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Universal Health Care Coverage and Pandemic Preparedness in Haiti Final Report

Health, Nutrition and Population Global Practice

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Acronyms and Abbreviations

AIP	Multi-skilled auxiliary nurse/ <i>Auxiliaire infirmière polyvalente</i>
AMR	Antimicrobial resistance
CAN	National Ambulance Centre/ <i>Centre Ambulancier National</i>
CCN	National Crisis Unit/ <i>Cellule nationale de crise</i>
CHW	Community health worker
CMGP	Multisectoral Pandemic Management Commission/ <i>Commission Multisectorielle de Gestion de la Pandémie</i>
CNRC	National Coronavirus Response Coordination Unit/ <i>Coordination Nationale de la Réponse au Coronavirus</i>
COU	Emergency Operations Center/ <i>Centres des opérations d'urgence</i>
DELR	Department of Epidemiology, Laboratories and Research/ <i>Direction d'Epidémiologie, des Laboratoires et de la Recherche</i>
DPC	Directorate of Civil Protection/ <i>Direction de la Protection Civile</i>
DPSPE	Directorate of Health Promotion and Environmental Protection/ <i>Direction de la Promotion de la Santé et de la Protection de l'Environnement</i>
EDIR	Departmental Investigation and Response Teams/ <i>Equipe Départementale d'Investigation et de Réponse</i>
EOC	Emergency Operations Centre
FGD	Focus group discussion
iCCM	Integrated community case management
IHR	International Health Regulations
JEE	Joint External Evaluation
MAST	Ministry of Social Affairs and Labor/ <i>Ministère des Affaires Sociales et du Travail</i>
MSP	Ministry of Public Health and Population/ <i>Ministère de la Santé Publique et de la Population</i>
NGO	Nongovernmental organization
NSPPP	National Social Protection and Promotion Policy/ <i>Politique Nationale de Protection et de Promotion Sociale</i>
PAHO	Pan American Health Organization
PNR-SSE	National Health Disaster Response Plan/ <i>Plan National de Réponse aux Situations Exceptionnelles</i>
PROMESS	Program of Essential Medicines and Supplies
PROSYS	Project for the Enforcement of Health and Health Systems/ <i>Projet d'Appui au Renforcement des Systèmes de Santé</i>
RBF	Results-based financing
SIMAST	Information System of the Ministry of Social Affairs and Labor/ <i>Système d'information du Ministère des affaires sociales et du travail</i>
SISNU	National Health Management Information System/ <i>Système d'Information Sanitaire National Unique</i>
SNGRD	National Risk and Disaster Management System/ <i>Système National de Gestion des Risques et Désastres</i>
SPA	Service Provision Assessment survey
UHC	Universal Health Coverage
USD	United States dollar
WHO	World Health Organization

Executive Summary

This report summarizes analytical and advisory services provided by the World Bank to the Government of Haiti from 2018–2022 through a Bank Executed Trust Fund grant. These services advised the Government of Haiti on policies and plans related to: (1) moving towards universal health coverage (UHC), and (2) strengthening preparedness capacity and national coordination for pandemic risk reduction.

The component, moving towards UHC, has six activities to address service delivery, maternal health, health financing/resource mobilization, all issues directly affecting Haiti's ability to effectively progress towards UHC. Activity 1.1 assessed factors involving health worker productivity at primary care health facilities, using a mixed-methods approach. This assessment found that health worker productivity at health facilities was generally low, except for community health workers (CHWs) in rural areas.

Activity 1.2 used a behavioral methodology approach to identify the structural and behavioral barriers preventing women from seeking prenatal care and delivering at health institutions. This activity also identified interventions and associated behavioral tools to encourage pregnant women to attend the recommended four prenatal care visits to increase safe childbirths.

Under Activity 1.3, data was collected on Haiti's health facilities by combining datasets from a government database, donor programs, Haiti's National Health Management Information System (*Système d'Information Sanitaire National Unique* [SISNU]), and the 2017 Service Provision Assessment (SPA) Health Facility Survey. The government and SISNU datasets were matched at the health facility level. Then those datasets were matched with the SPA dataset. Finally, the donor dataset was merged with the master dataset using the SPA code. The data were analyzed in Activity 1.4.

Activity 1.4 analyzed service utilization at the health facility level across all the departments of Haiti, to identify the key factors underlying efficiency. The analysis focused on health worker productivity across different health facility types and institutional visits and pentavalent vaccine doses, using data from Activity 1.3.

Activity 1.5 was meant to provide a summary identifying mechanisms for resource mobilization to achieve UHC. However, ultimately it was not possible to complete this activity due the deteriorating security situation and political instability, which would have introduced too much uncertainty into any analysis undertaken on revenue mobilization for Haiti.

Activity 1.6 aims to contribute to UHC through the expansion of social protection policies, such as cash transfers and health coverage for Haiti's most vulnerable population groups. This would eliminate the financial burden that comes with seeking health services, with the goal of improving health outcomes and the underlying social determinants of health.

The second section of this report focuses on assessments and recommendations to strengthen Haiti's capacity in pandemic preparedness and response. Activity 2.1 and aspects of Activity 2.2 were combined, the result of which was Haiti's 2019 Joint External Evaluation (JEE), a voluntary, multisectoral, collaborative process to assess a country's capacity across technical areas to prevent, detect, and rapidly respond to public health emergencies. The JEE enabled the Government of Haiti to identify the top needs of the health system, and, based on the JEE scores, ranging from 1, "no capacity," to 5, "sustainable capacity," decision makers are guided to make policy and program changes accordingly. Haiti's JEE scores ranged from 1, "no capacity", to 3, "developed capacity." The

JEE also identified many strengths the country has in place that need continued development to address public health challenges.

The objective of activity 2.3 was to analyze domestic and external financial resources for COVID-19 pandemic preparedness and response from 2021 to 2023, using budget estimates from 2021. The analysis was based on a resource mapping exercise that combined estimated contributions from the Government, the World Bank, and other partners, and identified financing gaps to begin discussions among stakeholders on effectively closing those gaps.

Activity 2.4 supported the Ministry of Public Health and Population's efforts to reorganize Haiti's disease surveillance and response systems. The purpose of the Operational Strategy for the Departmental Investigation and Response Teams is to strengthen local response capacity to health emergencies, ultimately minimizing the negative impacts on the population. The strategy details the local response teams as modular units that can be scaled up or consolidated, according to epidemiological needs. This strategy will be piloted in three departments prior to national scale-up.

Activity 2.5 focused on the community care model in Haiti and was divided into three sub-components: (1) a comparison of community care models in Haiti and international community health programs; (2) a proposal on the optimal placement of CHWs; and (3) a support document for Haiti's community health plan. These products were incorporated into Haiti's 2021 Community Health Strategy, which provides the foundation of systematic, effective, and cost-effective approach to community health in the country.

Introduction

The objective of this grant was to inform the Government of Haiti's policies, plans, and strategies related to: (1) moving towards universal health coverage (UHC); and (2) strengthening preparedness capacity and national coordination for pandemic risk reduction through analytical and advisory work.

The grant had two components: moving towards UHC (Component 1) and preparedness for pandemics (Component 2).

Component 1 focused on providing robust analytical notes and reports to inform the government's policies and plans aimed at addressing core issues for UHC, namely service delivery and maternal health at the local level, as well as on health financing and resource mobilization for UHC.

Component 2 focused on conducting capacity assessments and formulating recommendations (through options papers and analytical reports) for the Ministry of Public Health and Population (*Ministère de la Santé Publique et de la Population* [MSPP]) to address pandemic preparedness and response capacity constraints in the country. This includes analytical and advisory services aimed at providing options for the Government to finance and implement more robust pandemic preparedness plans (including a harmonized and viable community health agents model), as well as to strengthen governance and resource mobilization efforts.

Table 1. Components, Sub-components, and Activities of this Grant

1. Moving towards UHC		
#	Sub-Component	Activity
1.1	Enhancing service delivery at the health provider level to advance towards UHC	Factors Affecting Productivity of Primary Care Health Facilities and Health Facility Workers in Haiti
1.2	Enhancing access to maternal health with focus on lower levels of care	Increasing Safer Childbirths in Haiti
1.3	Prioritizing and costing of health sector plan	Donor Resource Mapping Exercise at the Health Facility Level
1.4	Analyzing supply-side deficiencies, especially at lower-level health facilities	Analysis of Health Facility Data to Evaluate Policies to Enhance Health Utilization and Outcomes in Haiti
1.6	Supporting governance, accountability and appropriate institutional arrangements for UHC	Supporting Governance, Accountability and Appropriate Institutional Arrangements for UHC
2. Pandemic Preparedness		
#	Sub-Component	Activity
2.1/2.2	Assessing existing pandemic plans and pandemic responsiveness	Assessing Existing Pandemic Plans and Pandemic Responsiveness, and prioritizing activities
2.3	Resource mobilization for pandemic preparedness	Supporting Efforts to Mobilize Domestic and External Resources for Pandemic Preparedness

2.4	Supporting Governance, Accountability and Appropriate Institutional Arrangements	Supporting Governance, Accountability and Appropriate Institutional Arrangements for Pandemic Preparedness Plan
2.5	Enhancing Community-Level Health Care for Pandemic Preparedness and Response	Enhancing Community-Level Health Care for Pandemic Preparedness and Response, consisting specifically of: (a) Summary Comparing Community Care Models in Haiti and in Six Countries; (b) Summary of Optimal Placement of CHWs to Improve Access to Community Care in Haiti; (c) Summary of a Support Document for Haiti's Community Health Plan

Haiti Health System Overview

The disease burden in Haiti is dominated by less complex conditions. Despite improvements in many basic health indicators, the disease burden in Haiti is largely dominated by diseases that can be effectively managed through prevention and access to basic treatment (1).

Haiti has the highest maternal and neonatal mortality rates in the Western Hemisphere (2). This is primarily due to low rates of pre- and postnatal care (67% and 32%, respectively) and the low rate of births assisted by a provider skilled in obstetrics (37%) (3). The poorest women and women with no formal education were most likely to give birth without assistance from a skilled provider (3).

Precarious living conditions contribute to most preventable deaths in Haiti. The majority of Haitians (52%) live in poverty (4). Poverty affects access to health care, as 93% of health facilities in the country charge a user fee for their services (2).

Physical access to basic health services remains a major challenge. The main causes of disability in Haiti can largely be prevented through essential care. Approximately 40% of Haitians have no access to health care (5). Indeed, health care remains largely unaffordable and physically inaccessible; health services are largely unavailable (2). Acceptability remains an issue as well, where many Haitians consult traditional healers prior to using the formal health system (2).

Community health care, which integrates health promotion and basic treatment, is very relevant to Haiti. Community-based primary health care combines health promotion to change living conditions with essential services to treat common diseases. Haiti can learn from success country experiences in implementing integrated community case management (iCCM), a standardized methodology that allows community health workers to diagnose and treat mild cases of pneumonia, diarrhea, malaria in children, all of which are causes of preventable deaths.

Primary care facilities are underinvested, despite being the first point of contact for most Haitians to the health care system (2). This, combined with other factors, such as low health worker productivity and service readiness, contribute to Haitians seeking care at higher level facilities. These first-level healthcare facilities operate without a unified strategy, hindering access to quality health services.

Haiti's Health System Challenges

Sustainability, fragmentation, and management are the major challenges to Haiti's health system. The new, community-based care model has the potential to address sustainability and fragmentation with MSPP's leadership and is guided by a common goal, a multi-donor plan, and also integrates primary care health facilities.

The fragmentation of funding leads to the fragmentation of the health delivery. Health financing in Haiti is highly fragmented, resulting in an inefficient, ineffective use of funds for service delivery. The Government and donors/nongovernmental organizations (NGOs) provide disjointed, largely vertical services, often in parallel with traditional medical practitioners. Additionally, donor funding is unpredictable, uncoordinated, and not aligned with national objectives. Finally, most health interventions are implemented outside of the MSPP's framework, and few donors provide funding that spans across the entire health system.

Out-of-pocket spending is a major deterrent to accessing health care. Haitian households contribute 43% of total health expenditures, of those who do seek health care (6). Health care is largely unaffordable, not only because of the user fees, but because of the high nature of those fees. 93% of health facilities charge consultation fees and the cost of treating a pediatric infection is higher than a month's salary of the lowest-paid government workers (2).

The reduction in donor funds threatens the sustainability of the health system. Because Haiti is moving from post-crisis (from the 2010 earthquake) to a development stage, emergency funding from donors is rapidly decreasing. Donor funds declined from 70% of total health expenditures in 2011 to 30% in 2014. The Government should quickly find sustainable financing to maintain its health system (2).

National health policies are neither prioritized nor costed. The main policies governing the health sector are the 2012 National Health Policy and the National Health Plan for 2012-2022, however, neither documents list policy priorities, nor do they have a costed implementation plan.

Management of health facilities needs strengthening. Health facility management is hampered by several factors, such as excessive bureaucracy and fragmentation induced by vertical programming, preventing local control of resources.

Clinical staff are limited, therefore making iCCM a suitable option. There are 0.65 doctors, nurses, and midwives per 1,000 inhabitants, fewer than the recommended 4.45 physicians, nurses, and midwives per 1,000 inhabitants as recommended by the World Health Organization (WHO) (7,8). Clinical staff are fewer in rural areas, which would require additional CHWs to successfully cover larger geographical areas.

Essential medicines, diagnostics, and equipment remain largely unavailable. Improving health outcomes requires access to diagnostics, equipment, and treatments. Unavailability of medicines is also a disincentive to seek medical care and prevents health workers from providing quality health services. The country has numerous donor-supported parallel supply chains, which lack coordinated transportation from regional distribution centers to health facilities (9). Surveyed health facilities had only 27%-44% of 18 essential medicines, 7%-42% of diagnostic laboratory tests, 50%-74% of essential equipment, and 55% of personal protective equipment (e.g., gloves, disinfectants, etc.) (9).

Primary health facilities must be able to offer all essential services, prenatal care, family planning, immunization, and curative services for children, and facilities need improved referral linkages. Only 6% of surveyed primary health facilities offer the minimum essential services (10). Some facilities had ambulances for emergency transportation, but then most charged a user fee (10).

Public health (nutrition, water, etc.) is also highly fragmented and requires coordination. Ideally planning and coordination would take place at the district level, rather than at the central level, to ensure appropriate intervention design.

Social participation is required for the success of community care, which will likely be a challenge given the Haitian context. Anecdotal evidence suggests that many people refrain from participating in community activities unless they can benefit financially. Specific strategies to overcome this behavior and change attitudes to promote community-based care will be essential.

1. Moving Towards UHC

Table 2. Summary of Moving Towards UHC's Activity's Findings and Recommendations

Component 1: Moving towards UHC		
#	Activity	Findings and Recommendations
1.1	Factors Affecting Productivity of Primary Care Health Facilities and Health Facility Workers in Haiti	<p>The assessment found that health worker productivity at health facilities was generally low, except for CHWs in rural areas.</p> <p>Recommendations included rehabilitating health facilities and purchasing basic equipment to ensure service readiness for health facilities. A consideration for a financing mechanism would be using results-based financing (RBF) programs.</p>
1.2	Increasing Safer Childbirths in Haiti	<p>This activity used a behavioral methodology approach to identify the structural and behavioral barriers preventing women from seeking prenatal care and delivering at health institutions. It also identified interventions and associated behavioral tools to encourage pregnant women to attend the recommended four prenatal care visits to increase safe childbirths.</p> <p>Recommendations consist of considerations that the traditional health system can implement to overcome some of the current barriers in engaging with women during for pre- and postnatal care.</p>
1.3	Donor Resource Mapping Exercise at the Health Facility Level	<p>This mapping exercise illustrated that there are often multiple donors supporting a single health facility.</p> <p>Recommendations included that the dataset should be continuously updated and made publicly available. It should also be used for coordinating donor resources.</p>
1.4	Analysis of Health Facility Data to Evaluate Policies to Enhance Health Utilization and Outcomes in Haiti	<p>This activity's analysis focused on health worker productivity, institutional visits, and pentavalent vaccine doses, using data from Activity 1.3. Findings showed that CHWs had a positive impact on vaccine provision; basic medical equipment had a positive significant effect on the number of patients per health worker; and itemizing patient fees had a significant negative effect.</p> <p>Recommendations included that the government should continue promoting the allocation of CHWs, as well as investing in health system strengthening to ensure that basic amenities, such as medicines and medical products are continuously available.</p>
1.6	Supporting Governance, Accountability and Appropriate Institutional Arrangements for UHC	<p>Activity 1.6 culminated in the development of the National Social Protection and Promotion Policy (2020), which aims to contribute to UHC through the expansion of social protection policies, such as cash transfers and health coverage for Haiti's most vulnerable population groups.</p>

Summary of Activity 1.1: Factors Affecting Productivity of Primary Care Health Facilities and Health Facility Workers in Haiti

Activity Objective

The goal of this activity was to determine the health facility-level characteristics that affect health worker productivity by assessing the determinants of the variables.

Methodology: A mixed-methods approach was used, incorporating both quantitative and qualitative analysis. The analysis used data from the 2013 Service Provision Assessment (SPA) survey and included all 905 health facilities in the country (excluding for-profit facilities) at the time of analysis.

Key Findings

Health worker productivity at health facilities was generally low, except for CHWs in rural areas.

Overall utilization at the health facility level and productivity of health workers are positively associated with three dimensions of health facility service readiness in rural areas: (1) availability of basic amenities (i.e., water, sanitation, power, phone, connectivity, state of consultation rooms, etc.); (2) adherence to infection, prevention, and control practices (i.e., management of waste; use of gloves, disinfectant, disposable syringes, etc.); and (3) availability of basic equipment.

No statistically significant association was found between overall utilization and service readiness at the health facility level in urban areas, but this may be due to the relatively small sample size for health facilities in urban areas (114 urban facilities compared to 324 rural facilities).

In rural areas, overall health facility utilization and health worker productivity were found to be significantly higher for health facilities with more CHWs per institutional (i.e., non-community) health worker. This relationship was found to be very statistically significant in rural areas. No such relationship was found in urban areas, though similarly this may be due to the relatively sample for health facilities in urban areas.

The qualitative analysis confirmed the importance of service readiness at the health facility level for overall utilization at the health facility level, for both urban and rural areas.

How CHWs are utilized is very important for health worker productivity. It is insufficient to focus solely on having an adequate number of CHWs. In addition, the following are important for enhancing utilization of health services (for both urban and rural areas):

- At the more productive health facilities, the facility-level managers and health workers tend to place great emphasis on using CHWs well and their importance as part of a community-level strategy.
- Clear identification of the CHWs' tasks, proper supervision of the CHWs, and strong linkages with the health facility are important.
- At several of the highly productive health facilities, regular performance evaluations of the CHWs were conducted by health facility-level staff.

Recommendations

- Small-scale rehabilitations and purchase of basic equipment to upgrade the service readiness of targeted health facilities are important in order to address low levels of health service utilization, especially in rural areas. Rehabilitations should focus especially on ensuring adequate basic amenities, such as water, sanitation, power, connectivity, and the state of consultation rooms.
- Health facilities should have funds under their own control to adequately finance minor repairs and the purchase of basic items and supplies, such as scales, thermometers and blood pressure monitoring devices (i.e., "basic equipment" measure in the regressions); as well as gloves,

disinfectant and disposable syringes (i.e., “standard precautions for infection prevention” measure in the regressions). In some contexts, these items are bought in bulk at the national or regional level and then distributed to health facilities; but this approach is typically not responsive enough to local demand and often leads to stockouts of some items at some health facilities.

- Consider incentives at the health facility level to encourage adherence to service readiness. RBF programs could be extended so that health facilities have autonomy over the use of these funds. The funds are typically used for minor repairs and to purchase basic items and supplies, among others, responding to the previous point, as well as addressing the need for incentives to promote good practices. (Note that a recent World Bank Impact Evaluation found that RBF has had a positive impact in Haiti’s health sector along several dimensions. Refer to “RBF in Haiti’s Health System – an Impact Evaluation Report” April 2022.)
- The presence of CHWs is important, but it is also essential to have their tasks clearly defined, proper supervision, and strong linkages with the health facility. The quantitative analysis shows that CHWs are particularly effective in rural areas. Evidence of their impact in urban areas, from this analysis, is weaker.

Summary of Activity 1.2: Increasing Safer Childbirths in Haiti

Activity Objective

The objective of this analysis was to use a behavioral methodology to uncover the drivers to increase safe deliveries in Haiti. The diagnostic aimed to:

- 1) Identify structural and behavioral barriers preventing women from attending prenatal care visits, and to deliver at a health institution; and
- 2) Explore behaviorally informed interventions to encourage pregnant women to attend the recommended four prenatal care visits to ensure detection and special care of high-risk pregnancies.

Methodology: The evidence of this diagnostic was based on qualitative research: desk review, key-informant interviews, and qualitative fieldwork. Focus group discussions (FGDs) and semi-structured interviews were conducted in the Nippes Department, south-west of Port-au-Prince, with a purposively selected range of participants: pregnant women, traditional birth attendants, clinical health workers, family members, CHWs, and community leaders. The objective was not to test causal links or to generalize findings, but to capture views and experiences of people and the way they express them.

Key Findings

Interactions and relationships

The pregnant women interviewed made their decisions about deliveries not only based on personal beliefs, but also on social empirical beliefs. Women decide to do pre- and postnatal care visits based on their relationships and interactions with traditional birth attendants and health workers and based on the interactions their families and community members have had with them as well.

There is often trust between traditional birth attendants and pregnant women, while distrust lingers towards medical staff. FGDs highlighted that traditional birth attendants are longstanding community members, while some pregnant women reported feeling mistreated in by medical staff.

CHWs and traditional birth attendants sometimes use their personal funds to ensure pregnant women receive appropriate care. Traditional birth attendants in the FGDs reported knowing their medical limitations and said they will sometimes pay the transportation fees to ensure a high-risk pregnant women can seek medical care at a hospital. Similarly, CHWs in the FGDs reported that they also accompany and will often pay transportation costs when women lack the means.

Barriers to safe births

Obstacle 1. Some pregnant women do not seek prenatal care due to optimism bias and uncertainty aversion. Some pregnant women underestimate the probability of having a high-risk pregnancy and do not expect a bad outcome (optimism bias). For instance, if their pregnancy seems to be normal, women skip prenatal consultations. In addition, both traditional birth attendants and CHWs regularly visit pregnant women, which can cause a false sense of security. Also in Haiti, pregnant women must pay for any laboratory tests and medicines required, so the final cost of one prenatal care visit is usually uncertain, interfering in their decision to seek care. This report found that some key informants in the focus groups preferred to come when their pregnancy was evident (i.e., three months or more) to avoid paying for the pregnancy test.

Obstacle 2. Pregnant women do not reach prenatal care due to transport, safety, and time constraints. Health centers are usually far from the communities and finding a suitable vehicle for a pregnant woman to go to the health institution is difficult. Additionally, transport fees are a barrier for many.

Obstacle 3. Some pregnant women reported not receiving prenatal care due to stereotype threat, which refers to situations in which individuals feel they might be judged negatively because of a stereotype. FGD data showed that pregnant women fear being judged negatively by nurses, as they are asked many questions during registration, including some on their sexual history. Since most of the pregnant women are young, they may not understand the purpose of the questions, and may perceive them as judgements.

Obstacle 4. Some pregnant women do not want to deliver at a health institution due to status quo bias, availability bias, and uncertainty aversion. Often pregnant women in the FGDs showed a preference to deliver at home because their mothers and relatives had also delivered at home. There were also rumors that many women die in hospitals, thus facilitating the link between labor at hospitals and death (availability bias). In Haiti, not only is delivering at a health institution expensive, but the final cost is highly uncertain. Women must pay for the delivery, medicines, equipment, ambulance fees, which vary. Women must also pay in full when they are discharged. Delivery via a traditional birth attendant is relatively less expensive and often a person can pay through installments over time.

Obstacle 5. Some pregnant women do not reach a health institution prior to delivery due to transport, safety, and time constraints. In addition to the previously mentioned barrier, given the state of unpaved, bumpy roads, pregnant women traveling on motorcycle suffer. According to some health workers in the FGDs, some women were not aware of their delivery dates and the delivery signs appeared shortly before they delivered. Sometimes women would deliver at home or on route to a health facility.

Obstacle 6. Pregnant women do not deliver at a health institution due to discomfort with the model of care received at hospitals and distrust in medical staff. Some key informants in the FGDs cited fear of the model of care at hospitals. Contrary to hospitals, at home, pregnant women can give birth in the position they want, have family to support them during the birthing process, and do not need to worry about side effects from medications. Also, because traditional birth attendants already have developed relationships with pregnant women and family members, there is more trust in them, relative to nurses, who are viewed more as strangers. Moreover, while some pregnant women have good experiences with medical staff, others experienced mistreatment, and perceived that medical staff did not really care about them. There are other aspects of the hospital stay that contribute to positive experience, such as cleanliness and receiving food, which hospitals generally do not provide.

Potential solutions to improve safe birth deliveries

Tables 1 and 2 offer key insights from pregnant women, traditional birth attendants, and health workers for consideration when designing an intervention.

Table 3. Prenatal check-ups considerations

Prenatal check-ups				
Behavior	Barrier	Targeted agent	Ideas for intervention	Behavioral tool
Seek care	Optimism bias	Pregnant women, traditional birth attendants	Provide materials with benefits of prenatal care, and help pregnant women form concrete intentions to complete the recommended visits	Persuasion messages, commitment devices
	Uncertainty aversion	Pregnant women, health workers/ institutions	Make consultation packages and prices available in advance	Information sharing, simplifying information

Prenatal check-ups				
Behavior	Barrier	Targeted agent	Ideas for intervention	Behavioral tool
Reach care	Transport, safety, and time constraints	Pregnant women	Bring mobile clinics once a month to each communal section	Reduce transportation costs
Receive care	Stereotype threat	Health workers, pregnant women	Train medical and administrative staff on how to make pregnant women feel comfortable/welcome ¹ Information on what to expect from a health visit and what questions to ask	Customer and unconscious bias training Information sharing

Table 4. Institutional deliveries considerations

Institutional deliveries				
Behavior	Barrier	Targeted agent	Ideas for intervention	Behavioral tool
Seek care	Status quos bias	Pregnant women	Personalize the model of care respecting Haitian traditions at hospitals. Hang behaviorally informed posters in hospitals (e.g., know your rights/ type of care to expect)	Cultural awareness
	Availability heuristic	Pregnant women	Provide information about the dangers of not delivering in institutions	Information sharing
	Uncertainty aversion	Pregnant women, health workers/ institutions	Provide information about the dangers of not delivering in institutions Make delivery packages and prices available in advance	Information sharing, simplifying information
	Traditional birth attendants' optimism bias and lack of trust	Traditional birth attendants	Help them become familiar with the closest health center Team-up health workers and traditional birth attendants ²	Relationship building

¹ In the FGDs health workers did not seem to be aware that both pregnant women and traditional birth attendants often felt mistreated in health centers. Various traditional birth attendants mentioned that they did not feel welcome in the health institutions when they brought pregnant women, and some pregnant women described their experiences at the hospital as lacking warmth. Nurses seemed to be the ones looking down upon traditional birth attendants when they came to hospitals. Doctors, although they valued the work of traditional birth attendants, and know traditional birth attendants collaborated with their hospitals, they did not usually have direct contact with them.

² CHWs are a notable example where someone rooted in the community is also formally linked to the health system. Because they do door-to-door awareness and vaccination campaigns in the community, they are known throughout the community, similar to traditional birth attendants. In addition, they are formally attached to a health center where they must report activities conducted and plan with the nurses each month's work plan. They know traditional birth attendants in their communities by their names because they lead traditional birth attendants' training sessions and are the ones that personally invite them to attend.

Institutional deliveries				
Behavior	Barrier	Targeted agent	Ideas for intervention	Behavioral tool
Reach care	Transport, safety, and time constraints	Pregnant women	Help pregnant women set-up a plan with concrete strategies on how to access the hospital at 35 weeks of pregnancy	Planning set-up, community participation
Receive care	Discomfort with the model of care received at the hospitals	Health workers	Help pregnant women set-up a plan with concrete strategies on how to access the hospital when at 35 weeks of pregnancy Personalize the model of care respecting Haitian traditions at hospitals	Cultural awareness
	Lack of trust in medical staff	Pregnant women	Invite pregnant women to health centers to feel the delivery experience ahead of labor	Live the experience
	Mistreatment	Health workers	Help them become familiar with the closest health center Train medical and administrative staff on how to make pregnant women feel comfortable/welcome	Unconscious bias training
	Lack of incentives, mistreatment	Traditional birth attendants	Socially recognize traditional birth attendants when they refer women to a health institution, “The traditional birth attendant of the month” type of prize Help them become familiar with the closest health center	Non-monetary incentives: Social recognition
		Health workers	Train medical and administrative staff on how to make traditional birth attendants feel comfortable/welcome	Unconscious bias training

Recommendations

- The MSPP should consider having health facilities conduct mobile pre- and postnatal campaigns, where a nurse and/or doctor is accompanied by a CHW to conduct pre- and postnatal visits for pregnant women and mothers who have recently delivered and do not live near a health facility. This could help determine whether pregnant women are high risk and need follow care at a health facility, while overcoming the transportation barrier.
- Consider a collaboration program between CHWs and traditional birth attendants, where they prepare pregnant women for all birth scenarios, delivery at a health facility or at home. This may ease some of the concerns.
- If they do not already, health facilities should allow at least one person to support the pregnant women while she is giving birth. Not only would be helpful for the pregnant women to have a familiar supportive person during the birthing process, but to also help advocate for the women to the health workers, bring them food, make them comfortable, etc.

- The MSPP should consider a results-based financing scheme for health facilities and include an incentive for traditional birth attendants to refer pregnant women, particularly those at high risk, along with additional (and ongoing) training for traditional birth attendants.
- In the long-term, the Government of Haiti will need to reform the fee structure that accompany the costs of giving birth and affect the health system. Women seeking care and attending all four prenatal visits must pay for their pregnancy test, laboratory tests, medication, and potentially also the service fees, all out of pocket, in addition to the transportation costs. These are considerable costs in a country where most of the population live on less than \$2 a day. This is not considering the variable quality of services, nor the frequent stock out of medicines, and other issues. Until many of these are addressed, women will continue to be reluctant to seek care in health facilities.

Summary of Activity 1.3: Donor Resource Mapping Exercise at the Health Facility Level

Activity Objective

The aim of this activity was to collect information on health facilities and their characteristics. This information was used for further analysis under activity 1.4.

Methodology: This analysis combined datasets from a government database, donor programs, Haiti's National Health Management Information System (SISNU), and the 2017 SPA Health Facility survey. The government and SISNU datasets were matched at the health facility level. Then those datasets were matched with the SPA dataset. Finally, the donor dataset was merged with the master dataset using the SPA code, as well as other matching factors.

Key Findings

The mapping exercise for Haiti was done at the health facility level rather than at regional or departmental level, which are typically the administrative level used for donor mapping in other countries. This exercise illustrated that there are often multiple donors supporting a health facility. The resource mapping tool proved valuable in terms of potentially allowing donors to coordinate better among themselves and with the Government in allocating their combined resources more efficiently across different health facilities.

Recommendations

- The MSPP, another government entity, or a partner should be designated as responsible to continue updating this master dataset.
- The MSPP should consider making this dataset publicly available so that it can be used for further analysis.
- Other countries should also consider conducting donor mapping exercises at the health facility level to maximize the potential to enhance efficiency among donor partners, especially for countries with a significant number of external donors.

Summary of Activity 1.4: Analysis of Health Facility Data to Evaluate Policies to Enhance Health Utilization and Outcomes in Haiti

Activity Objective

This activity analyzed service utilization at the health facility level across all the departments of Haiti to identify the key factors related to efficiency in health programs. Historically, Haiti has a low rate of health service utilization, generating the questions about the underlying causes. From there potential policies and interventions can be considered to enhance primary health care.

Methodology: This analysis uses the dataset compiled from Activity 1.3, which combined datasets from a government database, donor programs, SISNU, and the 2017 SPA Health Facility survey. The different datasets were matched at the health facility level using health facility identification codes. The analysis used a mixed-effects regression approach, allowing for different impacts of the key determinants in different departments and for different facility management types.

This report summarizes preliminary findings, analyzing health worker productivity across different health facility types, institutional, visits and pentavalent vaccine doses.³ Productivity in general is defined as the ratio of the output to the inputs of any system. Therefore, a productive system is one that achieves higher levels of performance (outcomes, outputs) relative to the inputs consumed. For this study, outcomes or outputs were measured as total provision of services, either outpatient visits or vaccine provision, while the number of clinical health workers is the input measure. The latter is a viable measure since health care workers account for the largest share of the total cost of functioning for health facilities. Hence, the justification for focusing on the determinants of health worker productivity, as measured by the number of patient visits or vaccines provided per clinical health care worker.

Note that this study used a more updated and broader set of data than the one used for Activity 1.1. This explains some marginal differences between the two sets of findings.

Key Findings

Smaller health facilities are more efficient than larger health facilities. Smaller facilities, where size is measured by the number of clinical health care workers, are the most efficient, with efficiency being measured by total vaccine provision or total number of visits by patients, per clinical health worker. The most productive are facilities with just one clinical health care worker, where vaccine provision per clinical health care worker is 2.36 times that of the largest health care facilities (i.e., 136% higher). Facilities with two clinical health care workers have vaccine provision that is 43% higher than that of the largest health facilities. In addition, the number of visits by patients per clinical health care worker is 89% higher and 17% higher for facilities with one and two clinical health care workers respectively, as compared to the largest health facilities (evaluated at the mean for the outcome variable).

It is important to have a strategy for vaccine communication. Such a strategy appears to have a positive impact on health worker productivity in terms of vaccine provision.

Overall, having more CHWs has a strong positive impact on health worker productivity, regarding vaccine provision, especially for smaller and medium-sized health facilities, however a sufficiently large number (at least 4-6) of CHWs is needed at a facility for an impact to be felt.

³ Pentavalent vaccine protects against five major diseases: diphtheria, tetanus, pertussis (whooping cough), hepatitis B and *Haemophilus influenzae* type b.

More specifically:

- The positive impact (on vaccine provision) of having more CHWs is clear for small and medium-sized health facilities (up to around 5 clinical health workers), but it is not as clear for larger ones. However, even for small and medium-sized health facilities the positive impact (on vaccine provision) of more CHWs is felt only when there are at least 4-6 CHWs at a health facility.
- In a separate analysis on the factors affecting the number of visits to health facilities, the number of CHWs also had a positive effect, but only for the smallest health facilities with 1 or 2 clinical health care workers.

Basic amenities (e.g., medical equipment, medicines, diagnostics, and standard precautions) have a significant effect on the number of patient visits per health worker. It was found that raising this measure by one standard deviation would increase the number of visits per health care worker by 18.2% when evaluated at the median. Medicine availability, and to a lesser extent availability of basic amenities, have the most significant impact on the number of visits.

Itemizing patient fees has a very significant negative effect (23%) on the number of visits per health care worker when evaluated at the mean. Hence, clinics that charge a flat fee appear to have more visits per health worker. This is notable, given that all health facilities in the sample charged fees. Of all the categories, consultation fees were found to have the most significantly negative effect on the number of visits per health worker.

Denying patients health services when they are unable to pay the fee mandated for that service, in the case where fees are charged, has a large negative impact on the number of patient visits per health worker. When a patient visits a health facility and says that they are unable to pay for the service, just 10.6% of people would be exempted from payment, while 26.3% would be asked to pay the fee later. Only 2.2% would be denied the service. In the case of facilities where such people are exempted from payment or asked to pay later, this does not seem to affect the outcome variable (number of visits). However, in the case of facilities where the services are not provided for those who cannot pay, this has a very statistically significant and negative impact on the number of visits per health worker.

Recommendations

- Donors should reconsider the approach of supporting larger health facilities with the mentality of “bigger bang for the buck,” given the larger impact, in terms of outputs per unit cost (as proxied by health worker productivity in this study) that can be achieved at smaller health facilities.
- The Government of Haiti and donors should promote the allocation of CHWs to health facilities, especially small and medium-sized health facilities, ensuring that a sufficiently large number of CHWs are allocated per facility (ideally at least 4-6).
- The Government of Haiti and donors should invest in strengthening the health system, particularly the pharmaceutical system, to ensure that basic amenities, such as medicines and medical technologies, (e.g., diagnostics, medical equipment, etc.) are continuously available at all levels of health facilities, given the positive effect they have on patient visits.
- Health facilities should be alerted of the negative effect that itemizing fees has on patients visits to encourage the use of charging flat fees when possible.

Summary of Activity 1.6: Supporting Governance, Accountability and Appropriate Institutional Arrangements for UHC

Activity Objective

Haiti's social protection system has historically been weak, disjointed, non-transparent, and inconsistent. However, when effective, social health protection systems increase demand for health services by reducing many financial barriers. This activity aimed to contribute to UHC by increasing demand for essential health services through the expansion of social protection policy.

In 2016, the Government of Haiti, the World Bank, and other stakeholders began a working group on a comprehensive social protection initiative, culminating in the National Social Protection and Promotion Policy (*Politique Nationale de Protection et de Promotion Sociale* [NSPPP]). The NSPPP was finalized by the Ministry of Social Affairs and Labor (*Ministère des Affaires Sociales et du Travail* [MAST]) in 2020 and adopted by the Government in the same year.

Key Findings

- **NSPPP's Vision:** "The NSPPP aims to reduce poverty, inequalities and economic, social and institutional inequities in Haiti by 2040 and, hence, to build a just social citizenship in which social protection and promotion rights holders see their rights fulfilled and improvement in their ability to live the lives they want" (11).
- Another goal of the NSPPP is to achieve universal coverage and, in alignment with the principle of equity, this policy first targets those with the greatest need. Hence, the NSPPP uses a progressive universalism approach, where, considering budgetary and other constraints, it first targets the most vulnerable population groups and gradually expands to towards universality.

NSPPP's Objectives:

- Break the intergenerational cycle of poverty by offering the poorest people the means to ensure the development of their children and equal opportunities, from a very young age, in the various areas of their lives.
- Create the conditions for every person to be able to build his or her capacity to strive for their empowerment, an improved livelihood, and a full-fledged role as a citizen.
- Create the conditions for equality between people, giving due weight to gender relations, areas of residence, disabilities, and other social vulnerabilities.

Priority target groups include:

- People living in the areas that are most vulnerable in terms of socioeconomic status, access to basic social services, and exposure to (geographic/natural) shocks.
- Specific population groups, which are more fragile during parts of the life cycle (i.e., children from 0 to 5 years, pregnant and lactating women, citizens over the age of 60, and adults lacking the capacity to work).
- People living in extreme poverty.
- Socially vulnerable groups (11).

The Four Strategic Axes of the NSPPP: The NSPPP centers on four strategic axes that identify the associated social protection and promotion challenges, which have corresponding policy mechanisms to address the associated challenges. Each policy mechanism requires a plan of action for implementation. The four strategic axes are:

- 1) Childhood
- 2) Work, employment, and employability
- 3) Health-related social protection and protection of the elderly and disabled

4) Shock-responsive social protection and promotion

Moving Towards UHC: Under Strategic Axis 3, health-related social protection and protection of the elderly and disabled, highlights of the public policy mechanisms are:

- Exemption from payment for essential health services for maternal, newborn, and geriatric health services.
- Cash-based transfers for people with disabilities, on maternity leave for self-employed women, people unable to work.
- Consolidation and extension of contributory social health insurance coverage for certain groups.

These mechanisms, some of which exclude financial contributions (i.e., essential health service packages and cash transfers) and require some contribution (i.e., social health insurance), assist in overcoming the financial burden in accessing health care, a major hinderance in seeking health services among vulnerable groups in Haiti, particularly women.

Ensuring adequate governance, accountability, and information systems: As the NSPPP is implemented, it will be overseen by an inter-ministerial coordinating committee and other committees/working groups at different levels of the Government. One such committee will be to oversee monitoring and evaluation of the NSPPP. Haiti's national vulnerability database, SIMAST, will be strengthened and used as the national register to register individuals and determine their eligibility to the social protection and promotion mechanisms. Finally, the NSPPP will establish a redress process so that recipients may petition a change or reexamination for perceived targeting errors.

Recommendations:

- Decision makers and stakeholders, particularly those in the health and social protection sectors, should collaborate to promote essential health services (under Strategic Axis 3) to generate increased use for health services.
- The World Bank and other stakeholders should advocate for the participation of civil society in the development and implementation of social health protection and the NSPPP action plans.
- Given that some critical stakeholders remain unconvinced by the need of progressive universalism approach towards UHC, there needs to be some additional reassurance of this process to achieve UHC.
- Development partners should work with the MSPP and the MAST to build their capacity on strategic purchasing (i.e., results-based financing, payment terms, direct facility financing, etc.).
- MAST and other decision makers should integrate financial protection, equity of access to health services, and efficiency into health information system measures.

As of November 2022, the MAST is currently leading initiatives to develop, with the support of partners and in coordination with MSPP, a first pilot to include the delivery of free health services in the Grand'Anse department.

2. Pandemic Preparedness

Summary of Activities 2.1 and 2.2: Assessing Existing Pandemic Plans and Pandemic Responsiveness, and prioritizing activities

Activity Objective

These activities aimed to assess the status of existing pandemic plans in Haiti, analyze pandemic preparedness, and provide analytical support for prioritizing pandemic preparedness activities. In 2019 the World Bank convened the Government of Haiti, the Pan American Health Organization (PAHO), Regional Office for the Americas of the WHO to undertake a JEE in Haiti for the first time. Once completed, the World Bank worked with the MSPP to endorse and commit to take actions concerning the JEE recommendations through a *Circulaire Ministérielle*.

In 2005 the World Health Assembly adopted the International Health Regulations (IHR), legally binding its members to advance towards a minimum standard of core public health capacities. IHR capacity requirements are “the capacity to detect, assess, notify and report events” and “the capacity to respond promptly and effectively to public health risks and public health emergencies of international concern” (12). IHR technical capacities are condensed to 19 technical areas and the JEE uses a voluntary, collaborative, multisectoral process to assess country capacity across those technical areas to prevent, detect, and rapidly respond to public health emergencies.

The collaborative, multisectoral process of conducting the JEE enabled the Government of Haiti to identify the top needs within the health system and prioritize improvements in public health preparedness, response, and action. Additionally, the JEE’s transparent process offered the opportunity to engage with donors and partners on topics related to costing and effectively targeting resources.

Findings from the JEE include a score for each of the 19 IHR technical areas, which are categorized by “prevent,” “detect,” “respond,” and “IHR-related hazards and points of entry.” Indicator scores range from 1 (indicating that implementation has not occurred) to 5 (indicating “that implementation has occurred, is tested, reviewed and exercised, and that the country has a sustainable level of capability for the indicator”) (12). Countries provide documentation to support responses. There is also analysis of country capabilities, gaps, opportunities, and challenges.

A country’s first JEE establishes a baseline assessment, allowing the country a point of comparison for subsequent JEEs (recommended to take place every four to five years by the WHO). The prioritization process from conducting the JEE and its findings greatly lend themselves to the strategic planning process for national action plans to further bolster public health pandemic preparedness and response.

Key Findings

Overall, the Government of Haiti is unable to adequately prepare and respond to pandemic threats, as demonstrated by the generally low scores across several dimensions of the JEE assessment. Haiti’s JEE findings scores range from 1, “no capacity”, to 3, “developed capacity” (Table 3). In the “Respond” category, Haiti scored 2 (limited capacity) for “emergency preparedness” and other indicators in that category were also low; all indicators under both “linking public health and security authorities” and “medical countermeasures and personnel deployment” were 1 (no capacity), though “emergency response” scored, on average, 2, as did “risk communication.”

Table 5. Haiti's JEE Scores, 2019

Technical Areas	Indicators	Score
Prevent National legislation, policy, and financing	P.1.1 The State has assessed, adjusted and aligned its domestic legislation, policies and administrative arrangements in all relevant sectors, to enable compliance with the IHR	1
	P.1.2 Financing is available for the implementation of IHR capacities	1
	P.1.3 A financing mechanism and funds are available for timely response to public health emergencies	1
IHR coordination, communication, and advocacy	P.2.1 A functional mechanism established for the coordination and integration of relevant sectors in the implementation of IHR	3
	P.3.1 Effective multisectoral coordination on AMR	2
Antimicrobial resistance (AMR)	P.3.2 Surveillance of AMR	2
	P.3.3 Infection prevention and control	1
	P.3.4 Optimizing the use of antimicrobial agents in human health, animal health and agriculture	1
Zoonotic diseases	P.4.1 Coordinated surveillance systems in place in the animal health and public health sectors for zoonotic diseases/pathogens identified as joint priorities	3
	P.4.2 Mechanisms for responding to infectious and potential zoonotic diseases established and functional	2
Food safety	P.5.1 Surveillance systems in place for the detection and control of foodborne illness and contamination	2
	P.5.2 Mechanisms are established and functioning for the response and management of food safety emergencies	2
Biosafety and biosecurity	P.6.1 Whole-of-government biosafety and biosecurity system is in place for human, animal and agriculture facilities	2
	P.6.2 Biosafety and biosecurity training and practices	2
Immunization	P.7.1 Vaccine coverage (measles) as part of national program	2
	P.7.2 National vaccine access and delivery	3
Detect National laboratory system	D.1.1 Laboratory testing for detection of priority diseases	3
	D.1.2 Specimen referral and transport system	3
	D.1.3 Effective modern point-of-care and laboratory-based diagnostics	3
	D.1.4 Laboratory quality system	2
Surveillance	D.2.1 Indicator- and event-based surveillance systems	3

Technical Areas	Indicators	Score
	D.2.2 Interoperable, interconnected, electronic real-time reporting system	3
	D.2.3 Integration and analysis of surveillance data	3
Reporting	D.3.1 System for efficient reporting to FAO, OIE and WHO	2
	D.3.2 Reporting network and protocols in country	2
Human resources	D.4.1 A multisectoral human resources strategy is in place and updated	2
	D.4.2 Human resources are available to effectively implement the IHR	1
	D.4.3 Existence of on-the-job training	2
	D.4.4 A FETP or other applied epidemiology training program is in place	3
Respond	R.1.1 Strategic assessment of public health emergency risks; identification and mapping of resources required to respond to emergencies	2
Emergency preparedness	R.1.2 Development, implementation and testing of multisectoral national preparedness measures for different types of emergencies, including response plans	2
	R.2.1 Emergency Response Coordination	2
Emergency response	R.2.2 Emergency Operations Centre (EOC) Capabilities, Procedures and Plans	2
	R.2.3 Emergency Response Exercise Management Program	1
Linking public health and security authorities	R.3.1 Public health and national security authorities (e.g., law enforcement, border control and customs) are linked in a suspected or confirmed biological, chemical or radiological event	1
Medical countermeasures and personnel deployment	R.4.1 System in place to activate and coordinate medical means during a public health emergency	1
	R.4.2 System in place to activate and coordinate health personnel during a public health emergency	1
	R.4.3 Case management procedures in IHR situations	1
Risk communication	R.5.1 Hazard communication systems for emergencies and unusual or unexpected events	2
	R.5.2 Internal and partner coordination to communicate on risks in emergencies	3
	R.5.3 Public communication in emergencies	2
	R.5.4 Communication to mobilize affected communities	1
	R.5.5 Dynamic listening and rumor management	1
Other IHR Hazards	PoE.1 Routine capacities established at points of entry	1
Points of entry	PoE.2 Effective public health response at points of entry	1

Technical Areas	Indicators	Score
Chemical events	CE.1 Mechanisms established and functioning for detecting and responding to chemical events or emergencies	1
	CE.2 Enabling environment in place for management of chemical events	1
Radiation emergencies	RE.1 Mechanisms established and functioning for detecting and responding to radiological and nuclear emergencies	1
	RE.2 Enabling environment in place for management of radiation emergencies	1

Key Strengths identified in the JEE

General

- The Government had already a developed set of strategic plans and documents, addressing most essential public health functions.
- The existence of a national surveillance system, coupled with a system of laboratories, both efficient and functional, constitutes a major backbone for the monitoring system and the health security of the country.

Emergency Preparedness

- Haiti has the National Risk and Disaster Management System (*Système National de Gestion des Risques et Désastres* [SNGRD]), which is the mechanism representing the framework for disaster preparedness and response, both at the intersectoral level, including the private sector, and between the different administrative jurisdictions. The SNGRD has the appropriate governance and decision-making structure, experience, operability, culture, and long-term vision for risk management. It represents the cornerstone around which different sectors should continue to build their activities and initiatives, taking care not to introduce unnecessary redundancies, which could weaken a system that, over the years and despite its weaknesses, has acquired a certain agility and knowledge. The National Ambulance Centre (*Centre Ambulancier National* [CAN]) has alert mechanisms, as well as close contacts with the institutions in the field, which allows it to conduct the rapid assessment of risks, especially those with health implications.
- There is a network of Emergency Operations Centers (*Centres des opérations d'urgence* [COUs]) that is increasingly consolidated across various government sectors and at different territorial levels.

Response Capacity

- The National Risk and Disaster Management Plan focuses on coordination for effective risk management and disaster response.
- A health-sector COU/National Crisis Unit (*Cellule nationale de crise* [CCN]) exists, with the necessary tools and formalized procedures. An equivalent unit will soon be established at the level of the Departmental Health Directorates.

Key challenges identified in the JEE

General

- Haiti's continued financial dependence on international assistance and donor funding models hinders strengthening the country's institutional capacities necessary to implement the strategic and programmatic requirements to meet the country's own public health objectives.
- External, volatile financing has led to "a relative loss of decision-making autonomy in defining public health and programmatic priorities." These models have produced vertical health programming, rather than an integrated health system that meets basic public health priorities.
- There appears to be a lack of political will regarding public health, as seen in the Government's low investment in public health expenditure, at less than 10% of total health expenditure and less than 5% of the national budget, despite there being a target of 15% in the national health policy from 2012. This lack of investment causes an increase in out-of-pocket health spending, a major contributor to poverty.
- The disinterest of the legislative and regulatory process to approve and implement strategic plans and programs essential to public health. There are several bills awaiting parliamentary consideration, outdated legal frameworks, vague legal language, and a parliament uninformed in the importance of IHR, all of which hinders the Haiti's ability to increase its capacity to prepare and respond to public health emergencies.

Emergency Preparedness

- The legal framework that governs the SNGRD, which would allow it the maximum latitude for emergencies, was not finalized at the time of the JEE in 2019.
- The country has an excessive number of plans, which are sometimes too complex for preparation and response. An implication is that these documents are outdated and lack coordination among stakeholders. Also of concern is that across all the plans, the veterinary health component had been overlooked.
- Although Haiti has made significant efforts in terms of strategic risk assessment, and corresponding mapping, chemical, radiological, and nuclear risks have yet to be addressed. Similarly, the efforts made do not provide an exhaustive and updated mapping of the resources that can be mobilized.

Response Capacity

- The National Health Disaster Response Plan (*Plan National de Réponse aux Situations Exceptionnelles* [PNR-SSE]) is not based on existing capacities or structures; it is therefore imperative to test it and reassess.
- There is a need to improve the provision of care for patients/victims, for example, through the development of a structured care scheme between health institutions.

Key recommendations

General

- Prioritize health in the country's political agenda, in line with Articles 19-23 of the Haiti's Constitution relating to life and health.
- Aim for UHC to contain/reduce social and territorial inequalities in health.
- Strengthen and sustain the "surveillance and alert" function and develop preparedness and response plans to public health emergencies.
- Health partners could be more effective if they were more engaged and aligned with the Government-established public health priorities. The Government and partners should negotiate

funding modalities for greater predictability and sustainability and to support the Government's commitment and responsibility in strengthening core public health functions.

Emergency Preparedness

- Under the aegis of the DPC, make all legal, strategic, programmatic, and operational documents relating to the risk management cycle comprehensible and available in the public domain.
- Strengthen the existing capacities of pre-hospital services (e.g., CAN) and health sector staff before creating additional structures dedicated to response, if necessary.
- Minimize the risks of duplication/destabilization (e.g., the National Health Management Unit's monitoring and alert functions), during the implementation of the PNR-SSE and the MSPP's tools disseminated in the circular from May 17, 2019.

Emergency Response

- Ensure ownership of the PNR-SSE by all stakeholders, plan its feasible implementation, and establish a schedule to carry out simulation exercises of increasing complexity, involving the different health levels and the different actors (i.e., DPC, CAN, NGOs, etc.).

World Bank Recommendations for Activities 2.1 and 2.2

- The World Bank will work with the Government to finalize the JEE and make it publicly available.
 - The Ministry of Health issued a *Circulaire Ministerielle* in 2020 to endorse the results of the JEE and commit to implement key recommendations to strengthen the country's preparedness. This *Circulaire Ministerielle* was used as a priority action under a World Bank financed CAT DDO Project.
- The Government should use the JEE to identify its public health priorities.
- The Government and partners should make a multi-year health sector plan with a budget, in which the government financial contributions to public health system steadily increase.
- There needs to be a concerted effort to update the status of laws, policies, plans, and regulations that are relevant to public health priorities and/or JEE recommendations.
- Health programming, particularly among external partners, should be implemented using a health systems approach, to both avoid vertical programming.
- Integrate a component on health emergencies and crisis management into university curricula and in the continuing education of health professionals and health personnel.

Summary of Activity 2.3: Supporting Efforts to Mobilize Domestic and External Resources for Pandemic Preparedness

Activity Objective

The objective of activity 2.3 was to identify and support efforts to mobilize available domestic and external resources for pandemic preparedness and response, specifically for COVID-19. Policy and analytical work were carried out to mobilize funds for Haiti's response to the COVID-19 pandemic and ensure coordinated support to the Multisectoral Pandemic Management Commission (*Commission Multisectorielle de Gestion de la Pandémie* [CMGP]), established by the president at the onset of the COVID-19 pandemic. In 2021, these efforts were transferred to the National Coronavirus Response Coordination Unit (*Coordination Nationale de la Réponse au Coronavirus* [CNRC]), under the MSPP.

Key Findings

After great efforts to develop a resource mapping tool, it is apparent that there was a large funding gap for pandemic preparedness and response, which only increased between 2021 and 2023. Most of the funding after 2021 was earmarked from external sources, creating an issue

for sustainably planning future pandemic strengthening efforts. The World Bank supported these efforts and developed a resource mapping tool, incorporating the Government’s contribution to COVID-19 preparedness and response, as well as the contributions from partners, specifically the World Bank, UNICEF, PEPFAR, Partners in Health, Doctors of the World Canada, ACTED, UNDP, Project ACOSME – Canada, and UNFPA. This tool incorporated the costs of preparedness and response activities with government and donor contributions to identify financing gaps, to begin further discussions among the Government and donors on effectively closing those gaps. The tool was comprised of:

- Overall budget estimated needs
- Control and containment measures for COVID-19
- Mitigation measures for disease control programs (i.e., HIV, TB, malaria)
- Health systems programs (i.e., surveillance systems, laboratory systems, and waste management systems)
- Community systems strengthening/social behavior community change programs
- Contributions from the Government and each donor
- Summary/consolidation reports
- Deficit reports

Table 6. Financial contributions of the Haitian Government and external partners for COVID-19 preparedness and response (USD), 2021-2023

Contributions	Total (USD) 2021-2023	Percentage
Haitian Government	\$10,954,541	30%
World Bank	\$9,600,000	27%
UNICEF	\$5,579,856	16%
PEPFAR	\$5,300,000	15%
Partners in Health	\$2,489,000	7%
Doctors of the World Canada	\$565,681	2%
ACTED	\$488,824	1%
UNDP	\$400,000	1%
Project ACOSME – Canada	\$370,000	1%
UNFPA	\$200,000	1%
Total	\$35,947,902	100%

While this tool was originally designed for COVID-19 preparedness/response activities, it is structured in a way so that it can be used for subsequent preparedness and response planning purposes. Table 6 shows that nearly US\$36 million had been marked for pandemic preparedness and response from 2021 through 2023. The largest contributors are the Haitian Government, at 30%, and the World Bank, at 27%, with other donors providing the remaining funds. However, Table 7 shows the projected gap for the same time period; it is estimated that roughly US\$136 million will be required to meet the country’s pandemic preparedness/response needs, leaving a deficit of nearly US\$100 million.

Table 7. Projected Preparedness/Response Financing Gaps, as of 2021 (USD), 2021-2023

Need/Allocation	2021	2022	2023	Total (USD) 2021-2023
Preparedness/response to financial need	\$47,941,291	\$44,529,252	\$43,612,856	\$136,083,399
Government allocation	\$10,954,541	\$0	\$0	\$10,954,541
External donor contributions	\$18,088,361	\$6,855,000	\$50,000	\$24,993,361

(excluding the Global Fund)				
Deficit	-\$18,898,389	-\$37,674,252	-\$43,562,856	-\$100,135,497

Table 8 provides additional detail about how finances had been earmarked for pandemic preparedness and response. The majority (about US\$26.7 million) of the allotted funds were slated for COVID-19 response and containment activities, leaving the remaining funds for mitigation and systems strengthening efforts. It should be noted that while most of the available funding was earmarked for COVID-19 response and containment interventions, there remained a 70% deficit, at US\$63 million. Indeed, all aspects of pandemic preparedness and response were shown to be underfunded, with the overall effort requiring an additional US\$100 million to meet the budgeted estimates.

Table 8. Estimated funding gaps grouped by pandemic component, as of 2021, 2021-2023 (USD)

Pandemic preparedness/ response component	Budget 2021- 2023	Funding available	Funding gap	% of deficit
COVID-19 response and containment interventions	\$90,126,310	\$26,722,287	\$63,404,023	70%
COVID-19 risk mitigation measures for HIV, TB, and malaria programs	\$10,958,382	\$1,120,000	\$9,838,382	90%
Increased strengthening of key aspects of health systems	\$21,921,398	\$5,353,089	16,568,309	76%
Increased strengthening of key aspects of community response systems	\$13,077,310	\$772,915	\$12,304,395	94%
Other – Implementation of the vaccine deployment plan	\$0	\$1,979,612	-\$1,979,612	—
Other – Measures to mitigate the socio-economic impact of COVID-19	\$0	\$0	\$0	—
Total	\$136,083,399	\$35,947,902	\$100,135,497	74%

Recommendations

- In the case of the COVID-19 pandemic, the Haitian Government established a unit specifically for the pandemic response, which was aided by the above-mentioned tool to channel funds from donors for the pandemic response. This has not always happened in the past (e.g., in the case of the response to the earthquake of 2010). Similar coordinated approaches and tools should be used for other natural disasters and pandemic shocks in the future.
- There are few countries with as many external donors for the health sector as Haiti. A unit, the CMGP, was established specifically for the COVID-19 pandemic response, but has ultimately been discontinued in 2022. However, having a similar unit should be a permanent feature for the Haitian health sector, under the MSPP, to coordinate the large financing flows from donors that take place into the health sector even in non-emergency situations.

Summary of Activity 2.4: Supporting Governance, Accountability and Appropriate Institutional Arrangements for Pandemic Preparedness Plan

Activity Objective

The objective of this activity was to inform a new government framework to establish a multisectoral pandemic preparedness plan. The World Bank provided technical and political support to the MSPP to undertake a deep institutional reorganization of Haiti's disease surveillance and response systems. The analytical and policy work conducted by the World Bank, in coordination with partners, materialized in the MSPP's new Operational Strategy for the Departmental Investigation and Response Teams. In the strategy, the Departmental Investigation and Response Teams (*Equipes Départementale d'Investigation et de Réponse* [EDIRs]) builds off the success of the Mobile Emergency Response Teams in managing the cholera epidemic in Haiti. The aim of the strategy is to have the EDIRs based in different health departments and conduct investigations and alert and response activities related to diseases and morbidity phenomena, in accordance with the national priorities of the Project for the Enforcement of Health and Health Systems in Haiti (*Projet d'Appui au Renforcement des Systèmes de Santé* [PROSYS]).

Key Findings

The implementation of this operational strategy to strengthen health departments' capabilities in coordination of alert and response is crucial for the control of diseases and/or public health events, ultimately minimizing negative impacts on the population. Furthermore, in the context of limited local resources, the financial support of the World Bank is essential to the implementation of this strategy.

The operational strategy details the EDIR's composition, resources, standards, procedures, and governance. The EDIR is structured as modular units that can be scaled up or consolidated, according to epidemiological needs, as determined by departmental and central officials. The EDIR's team composition can be further determined according to the needs and availability of resources between department directors and the Department of Epidemiology, Laboratories and Research (*Direction d'Epidémiologie, des Laboratoires et de la Recherche* [DELR]). If necessary, specialists (e.g., environmentalists, sociologists, etc.) could temporarily join the EDIR to provide technical assistance.

The DELR is responsible for overseeing this strategy through its entirety – the development and dissemination of standards and procedures, connecting the various surveillance platforms, and analyzing data and health information. EDIR and health departments are responsible for investigating and responding to public health emergencies and events in their service area. The EDIR will need to be coordinated and integrated with other existing sections or services at the departmental level. The EDIR will be piloted in three departments prior to national scale-up to allow for course correction and effective management of limited resources.

Recommendations

- The MSPP and DELR are responsible for recruiting and training EDIR team members. The pilot is anticipated to take place over six months, in three health departments: North, South, and either the West or Artibonite. It is important to ensure that the pilot includes both quantitative and qualitative monitoring and evaluation to be able to understand not only to the extent to which the pilot works/or does not work, but also to understand how the various components work together.
- Depending on the results of the pilot, the EDIR program should be gradually scaled up to all departments, based on a costed and sustainable plan. Adjustments may be needed based on the

results and lessons learned from the pilot and factoring in the costs associated with sustainability over the longer term.

- As of November 2022, the Ministry of Health is initiating the implementation of the strategy in one department (currently experiencing the highest incidence of cholera cases since its resurgence in October 2022), with the financial and technical support of the PROSYS project financed by the World Bank.

Summary of Activity 2.5: Enhancing Community-Level Health Care for Pandemic Preparedness and Response

Activity Objective

This activity aimed to improve community-level public health for pandemic preparedness and response by focusing on the community care model in Haiti. The World Bank undertook analytical and policy work across three components: (1) recommendations to optimize using CHWs to address disease outbreaks; (2) appropriate tasks for CHWs during pandemics; and (3) other critical aspects to a well-functioning community care model. The World Bank produced documents on: (1) a comparison of community care models in Haiti and international community health programs (June 2018); (2) the optimal placement of CHWs (December 2019); and (3) a support document for Haiti's community health plan (May 2020).

These documents provide a more organized, effective, and cost-effective approach towards community health care in Haiti. This is essential since, until recently, community health care has been disorganized and disjointed, with multiple actors working in an uncoordinated manner. This resulted in redundant programs in certain communities while gaps in care remained in other areas. The products from this activity, as well as additional World Bank technical assistance, was incorporated in the Community Health Strategy drafted by the Government in 2021. This strategy is an important moment, as it is the first time Haiti has drafted such a strategy, and it provides the foundation of systematic, effective, and cost-effective approach to community health in the country.

Key Findings

1. Summary Comparing Community Care Models in Haiti and in Six Countries (2018)

Comparing Community Care Models

Methodology: To inform the national strategy, lessons learned from national and international community health programs, established 10 years prior in low- and middle-income countries were reviewed. Brazil, Ethiopia, and Nepal are the three main countries referenced, with examples from other countries, such as, Rwanda and Uganda. To examine national experiences, the MSPP's Carrefour community care model was chosen, as well as six health facilities, providing high-quality health services for over 10 years and with documented results: (1) FONDEFH; (2) the Haitian Foundation for Health (FHS); (3) Albert Schweitzer Hospital; (4) UAS-St-Michel; (5) Mission Baptiste; and (6) Partners in Health. The international review used peer-reviewed and grey literature, while the national assessment is based on a combination of primary and secondary data. A questionnaire and interviews were also conducted to collect information relating to the community care program.

Lessons Learned from Global Experiences in Community Care Models

National CHW programs must be carefully planned. National programs have often failed due to weaknesses in planning and investment, specifically not considering the communities, referral mechanisms, and the components of the health system (i.e., information systems, financing, access to medicines and medical equipment/technology, etc.). A gap analysis should be conducted to identify critical resources needed for the program and should be planned for far in advance.

For all the international experiences examined, CHWs are an integral part of the primary care system, by being linked to health facilities and belonging to structured teams. This allows for deeper understanding of community needs and elevating CHWs' status in the community and among health staff.

Community care services must be accessible, often requiring building health posts. To ensure community services were available at a reasonable distance in communities, many country examples built/renovated health posts, increasing the density of health facilities in the population.

Without focusing on the quality of health services, the success of community-based programs is limited. Healthcare facilities play a major role in training and supervising CHWs in the delivery of the iCCM. In addition, they must respond to CHWs referrals for sick children, which implies an ability to handle cases of greater complexity.

The ratio of CHW to population varies from country to country. Countries set the ratio of CHW to population based on CHW functions, local conditions (e.g., population density, density of health services, burden of disease, etc.) and cost. The most successful program had one CHW for every 2,500 people or fewer but given that this is a key factor in the cost of the program, consideration must be given to ensure that the CHW to population ratio is reasonable.

There is no standard CHW training; in all examples, the Ministry of Health determined the necessary set of competencies to align with national guidelines. The duration of training varied, depending on the approach, though a mix of theoretical and practical training is likely to be most successful. Also, continuing education should take place at least annually to reinforce skills learned and acquire new skills.

CHWs often have a heavy workload and have difficult working conditions. CHWs typically have many tasks, are often poorly equipped, and are expected to cover rural areas, where houses are widely dispersed, forcing them to walk several hours in difficult conditions, affecting their performance. It is recommended that CHWs' perimeter should not exceed a two-hour round trip.

Planning for regular supervision is essential to success. Having the foresight to monitor the performance of CHWs, preferably through regular supportive supervision, a mentoring/continuous learning approach, ensures greater success. There are many obstacles to effective supervision (e.g., workload, motivation, lack of transport, etc.), and its insufficiency is cited as a frequent factor in CHW program failure.

Determining CHW salaries should be done with careful consideration. While salaries are an important cost factor, they are also cited as a factor in attrition. Salaries should be defined according to the CHW duties, the expected working time, and the national and local salary scales. Results-based financing was shown to be effective in CHW cooperatives in India and Rwanda in supplementing salaries. Non-financial incentives should also be considered, particularly if using volunteer CHWs.

Acceptance of CHWs is a challenge to community care utilization. Clinical staff often view CHWs as being at the bottom of the health system, rather than seeing them as the link between health services and the community, which undermines CHWs' authority and integration into the health system. Additionally, research demonstrates that strategies and time are necessary for communities to accept CHWs' services. The low use of CHW services is often attributed to a lack of knowledge of CHW functions, medication availability, and community perception of them as low skilled.

To increase access, the reviewed countries provide the CHW services free of charge. Successful CHW programs had conducted careful costing that included start-up costs, recurring costs, and investments. Because most governments in the case examples could not fully fund their national CHW programs, they engaged external donors to create sustainable costed implementation plans to accompany CHW strategies.

Experiences from Haiti's Pilot of the National Community Care Model in Carrefour (2011-2014)

In line with best practices, the National Community Care Strategy integrated CHWs into primary care teams, between both clinical services and vertical programs.

As the national strategy depended on external funds and user fees, sustainability remained a major concern. Because this program operated primarily through donor funding, it was apparent that user fees were insufficient to sustain the program as that funding went away. As a result, activities ceased in 2016. Additional cost factors include high salaries and a very high density of CHWs relative to the population.

The national strategy dictates that CHWs should conduct health promotion, however they are limited in doing so. While their key tasks include tasks typical of CHWs, they were prevented from conducting other typical duties, such as providing basic treatment and routine vaccination, which are aligned with the Essential Service Package Manual and has implications for the provision of iCCM services. Similarly, CHWs were not equipped with all the medicines and medical supplies to provide quality services typically expected of a CHW.

Selecting and training CHWs followed official guidelines. They are supervised by military nurses, who provide supportive supervision, however it occurred mainly on an ad-hoc basis.

Through the Communal Health Committee, the national model systematizes social participation. This committee brings local representatives, community leaders, school leaders, health care providers, traditional birth attendants, and, religious leaders, health workers, among others, to discuss public health needs and propose strategies to address them. This committee served as an informal forum for service providers to improve collaboration with the community. However, there was not much evidence on the effective governance of these committees.

The results-based funding mechanism promotes integration, with non-public health facilities. Health facilities were paid on a results-based funding mechanism, aligning staff with the model's objectives. Thus, institutions, including CHWs, were paid according to four key criteria: (1) the volume of services; (2) the perceived quality of the services; (3) objective quality of services, as measured by adherence to standards and guidelines; and (4) record keeping.

Though the national model aimed to integrate primary care facilities, the MSPP's Health Services Decentralization Support Unit was unable to do so effectively during the pilot. This unit, which was responsible for facility integration, such as ensuring adherence to standards and guidelines, implementing a unified record system, facilitating continuity of care, was unable to adequately complete its tasks.

The pilot experienced significant supply chain challenges. The pilot depended on the Program of Essential Medicines and Supplies (PROMESS) for medicines and trained staff in 10 departments in drug management and developed a distribution plan. However, health facilities had difficulties receiving medicines and supplies, resulting in frequent stock-outs.

Lessons Learned from Local-level Community Health Care at Six Health Facilities in Haiti

Community-based health care has existed in Haiti for decades, but in an uncoordinated manner at local levels. These experiences are taken from reviewing the following facilities: (1) FONDEFH (urban); (2) the Haitian Foundation for Health (FHS) (semi-urban); (3) Albert Schweitzer Hospital (rural); (4) UAS-St-Michel (rural); (5) Mission Baptiste (semi-urban); and (6) Zanmi Lasante/Partners in Health (semi-urban). Of the six facilities, only one (UAS-St-Michel) is government managed, while the others are managed by NGOs. Two facilities receive government funding, which represents less 10% of their

budget. All offer free services; however, user fees vary for out- and inpatient services, medicines, and laboratory testing.

CHWs' responsibilities go beyond the national strategy and include both preventative care and health promotion. Their responsibilities primarily fall under information gathering, prevention/health promotion, and patient referral. Some facilities also allow CHWs to diagnose and treat basic pneumonia, and administer vaccines, various forms of birth control, and other supplements, differing from the national strategy.

Equipment is focused on health promotion. CHWs usually receive a backpack with equipment and supplies to conduct their duties, as well as certain supplements and certain medications (e.g., antiparasitic and contraceptive medicines).

All health facilities use various methods that support sustainability, cost-effectiveness, and reduce attrition. For increased sustainability, all facilities have lower CHW to population densities, incentivize career advancement opportunities, practice effective supervision, and two organizations work with volunteers to improve service utilization and drive down costs.

All CHWs are recruited with the support of the community and must demonstrate their knowledge of their communities, and train according to the national guidelines. Four of the six facilities provide at least 400 hours of initial training and all offer CHWs ongoing training.

Challenges to these CHW programs: (1) inability of CHWs to provide first aid services and distribute basic medications, due to the limitations of the national guidelines; (2) CHWs are often overworked, having a large populations to cover, frequently over difficult geographic terrain, and often have large amounts of paperwork and documentation to complete; (3) reliance on external funding; (4) CHW salaries, which in some cases, are insufficiently low to recruit and maintain a motivated workforce; and (5) continuous access to medicines and equipment.

2. Summary of Optimal Placement of CHWs to Improve Access to Community Care in Haiti (2019)

Methodology: This document used mathematical tools to inform the geographical deployment of CHWs in Haiti and support the development of guidelines. Population estimates and travel times were combined with optimization methods to derive plot scenarios that consider population density and topography. To account for the operational limitations, the model includes constraints on the walking time and the number of people allocated to each CHW, as well as proximity to existing community health centers. However, disease-specific risks that could potentially increase demand for health services were not included in the modelling.

Findings

The chosen option was a scenario where to ensure greater CHW geographic access, people living near community health centers receive fewer CHW visits relative to those living further away (Scenario C). The analysis also indicated that potential disparities in health access could continue if considerations for CHW geographic allocation are not given at the communal section level. Four national-scale scenarios adapted to the Haitian context were compared to determine the number and distribution of CHWs needed to close the gap in access to health services. The four scenarios were designed to align with the current total number of CHWs and they all require less than 5,500 CHWs nationwide. However, each scenario's underlying assumptions is different; for the first scenario, the prioritization is based solely on population density, while the other scenarios consider the locations of community health centers by reducing the number of CHWs in the vicinity of these centers. One scenario (Scenario C) represents a trade-off whereby people in the vicinity of community health centers receive less frequent visits from CHWs than those located far from these centers.

In all four scenarios, the South-East, the Reste-Ouest, the North, the Nippes, the South, and the Centre are systematically identified as having an unknown number of CHWs, when the optimal results are compared to current figures as measured in the Evaluation of Health Care Services survey and the CHW mapping. At a lower geographical level (communal section), gaps in access to health services are identified in all departments, even when the overall total number of CHWs at the departmental level is indicated as sufficient to cover the needs. These results indicate a large disparity in access to health services within departments, and therefore highlight a need to reallocate CHWs at the communal section level for optimal results.

Conclusions and Suggested Next Steps

Given resource constraints, it is possible to identify gaps in access to health services and improve the CHW coverage by optimizing the geographic distribution, giving priority to populations with more difficult access.

1. Consider the implications of the preferred model (Scenario C) within the framework of the national community strategy; in particular, the distance CHWs must travel to reach the target population and access to community health centers must be considered, in addition to population density in rural and urban areas.
2. Periodically assess the placement and tasks of CHWs in the different departments, including updating the national mapping of CHWs, and define/operationalize redeployment needs to optimize their placement.
3. Exceptions or deviations from the proposed plan may be considered to include additional operational constraints or to respond to specific health priorities with a precise geographic distribution.

3. Summary of a Support Document for Haiti's Community Health Plan (2020)

Methodology: This document offers additional insights to support Haiti's Community Health Strategic Plan. The methodology was staged in two phases: a document review of relevant plans, policies, reports, other reports, and field visits to four departments, the North-East, Artibonite, the West, and the Grande Anse, to identify bottlenecks in implementing the community strategy. Interviews and focus groups were held at the central, departmental, and communal levels and with partners. This was followed by a workshop with participants from the central and departmental levels to reflect on the analysis and provide comments and recommendations.

Analysis of the Community Health Strategy

Despite Haiti's long history in community health, there is inconsistency in how CHWs carry out their roles and responsibilities due to population density, geographic barriers, and the workplace interactions that take place within communities and at community health centers. Furthermore, community health has been carried out by various actors, lacking coordination, and with low visibility, making results difficult to track over time.

The community health strategy is based on three main pillars: (1) the family health team, as the main pillar; (2) institutional networking; and (3) community engagement. CHWs are assigned to health community health centers, which are at the first level and usually the first entry to the healthcare system. Community health centers are in rural or semi-rural areas, providing curative, preventative, and promotional care and the primary care providers are nurses.

CHWs are responsible for health promotion and prevention, with their duties generally focusing on: census taking; home visits to for health promotion activities; community activities; vaccinations; malaria case management; HIV testing; disease surveillance; and reporting. Not all CHWs carry out

these tasks because they have not been trained on them. In addition, in some cases, the roles and responsibilities of CHWs have been reduced seemingly due to a lack of understanding of the role of CHWs.

Each CHW is responsible for a portion of the community health center's coverage area, covering 1,000 people in rural areas and 2,500 people in urban areas. However, in some cases it is difficult for CHWs to reach their coverage areas, given the distance between their home and the health center. The findings also noted that CHWs sometimes did not reside in the areas they worked in or work at the closest health center.

The model for implementing the community strategy at the country level is as follows:

- For rural, sparsely populated municipalities with less than 100,000 inhabitants, the ratio of family health team members is defined as follows:
 - 1 CHW per 1,000 inhabitants
 - 1 multi-skilled auxiliary nurse (*auxiliaire infirmière polyvalente* [AIP]) per communal section
 - 1 head nurse of the family health team in each municipality

Of the 146 municipalities in the country, 117 municipalities fall into this category.

- For higher density areas of more than 100,000 inhabitants, the communities will be divided into groups of 75,000 inhabitants, with family health team ratios being:
 - 1 CHW per 2,500 inhabitants
 - 1 nurse per 15 CHWs and per 37,500 inhabitants
 - 1 nurse per 2 AIPs per 75,000 inhabitants

Of the 146 municipalities in the country, 29 municipalities fall into this category. Furthermore, the ratio of 1 nurse for 15 CHWs is high and constitutes a weakness in the quality of their management and supervision. Also in some cases, there are more than two nurses in a municipality of 100,000 inhabitants.

Analysis of the Governance Structure for Community Health

Coordination of community intervention is deficient and weak at all levels. While there are many structures in place, the MSPP has low visibility at all levels, in addition there is no guidance and framework to coordination community intervention. Without addressing these issues there will likely be negative implications for any future strategic community health initiatives in Haiti.

The community strategy is steered at the central level by the Directorate of Health Promotion and Environmental Protection (*la Direction de la Promotion de la Santé et de la Protection de l'Environnement* [DPSPE]), which has a community health service unit. The DPSPE coordinates with several directorate for community health activities.

At the departmental level, interventions are overseen by the focal point for community health at the Departmental Directorate of Health. The focal point coordinates, plans, and supervises community health activities; supports CHW training; and collects, analyzes, and reports community health center data. Challenges include a lack of AIPs in some areas and a lack of logistical and financial means to support supervision.

The nurse in charge of community health at the referral health institution is responsible for implementing interventions at the municipal level. And at the communal section, activities are coordinated by the nurse who supervises CHWs.

Human Resource Analysis

Though the Community Health Strategic Plan has selection criteria for CHWs, it appears to be inconsistently upheld during the recruitment process. This results in some rural CHWs having to travel very far to reach their assigned communities, which further limits access to community health services.

The workforce for community health is composed of an institutional doctor, the head nurse, the health officer, social workers, the nurse, and the CHW. Community-level interventions are implemented by a CHW or nurse. CHWs are trained for four months, in accordance with the National Community Health Strategy. Selection criteria include that CHWs reside in the community, receive community endorsement, have at least a 9th year education level, and be between 25 and 35 years old at the time of recruitment.

In 2019, there were 5,521 CHWs accounted for, though at the time of the census, there was some unevenness in the geographic distribution. In some instances, CHWs traveled three to four hours to their communities, particularly in rural areas. Additionally, the selection criteria were not always upheld during recruitment, such as the CHW residing in the local area or receiving community endorsement. Furthermore, CHWs being used in vertical programs limits their ability to be used for multiple health areas.

Analysis of Service Delivery

CHWs are hindered in carrying out their responsibilities due to a lack of supplies, both logistical and medical. Because of the inconsistent roles of CHWs, there remains confusion concerning whether CHWs can dispense certain medicines and medical supplies. Additionally, some CHWs use their own salaries to ensure patients seek continued treatment at community health centers. CHWs' service delivery package generally includes five main components:

- 1) **Homes visits** to promote health and provide health education around sanitation, nutrition, HIV/AIDS, malaria, tuberculosis, cholera, family planning, vaccination, among other issues. Though not systematic, CHWs may also test for HIV, distribute ARVs, medicines for tuberculosis, malaria, fever, diarrhea, and chronic cough. They also track pregnant women, unvaccinated children, carry out postnatal visits, and look for patients classified as lost to follow-up.
- 2) **Gathering stations** are important prevention activities for CHWs. These involve organizing large, community-level activities to weigh and vaccinate children; conduct HIV testing and raise awareness; and distribute vitamins and minerals, etc. However, these services are not standardized across communities.
- 3) **Community meetings** are planned with community organizations (i.e., health committees, youth clubs, mother/father clubs, etc.). CHWs are responsible for organizing these meetings to promote health and raise awareness on certain health areas, such as reproductive health, family planning, antenatal consultations, sanitation, HIV/AIDS, malaria, diarrhea, fever management in children, etc. However, these community organizations do not exist in most of the areas where CHWs work, creating a challenge for them to effectively engage in their assigned communities.
- 4) **Referrals** consist of cases identified by CHWs that need management by a nurse at a community health center. While CHWs carry referral sheets with them, they are not standardized. When patients are reluctant or refuse to seek care at the community health center, CHWs are often known to accompany patients to reduce loss to follow-up.
- 5) **Loss to follow-up** is known when a patient with a chronic illness has stopped treatment. CHWs work with nurses to identify, find, and reinstate the patient back on treatment.

Challenges in Service Delivery

Insufficient equipment – CHWs lack adequate equipment to carry out their activities in most cases. The kits they should receive should be a backpack with items, such as a scale, flashlight, register, thermometer, among others. Additionally, they often lack weather-proof equipment and proper shoes for the environment they work in.

Lack of medical supplies – CHWs often do not have medical products that would aid in doing their tasks. Given the disparity in application of CHW's role, there is also confusion as to products CHWs are authorized to dispense.

CHWs using personal finances – Because there is no budget or voucher program that pays for patient travel to health facilities, CHWs often finance those costs themselves to prevent loss to follow-up.

Low community participation – These community groups are often not functional, or meetings are not held regularly, limiting the ability to identify community needs, planning interventions, leaving a gap in implementing the strategy. However, community participation is higher when led by an NGO. It should be noted that often NGOs provide incentives for participation to improve attendance.

Analysis of Monitoring of Community Health Interventions

Data collection and reporting seem to be dysfunctional, largely due to lack of supervision, means, and resources to complete data collection and reporting. The MSPP established a timetable for reporting monitoring data from CHWs through the central level. However, data quality is low due to a lack of supervision, means, and resources to complete data collection. Data collection and reporting tools are frequently missing and are not standardized. Additionally, completeness and timeliness are recurrent issues, as are a lack of feedback from higher levels, contributing to demotivation. It is also unclear if CHWs working with NGOs contribute to MSPP's data collection.

Analysis of Funding

Approximately 75% of the funding for CHWs is provided by donors, making the issue of sustainability for the Community Health Strategy a concern. The MSPP has made efforts to integrate over 1,000 CHWs into the state budget. Still the need to implement the Community Health Strategy remains outsized compared to the resources available. These shortcomings constitute major bottlenecks in implementing the strategy.

Challenges to be Addressed by the Community Health Strategic Plan 2020-2030

Coordination of interventions – Several actors carry out interventions without coordination due to a lack of leadership at all levels, visibility of community interventions at the central levels, and communication among the various actors. Improvement in these areas would enhance efficiency and visibility of interventions.

Clearly articulated job roles for CHWs and others in the Family Health Team – The success of this strategy depends on qualified, competent, and motivated staff with clear, precise, and defined roles and responsibilities. The selection and recruitment criteria defined must apply at all levels.

Equity in access to community care – The country's coverage of access to care is still insufficient, given that community health interventions do not cover all communal sections and localities and not all departments have the same coverage rates.

Quality of services – The defined service package is not harmonized, and community health staff have no influence. In addition, community health staff have a wide set of skills and qualifications and do not have equipment and supplies to provide quality services to sufficiently conduct all their tasks.

Frequent stock shortages – Medical and logistical supplies are essential to CHWs implementing daily tasks; however, stock shortages are recurrent, negatively affecting the quality of services.

Quality of evidence – Good data quality requires a functional data management system at all levels. This involves using appropriate, standardized data collection tools, having data verification techniques, and providing feedback to those collecting data to reinforce monitoring efforts.

Community Engagement – There needs to be additional community engagement to increase common values and a shared goal in order to ensure in the Community Health Strategy.

Financing the Community Health Strategy – This strategy is largely financed through external aid, posing the issue of sustainability. It is important to establish new sources of finance to make this strategy sustainable.

Recommendations

- Access to medicines is not only about supply chain; it encompasses all aspects of the health system, and procurement and medicines selection should first be carefully examined when regarding issues related to persistent stock issues since these two factors have major implications downstream effects on the availability and affordability of medicines. Access to medicines is critical to the success of the community health strategy and for improvement in health outcomes in general. Continuous access to quality medicines and equipment is essential for CHWs, being able to fulfill their duties effectively. Lack of access to quality, affordable medicines contribute to low service utilization and poor motivation among health care workers.
- There needs to be improved coordination among actors and clarification of the governance structure, such that the various entities understand their roles and responsibilities (accompanied by guidelines and manuals). Additionally, efforts must be taken to improve coordination by all stakeholders and visibility throughout all levels.
- Incorporate the model used for the optimal placement of CHWs when implementing the Community Health Strategy, so as to optimize use of available resources. The indicated ratios of 1,000 persons per CHW for rural areas and 2,500 persons per CHW for urban areas should only be taken as a guide; it should be adapted following the indications of the optimal placement model.
 - As of November 2022, all departmental health directorates have developed their operational plans to implement the National Community Health Strategy; and with the support of key partners (the Global Fund, the Global Financing Facility, the World Bank and others), the training of community Health workers is expected to be concluded in 2023.
- Define and harmonize CHWs' service and equip CHWs to ensure success in community health service delivery. CHWs should have a standardized set of equipment and medical supplies to conduct their duties. Similarly, define and harmonize a minimum set of services for CHWs to provide.
- Include community health data in SISNU. This involves the provision of standardized data management tools at all levels, capacity building, as well as providing feedback for accountability.
- Make a transparent plan to finance the strategy for 10 years. Advocate for gradually increase the state's contribution to 60% to finance the strategy. Established a mechanism to trace finance information to improve accountability.

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