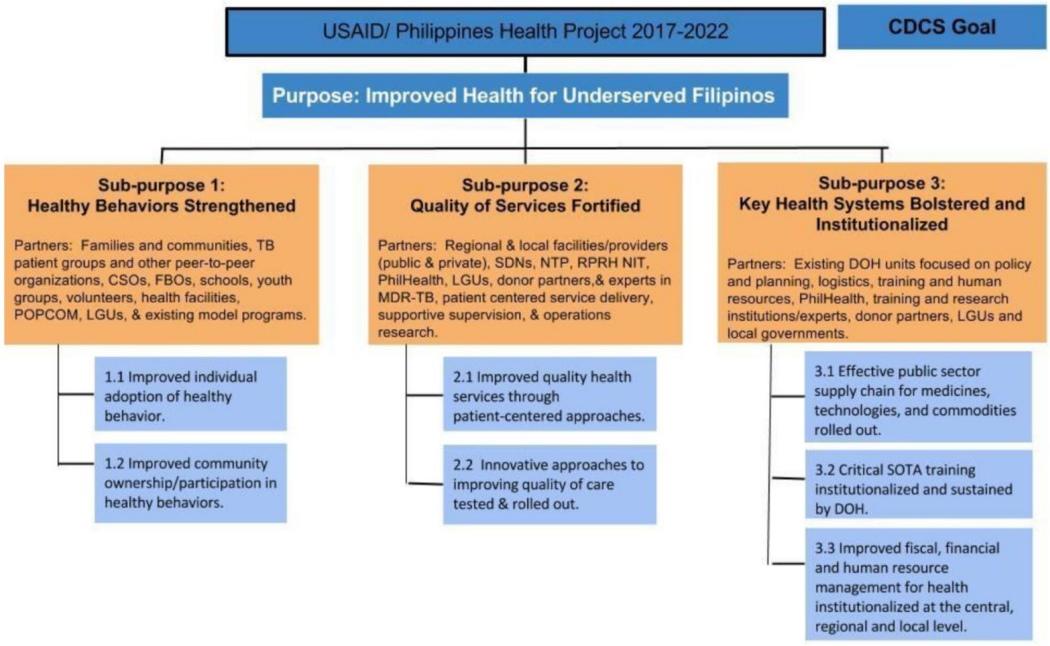

Figure 1. USAID/Philippines HP 2019–2024 Purpose and Sub-purposes (Source: USAID/Philippines, 2017)

Our research framework recognizes the importance of social contexts and program processes that are always in flux, with emergent issues, unforeseen risks, and surprises arising throughout (McGee & Gaventa, 2010). We adopted a critical stance in understanding the context, disruption, adaptation, and recovery processes of the Philippines health system as these continue to unfold amid the COVID-19 pandemic.

Through an evaluative thinking approach, the study critically examined disruptions to the USAID/Philippines HP brought about by the pandemic and identified select adaptations and adjustment

strategies utilized by IPs and local implementers to mitigate the effects of such disturbances. It viewed adaptations as learning opportunities, which were processed as content and process inputs and then shared with health program partners through a collaborative learning process.

Using the research framework shown in Figure 2, the research team identified emerging parameters or factors that can be used to assess the success, sustainability, and scalability of health initiatives, including adaptations amid the pandemic (discussed in Section 4). While further research might be needed to fully operationalize these emerging parameters, they nevertheless provide impetus for a "double-loop learning" process. The joint learning exercise encourages the different HP activities to think more deeply about their assumptions and beliefs and enables individual players, teams, and organizations involved to adapt programming most effectively and sustainably (Valters, 2014). Moreover, collaborative engagements with frontline implementers, whose insights reflect a better understanding of shifting local contexts, facilitate "rhizomatic" learning in complex situations (Valters, 2015).

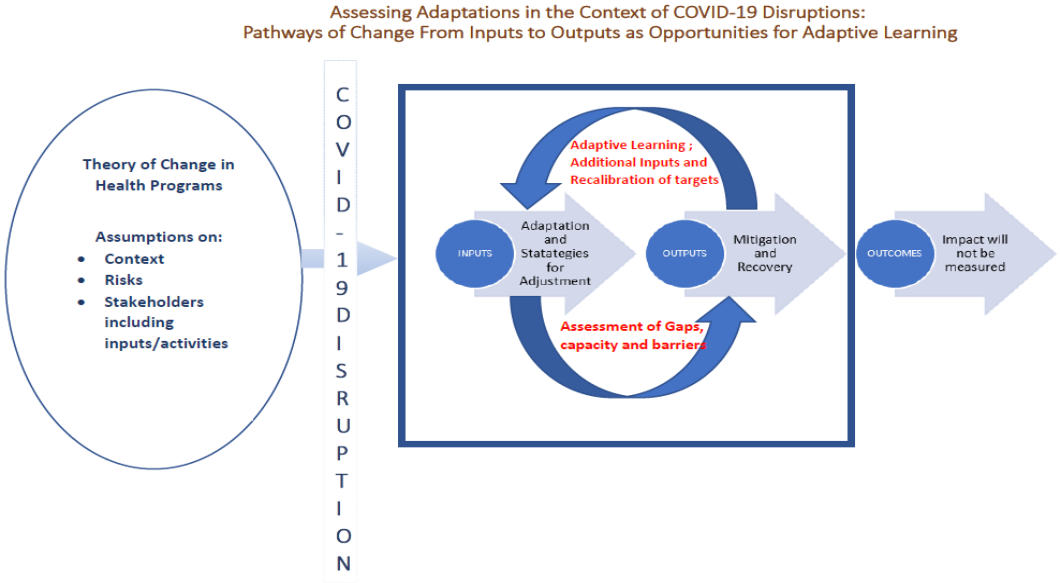

Figure 2. Research Analytical Framework

The study is located within the logic of Sub-purpose 3 of the HP (USAID/Philippines, 2017) — bolstering and institutionalizing the country's key health systems—which assumes that:

> USAID-supported analyses, training, and capacity-building will need to be paired with the Department of Health's active leadership, participation, and budgetary support for successful completion of this work. It is also expected that to sustain these public sector initiatives, the Department of Health will need and receive assistance through this Project to revise the scope and capabilities of existing central government units dedicated to the public sector supply chain for medicines and commodities, policy and policy tracking functions, health governance and training (p.8).

It also broadly assumes that:

> A wide variety of public and private individuals and entities will be involved in this implementation. Partners range from private sector suppliers and distributors to certified trainers in state-of-the-art technical areas from universities, civil society organizations, and other donor-funded projects. Many activities will need to work at the central, regional, and local levels of government and at times with appropriate government agencies (p.8).

However, the above assumptions may no longer be fully tenable. The pandemic directly disrupted many, if not all, health initiatives, thus affecting assumptions of sustainability of inputs, commodities, and technologies, including continuous access to health services of underserved citizens in low-income urban and rural areas.

Nevertheless, the research team proceeded to document selected mitigating adaptations as they evolve to become adaptations for long-term recovery. These mitigating adaptations were mostly under the HP's Sub-purposes 1 and 2. The evolution of these adaptations toward recovery may involve reorganization, redesigning of client-patient flow, and additional resources and capacity of key health systems under Sub-purpose 3. This progression cuts across all health services—from FP, maternal and child health, and adolescent reproductive health (ARH) to tuberculosis and CBDR. Given these dynamics, the study's evaluative thinking approach—that is, gathering additional information for informed decision-making to alter project processes to favor success and avoid failure (Archibald, Sharrock, Buckley, & Cook, 2016)—is a good fit.

2.2 Methodology

The design of the HP assumes a complex health system composed of actors with unpredictable behaviors governed by shifting rules, norms, and roles. Local partners, on the other hand, have a system of interconnected actors that produce a unique development outcome. The HP activities are operating in fragile and disaster-prone environments with weak governance frameworks. Given this context, the study adopted complex-system monitoring tools, with the implementation adaptations viewed as learning opportunities and inputs to future decision-making for improved program implementation.

To fully capture the complexity of health program interventions, the data were analyzed using a realist lens to tease out what works for whom under various program circumstances and specific program aspects (Peters, Tran, & Adam, 2013). Thus, the first step in the study was to make explicit the health program's assumptions and connect them with the various health program contexts, implementation processes, adaptations, and results regarding health services continuity.

The study focused on the complexity of adaptations of IPs to the disruptions brought about by the COVID-19 pandemic. We adopted a mixed-methods approach to understand the multiple views of various IPs and other stakeholders with their different adaptation strategies. We examined project-specific documentation, coupled with online interview sessions with other stakeholders, to bring out the multiple-level assumptions made by various program actors involved in these implementation adaptations.

In particular, the study used two developmental evaluation approaches: *most significant change* (MSC) and *outcome harvesting* of narratives composed of assumptions, beliefs, phenomena, outcomes, and mindsets of key system stakeholders. This approach enabled us to capture the critical health program adaptations, including the actors, their interactions with one another, resources tapped, and the corresponding results (Global Obesity Prevention Center at Johns Hopkins, Global Knowledge Initiative, LINC, Resilient Africa Network, 2016). We then identified the most significant health program adaptations as mentioned in program reports and documentation as well as online interview sessions. These were then verified with stakeholders at different program hierarchy levels.

The MSC was supplemented by outcome harvesting to understand how activities of health program adaptations yield successful and not-so-successful outputs in terms of mitigating the effects of disruptions brought by the pandemic. Outcome harvesting aided in understanding the adaptations of the various health programs to recover and get back on track in terms of program objectives, while being fully aware of the limitations posed by the COVID-19 pandemic. Both narrative approaches gathered information from program reports and the online interview sessions conducted with program stakeholders.

We conducted an online survey to quantitatively capture program adaptations across the health program sites. We originally intended to disseminate the results to support our qualitative analysis, but the response rate was low. Further discussion on the conduct of the online survey, the challenges encountered, and the resolution on the treatment of the data yielded is found in the sub-section on Limitations to Research Mobility.

The Institute of Philippine Culture of the Ateneo de Manila University (IPC-AdMU) conducted this implementation research for USAID's Collaborating, Learning, and Adapting for Improved Health (CLAimHealth) activity. The research team submitted all data collection protocols to the Ateneo de Manila University's Research Ethics Office (UREO). As the research design presents only minimal risk to human participants, and given its potential public benefit, the research team was granted a research ethics exemption by the UREO.

2.3 Sampling

To sufficiently cover the variety of adaptations made by the IPs, we adopted theoretical sampling to identify study participants and respondents. To capture the socio-cultural, economic, and political contexts and nuances, IPC-AdMU and CLAimHealth identified study sites according to the following parameters: type of adaptations, programs implemented, and geographical location. Such an approach is vital since evidence suggests that implementation and, particularly for this study, adaptations occur differently in different contexts with variable effects (Peters et al., 2009).

Table 1 lists the study and comparison sites where the research team successfully conducted interviews. At one point during the data collection stage, both the research team and CLAimHealth agreed that it would be best to reduce the number of study sites and focus efforts in securing interviews from the more responsive sites.

Table 1. Study and Static Group Comparison Sites				
AREA	PROPOSED STUDY SITES		COMPARISON SITE	
	CITIES	PROVINCES	CITIES	PROVINCES
National Capital Region (NCR)	Pasig City Caloocan City	N/A	The health programs are implemented in the whole of NCR. As such, we did not have a static group comparison site in NCR.	
Luzon		Pampanga, Cavite, Laguna, Rizal		La Union
Visayas	Cebu City	Cebu	Dumaguete City	Negros Oriental
Mindanao	Davao City	Misamis Oriental	Surigao City	Surigao del Norte
Bangsamoro Autonomous Region in Muslim Mindanao (BARMM)	Marawi City	Maguindanao	The health programs are implemented in the whole of BARMM. As such, we did not have a static group comparison site in BARMM.	

For each of these sites, the research team aimed to interview health personnel from multiple levels (i.e., regional, provincial, city/municipal, and barangay) and/or selected health programs (*i.e.*, FP program and the National TB Control Program [NTP]). For CBDR, apart from the interview with USAID's Expanding Access to Community-Based Drug Rehabilitation (RenewHealth) Activity, the team was only able to conduct one other interview with a CBDR program implementer. As such, not much data was gathered on the program.

2.4 Data Collection and Data Analysis

We employed a purely qualitative approach to explore how adaptations contribute to attaining health outcomes as these adaptations evolve in response to the pandemic. We conducted online interviews with selected IP representatives tasked with either program operations/service delivery or monitoring, evaluation, research, learning, and adapting activities. We also interviewed national, regional, provincial, and local (city, municipality, and barangay) implementers. The interview sessions served to:

- Explore the community's understanding and responses to health issues, including the COVID-19 pandemic;
- Highlight how marginalized sectors of the communities are differently affected by the pandemic;

- Identify good practices and promising adaptations for replication and upscaling; and
- Identify how good practices and promising adaptations have evolved amid the pandemic.

To provide a comparative lens, the study featured a static group for selected program indicators. The static group is defined in this study as an area or unit without USAID HP interventions. The research hypothesized significant differences in how study and comparison sites adapted to the pandemic (in terms of presence, scale, or sustainability of the adaptation). Purposive sampling was done to select these comparison sites, based on the following criteria:

- Selected comparison sites must be comparable to study sites in terms of socio-demographic characteristics.
- If the selected comparison site is a province or a highly urbanized city, it is preferable that it is located within the same region as the selected study site or located contiguous to the study site.
- If the selected comparison site is a municipality or component city, it is preferable that it belongs to the same Interlocal Health Zone as the study site.

Since the USAID/Philippines HP activities were implemented throughout the NCR and the BARMM, there were no static group comparison sites in these two regions. We transcribed and thematically analyzed data from the interviews using NVivo Qualitative Data Analysis Software.

Apart from the interviews, the research team also reviewed related policy and program documents that provided the basis for the IPs' implementation adaptations.

These documents served as a basis to identify explicit and implicit program assumptions as well as innovative program strategies adopted which were then utilized in both the design and implementation of adaptations. We also examined the nuance of these adaptations in different places and conditions of implementation.

Periodic joint learning roundtable discussions (RTDs) and a public webinar completed the study's lineup of data-gathering strategies. These were conceptualized in collaboration with CLAimHealth. Three RTDs (held on July 6, 2021; August 5, 2021; and September 23, 2021) served as venues for data collection and validation as well as for iterative learning processes among the research team, the IPs, and selected partners. In these smaller, more intimate sessions with relevant stakeholders, the team disseminated thematic findings and presented recommendations on how IPs and other selected partners could make use of these findings to improve their adaptive management processes. A public webinar held on December 3, 2021, served both data validation and knowledge dissemination purposes. The research team invited USAID/Philippines stakeholders as well as selected relevant personalities to serve as panel reactors and comment on the study's overall findings.

Table 2 below outlines the study respondents, data collection methods, and outputs vis-a-vis the study's learning questions.

Table 2. Matrix of Study Respondents, Data Collection Method, and Outputs			
Learning Questions	**Stakeholders and Participants**	**Data Collection Methods**	**Outputs**
What are the major assumptions embedded in the selected USAID/Philippines HP activities in the Philippines?	National, regional, provincial, and city/municipal coordinators and partners	Documents review, online interviews	The research team created a matrix of major socio-cultural, political, and economic assumptions, which were further analyzed in conjunction with variable results per intervention and site.
How are the responses of IPs evolving to ensure continuity of health services, particularly regarding TB, FP/ARH, and CBDR in the context of COVID-19 challenges?	Provincial hospitals and rural health unit (RHU) nurses, barangay health emergency response teams (BHERTs), and personnel of IPs engaged directly	Online interviews	The research team documented mitigating adaptations: ● as they happened on the ground; and ● as they evolved toward recovery. Additionally, the research team mapped commonalities and differences in providing specific health services.
What responses of IPs have been successful in adapting to ensure continuity of health services and get results? What are the critical enabling factors? What are the challenges and barriers?	Patient-beneficiaries, personnel, and consultants of IPs; research technical experts; DOH counterparts	Online interviews, joint roundtable learning discussions	The research team ascertained whether adaptations are succeeding in producing results and ensuring continuity of services. These findings were then reflected in the technical advisories and the final report.
What are the evidence-based lessons learned from areas of synergy and innovation that should be shared among IPs and other stakeholders?	Personnel and consultants of IPs, research technical experts, DOH counterparts	Online interviews, joint roundtable learning discussions	The research team identified areas of innovation and synergy across IPs as well as focus areas and/or geographic areas to ensure the continuity of essential health services. These findings were similarly reflected

Table 2. Matrix of Study Respondents, Data Collection Method, and Outputs			
Learning Questions	**Stakeholders and Participants**	**Data Collection Methods**	**Outputs**
			in the technical advisories and the final report.
How do we effectively share lessons learned in real time, in a way that maximizes adaptive management and stakeholder engagement?	Personnel and consultants of IPs, research technical experts, DOH counterparts	Online interviews, joint roundtable learning discussions	The research team identified innovative strategies of adaptations for recovery that should be shared and scaled up. Additionally, as a participative practice, the research team also aimed to assist in identifying and developing practical products (lessons learned, technical advisories, case studies, good practices, promising interventions) with the IPs.

2.5 Limitations to Research-Related Mobility

IPC-AdMU initially planned a mixed-methods approach to capture the many nuances of health system disruptions and adaptations during the pandemic. However, the team encountered challenges in data collection that resulted in a purely qualitative methodology for the study. Several data gathering procedures set by the team at the start of its data collection period were also modified to account for the conditions and challenges encountered.

The research team worked under the AdMU University Research Council's (URC) guidance. As the URC released a memo on June 29, 2020 that discouraged the conduct of face-to-face interactions, data collection was primarily done remotely through video conferencing platforms. Nevertheless, the team hired regional coordinators based in or within proximity to selected study and comparison sites in Visayas and Mindanao for data collection. When necessary, these regional coordinators were given leeway to conduct on-site face-to-face interviews, provided that they followed health and safety protocols. This is in consideration of connectivity issues in remote study sites.

Data collection proceeded slowly and was extended several times to allow the team to gather sufficient data. At the onset, there were difficulties reaching the offices of target respondents. The necessary updated contact information was not as easily obtained through the resources available to the team in their work-from-home setups. We had to request for the assistance of IPs and other existing networks in order to reach respondents and begin the process.

The team relied on readily available information in the National Health Facility Registry of DOH for the study's online survey component. Should email addresses in this database be outdated, the online survey link would unlikely reach the intended respondents. To gather more survey responses, the research team offered incentives to complete the survey. Despite these efforts, the team received only 13 responses after sending out email messages to 181 health facilities.

Our main challenge was the busy schedules of healthcare workers. Some respondents even found it difficult to indicate their own availability because they were often called to assist in vaccination activities and other pandemic response efforts without much prior notice. In consultation with CLAimHealth, the research team reduced the number of study sites (especially for Luzon) given the above mentioned challenges. This allowed the team to better focus its efforts on more responsive sites. Despite these adjustments, it was still difficult to find an available time slot for target respondents, who were invariably busy with the pandemic response and other essential tasks.

2.6 Methodological Limitations

The theory of change methodology connects activities to *outcomes*, which are often achieved through long-term interventions. Adaptive solutions in response to pandemic-related disruption, however, only intend to deliver target program *outputs*. Compared to outcomes, outputs are more immediate tangible products resulting from the implementation of adaptive solutions. This then limits the scope of the study. A broader program evaluation study is thus required to fully assess whether outcomes of USAID/Philippines Health Project have been met.

Another methodological limitation is the lack of static group comparison site/s for BARMM and NCR because both regions are HP implementation sites. We studied BARMM separately from the other sites because of its higher level of political autonomy due to the provisions of the Bangsamoro Organic Law. Additionally, the implementation of HP activities in BARMM is unique, as the approach is regional rather than local (i.e., specific provinces/cities/municipalities).

Meanwhile, the plans for digital storytelling were deferred because the research team could not conduct face-to-face interviews due to pandemic restrictions. The original plan was to request some health workers with interesting COVID-19 adaptations to document their routine activities. Though online interview sessions indicated that some sites do have interesting COVID-19 experiences and adaptations, most health workers were too busy attending to their expanded set of tasks and responsibilities to participate in the study's sessions.

3. DISRUPTIONS

3.1 Tuberculosis

The Global Tuberculosis Report (WHO, 2020) states that the "COVID-19 pandemic threatens to reverse recent progress in reducing the global burden of TB disease." This certainly holds true in the Philippines as, according to rapid assessments conducted by the DOH, the TB continuum of care continues to be displaced as a result of the pandemic.

In a press release in July 2020, the DOH reported a drastic decline in TB cases notified in the first quarter of 2020. Secretary of Health Francisco Duque III said that this reflected the impact of pandemic-related quarantines on the health-seeking behaviors of Filipinos. While TB facilities are available, those who need care would either delay or cancel their visits because of the perceived risk of infection (DOH Administrative Order 2020-0056, 2020e).

Based on the online meeting of the Technical Advisory Group on TB and National TB Programme Managers of the Region coordinated by Western Pacific Regional Office of the World Health Organization on 23–24 June 2020 (Chiang C-Y et al., 2020):

> In the Philippines, community quarantine began in Manila on 15 March 2020 and subsequently was implemented in most parts of the country. Consequently, active TB case finding was discontinued; visits of symptomatic individuals to health facilities were restricted; priority of health services was shifted to COVID-19; GeneXpert platforms in selected TB culture laboratories were re-assigned COVID-19 screening; and TB contact tracing was limited. The effect was an immediate decrease of 78.7% in aggregate weekly TB notification following community quarantine (p. 2).

Figure 3 below is consistent with this observation, illustrating a steep drop in TB case notifications between Q1 and Q2 of 2020, during the first lockdown period.

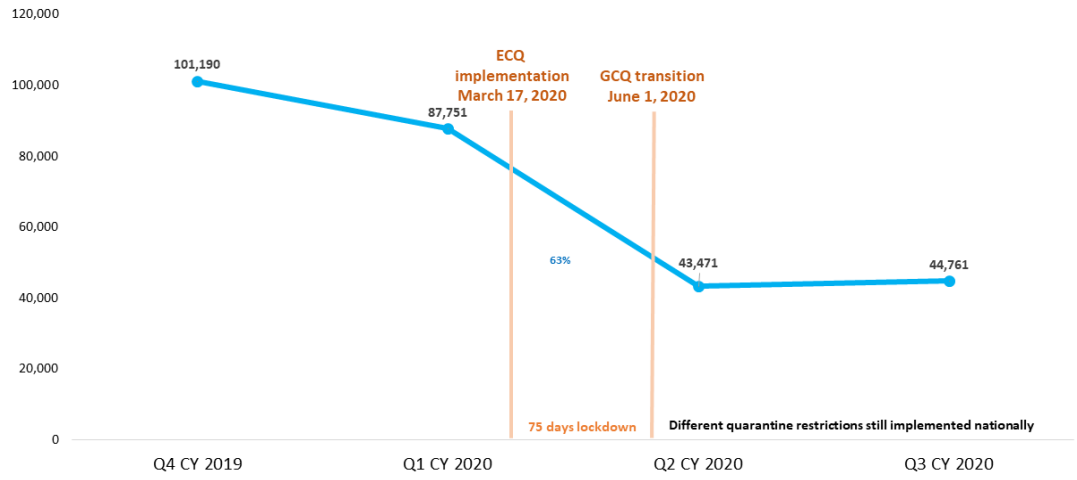

Figure 3. Status of National TB Case Notification Amid COVID-19
(Source: NTP Integrated Tuberculosis Information System [ITIS])

In March 2020, the government placed the entire country under community quarantine restrictions to respond to the threat of COVID-19. The community quarantine measures severely restricted the movements of TB clients and healthcare workers and significantly compromised the delivery of TB services. In May 2020, the DOH issued a memorandum to protect healthcare workers from COVID-19 by halting TB testing at Xpert sites that did not have Biosafety Level 2 laboratories or adequate PPE supplies.

USAID's TB Platforms for Sustainable Detection, Care, and Treatment (TB Platforms) conducted a series of rapid assessments in April, July, and October 2020. These assessments tracked the status of TB service availability, availability of drugs and supplies, deployment of health workers, functionality of referral and sputum transport systems, and community support activities. Findings showed that while services were generally available, health workers' availability and patients' access were significantly affected. Many facilities were either operating with a skeletal force or were deployed to address COVID-19 concerns. With the transportation restrictions in the early lockdown period, TB service utilization declined sharply. Likewise, private sector provider operations significantly dropped. As of September 2020, health facilities began to recover and become more functional (USAID/Philippines, 2020b).

For the most part, the DOH NTP was able to adjust well to the disruptions brought about by the pandemic. As early as March 2020, DOH released Department Memorandum 2020-0128 titled "Ensuring Continuous TB Services During Community Quarantine" (DOH, 2020b). The memo aims to "ensure the safety of both facility staff, presumptive TB, and TB patients, who are at high risk of infection" from the virus. In November 2020, DOH released Administrative Order (AO) 2020-0056 or the NTP Adaptive Plan (NAP) for the COVID-19 pandemic. The AO "provides specific, doable measures and adjustments to current implementation TB care guidelines to ensure the sustainability of TB cascade of care in prevention, screening, diagnosis, treatment, and care services that complement the COVID-19 response of the designated facilities and providers." The NAP was formed through consultation with relevant stakeholders and implementers of health programs.

3.2 Family Planning

The Commission on Population and Development (POPCOM) estimates that in the Philippines, 214,000 of 2 million women expected to give birth in 2020 were unplanned pregnancies. This finding, often referred to as the "lockdown baby boom," is attributed to women's increased time at home due to the pandemic which then prevented them from regularly accessing FP services and commodities (Lalu, 2020). This unmet need for FP could potentially lead to maternal mortality and morbidity due to pregnancy complications and unsafe abortions.

As such, the DOH issued the "Guidelines on Continuous Provision of Family Planning Services during Enhanced Community Quarantine" in April 2020 (DOH, 2020c). Relevant points in the guidelines include:

- Client visits should be scheduled to prevent COVID-19 transmission;
- Stockouts (or non-availability of FP supplies) should be reported to the FP Logistics Hotline of the Center for Health Development (CHD), which will relay this information to FP program

coordinators of the CHDs, which shall facilitate the redistribution of FP supplies in the catchment area; and

- Reporting and monitoring mechanisms should be continued to facilitate the movement of essential FP products.

USAID's ReachHealth (Family Planning and Maternal and Neonatal Health Innovations and Capacity Building Platforms) conducted a rapid survey in March 2020 and found that the pandemic resulted in mobility challenges for both people and products (USAID/Philippines, 2020d). Other significant findings included:

- There is less staff dedicated to FP services due to the lockdowns implemented and human health resources' reallocation to the pandemic response.
- Clients are less inclined to go out and resupply their FP commodities due to the perceived risk of infection. In response, ReachHealth encouraged the use of alternative modes of reaching clients, such as short message service (SMS), social media, or house-to-house visits.
- FP service providers experienced FP supplies' stockouts due to challenges with FP commodities' delivery and procurement. This area is where the response from the government is still lacking.

Figure 4 illustrates a decline in both current users and new acceptors of FP commodities and services between Q1 and Q2 of 2020 in ReachHealth project sites. The trends are similar to Figure 3, which showed a decline in TB notifications due to the pandemic.

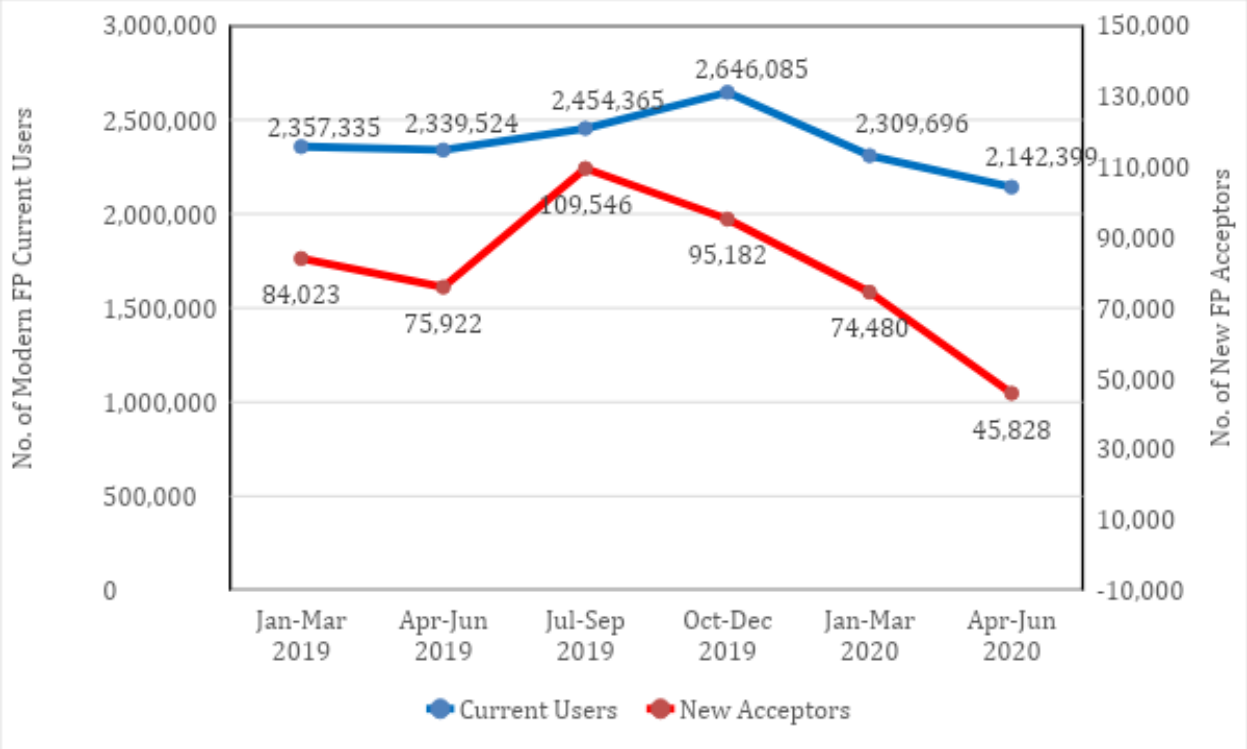

Figure 4. Number of FP New Acceptors and Current Users: All Project Sites, January 2019–June 2020

(Source: USAID/Philippines, 2020c)

In terms of ARH, POPCOM estimates that nearly 200,000 teenagers in the Philippines get pregnant every year, with more than 500 babies born to Filipino teenage mothers every day (Domingo K, 2019).

In May 2020, ReachHealth conducted a rapid assessment survey during the community quarantines on ARH service provision. The assessment aimed to determine the status of adolescent services in health facilities during the current health emergency, in terms of:

- types of services and FP commodities offered for adolescents, pregnant adolescents, teen parents;
- service utilization;
- modality of service provision (for RHUs); and
- availability of trained personnel.

The assessment also sought to determine the extent and nature of information dissemination being implemented on ARH and ARH services. It also sought to determine the challenges in ensuring the continuity of FP services and the corresponding adaptive solutions implemented.

The assessment identified the following challenges in the continuous provision of ARH services:

- addressing mental health concerns and GBV;
- lack of awareness on health facilities and services;
- lack of demand-generation activities;
- limited health staff;
- temporary closure of adolescent-friendly health facilities or unavailability of adolescent services;
- non-functional referral systems; and
- delayed submission of reports.

In response to these challenges, ReachHealth identified several adaptive solutions, including the use of social media platforms to connect with adolescents, use of POPCOM materials and IECs to increase awareness on facilities and services, and conduct of home visits and telemedicine/ teleconsultation mechanisms. In terms of health staff, rotations and shifting schedules were observed as a strategy to manage manpower. Additionally, BHWs were tapped to resupply pills and condoms amid the closure of adolescent-friendly health facilities.

4. ADAPTATIONS

4.1 Tuberculosis

The discussion below is organized around the TB program process: case detection, testing and diagnosis, treatment, online and web-based training migration to online facilities, commodity procurement and logistics.

Case Detection

TB case detection dropped significantly in 2020 but slightly recovered in 2021. Data on case detection showed downward trajectories in provinces and towns in study sites including Rizal, Laguna, Cavite, Pasig, Caloocan and even comparator sites such as La Union, Dumaguete, and Surigao. Given intermittent lockdowns, mobility restrictions, and the fear associated with the similarities between COVID-19 and TB symptoms, both health workers and clients needed specific and programmatic guidelines in dealing with both diseases at the same time. Health workers in particular needed guidance on effectively implementing infection prevention and control (IPC) for TB services amid the COVID-19 pandemic.

Case detection activities were the most affected in the beginning months of the pandemic. In November 2020, the NAP was issued. The plan included guidelines for simultaneous screening for COVID-19 and TB, including IPC in active case finding (ACF), intensified case finding (ICF), and enhanced case finding (ECF) activities. This was one primary adaptation that necessitated training for health workers on IPC for COVID-19, which probably explained the slow progress of wider adaptation practices. There were very few instances of ACF initiatives that reported integrating chest X-ray screening for TB and COVID-19 detection or during vaccinations in COVID-19 vaccination sites. Ideally, ACF for TB could have been integrated in the prevention and detection of COVID-19 as part of the government's Prevention, Detection, Isolation, Treatment, and Reintegration (PDITR) strategy against COVID-19. However, PDITR has its own implementation problems that vary across LGUs. Hence, program recovery in terms of TB case detection and notification indicators was slow, but it must be noted that this adaptation model is still evolving.

An adaptation that was actually developed prior to the pandemic is the strategy called Finding TB, Actively, Separating safely, and Treating effectively (FAST) Plus. It is an integrated hospital engagement model developed with the technical assistance of TB Platforms and TB Innovations and Health Systems Strengthening (TB IHSS) for systematic screening, testing, treatment, prevention, and notification of patients with TB. It falls under the ICF activity in health facilities following the NTP guidelines on screening and IPC. Currently, FAST Plus is being documented as a good practice/promising adaptation but is already in the process of being scaled up by TB Platforms in a targeted number of health facilities. On the other hand, ECF activities have adapted the use of virtual/telephonic screening or, if possible, community-based screening that involves house-to-house visits. Although virtual/telephonic screening is preferred, issues on sufficient support, resources, and infrastructure continue to surface.

Testing and Diagnosis

The NTP provided specific guidelines on continuing TB diagnostic testing with Xpert MTB/RIF as the primary test and on strict compliance to standard precautions for IPC and Laboratory Biosafety Standards. This necessitated training of health workers and laboratory inspection.

Due to mobility restrictions, house-to-house visits usually conducted by barangay health workers or community volunteers have become necessary in facilitating TB screening (e.g., delivery of sputum cups, specimen and blood sample collection), treatment, and the supply of necessary commodities. Aside from issues on mobility restrictions, another issue health centers face is understaffing as health workers all over the country are being mobilized for the pandemic response, particularly the COVID-19 vaccination rollout. Thus, health centers have allocated time in a programmatic manner, scheduling specific services on given days, to ensure that their facilities would always be staffed and able to offer their services. For example, Mondays and Wednesdays are for enrollment, giving instructions, and providing sputum cups that would then be collected at patients' homes; Tuesdays and Thursdays are for bringing specimens collected to Xpert MTB/RIF diagnostic test centers; Fridays are for walk-in patients, reports, and requests for medical certificates.

TB IHSS also pilot-tested a one-stop hub for ICF using artificial intelligence for chest X-ray reading. It was initially done in three demonstration sites and two large hospitals. This was expected to enhance FAST Plus implementation in health facilities. The mainstreaming of chest X-ray screening with artificial intelligence-powered computer-aided detection is a promising solution to augment the limited capacity for ICF because it reduces early losses due to prolonged turnaround time of results (USAID/Philippines Collaborating Learning and Adapting for Improved Health (CLAimHealth) Activity, 2021).

Treatment

The pre-pandemic shift in TB treatment strategy from directly observed treatment by health providers toward community and home-based treatment was accelerated during the pandemic. Along with this shift came adaptations, such as the provision of at least one month's supply of anti-TB medications to patients and/or treatment supporters with regular check-in calls or SMS exchanges with health workers. The flexibility in terms of the duration of drug provision, frequency of monitoring, and choice in virtual or face-to-face platforms provided a wider space for the evolution of adaptations in treatment protocols for health workers and patients and placed significant trust in patients to adhere to the standards of TB treatment.

Technology adaptations were also implemented to monitor treatment adherence and active drug safety monitoring and management. These include digital adherence technologies (DATs), telemedicine, tele- or e-counseling, hotline numbers for clients, and tapping family members as treatment supporters. Health workers were highly encouraged to conduct virtual/telephonic weekly monitoring of treatment adherence and adverse events, allowing fewer facility visits during treatment of patients with TB. Health workers also use regular SMS and social media platforms such as Facebook (FB) Messenger for virtual and telephone consultations. However, these are likewise dependent on access to essential equipment and resources such as mobile phones, mobile load and/or allowance, and internet connectivity. The use and demand of specimen transport riders (STRiders) was also amplified during the pandemic, along with roving health workers and vehicles that provide supplies of medications, collect sputum specimens, and, if possible, extract blood samples and perform diagnostic tests.

An innovation of TB Platforms is the use of the ConnecTB treatment adherence app for the monitoring of drug-resistant TB patients. Having completed the pilot implementation in two sites, it will be expanded to 31 facilities, with seven facilities in NCR, nine facilities in Region 3, and 15 facilities in Region 4-A. The preliminary results showed that in one pilot site where 47 patients with drug-resistant TB were enrolled, the proportion of patients lost to follow-up was reduced from 16 percent to 5 percent, and the adherence rate increased from 69.5 percent to 86 percent. In the second pilot site, the 12 patients with drug-sensitive TB showed a 97 percent–100 percent treatment adherence rate since the pilot started in February 2020.

As TB case detection and notification drastically went down, the proportion of individuals undergoing TB preventive treatment (TPT) also decreased. There were no reported innovations on TPT.

Migration to Online Facilities

There was a notable pivot to online training and monitoring, given the mobility restrictions associated with the pandemic. The NTP Manual of Operations 6th Edition (MOP 6) was made available online in June 2021. TB IHSS initiated an online training model to disseminate the latest MOP, which NTP adopted as an adaptive approach to the new normal. This allowed web-enabled modular online training for healthcare workers. Mobile applications for Android users were also developed to make it easier for doctors in private health facilities to notify patients using their smartphones. Other adaptations include: 1) dashboards and assessment tools for remote monitoring and mentoring for the pre-existing programmatic management of drug-resistant tuberculosis; and 2) the design, development, and launch of ITIS Lite. However, there continue to be issues with digital technologies. Even at the provincial level, there are LGU NTP units with unreliable internet connections. On the other hand, the potential of these digital technologies can be improved through remote monitoring, mentoring, and coaching sessions for training health workers.

TB Commodity Procurement and Logistics

Adaptations in terms of procurement and logistics include acquiring TB drug supply at health facilities for at least three months, enforcing the use of ITIS for reporting stock availability, and moving to more

frequent reporting. Another unique strategy was the use of FB Messenger by municipal and city NTP coordinators to exchange notes, borrow TB commodities and supplies, and provide overall support to other TB coordinators within their respective provinces. However, we noted a stockout of TB medicines in Maguindanao during the study period, whereas there was none reported in other study sites.

4.2 Family Planning

While all the regular health programs in the country experienced disruptions due to the COVID-19 pandemic, the FP/ARH programs did not suffer as much. The disruptions were most acute during the first few months of the lockdown in March 2020. However, in a national survey conducted by the Social Weather Stations for POPCOM in November 2020, around 18 percent of women across the country were hesitant to get FP supplies due to fear of contracting the virus. The figures jumped to as high as 29 percent for Mindanao. Given this situation, the following section discusses the adaptations made in the implementation of the FP/ARH initiatives during the COVID-19 pandemic. These adaptations resulted in faster resumption of services with the potential for sustainability and scalability. The following categories are culled from the most important strategic objectives of FP/ARH programs.

Demand Generation for FP Services

Demand generation plays a critical role in providing complete and sustainable FP services in the country. With the travel and mobility restrictions during the initial days of the COVID-19 pandemic, the work on demand generation almost came to a halt. To overcome these challenges, the IPs (i.e., ReachHealth and BARMMHealth [Bangsamoro Autonomous Region in Muslim Mandanao Health Capacity Building]) shifted immediately to alternative online modalities. ReachHealth conducted *Usapan* (discussion) sessions online and increased the use of social media and other digital tools to reach teens, youth, and couples. It also developed tools to assist community health workers (CHWs) in conducting door-to-door information drives and scaled up the use of FP *Ayuda* (aid) Express in partnership with POPCOM. ReachHealth also utilized self-learning modalities through online videos using various digital platforms to enable multiple access for LGUs. For example, social media cards developed through ReachHealth, POPCOM, and the DOH Health Promotions Unit in the Bicol Region provided a substitute source of FP information during the pandemic.

However, social media cards and other digital platforms are limited to areas with good internet connections, in effect excluding many rural areas and GIDA. Thus, in Laguna and the BARMM sites, radio programs, which seemed very accessible to the targeted audience using local languages, were used to convey correct information about reproductive health.

Health practitioners emphasized the complexity of decision-making surrounding FP. The expectation for a bigger family size is a considerable obstacle for many women of reproductive age in more traditional societies. Thus, to be more open to the variety of FP methods, FP implementers in Maguindanao invited local cultural and religious leaders to speak on behalf of the program to encourage higher FP acceptance and promote better reproductive health awareness.

The variety of clients' habits and practices also increased the popularity of specific FP methods in particular communities. The popularity of Implanon NXT among the women of BARMM, for instance, resulted in stockout of the product during the pandemic and was consequently followed by a spike in unwanted pregnancies in Maguindanao. To avoid future stockouts, these cultural and behavioral variations and preferences should be considered in localized procurement and supply chain management.

FP supplies were also rationed (i.e., shared and reallocated) among health facilities to prevent stockouts. Before the pandemic, ReachHealth had an existing system to assess and address stockouts where needed. Additional adaptations were implemented to ensure the continuous provision of FP services to clients, such as the promotion of pills and injectables as alternatives to implants when the latter is not available in health facilities.

FP Services Delivery Through Technology Adoption

Many health workers were forced to transition to online modalities by familiarizing themselves with online application systems such as Zoom and Webex, the official platform used by the DOH. In Laguna and Rizal, "e-Plano"—an application that provides information on various FP methods and referral services linked to nearby local service providers—is currently being pilot-tested. It also features a chat box that simulates face-to-face consultations in the community, which were suspended due to the pandemic. FriendlyCare developed the app with funds provided by ReachHealth. FP clients who have tried the app have no major complaints. However, the app is limited by the small number of health providers included in its system. While health information systems are also being used in comparison sites (e.g., La Union), there is no definitive shift in the use of FP-specific apps.

We found that the FP program coordinators relied primarily on FB Messenger to exchange notes, borrow FP supplies, and provide overall support to other FP coordinators within the province. This practice was notable in both the study sites (e.g., Cavite, Laguna, Rizal, and Cebu) and comparison sites (e.g., La Union, Surigao del Norte). The FP coordinators' primary reason for using FB Messenger is their familiarity with its interface and the overall ease of use. They can use FB Messenger for work without going through a long adjustment and learning period. Thus, for future online FP platforms, a design similar or parallel to FB Messenger should be considered to make the transition more manageable and less challenging for the health workers. On the other hand, after two years of online work, some health workers expressed online fatigue and complained that learning to use new apps further distracts them from their main health delivery work.

FP Services Delivery Through Flexible Work Arrangements

A promising strategy for FP/ARH is the provision of health services directly to clients in their respective residences. The shift in point of service from health facilities to the level of the community and the home is a common theme in adaptations to both TB and FP service delivery. Specific to FP, BHERTs have been mobilized to conduct house-to-house visits. Central to these visits are resupplying FP commodities and administering injectables. ARH services are also integrated in these house-to-house visits.

In BARMM, community-based approaches in FP service delivery were implemented. This includes interventions such as (1) Family Planning Services on Wheels, which was initiated by public health nurses trained by BARMMHealth; (2) "catch and change" medical outreach; and (3) the "bandilyo" (to announce loudly) initiative. These strategies diminish the risk of COVID-19 infections while ensuring continuity of FP services.

Despite the additional vaccination duties given to health workers, the FP program in many parts of the country continued due to the flexible work arrangements designed by health workers themselves. For example, in Maguindanao, the health staff themselves decided that at any given time, half of the team would be on fieldwork to fulfill their vaccination responsibilities, while the other half remained at the centers to provide regular health services, including FP. In the middle of the week, these two teams would switch responsibilities. These adjustments were conceptualized to provide the health workers with some break from the arduous vaccination tasks and, at the same time, provide sufficient human health resources to minimize further disruptions in the delivery of health services.

Many variants of this adjustment were also noted in the Laguna, Cavite, NCR, and Rizal areas. Adaptations designed by the health practitioners themselves have higher acceptability and, ultimately, greater chances of being institutionalized within the DOH human resources structure. These adaptations were likewise noted in comparison sites such as La Union.

For FP/ARH clients, the program adjusted by accommodating the adolescents' changing sexual practices. A mother in Maguindanao with a sexually active teenage daughter requested counseling and enrollment in the FP program. The flexibility of program implementation allowed the implementers to heed such requests. Another promising adjustment was providing a three-month FP supply rather than the usual one-month supply provided before the pandemic. This strategy proved helpful in minimizing the clients' trips to the RHUs, thus also decreasing the risk of COVID-19 infections.

More than ever, the pandemic-imposed mobility restrictions highlighted the crucial role played by CHWs and BHERTs. They distributed FP commodities and provided limited counseling services on reproductive health in both USAID and comparator sites. To maximize the gains made by these frontliners, another possible adaptation that may have a long-term and sustainable impact on the FP delivery would be the provision of institutionalized LGU support for these health workers. The support can come in various ways, such as better employment and progressive skills training programs to further empower these CHWs and BHERTs.

Local and National Policy Integration

The FP program benefited significantly from the assistance of POPCOM, whose role is made clear by Executive Order (EO) No. 12, s. 2017 or the "Attaining and Sustaining Zero Unmet Need for Modern Family Planning through the Strict Implementation of the Responsible Parenthood and Reproductive Health Act." The law mandates POPCOM to adopt the attainment of zero unmet need for modern FP as a population management strategy, particularly in assisting couples and women in achieving their desired family size and reducing the incidence of teenage pregnancy.

Across all provinces, both study and comparison sites included, the importance of POPCOM's role is unequivocal. Provinces in Luzon, such as Laguna and Rizal, and BARMM in Mindanao acknowledged the huge boost provided by the POPCOM in getting them back on track with their FP programs. The same is also true for the comparison province, La Union, which relied significantly on the assistance of POPCOM workers in the distribution of FP paraphernalia during the COVID-19 pandemic.

The local POPCOM assisted in creating and implementing much-needed resources for information, education, and communication campaigns (e.g., social media cards and radio programs). This assistance was made possible because of the clear national policy on the role of POPCOM, as illustrated by the Joint Memorandum Circular 2020-01, or the "Organization and Mobilization of Composite Teams in Local Government Units for Community Mitigation of COVID-19."

The sustainability of adaptations can only be institutionalized through supportive national and local policies. These policies are instrumental in the continuity of essential FP/ARH services, such as promoting correct information on FP/ARH and managing unfounded fear and misinformation about these programs.

LGU Support

Apart from supportive policies, LGU support is also critically important for the FP program as well as other regular and special DOH programs. This sentiment was reiterated in almost all interviews of health professionals in study and comparison sites. Due to the transition of certain functions to the online setup, health workers expressed the need for LGU support in providing technological infrastructure (e.g., internet access, devices, communications allowance). In La Union (a comparison site), the commitment of municipal government units to provide financial resources for the program was critical in maintaining the provision of continuous FP services in the province during the COVID-19 pandemic. LGU support was also mentioned repeatedly in CHD V (Bicol Region), CHD IV-A, Pampanga, and NCR sites such as Pasig City.

On the flip side, one major USAID project site stalled in its FP implementation primarily due to the lack of support from the local chief executive. While not directly an adaptation *per se*, the case further illustrates that the absence of LGU support, with or without the pandemic, has grave consequences on program outputs.

4.3 Community-Based Drug Rehabilitation

Launched in 2019, the CBDR program implemented by RenewHealth is a fairly new initiative supporting the government's campaign against illegal drugs. However, as with many LGU-based health services, the initial months of the COVID-19 pandemic drastically affected the program, specifically the noticeable decrease in screening and testing of persons who use drugs (PWUDs).

As soon as the IATF relaxed the lockdown restrictions, some LGUs opted to continue their CBDR activities virtually through teleconferences. However, some PWUDs expressed that face-to-face

counseling and assistance are still more effective. Some coordinators and PWUDs had difficulty due to limited resources and the lack of familiarity with online platforms.

Meanwhile, LGUs who started to do face-to-face interactions reduced group sizes to comply with existing COVID-19 health protocols. Some LGUs and CBDR coordinators in Region 5 (Bicol Region) benefited from the booklets provided by the USAID to help walk them through the process of drug rehabilitation.

One important learning of RenewHealth during the COVID-19 pandemic is the important role of community-based organizations in implementing CBDR programs. An adaptation towards this end is strengthening partnerships with civil society organizations for more successful program implementation.

In response to the heightened mental health cases during the COVID-19 pandemic and the significant overlap of mental health and substance use incidents, the DOH, in partnership with RenewHealth, launched the *Lusog Isip* mobile app in October 2021. Initial evaluation indicates promising results such as significant improvements in perceived well-being and coping strategies such as cognitive reappraisal and emotional release (USAID/Philippines, 2021). Regions rolling out the mobile app include Davao Region, Naga City in Camarines Sur, and San Pablo City in Laguna.

5. LEARNINGS AND RECOMMENDATIONS

5.1 Lessons Learned

Human resources for health remain a significant factor in ensuring the success of any health adaptation for any health program in times of crisis. This study indicates a lack of health providers both to address the goals of their original program assignments and to manage pandemic response. This is especially observed in the TB program, where ACF and ECF activities now cover both TB and COVID-19 screening during the pandemic. Health workers also need to be more empowered in terms of their compensation amid an increasing and more complex workload. Some interviewees mentioned that they do not get a communications allowance despite using their own devices to communicate with patients.

While technology adaptations are crafted with the intention of making workloads less heavy and more efficient, introducing them, especially within the context of the pandemic, may betray their original intentions. Such innovations must consider the possibility of low technology acceptance among their end users, who for the most part have been health workers. For instance, innovations must consider the geographical context of their intended sites, particularly the presence or absence of technological infrastructure to support successful implementation. Additionally, the design of these technology adaptations needs to consider the skill levels, sensibilities, and preferences of health workers. Thus, it would be more apt to make the design process more participatory and consultative and involve the intended end users as early as possible.

Training for health personnel needs to be re-engineered as well. The specific conditions and circumstances of health workers during the pandemic must be considered. Most respondents have shared that they have had to use their own devices and their own resources to connect to the internet in order to attend online training sessions (*e.g.,* for NTP MOP6). They have also been attending these sessions during their working hours and/or within their working stations, which can compromise their ability to focus on the training in the presence of clients and other actual tasks at hand. The online nature of these sessions may also discourage participants from raising further questions, which may have a significant bearing on their work.

Collaborative engagements between the national and local governments and agencies, the private sector (including the academe), and civil society or nongovernmental organizations remain pivotal during the pandemic. For the TB program, STRiders were hired mostly through partnerships with the Global Fund-supported TB project implemented by the Philippine Business for Social Progress and with USAID/Philippines. For the FP program, synergy among actors helped minimize stockouts of FP commodities in other localities.

These learnings were culled from interviews with health professionals on the ground. The variety of adaptations encountered by the research team indicates possibilities for long-term sustainable changes that can be integrated into existing health delivery systems in the country. With these in mind, we identified the following emerging factors for adaptation success, which affects the viability of identified adaptations. We see these parameters as crucial in sustaining and eventually scaling up the COVID-19

adaptations used by various health units across the different USAID-supported sites in Luzon, Visayas, and Mindanao.

P	Purpose	This refers to the specific adaptation's clarity of purpose.
R	Risk mitigation	This refers to the capacity of implementers to mitigate risks associated with implementing the specific adaptation, as well as the responsiveness of adaptations to current risks and hazards posed by the pandemic.
E	Ease of use	This refers to ease of use of adaptations despite shifts in process flows at both the health service provider and patient levels, as well as the ease by which health workers can apply the adaptations to their existing structure and process flows. This depends on how information about the adaptation is efficiently communicated across patients and health service providers, which may require training.
P	Policy consistency	This refers to the consistency of the adaptation with existing national and local policies that would later help ensure its efficient implementation and long-term sustainability.
F	Flexibility	This refers to flexibility of adaptations to accommodate the needs and circumstances of both health service providers and clients. The adaptation must be resilient to: ● Varying work conditions (*e.g.,* additional duties given to health workers); ● Locations (e.g., flexible work arrangements); and ● Costs/resource availability of specific LGUs (particularly when implemented in marginalized communities and GIDA).
B	Behavioral change	This refers to the capacity of adaptations to encourage better health-seeking behavior among clients and to provide them with clear mechanisms to help correct and reconfigure mistaken/confused beliefs and practices.
L	LGU support and promotion	In addition to support and promotion for TB and FP programs, this pertains to all other regular and special health programs implemented by LGUs. This support is seen in terms of addressing needs for technological infrastructure (given the shift to online setup), budget allocations/realignments, and reassignment of human

		resources for health.
E	Equity in access to services	This pertains to the capacity of the adaptation to facilitate equitable access (to health services and commodities) for all its intended clients (patients or health service providers) despite restrictions, changes in process, and limited resources.

We recommend this set of parameters (PREPFBLE) for more integrated policy and program adaptations to ensure better traction and sustainability. Adaptations are expected to further evolve as sustainable technical solutions and/or integral parts of evolving health systems develop. Based on this study's grounded approach, we propose these parameters not as monitoring and evaluation (M&E) indicators but as themes emerging from our interviews. These can be used as an initial framework for M&E purposes, but there is a need to further operationalize these indicators and rigorously test them for validity and reliability.

The adaptations that were identified in this research were initially anchored on the assumptions that these were mere responses to the disruptions brought about by the COVID-19 pandemic. The delivery of health services and observed work processes during the pandemic, however, indicate that some adaptations existed even prior to the pandemic. Moreover, the disruptions may even have encouraged maximizing adaptations already implemented by some of the local health units included in the study. Technology-wise, there were also some adaptations that were made with the assistance of both government and non-government entities.

The sustainability and longevity of these adaptations are likewise affected by the emerging changes within the national health systems. These important changes include the eventual full implementation of the UHC Law, the Mandanas-Garcia Ruling,[1] further devolution of government functions as provided for in EO 138 s. 2021,[2] and the May 2022 national elections as the winning candidates bring with them their own sets of priorities and unique health platforms.

Figure 5 shows the emerging COVID-19 adaptations and their effects on system transitions. It provides an overview of the processes noted in the study as adaptations and innovations in the TB, FP, and ARH programs evolved because of the pandemic. As these adaptations and innovations evolved, there were displacements of resources and shifts in health service delivery across different service delivery points and implementation processes. Adaptations are linked to the expected health governance shifts of the national health system and the possibilities for institutionalization within the respective health programs and technology innovation systems.

[1] The Mandanas-Garcia Ruling of the Supreme Court in 2018 (and confirmed in 2019) will increase the internal revenue allotment of local governments by 55 percent in the 2022 budget.
[2] EO No. 138, s. 2021, promulgated by the president of the Philippines, provides for full devolution of certain functions of the executive branch to local governments, including capacity development for LGUs and the creation of a Growth Equity Fund for disadvantaged LGUs. Details on EO No. 138 and its implications are described in the Annex.

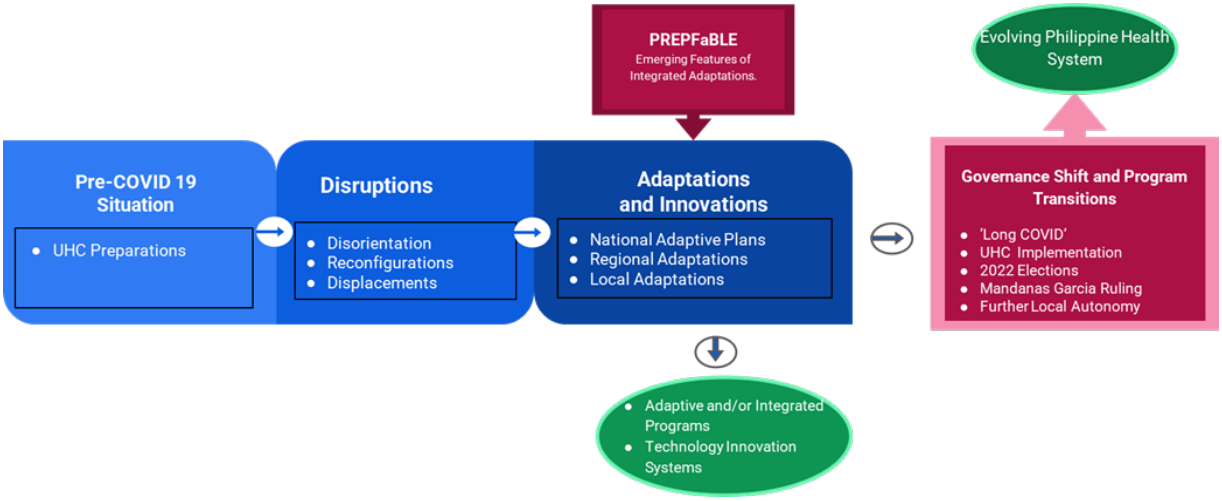

Figure 5. COVID-19 Adaptations and Possible Effects on Systems Transitions

A parallel process on the reconfiguration of program approaches relied on existing program mechanisms but at the same time expanded them to a more comprehensive "whole-of-government" approach. This expansion proved to be a challenge to vertical health program integration but offered the opportunity to connect these adaptations with the evolving health system.

The study sees the need to continue the validation of adaptations with respect to program goals and standards to ascertain the possibility of institutionalization. The national program managers must be engaged in deciding whether to adopt these innovative approaches, especially within the changing context of the national health delivery systems, such as the impending full implementation of the UHC law and the Mandanas-Garcia ruling, which significantly expands the LGUs' resource base. The PREPFBLE features presented earlier can serve as an initial guide on the possible adoption of these program adaptations and innovations.

With this backdrop, the following section discusses the process by which these multiple elements of sustainable institutional adaptations can come together via policies at the national and local levels, the creative adaptations identified in this research, and the anticipated further devolution of the health services as propelled by recent policy shifts.

5.2 Policy Recommendation

TB Program: Local Integration of National Adaptive Plan

The COVID-19 pandemic and the national adaptive plans demonstrate that programs may operate almost in silos at the national and regional levels. However, all of these programs have to be integrated into a "whole-of-government" approach at the LGU level. A systems shock like the pandemic or a huge natural disaster prompts the LGUs to mobilize all its resources at the first stages to mitigate the

devastating effects on human lives. Eventually, these efforts will have to be integrated into the LGU's overall response to other existing programs and prevent further neglect of other programs and services.

RHUs, health centers, and local public hospitals are microcosms of these integrations. They continually evolve as they respond to similarly evolving priorities in health over time, with or without the pandemic. The characteristics of adaptations and innovations described in the study's PREPFBLE guide showed that initiatives that were more integrated, facilitative, and process-oriented had more traction for adoption.

The NAP had already specified the national policy recommendations to ensure continuity of service delivery of the TB program. Greatly benefiting from the USAID HP's inputs and assistance in the first few months of the pandemic, the NTP has since recognized innovations and adaptations happening on the ground, with the exception of new testing, diagnosis, and treatment monitoring technology packages introduced mostly during the pandemic. The primary challenge lies in local policy implementation or the translation of NAP into local TB program implementation processes at the LGU level.

At the time of writing, coming up with effective adaptations remains a challenge in ACF during the pandemic. As for other component services of the TB program, our findings show that adaptations and innovations for testing, diagnosis, and treatment are doing reasonably well with respect to continuity. The pandemic's impact on TB case finding and notification has not yet recovered to pre-pandemic levels and will be unlikely to do so until ACF and ECF activities are normalized. LGUs and local policies have to respond to this challenge by bringing back ACF activities for TB. The NTP has recommended hiring additional health personnel to ease the burden on health workers being diverted to COVID-19-related activities. As COVID-19 becomes more manageable with increasing vaccination coverage and the availability of new COVID-19 drugs, LGUs have to offer a strong and reliable referral system for both TB and COVID-19 patients, a necessary requirement to conduct ACF activities. As both TB and COVID-19 are screened during ACF or ICF, there has to be immediate follow-up for testing and diagnosis, isolation protocols in the case of COVID-19 suspect patients, treatment, and recovery. This essentially requires additional health personnel to successfully conduct ACF or activities.

As a specific recommendation for USAID/Philippines, perhaps the further provision of technical assistance to LGUs in mitigating COVID-19 may bring about some specific conditions necessary for the LGU to integrate TB program activities, especially ACF, ICF, and ECF activities.

FP/ARH Program

ReachHealth and BARMMHealth assisted in drafting two relevant FP and ARH policies: (1) DOH-DM 2020-2022, the "Guidelines on the Continuous Provision of FP Services During Community Quarantine" (DOH, 2020c) and (2) DOH-DM 2020-0341, the "Interim Guidelines on Continuous Provision of Adolescent Health Services during COVID-19 Pandemic" (DOH, 2020d). These policies served as the cornerstone in providing uninterrupted FP/ARH services during the pandemic. The inputs provided by the two IPs indicate that the provisions of these national policies are anchored on existing FP/ARH processes as experienced by health workers across various LGU levels.

To further gain traction at the local level, corresponding regional and city/municipal directives of these national policies should be drafted to pave the way for uninterrupted FP/ARH services. These policies are crucial, as they will define the partnership roles of the different FP/ARH stakeholders. At the same time, provisions for sourcing the needed resources for the program are also defined at the local level, corresponding to the national policies on interrupted FP/ARH services. A good example is the integration of the FP/maternal and child health (MCH)/ARH in the Bangsamoro IATF Contingency Plan, clarifying the resource allocation and budget of each RHU for FP/MCH/ARH services.

5.3 The Universal Health Care System

The UHC Law remains the most viable mechanism in translating national adaptive plans to local health delivery systems for sustainability and longevity. This is especially true should COVID-19 evolve to an endemic level and become just one of the diseases to be managed and controlled by the health system. The lesson shown in studying the TB and FP program adaptations during COVID-19 is that there is no completely novel adaptation. Adaptations evolve and build on normal responses shaped and defined by the governance and functional structure of the local health system. However, they are enhanced by the knowledge, skills, dedication, and sacrifices of health workers. It also matters if there is technical assistance provided, such as by the IPs, in addition to the crucial support of LGU leadership. The DOH and its attached agencies at the national and regional levels continue to review and validate the adaptations and innovations within the context of an evolving pandemic situation. Additionally, the implementation and installation of local universal health systems is also central to the success of the UHC Law.

Thus, the decision of the IPs to find ways to integrate FP/ARH services within the UHC provisions and PhilHealth financing mechanisms is a decisive step to ensure long-term program sustainability. A case in point would be the role of BARMMHealth in assisting the BARMM Ministry of Health in the region's transition processes and its subsequent adoption of UHC under the jurisdiction of a new organic act.

5.4 Integrated Health Services Delivery Systems

Recognizing the multifaceted character of the adaptations made by selected health programs, the study's analysis gave equal emphasis to the challenges and opportunities at both the demand and supply side of commodities for these health programs. The study results indicated different adaptations using technological and human resource innovations that required multilevel integration across health programs and delivery systems. In these different adaptations, integration was a recurrent issue discussed by respondents from differing health programs. There was much interest among the study's respondents in adopting such integrated approaches across TB, FP/ARH, and other health programs. In some cases, the integration was even done with programs outside the health sector, such as the Family Development Sessions of the Conditional Cash Transfer Program. However, as health programs in general seem to be more compartmentalized, integration may best be initiated from a higher level: from either the national, regional, or provincial levels. This will allow partners at lower levels to be guided accordingly and to receive additional resources for proper implementation. The findings also pointed out the need for public and private health institutions to start working together and integrating their processes.

As illustrated by more successful COVID-19 adaptations, an integrated approach works better. The minimal nature of disruptions in FP services was partly due to their integration or combination with other government services. Some examples include FP commodities distributed with the COVID-19 relief package and counseling for men and women seeking other health services. The same level of integration should be the aim as the country moves toward the full implementation of UHC. Specifically, for UHC implementation, Health Care Provider Networks (HCPNs) provide the framework for the integration of health service delivery mechanisms. The adaptations and innovations that evolved as part of the COVID-19 responses would have to be reviewed again and assessed with respect to their inclusion in the evolving HCPNs.

The integration of the health delivery systems would also have to include the harmonization of the health information systems that support the service delivery, administrative, and health financing requirements of the HCPNs. This requires data integration from various government offices, including information on the financing that PhilHealth will provide. With additional technology and information system-driven innovations and adaptations introduced, the harmonization will be a challenge, as the ecosystem has expanded tremendously in the past two years. The key challenge is for the national programs to lead in the assessment process of these additional technology-driven layers and decide which ones will have to be adopted and which ones will be discontinued.

BIBLIOGRAPHY

Aguilar, K. (2020, June 19). PhilHealth: UHC law seen to be implemented by mid-2021. *Inquirer.net*. Retrieved from https://newsinfo.inquirer.net/1294172/fwd-philhealth-uhc-law-seen-to-be-implemented-by-mid-2021#ixzz6nX1jN3fd.

Archibald, T., Sharrock, G., Buckley, J., & Cook, N. (2016). Assumptions, conjectures, and other miracles: the application of evaluative thinking to theory of change models in community development. *Evaluation Program and Planning, 59*, 119–127. doi:10.1016/j.evalprogplan.2016.05.015

Chiang C-Y, Islam T, Xu C, Chinnayah, T., Garfin, A. M. C., Rahevar, K., & Raviglione, M. (2020). The impact of COVID-19 and the restoration of tuberculosis services in the Western Pacific Region. *European Respiratory Journal* 56, 2003054. doi:10.1183/13993003.03054-2020

Department of Health. (2020a, November).*Administrative Order No. 2020-0056: National TB Control Program Adaptive Plan for the COVID-19 pandemic*. Retrieved from https://doh.gov.ph/sites/default/files/publications/NTP%20Adaptive%20Plan.pdf

Department of Health. (2020b, March). *Department Memorandum No. 2020-0218: Ensuring Continuous TB Services During Community Quarantine*. Retrieved from https://stoptb.org/assets/documents/COVID/dm2020-0128%20ensuring%20continuous%20tb%20services%20during%20community%20quarantine.pdf

Department of Health. (2020c, April). *Department Memorandum No. 2020-0222: Guidelines on the Continuous Provision of Family Planning Services during Enhanced Community Quarantine following the COVID-19 Pandemic*. http://familyplanning2020.org/sites/default/files/COVID/Guidelines-Continuous-Provision-FP-Services-Enhanced-Community-Quarantine-COVID-19-Pandemic.pdf.

Department of Health. (2020d, July). *Department Memorandum No. 2020-0341: Interim Guidelines on Continuous Provision of Adolescent Health Services during COVID-19 Pandemic*. Retrieved from (pp.11-15) http://www.depedtagbilaran.org/wp-content/uploads/2020/11/DM-No-263-s-2020-ADVISORY-ON-THE-IMPLEMENTATION-OF-THE-MEDICAL-NURSING-SERVICES-AND-THE-ADOLESCENT-REPRODUCTIVE-HEALTH-PROGRAM-FOR-SY-2020-2021.pdf.

Department of Health. (2021a, January). The Philippine National Deployment and Vaccination Plan for COVID-19 Vaccines. https://doh.gov.ph/sites/default/files/basic-page/The%20Philippine%20National%20COVID-19%20Vaccination%20Deployment%20Plan.pdf

Department of Health. (2021b, March 18). *Who will be vaccinated first?* https://doh.gov.ph/node/28118.

Domingo K. (2019, July 11) Nearly 200,000 Filipino teens get pregnant annually: POPCOM. *ABS-CBN News.* https://news.abs-cbn.com/spotlight/07/11/19/nearly-200000-filipino-teens-get-pregnant-annually-popcom

Global Obesity Prevention Center (GOPC) at Johns Hopkins, Global Knowledge Initiative (GKI), LINC, Resilient Africa Network (RAN). (2016). *SPACES MERL: Systems and Complexity White Paper.* United States Agency for International Development (USAID). Retrieved March 7, 2021, from https://www.greencommodities.org/content/dam/gp-commodities/img/SYSTEMS%20AND%20COMPLEXITY%20WHITE%20PAPER.pdf.

Junior, R.A. (2021, August 31).Minimizing the impact of the Delta variant in the Philippines. World Health Organization. https://www.who.int/philippines/news/detail/31-08-2021-minimizing-the-impact-of-the-delta-variant-in-the-philippines#:~:text=The%20Delta%20variant%20is%20the,another%20nine%20to%2013%20persons.

Lalu, G. P. (2020, June 25). Lockdown babies: 2 million births expected this year — PopCom. *Inquirer.net.* Retrieved from https://newsinfo.inquirer.net/1297438/lockdown-babies-2-million-births-expected-this-year-popcom.

Lozada, B. (2020, June 17). Delay in UHC implementation a step in the wrong direction, says Drilon. *Inquirer.net*. Retrieved from https://newsinfo.inquirer.net/1293106/delay-in-uhc-implementation-a-step-in-the-wrong-direction-says-drilon#ixzz6nX1wNFmF

McGee, R., & Gaventa, J. (2010).*Review of Impact and Effectiveness of Transparency and Accountability Initiatives.* Brighton: IDS.

National Tuberculosis Control Program. (2020). *National TB Control Program Adaptive Plan: Redefining the National TB Control Program in the Philippines in Time of COVID-19 Pandemic*. Metro Manila: Department of Health.

Office of the President. Zero Unmet Need for Modern Family Planning, Exec. Ord. No. 12 (Jan. 9, 2017) (Phil.), https://www.officialgazette.gov.ph/downloads/2017/01jan/20170109-EO-12-RRD.pdf

Peters, D. H., El-Saharty, S., Siadat, B., Janovsky, K., & Vujicic, M. (2009).*Improving Health Service Delivery in Developing Countries : From Evidence to Action. Directions in Development; Human Development.* Retrieved from World Bank Group Open Knowledge Repository: https://openknowledge.worldbank.org/handle/10986/12335.

Peters, D. H., Tran, N. T., & Adam, T. (2013). *Implementation Research in Health: A Practical Guide.* Alliance for Health Policy and Systems Research, World Health Organization.

Philippine Daily Inquirer. (2022, January 10). *Big challenge for LGUs*. Inquirer.net. https://opinion.inquirer.net/148504/big-challenge-for-lgus.

Philippine News Agency. (2021, June 5). *DILG: Full devolution to happen with issuance of EO 138*. https://www.pna.gov.ph/articles/1142699.

UP COVID-19 Pandemic Response Team. (2020, May 8). "Prevailing Data Issues in the Time of COVID-19 and the Need for Open Data." *University of the Philippines*. https://up.edu.ph/prevailing-data-issues-in-the-time-of-covid-19-and-the-need-for-open-data/.

USAID/Philippines. (2020a, May). "Adolescent Reproductive Health (ARH) service provision during community quarantine in the time of Covid-19 pandemic response: A rapid assessment (PowerPoint slides)". ReachHealth.

USAID/Philippines.(2020b, October). "Annual Report FY October 2019-September 2020 (Y3)." TB Platforms for Sustainable Detection, Care and Treatment.

USAID/Philippines. (2020c, November). "Effects of Covid-19 on Family Planning (FP) Indicators: USAID ReachHealth Project Sites (Powerpoint slides)." USAID Partners' Meeting.

USAID/Philippines. (2020d, May) "FP service provision during community quarantine in the time of Covid-19 pandemic response: A rapid assessment: (PowerPoint slides)". ReachHealth. https://drive.google.com/file/d/1rpl-BtkQ7qrKURM3X1wzKrWjqf1zEMBU/view

USAID/Philippines. (2021, October). "Lusog-isip: Mobile App for Self-care on Mental Health and Substance Abuse (PowerPoint Slides)." RenewHealth. https://drive.google.com/file/d/15bhCduvU19_XpK44fa2ORc4SBqUhKCvN/view.

USAID/Philippines. (2017).*USAID/Philippines Health Project 2017-2022 Redacted Project Appraisal Document.* https://www.usaid.gov/sites/default/files/documents/1861/REDACTED_PAD_FINAL_31_May_17.pdf

Valters, C. (2014). *Theories of Change in International Development: Communication, Learning or Accountability.* London: Justice and Security Research Programme, International Development Department, London School of Economics.

Valters, C. (2015). *Theories of Change: Time for a Radical Approach to Learning in Development.* London: The Asia Foundation.

World Health Organization. (2020). *Global Tuberculosis Report 2020*. https://apps.who.int/iris/bitstream/handle/10665/337538/9789240016095-eng.pdf

World Health Organization. (2021, November 28).*Update on Omicron*. https://www.who.int/news/item/28-11-2021-update-on-omicron.

ANNEX

POSTSCRIPT ON THE CONTINUING COVID-19 SAGA

Inasmuch as the study would like to provide a comprehensive picture of health system disruptions and adaptations during the COVID-19 pandemic, it was limited by the specific time frame within which it was conceived and conducted. This meant that further developments in COVID-19 response were not fully captured within the time frame of the study.

Variants and Vaccinations

At the time of the study's inception in January 2021, only the Alpha (B.1.1.7), Beta (B.1.351), and Gamma (P.1) variants had been identified by WHO. Since then, however, more contagious variants have emerged, namely the Delta (B.1.617.2) and Omicron (B.1.1.529) variants. These two variants have caused significant surges in the number of cases as illustrated in Figure 6.

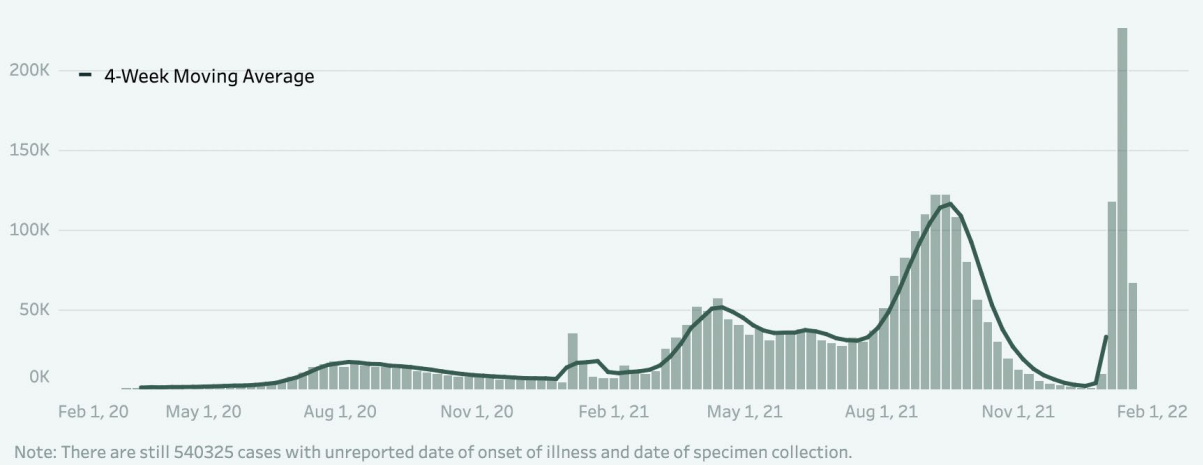

Figure 6. Weekly Cases, Philippines (February 2020–Present)
(Source: DOH COVID-19 Tracker)

The first case of the Delta variant was detected in the country in July 2021. This specific variant is known to be "twice as transmissible as the original virus, with one positive person potentially capable of causing infection in another nine to 13 persons" (Junior, 2021). This explains the surge of cases in Q3 of 2021, as seen in Figure 6.

The Delta surge was followed by a dip during the last quarter of the year. This was, however, short-lived with the detection of the Omicron variant (first detected in the country in mid-December). While WHO (2021) has mentioned that it is not yet clear whether the Omicron variant is more transmissible compared to the Delta variant, preliminary studies citing its fast spread and surges in cases in affected countries suggest that this may be the case. In the country, for instance, the surge after the new year prompted local authorities to enforce stricter protocols.

The emergence of these variants also coincided with vaccination rollout in the country, which officially began in March 2021. Priority groups of eligible populations (see Table 3) were identified to facilitate equitable distribution of the COVID-19 vaccine. This grouping is based on the WHO Strategic Advisory Group of Experts on Immunization Values Framework for the Allocation and Prioritization of COVID-19 Vaccination, as well as on the national context, the epidemiologic settings, and the COVID-19 vaccine characteristics and supply (DOH, 2021a).

Table 3. COVID-19 Vaccination Priority Groups

Priority Group A	A1: Frontline workers in health facilities, both national and local, public and private: health professionals and non-professionals, like students in health and allied professions courses with clinical responsibilities; nursing aides; janitors; barangay health workers; etc. A2: Senior citizens A3: Adults with comorbidities A4: Frontline personnel in essential sectors both public and private, including uniformed personnel, and those working in sectors identified by the IATF that are directly client-facing and cannot dutifully meet minimum public health standards A5: Poor population based on National Household Targeting System for Poverty Reduction (NHTS-PR)
Priority Group B	B1: Teachers, social workers B2: Other government workers B3: Other essential workers B4: Socio-demographic groups at significantly higher risk other than senior citizens and poor population based on NHTS-PR B5: Overseas Filipino Workers B6: Other remaining workforce
Priority Group C	Rest of the Filipino population not otherwise included in preceding groups

Source: DOH, 2021b

The DOH launched its "RESBAKUNA: Kasangga ng BIDA" campaign to ramp up its vaccination efforts and to promote COVID-19 vaccine education among Filipinos. Additionally, toward the end of 2021, the DOH declared November 29–December 1 as National COVID-19 Vaccination Days. As of writing, the DOH reports a total of around 56 million fully vaccinated Filipinos.

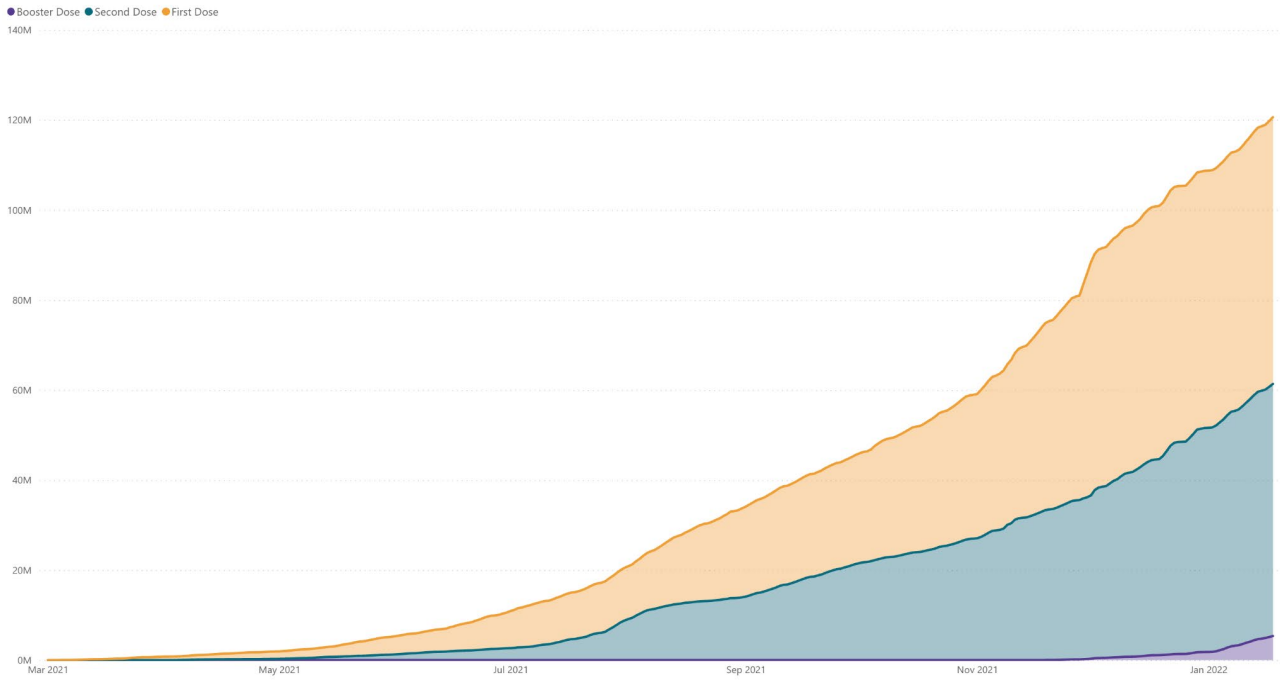

Figure 7. Total Doses Administered (as of January 17, 2022)
(Source: National COVID-19 Vaccination Dashboard)

Out of the recent developments in the country's COVID-19 situation, these two developments affected the data-gathering timeline of the study the most. The study's main source of data is healthcare workers, most of whom are frontline workers and are involved in the country's vaccination drives. As such, they were mostly unavailable to participate in online interviews throughout their workday. Partly to adapt to this situation as well as to gather data in sites where internet access is a challenge, regional coordinators from Visayas and Mindanao[3] conducted fieldwork and followed some interviewees in vaccination sites where they are tasked to assist. Even then, some interviewees declined to participate due to the urgency of their work.

Changing Lockdown Restrictions

The COVID-19 narrative was also muddled by changing lockdown and community quarantine restrictions imposed in small chunks of time by the IATF. From March 2020 to early September 2021, the community quarantine classification system was as follows:

[3] Per Ateneo de Manila University rules considering the pandemic context, the research team, based in Luzon and in charge of Luzon-based sites, were not allowed to conduct fieldwork and face-to-face interviews.

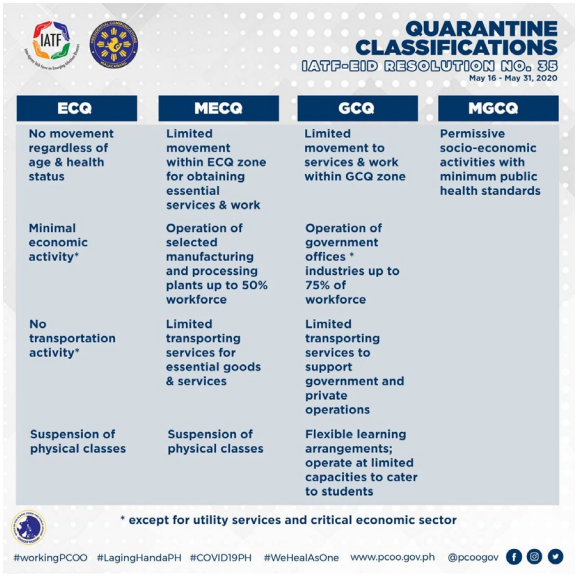

Figure 8. Quarantine Classification System (March 2020–September 2021)
(Source: Presidential Communications Operations Office)

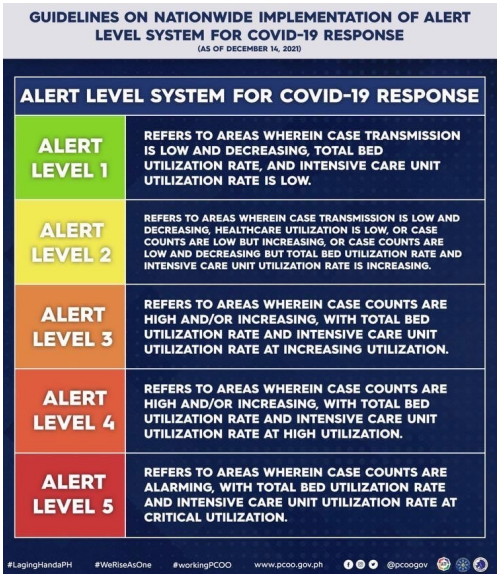

Figure 9. COVID-19 Alert Level and Granular Lockdown System
(Source: Presidential Communications Operations Office)

In September 2021, however, the national government approved a new Alert Level and Granular Lockdown System to replace the old community quarantine system. The new system became fully implemented (nationwide) in November 2021.

As mentioned in the findings section of the study, it is these lockdown restrictions that prevent people from accessing the health services they need. Interviews with TB and FP personnel consistently reiterated that the decrease in uptake in these health programs was due to the curtailed mobility of both clients and health service providers. Throughout 2021, after fluctuating between community quarantine classifications, there was a general easing of restrictions which aligned with dips in the number of cases. It would have been prudent for the study to inquire on the impact of changing lockdown classifications to the health-seeking behavior of TB and FP clients as well as on the capacity of programs to make TB and FP services more accessible amid changing restrictions.

Politics, Policies, and the Pandemic

Within the context of the pandemic, EO 138 mandating the full devolution of basic services from the national government to local governments was signed by President Duterte. This order expands the 1991 Local Government Code devolution mandate, which was "anchored on the premise that LGUs are in a better position to address the needs of their constituents and can therefore deliver better services" (PNA, 2021). This move places a huge burden on LGUs, particularly in the present context. Some have also argued that LGUs are not yet equipped to take on larger projects, despite increases in budgets, due to "procurement bottlenecks, lack of competency, and human resources" (Philippine Daily Inquirer, 2022), among other things.

In line with EO 138, the DOH has prepared a Devolution Transition Plan for 2022–2024. It is worthwhile to note that the country's health system has been devolved since 1991, as per Section 17 of the 1991 LGC. In this sense, full devolution pertains to functions of selected DOH programs, activities and projects, which "[consider] LGU income classification, National Allocation Framework, capacity of LGUs, availability of services or commodities in the local market, and implementation of the UHC Act and other pertinent laws." Aligned with the DOH's medium-term health agenda known as FOURmula One (F1) Plus for Health (Figure 10) (under the Financing and Service Delivery pillars), LGUs are now expected to assume full responsibility and accountability in providing and financing for basic health services to their constituents.

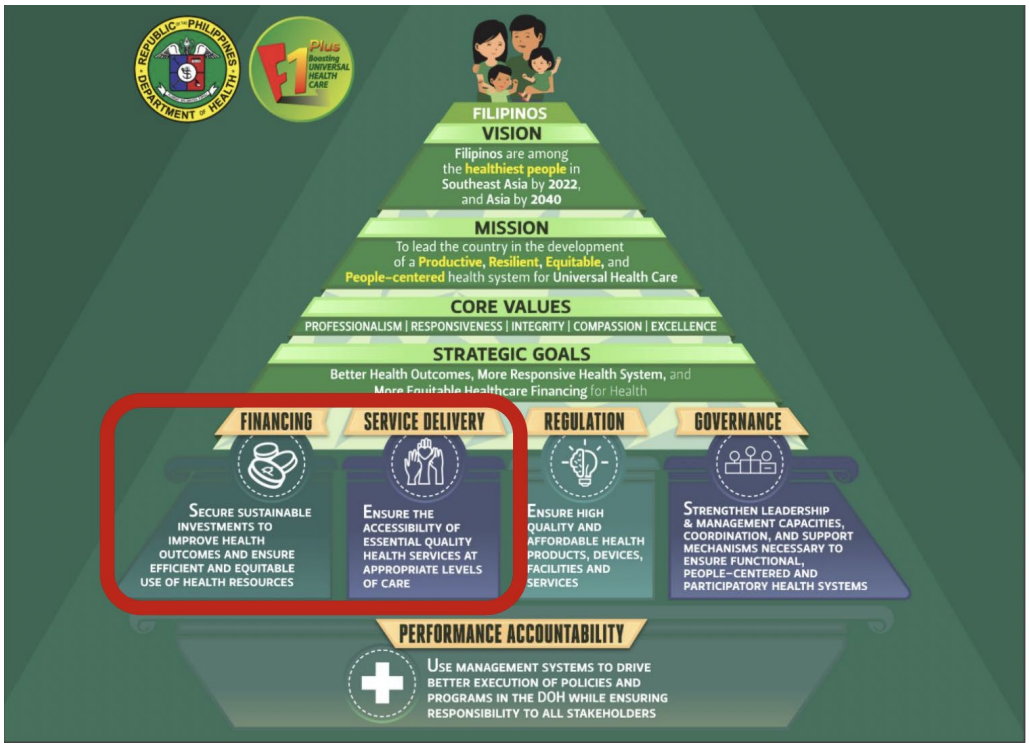

Figure 10. FOURmula One (F1) Plus for Health Framework
(Source: DOH Devolution Transition Plan)

Among the identified main drivers for attaining the F1 Plus for Health goals are "focusing on catalyzing the transformation of local health systems to Province- and City-wide Health Systems" and "building the capacity of local health systems to deliver individual-based and population-based health services." Thus, the DOH aims to focus on capacity-building and technical assistance in its strategic plan to comply with EO 138. In addition, the DOH is expected to support or augment human resources, infrastructure, and information technology management of LGUs.

EO 138 presents yet another "disruption" within the context of COVID-19, one that the health system (in all levels) needs to adapt to. As it was only signed in June 2021, and various government agencies including the DOH have only finalized their devolution transition plans in September/October 2021 (as mandated by the EO), the context was not further investigated by this study. This development provides another layer of factors in the ongoing efforts to respond to the pandemic. Themes on human

resources, infrastructure and information technology are mentioned quite often in interviews with health personnel, and it would have been interesting to further delve into the potential impacts and challenges of implementing EO 138 in the provision of TB and FP services.

A public health emergency that is as unexpected and as grave as the COVID-19 pandemic requires capable governments that can effectively and efficiently provide both preventive and responsive medical measures. This is all the more true in the Philippines, where the pandemic is set against the backdrop of the upcoming national elections in May 2022. Within this context, it would be interesting to see: (1) new and timely protocols and ramped-up efforts implemented by the DOH and IATF to flatten the curve and prevent the elections from being a "super spreader" event, and (2) the course of action the country's election management body would take to maintain election integrity amid a health crisis.

In addition, the COVID-19 narrative has seemingly shifted due to the upcoming elections. Discourses that then focused on failed national government response to the pandemic now have an added layer of appreciation for the seemingly more efficient implementation of pandemic-related assistance and response (e.g., vaccination efforts, implementation of social protection programs) of LGUs. Additionally, aspirants for national posts are now also evaluated according to their contribution to overall pandemic response.

While outside the study's scope, it would be interesting to examine the health impacts of these intersecting political and policy developments. Apart from the UHC law, which is not yet fully implemented, the introduction of a new policy and a new administration makes the overall context more complex and increases the need for a more dynamic and resilient collaborating, learning, and adapting framework.