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Chapter

Lessons Learned from Implementing a Community Health Worker-initiated Referral Strengthening Intervention in Haiti: A Mixed-Methods Program Case Study

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Abstract

Referral processes linking communities to facilities are under-appreciated and lack evaluation, particularly in humanitarian settings. Community health workers or agents de santé communautaire polyvalent (ASCPs) in Haiti refer communities to health facilities for a range of services. This program case study assessed implementation of a public-private referral strengthening intervention within on-going community health programming, including a triplicate referral form, supportive training, and follow-up structures. We applied mixed methods to describe referral trends using routine programmatic data, factors affecting implementation and referral completion through a pre-intervention referred patient survey (n = 525), meeting observations, and interviews with ASCPs, supervisors, and key stakeholders (n = 88). We found that the intervention demonstrates little influence on referral trends, but qualitatively enhances the referral process for ASCPs and supervisory stakeholders in Haiti. It improves supervision relationships and shows promise for enhanced community-integrated patient monitoring systems – when supported by financial support and non-governmental and governmental partners, but is vulnerable to sociopolitical, geographic, and insecurity challenges preventing referral completion. Integrating intervention activities within existing programming and scaling the triplicate referral form in Haiti can strengthen the national ASCP curricula. Globally, we suggest adapting the triplicate referral form as a promising job-aid and data-reporting tool within community health worker programs.

Keywords: community health workers, community-based referral, case study

1. Introduction

Referral processes linking communities to facilities for an array of health services, though critical are often under-appreciated and challenging to measure globally. In part this is due to measurement gaps given limited community inputs into integrated health information systems and the challenges of monitoring referral completion [1–3]. Facilitating linkages through functional referral and counter-referral mechanisms demands that community health workers (CHWs) are able to correctly identify when to refer patients; patients are able to access the referral facility; and the referral facilities provide sufficient counter-referral information to patients for follow-up with CHWs in their communities [4]. Global estimates of adherence to referral guidelines, defined broadly as both CHW adherence to guidelines and referral completion by patients, range from 9 to 83% [4]. Few studies have evaluated the effectiveness and comprehensiveness of CHW referral in low- and middle-income country (LMIC) settings, nor assessed the influence of context and programming on CHW-activated referral processes and completion [2, 3, 5].

Exploring referral processes in the context of expanding community health programming to support CHWs as they reduce service coverage gaps and improve outcomes is critical. In countries like Haiti that struggle with frequent political transition, decreasing economic resources, and environmental and disease outbreaks, all of which have left it with the worst health indicators in the Western Hemisphere, CHWs are often the only source of care for many [6–9]. Haiti’s ratio of physicians and nurses to individuals is 2.5 and 1.1 to 10,000, respectively, has led CHWs, to serve as the primary health workforce in delivering care and counseling to communities [10]. CHWs in Haiti, known as agents de santé communautaire polyvalent (ASCPs) make approximately 100 home visits per month during which they provide direct services (e.g. medicines, vaccination, and some family planning methods), health education, and referrals. ASCPs link communities to health facilities for a range of services by referring for a variety of health issues: tuberculosis, HIV, malnutrition, women’s health, maternity care, child health, non-communicable diseases, mental health, and other emergencies. ASCPs refer patients to facilities for care as needed and document referrals in paper-based registers. Generally, the referral process involves ASCPs interacting with individuals in the community and referring, and at times, accompanying clients to the appropriate facility – a dispensary, health center or hospital, and following up with the clients once they return home. Sociopolitical and contextual factors influence ASCP-initiated referral processes [11]. To-date, however, documentation of how to strengthen referral processes in practice is weak in the absence of data reporting tools to aid ASCPs and their supervisors, among other factors.

This program case study describes learnings from the introduction of a public-private referral strengthening intervention, consisting of the introduction of a triplicate referral form and supportive programmatic structures. We draw on multiple perspectives – ASCPs, ASCP supervisors, and key policy/program stakeholders to assess how the referral strengthening intervention (e.g. introduction of a triplicate referral form and associated-trainings for adoption) affected the community-initiated referral process in all sites. Referral “completion”, in our study, refers to whether a patient who was referred by an ASCP for a service went to a facility received the intended service. We investigate:

- Did the referral strengthening intervention affect the referral trends?
- How did the referral strengthening intervention affect referral processes?

- What factors affected implementation of the intervention?
- What factors affect referral completion?

2. Program development and adaptation

2.1 Program development and description

Zanmi Lasante (ZL), a non-governmental local organization in Haiti has been working in community health for decades in collaboration with the Ministère de la Santé Publique et de la Population (MSPP). Under the Integrating Community Health Partnership (2016–2020), ZL supported the MSPP in the introduction and orientation of ASCPs in Central and Artibonite regions, through the development and implementation of a comprehensive curricula. The curricula included five modules: Organization of Health Services, the ASCP Work Process, Health at Different Life Stages, Prevention and Control of Common Diseases, and ASCP Actions in Crisis Situations. Despite the various contextual disruptions including political volatility and generalized insecurity, ZL supported implementation of curricula, integrated with on-going programming efforts, over 4 years, to inform scaling a ASCP capacity-building approach country-wide.

Within this program context, in 2018, there was recognition of the need to further strengthen and support referral and counter-referral processes embedded within the ASCP's core functions. ZL, in collaboration with the Department de la Santé et Protection de l'Environnement in the MSPP, developed and implemented a triplicate referral form, a related training, and a supportive feedback mechanism to pilot as a tool for tracking and enhancing referrals, referral completion, and follow up. The triplicate referral form – comprised of three carbon copy slips that can be shared with clients, CHWs and health facilities – allows for better documentation around health areas that ASCPs normally counsel and refer (**Figure 1**). Following a week-long training in November 2019 in Mirebalais, the triplicate referral forms were implemented across Central and Artibonite Departments, including in Mirebalais, Le Petit Rivière Artibonite (PRA) and Verrettes communes. Upon referral of a client to a facility, an ASCP documented the referral in his/her register, provided a referral sheet to the client, and shared in aggregate a monthly referral report to their supervisor. The feedback mechanism, coordinated by ZL program managers, included health teams discussing referral challenges and enablers during on-going monthly meetings between a community health nurse (program oversight), ASCPs, and their supervisors.

Several adaptations affected program development and application. First, while initially a technological component (digital triplicate referral form) to complement the paper-based form was explored, various organizational, political, and logistical challenges prevented its integration. Second, a Community Health Nurse and Auxiliary Nurse intended to review and cross-reference ASCP registers and reports with the referral lists at the dispensaries, health centers, and hospitals to identify complete and incomplete referrals. However, in practice, only referrals made – rather than completed– were able to be checked. Third, COVID-19 pandemic-related restrictions prevented feedback sessions to occur at in their anticipated frequency –four sessions were held before lockdowns ensued; not all three communes resumed sessions as the pandemic wore on. These restrictions, along with persisting socio-political


 ZANMI LASANTE COMMUNITY REFERRAL FORM	Referral Date _____ / _____ / _____ D M	Belladères <input type="checkbox"/> Lascahobas <input type="checkbox"/> Boucan Carré <input type="checkbox"/> Mirebalais <input type="checkbox"/> Cange <input type="checkbox"/> Petite Rivière <input type="checkbox"/> Cerca La Source <input type="checkbox"/> HSN <input type="checkbox"/> Hinche <input type="checkbox"/> Thomonde <input type="checkbox"/> Verrettes <input type="checkbox"/> SSPE (St Marc) <input type="checkbox"/>
	Department: _____ Commune: _____ Communal Section: _____	Locality: _____ Institution: _____
Patient's Information		
First Name (referred patient) : _____ Last Name (referred patient) _____ Address: _____ House's landmark: _____ Emergency contact name : _____	Sex: Female <input type="checkbox"/> Male <input type="checkbox"/> Date of birth (D/J/Y) : ____ / ____ / ____ Age : _____ Phone number: _____ Hospital ID card: _____ Emergency contact telephone number : _____	
Referral giver's information		
Full Name _____ Title: _____ Code Number: _____ Phone number: _____ Address: _____		
Reasons for referral (Signs and symptoms) Other reasons:		
Eating disorder <input type="checkbox"/> Excess urine <input type="checkbox"/> Headache <input type="checkbox"/> Pain <input type="checkbox"/> Urinary tract infection <input type="checkbox"/> Convulsion <input type="checkbox"/> Vomiting <input type="checkbox"/> Shortness of breath <input type="checkbox"/> Weight loss <input type="checkbox"/> Diarrhea <input type="checkbox"/> Fever <input type="checkbox"/> Cough more than 14 days <input type="checkbox"/>		
Service of referral : Mental health <input type="checkbox"/> Non-communicable disease <input type="checkbox"/> Child health/pediatrics <input type="checkbox"/>	Nutrition <input type="checkbox"/> Maternal/wmen's health <input type="checkbox"/> Other service: _____	
Information regarding parents (accompanying adult) of malnourished children :		
Phone number : _____ Address : _____ Nutritional Status of the child : _____ Arm circumference of the child: _____ Weight of the child : _____ Signature of the referral's giver : _____		

Figure 1.
 Triplicate referral form used in Haiti (English version).

fluctuations and insecurity in Haiti, prevented the application of some of our original learning tools (e.g., survey with referred patients) in a formal evaluation.

2.2 Learning tools

Our program case study draws on quantitative and qualitative data sources to learn about the piloting process of the triplicate referral form in practice. Trends in referrals across the three communes were ascertained through routine programmatic referral tracking data, including registers and referral reports verified by health teams. Factors associated with referral completion were assessed by self-report through 525 referred patients surveyed in a pre-intervention assessment and qualitatively from ASCPs following implementation. Semi-structured monthly meeting observational checklists recorded by trained research assistants qualitatively informed

Participant type	Pre-intervention	Post-intervention
ASCPs	24	23
Supervisory stakeholders	15	13
Community health policy/program stakeholders	10	3
Total	49	39

Table 1.
In-depth interview sample.

how supervisory processes affected the community-activated referral mechanisms. Eighty-eight in-depth interviews with ASCPs, ASCP supervisors, and community health policy/program stakeholders, conducted before (n = 49) and after (n = 39) the implementation, provided rich perspectives on the referral processes, completion and related factors (**Table 1**).

3. Piloting

3.1 Did the referral strengthening intervention affect the referral trends in all sites?

Referral data from ASCP records indicate that over 12 months of active implementation from December 2019 to November 2020, referrals by ASCP in the Central and Artibonite Departments were similar (**Figure 2**). Referrals appear slightly higher in the Central Department, with a slight increase over time in both groups. There is a notable spike in referrals in September 2020 in the Artibonite Department and dips in referrals, across all sites, in April and November 2020, notably affected by

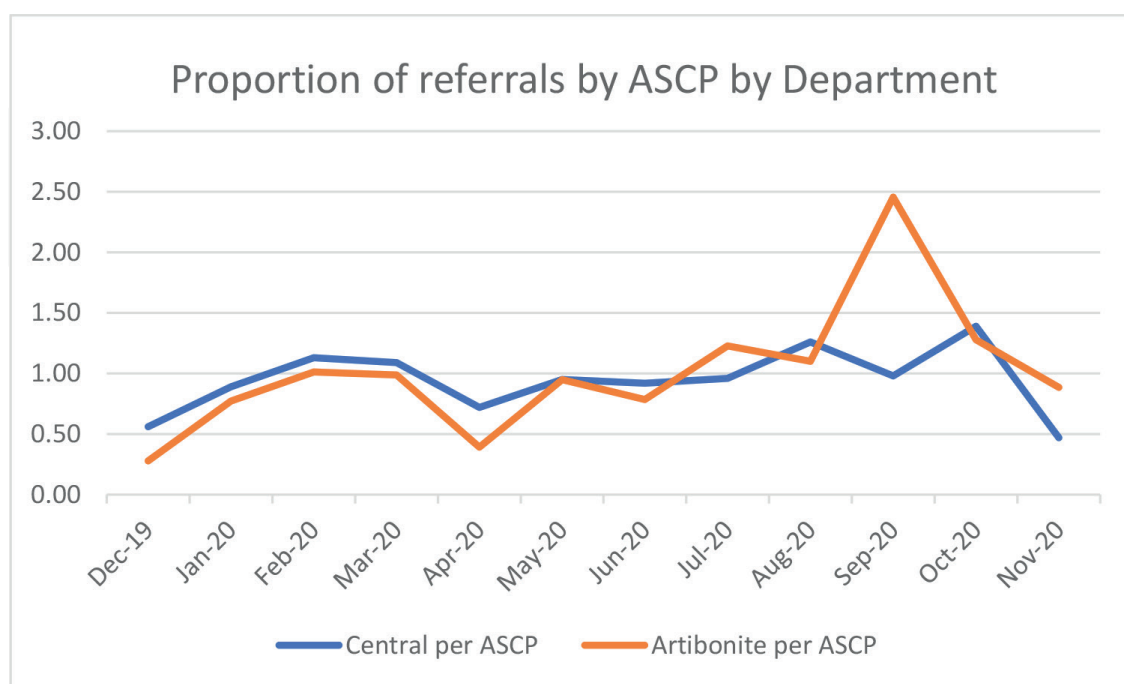


Figure 2.
Referral trends by Department.

the COVID-19 pandemic. Referral peaks reflect the easing of COVID restrictions around movement. At these times, people moved freely from different areas within the country and across the border from the Dominican Republic. Dips in referrals are related to increased COVID restrictions, including social distancing guidelines, mask wearing, and limits to gathering at assembly posts and hospital waiting rooms.

3.2 How did the referral strengthening intervention affect referral processes?

We qualitatively assessed what the referral process looked like before and after the introduction of the triplicate referral form and associated trainings. Our pre-implementation assessment showed that the referral process involved an ASCP providing a verbal or simple referral slip to the patient. The referral slip included the name, phone number of the ASCP, and patient information. Facilities were not notified of referrals. ASCPs stated that they never or rarely received counter-referral slips after referrals were completed. ASCPs were not notified if patients completed their referrals; however, ASCPs recorded the date of referral in their notebooks, and often followed up 4–5 days later to see if the patient completed the referral.

“The referral is usually done informally; the patient is told to go to a health center, no documentation, whatsoever... The Department’s “referral” form ...[though]... printed and distributed at departmental level, is rarely available in the field, at least, not on a regular basis. Community workers therefore simply tell the patient to” go to a health facility and tell the nurse that you have such a problem””

– National Policymaker

After the implementation of the triplicate referral form, ASCPs commented that the new forms are detailed and helpful for assessing if people are in urgent need of care, since there are limited resources at health centers. They mentioned receiving training on how to fill out the forms and found the forms easy to use. ASCPs generally did not have any additional recommendations for the forms. Similar to our pre-intervention assessment, ASCPs confirmed that they typically follow up by phone or in-person a few days after they make referrals, and people usually received the intended services. ASCPs commented that triplicate referral forms allow other members of the medical community to better serve their patients. One ASCP describes their modified process for referral:

“When I make a referral to a Health Center, the referral form guides me. It includes the place to write the date, the service [referral type], the place to take the service - the nearest hospital or dispensary. I write the name, signature, date of birth, gender. After that, there is a place that says why you refer the person who has signs like big headache or shortness of breath. As an ASCP, I put my code, name and phone number in case of needed follow-up.”

– ASCP, Central, Mirebalais

While consistent across setting, ASCPs and ASCP supervisors describe how the referral process has changed and been made easier after implementing the triplicate referral form.

“It has rendered the process easier. At one time, we did not have a form, we would use a sheet of paper from a notebook or pad. When the patient showed up at the hospital,

the staff did not really know what to do with the sheet of paper or they would drop it somewhere, it could have been written by anyone. Now it is more structured, formal, and the hospital staff receive the patients.”

– ASCP, Central, Mirebalais

“It [referral process] changed in that it gives you more motivation, because now it is a reference form that represents a registry. So when making the referral, the remaining source [copy] allows us to verify the referral was well done. [Previously it]... was a small sheet that was given and the person went with it, there was no source [copy] left. We can follow up on the referrals as supervisors.”

– ASCP Supervisor, Artibonite, PRA

3.3 What factors affected implementation of the intervention?

Supervisors and ASCPs describe the importance of supportive supervision as critical to ASCP’s work, including the use of the triplicate form. Specifically, the value of supervision arises in technical support, training, and correcting ASPC’s behaviors and practices as needed on the job. Monthly group supervision on various topics including referral, allows for ASCPs to work out challenges with the referral process and allows for upward and downward communication between the department and central MSPP through to ASCP supervisors and ASCPs. Our sample’s ASCPs and supervisors describe supervisory meetings as opportunities for receiving encouragement by supervisors and peers.

“There are changes [over the last year]... My supervisor is always present, he is always on time, he is a supervisor that I love very much. When I have concerns... he tells me to look how he does it, gives me strength, and says, ‘Let me see.’ Sometimes he tells me, ‘it’s not this, come let’s go on.’ He always encourages me.”

– ASCP, Artibonite, PRA

Supervision on applying the triplicate referral form was similar across all settings and reportedly helpful from the perspective of most ASCPs and supervisory stakeholders. ASCPs and supervisors noted that supervisors provide support with filling out triplicate referral forms when challenges are encountered.

“He always double-checked if I keep record of the reference forms that I delivered to patients... Sometimes it happens that we remove them both and the supervisor couldn’t trace the reference. To prevent this, he always keeps an eye on the reference forms we are using, trying to ensure that we give the first one and keep a copy, to be able to report on the number of references we give.”

– ASCP, Artibonite, PRA

Observational notes from monthly meetings showed that despite the usefulness of the triplicate referral form, one complaint voiced by ASCPs included the difficulty in receiving counter referral information from facilities. Often there was lack of information shared by supervisory facility-based staff on patients completing their referrals, a result of fragmented and delayed data-reporting systems.

ASCPs noted that the modeled communication between ASCPs and their supervisors translates into how ASCPs mobilize their clients, underlining the downstream benefits of the ASCP-supervisor relationship. Supervisors also back up and/or

accompany ASCPs as needed, particularly in emergencies and when ASCPs experience difficult client refusals. In some cases, supervisors provide corrections personally after a group session to not embarrass or offend ASCPs in front of their peers.

“It is a good relationship, everyone knows their role and the hierarchy - as such, no one dominates another, we each have tasks to accomplish. If there is a problem, I may make a recommendation; if something needs my changing, I oblige. I also do the training [monthly meeting] sessions, our relationship is based on our set objective that we work together to attain.”

– Nurse, Artibonite, Verrettes

There are mixed perspectives as to how accessible supervisors are to ASCPs. Most ASCPs say that supervisors are accessible when you need them and are often close to the field, however, a few describe limited accessibility in situations of political turmoil and roadblocks. ASCPs and ASCP supervisors alike describe the importance of having individual phone-based communication, particularly when ASCPs have quick questions or need clarification while in the field. ASCP supervisors also provide in-person on-site visits and/or accompany ASCPs to homes and posts, especially when health workers and communities are in remote areas.

“We work together and when there is something that does not work well, I always reach out to tell them [ASCPs] how things should be. I always hold meetings with them based on our activities... I create my calendar based on their calendar and I would go to them to complete the fieldwork.”

– ASCP Supervisor, Artibonite, Verrettes

Financial and non-financial support also affects implementation of the triplicate referral form and ASCPs work. ASCPs describe the need for salary increase given their current salary is not motivating and they suffer increasing expenses due to inflation and sociopolitical insecurity. ASCPs and supervisors also mention the need for additional funds for transportation (e.g. motorbike taxis, buying gas) and phone cards with sufficient minutes to enable them to conduct their duties effectively. Several ASCPs mentioned needing to borrow money to travel long distances work and some expressed frustration with discontinued transportation fee support. In some cases, the association of ASCPs with government and non-governmental organizations led to a veiled financial stability of ASCPs at the community level.

“As a health worker you have a family to care for, you have responsibilities. People think that you work for this giant organization...[and] come to you for money all the time, and there are times you are only able to buy only a loaf of bread... I brought 2 packets of crackers, I did not even get a chance to eat them, I gave them to 2 children who were asking me for money.”

- ASCP, Central, Mirebalais

Though ASCPs maintained access to the triplicate referral form, they expressed limited access to other necessary materials and vaccines to conduct their duties – particularly when it comes to community distribution activities. Some mentioned an inability to give people relevant medications. Supervisors mention similar concerns about materials – supervisors put in many requisitions but claim they have not received items to distribute to ASCPs such as vitamin A pills, iodine pills, folate, vaccines, and menstrual pads.

“The role of the government is to provide us with support... they need to provide us more materials, such as notepads, notebooks, and a manual containing the data we need. Sometimes you think you will work on an activity for 2 hours but then you end up working 8 hours; we tend to write extensively, we need other materials to store our documents, bags, and raincoats also.”

– ASCP, Artibonite, PRA

ASCPs expressed that they would like more training for areas that they are less familiar with, such as new or less common diseases. Observation of monthly meetings showed, for example, that ASCPs had some difficulty referring children for problems other than prevalent malnutrition. Community health nurses similarly expressed that they need more training to take advantage of technology innovations in their work. Some ASCPs mentioned that they would like better healthcare treatment for themselves, because even though they are in the health field, when they are sick, it is difficult for them to get care.

The referral process is not without challenges. ASCPs explained that triplicate referral forms are easier than the previous process, but some non-state hospitals do not accept the forms. They explained that it is easier when they refer people to Zanmi Lasante-supported hospitals where the forms are received. When the triplicate referral forms are not recognized nor received, ASCPs feel ashamed, and in some cases blamed, that their patients are not able to get care. An additional challenge is that facilities are not reliably tracking referrals.

“When we make referrals, it is very stressful because sometimes the person spends the whole day in the hospital with the referral in his hand, he never is given an appointment... We even accompany the person even though they [facility staff] do not receive us... The references we provide become of no value to the community.”

– ASCP, Central, Mirebalais

3.4 What factors affect referral completion?

We found consistency in the factors affecting referral completion before and after implementation of the referral strengthening intervention.

Our pre-intervention quantitative assessment examined sociodemographic factors associated with referral completion including gender, age, education, marital status, and religion (tabulated data not shown). Referral completion was significantly associated with gender and religion. Of 525 respondents who were referred by an ASCP in the last 6 months, men were more likely than women to complete a referral at baseline (62 vs. 49%) as were those with no religion compared to those who were Catholic, Protestant, or other (69 vs. 45%, 20, and 51%, respectively). We also examined several interpersonal factors within the respondent-ASCP interaction including number of visits in the last 6 months, whether or not the ASCP asked questions or gave health information to other family members, service satisfaction, whether or not the information provided by the ASCP was easy to understand, and whether or not the ASCP asked the respondent questions about family members' health. Factors significantly associated with referral completion were whether or not the ASCP asked questions or gave health information to other family members (63 vs. 45%), and whether or not the ASCP asked the respondent questions about family members' health (62 vs. 42%).

Our qualitative pre-intervention assessment showed several factors affected referral completion. First, ASCPs stated that referral institutions are sometimes too far for patients. The cost associated with referral completion are prohibitive for some patients. Some patients do not accept the advice of the ASCPs – for example, some people do not accept that their child is malnourished if the ASCP tells them that this is the case. Some people decide to go to a voodoo priest instead of a health facility, though alternative care seeking emerged less salient at endline.

Following implementation, many of qualitative factors described in the pre-intervention assessment – delayed decision making because of distance, cost, socio-political barriers, and perceived quality – persist. An additional challenge was patients' misunderstandings of the triplicate referral form as it relates to perceived quality of a hospital's responsiveness to a referral. For example, patients believe a referral means they do not have to pay for treatment. Patients think the triplicate referral form means that they are "VIP" and should be treated as such, so they do not want to wait for the doctor.

"When we make the referral, the patients always ask us, firstly, to accompany them... secondly, they always complain about not having money for transportation to go to the hospital and that it is difficult to find a service even if they have the referral form."

– ASCP, Central, Mirebalais

"I don't know if this come from the ASCP or if it is a misunderstanding from the patients - patients think that the referral could be used as a pass for everything. A referral doesn't give any right to ["express" care for] the patient -it only indicates that this his problem is identified and the intended service ... Most of the time, [at] the referral institutions, patients with the referral think that they are "VIP" and should be treated as such. They do not want to wait for the doctor... They refuse to pay even their dossier fee... a referral is not a dossier."

– ASCP Supervisor, Artibonite, PRA

Observational notes from monthly meetings showed that ASCPs raised the more information related to experiences of patients that did not complete referrals. For these patients, the main concerns voiced included wait times at the hospital and the sup-optimal hospital reception, where they felt unwelcome and spoken to in a bad manner.

4. Lessons learned

Implementation of a referral strengthening intervention – a triplicate referral form, supportive training, and monthly troubleshooting meetings – as a part of routine community health programming demonstrates little influence on overarching referral trends, but promising qualitative effects on the referral process for ASCPs and supervisory stakeholders in Haiti. Our piloting shows that despite the persisting challenges to the referral completion at the patient level that further link to the country's extreme poverty and limited emergency and routine relief in the protracted insecurity [12], high quality of supervisory relationships were instrumental in mitigation and reinforced the use of the triplicate referral form. This suggests the value of a streamlined referral form extends beyond the merit of improved community-integrated patient tracking as part of health care monitoring systems, but also to the

motivational aspects around individual community health stakeholder goal-setting and achievements.

We glean several lessons around sustaining implementation beyond the project timeline – and in the face of further disaster (e.g. COVID-19 pandemic). First, implementing the intervention demands a nominal cost associated with producing the triplicate referral form and that of personnel to oversee its distribution, collection, and validation. These costs may be reduced if digital tracking were enabled, though such solutions require high preliminary investment and regular updates for failed technology. Second, collaborative development of the triplicate referral form by Zanmi Lasante and the MPSS, enabled its successful integration into on-going referral processes, though further technical assistance and advocacy may be required for its full recognition in non-state hospitals. Third, there is a need to strengthen counter referral processes, including tracking referral completion at the facility level. Communicating care features and monitoring needs back to ASCPs routinely through functional supervisory feedback mechanisms described in this paper can help better follow up with communities over time. Finally, navigating politics to sustain gains in community-integrated referral strengthening is crucial in contexts with shifting and unstable ministerial and policy landscapes. As intervention implementation progressed over time in Haiti, we had to accommodate changes in community health governance and financial investments that re-prioritized aspects of ASCP hiring, training, and retention.

5. Recommendations and conclusions

Community health stakeholders in Haiti find the referral strengthening intervention acceptable – given it can be easily integrated into routine workflows of CHWs, supervisors, and program managers. We recommend integration of the triplicate referral form, training, and follow up meetings as a quality assurance mechanism to strengthen community-facility linkage and equitable communication between supervisors and CHWs. In Haiti, we advocate for scaling the triplicate referral form across the country, as part of the national ASCP curricula; over time transitioning the referral tracking system to a digital platform can be considered. Scaling the form alongside further research is needed, especially around the disaggregation of referral trend effects by distance to a facility and linked trends in referral completion. Globally, particularly in similar fragile humanitarian settings where CHWs carry out much of the primary health care service delivery, we suggest adapting the triplicate referral form as a promising job-aid and data-reporting tool.

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