



Health 2 Go

Progress Report through September 30, 2019

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Acknowledgements

We wish to express our gratitude to the individuals and institutions for the support and commitment in the development and implementation of Health 2 Go:

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Abbreviations

BCCDP: Barekuma Community Collaborative Development Project

CHPS: Community-Based Health Planning and Services

CBA: Community-Based Agent

CHN: Community Health Nurse

CHO: Community Health Officer

GHS: Ghana Health Services

H2Go: Health 2 Go

ICCM: Integrated Community Case Management

IMCI: Integrated Management of Childhood Illness

MOH: Ministry of Health

PI: Principal Investigator

RDT: Rapid Diagnostic Test (malaria)

SDG: Sustainable Development Goals

UN: United Nations

UNICEF: United Nations Children's Fund

WHO: World Health Organization

H2Go Summary of Accomplishments

Wawase CHPS Zone Pilot - Serving 1,500 People (Kpong, Eastern Region of Ghana)

- Continuous service in 6 communities in the Lower Many Krobo District since Nov. 2016
- All 10 CBAs remain active and effective, and all equipment has been well utilized
- Communities recognize CBAs as front-line service providers
- Procured funding for an additional year to keep the Wawase CHPS Zone Pilot operational (Dec. 2018)
- 9,292 educational home visits by CBAs on illness prevention, nutrition and health promotion
- Among approximately 200 children under age 5, there were 2,009 illnesses treated in the community setting (Nov. 2016 through Sept. 2019)
 - 1270 malaria; 398 diarrhea; 341 pneumonia/Acute Respiratory Illness (ARI)
 - 151 children referred to collaborating health facilities for serious and life-threatening illnesses
- Engagement of communities through 5 multi-community durbars (Town Hall Meeting) to discuss program (Oct. 2016, Mar. 2017, Sep. 2017, Oct. 2018, Dec. 2018)
- Routine monthly meetings with District Health Leadership to continually improve the program
- 33 monthly Supportive Supervision Visits provided on-site to CBAs (Dec. 2016-Sep. 2019)
- 7 Refresher Trainings including clinical training at collaborating hospitals (Jan. Apr., Jul. 2017; Jan., Aug. 2018.; Mar. 2019)
- Completed GIS Mapping, Census, and Health Behavior Survey in communities (June 2017)
- Launched in 6 communities of the Wawase CHPS zone (Nov. 2016)
- Completed initial basic training for 12 GHS personnel and 10 CBAs (July, Aug. 2016)
 - 5 days Manager/Facilitator training + 3 days supervisor training + 6 days Community Based-Agent training + 2 days community internship; 16 training days total
- Press event at Ensign with coverage from national TV and 12 newspaper journalists
- Identified 6 target communities, received official welcome by chiefs (May 2016)
- Formed direct linkage to hospital and health facility that receive referrals by Health 2 Go
- Established strong relationships with GHS Lower Manya Krobo District Health Director, Kpong sub-District Director, key District Public Health and Community leaders
- Initiated Health 2 Go Program in Ghana with partnership of University of Utah, Ensign College of Public Health, Cast a Pebble Foundation and Ghana Health Service (GHS) in 2015

BCCDP Serving Approximately 20,000 People (Ashanti Region of Ghana)

- Continuous service in 20 communities in the Atwima Nwabiagya North District since May 2018
- 30 CBAs remain active and effective, and all equipment remains operational
- Communities recognize CBAs as front-line service providers
- Procured funding for one-year supply of medicines from Cast-A-Pebble Foundation after previously committed source did not follow through (Dec. 2018)
- 10,964 educational home visits by CBAs on illness prevention, nutrition and health promotion

- Among approximately 2,200 children under age 5, there were 4,177 illnesses treated in the community setting (Oct. 2018 through Sep. 2019)
 - 1,928 malaria,, 1,098 diarrhea, 1,151 pneumonia/Acute Respiratory Illness (ARI)
 - 103 children referred to collaborating health facilities for serious and life-threatening illnesses
- Engagement of communities through 2 multi-community durbars (Town Hall Meeting) to launch program (May 2018)
- 16 monthly Supportive Supervision Visits provided on-site to CBAs (Jun. 2018-Sep. 2019)
- 2 Refresher Trainings including clinical training at collaborating hospital (Jan. 2019; June 2019)
- Launched in 20 communities of the BCCDP in Atwima Nwabiagya North District (May 2018)
- Completed initial basic training for 14 GHS personnel and 30 CBAs (Feb, Apr. 2018)
 - 5 days Manager/Facilitator training + 5 days supervisor training + 5 days Community Based-Agent training + 1-day community internship; 16 training days total
- Press event at Ensign with coverage from national TV and 12 newspaper journalists (Jan 2018)
- Established strong relationships with Atwima Nwabiagya North District Health, Berekese sub-District, key sub-District Public Health and community leaders in BCCDP in Ashanti Region

Executive Summary

Overview

Health 2 Go is a community-based primary healthcare program that focuses on improving the health of children under 5 years of age, including newborns and pregnant women. The program is currently implemented in two geographically diverse areas in Ghana. While the traditional model of health care requires people to go to facilities to access basic services, Health 2 Go employs the approach of bringing the health system to the doorsteps of the people in their communities. The program is designed to overcome obstacles that cause similar programs to fail and to support countries in reaching United Nations' Sustainable Development Goal (SDGs) targets to reduce child deaths to no more than 25 deaths per 1,000 live births and maternal deaths to 70 or less per 100,000 live births by 2030. Ghana's current rate for child deaths is 48 deaths per 1,000 live births and for 319 maternal deaths per 100,000 live births. The vast majority of both child and maternal deaths are preventable.

Since November 2016, Health 2 Go has had continuous service in the six small communities of the Wawase CHPS Zone, serving 1,500 people in a remote area of the Kpong sub-District of the Lower Manya Krobo District (Eastern Region) in Ghana. In May 2018, Health 2 Go expanded to a larger demonstration site of the Berekuma Community Collaborative Development Program (BCCDP), which consists of 20 communities with approximately 20,000 residents in the Berekese Sub-district of the Atwima Nwabiagya North District (Ashanti Region). The overarching goals are for Health 2 Go to be scalable to a level that allows for country-wide implementation and to be able to adapt and expand this program to other countries.

The Health 2 Go Difference

- Recurrent High-Quality Training
- Consistent Provision of Equipment, Medicines and Supplies
- Routine Effective Supervision
- Continual Community Engagement
- Clear Integration into Health System
- Focus on Prevention, Health Promotion, and Early Treatment

Results

- **Wawase CHPS Zone: Among Approximately 200 Children under age 5, (Nov. 2016 - Sept. 2019)**
 - 2,009 illnesses treated: 1,270 malaria, 398 diarrhea, and 341 pneumonia/Acute Respiratory Illness (ARI); 151 children referred to hospital for serious illnesses; and 9,292 household health educational visits
- **BCCDP: Among Approximately 2,200 Children under age 5, (Oct. 2018 - Sept. 2019)**
 - 4,177 illnesses treated: 1,928 malaria; 1,098 diarrhea; 1,151 pneumonia/ARI; 103 referrals for serious illness; and 10,964 household health educational household visits

Vision, Community Capacity, and Impact at Home

A defining principle of the program is the vision to create capacity for communities to be healthy, well, and self-reliant. The real impact of the program is intended to be in the home where inequities of society are most felt, which begin in the first five years when children are developing, including during the mother's pregnancy, affecting long-term outcomes in health and quality of life. Impact at home can impact communities and countries.

Introduction

Making Measurable Impact to Improve Health Outcomes

One of the greatest challenges faced by developing countries today is providing community-based resources to health care which improve outcomes and make a measurable impact. Although substantial progress has been made globally to improve health since the 1990s¹ the traditional model of health care in which the people access resources at a health facility outside of their community hasn't worked well. It is challenging to reach vulnerable populations who frequently live far from health centers, making it difficult to achieve country and global health goals.² All countries have committed to achieving the target Sustainable Development Goals (SDG) for reducing child deaths to no more than 25 deaths per 1,000 live births by 2030, yet many developing countries are not currently on track to meet this ambitious goal.³ Ghana's current rate for child deaths is 48 deaths per 1,000 live births.³ Attempting to solve the issue of access to health resources, multiple programs have been developed to improve community health. The issue has been that they've often been designed without considering the potential risks that could limit their effectiveness, and then have been implemented poorly, resulting in their impact disappointing stakeholders.⁴

Creating Capacity for Health Development through Health 2 Go

Having witnessed firsthand the ineffectiveness of poorly designed and implemented community health programs as they worked on global health projects around the world, Professor Stephen Alder and Mr. Rick Haskins knew that a better strategy was needed. Drawing on decades of highly successful careers in public health, academia, and business, they committed to take a different approach. With the motto of, *'Let's do community health, but let's do it right,'* Alder and Haskins established the vision of 'creating capacity for communities to be healthy, well and self-reliant.' Believing in the philosophy of community-engagement, they set out to find partners to create a model approach to facilitate capacity for communities to improve the health of their own populations. Thus, Health 2 Go was developed with the mission to change the face of global health starting in Ghana.

Health 2 Go in Ghana

Ghana provides favorable capacity for implementation of the pilot project due to established partnerships, previous experience working in Ghana with communities, and alignment with Ghana Health Services' national strategy of improving access of health services in communities.

The initial Wawase CHPS Zone Pilot for Health 2 Go was implemented in the six small communities of the Wawase CHPS zone in the Lower Manya Krobo Municipality of the Eastern Region, for about 1,500 residents and has been successfully implemented since November 2016. In May 2018, the program scaled up to a 'Demonstration Site' of 20 more communities serving about 20,000 people in the Barekuma Community Collaborative Development Program (BCCDP) in the Atwima Nwabiagya North District of the Ashanti Region. Lessons learned will be used to inform expansion to other district-level sites and to engage the leadership of Ghana to scale the program country-wide, and then used for expansion into additional countries.

Child Deaths

It is estimated that 69 million children will die between 2016-2030 unless committed and consistent action is taken.³ Major killers of children under age 5 are pneumonia, malaria, and diarrhea with malnutrition being an underlying cause in nearly 50 percent of these deaths.^{5,9}

Inequities impacting the household level are also determining factors in a child's chance of survival,³ including:

- Lack of access to health care
 - Children die because they live too far from a health facility⁵
- Poverty
 - Poorer children are almost two times as likely to die before age 5 than wealthier children³
- Low maternal education level³
 - Children whose mothers have no education are three times as likely to die than children whose mothers received secondary education^{3,6}
- Household poor health practices
 - related to behaviors such as delayed care seeking, nutrition, water, sanitation, etc.³

Children from households that are poor not only face higher risks of dying, but account for a larger percentage of child deaths than children from wealthy families.³

Most child deaths are preventable, and most illnesses are easily treated at low cost if healthcare is accessed early.⁵

Call to Action

The United Nation's (UN) calls upon all countries to reduce under age 5 child deaths to no more than 25 deaths per 1,000 live births by 2030 as part of the UN Sustainable Development Goal (SDG) targets.^{1,3}

In order to meet child health targets, UNICEF has called for countries to address inequities which affect health outcomes of the disadvantaged the most, as the poor and marginalized will need to make faster progress since they account for a greater percentage of child deaths.³

Ghana Context

UNICEF reports 41,354 deaths of children under-5 years of age in Ghana during 2018 resulting in a child mortality rate of 48 deaths per 1,000 live births.⁷ The most recent available data on cause of death (updated by UNICEF in 2018) indicates that three preventable causes were responsible for half of deaths of children ages 1-59 months in Ghana during 2016.⁷

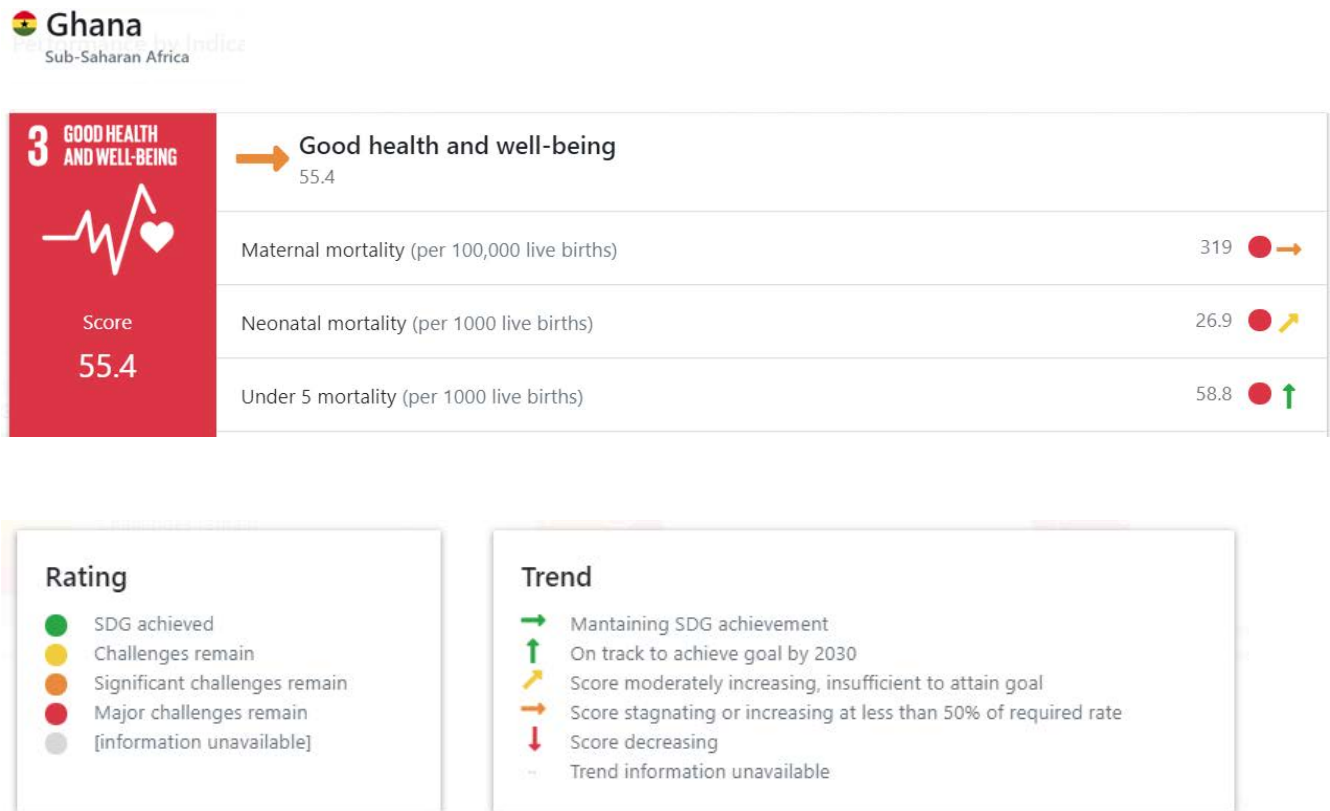
Causes of Death Ages 1-59 Months (2016):⁷

- Malaria (21%)
- Pneumonia (17%)
- Diarrhea (12%)
- Malnutrition-a contributing cause in almost half of child deaths^{5,9}

Major Challenges Remain

The UN SDG Index Dashboard indicates major challenges remain for Ghana to meet SDG targets by 2030 for child health as depicted below by the red circle rating for under age 5, newborn, and maternal mortality.¹⁰ While Ghana has made significant progress in reducing child (and maternal deaths) since the 1990's, as have other developing countries, substantial efforts still need to be made. Trends indicate that if Ghana's current rate of progress continues, it is on track to achieve the under 5 SDG target by 2030, but not progressing enough to achieve newborn or maternal SDG targets by 2030. However, it is important to realize that the pace needs to be sustained in order to stay on track to meet under age 5 targets for child health and needs to increase to achieve newborn and maternal targets by 2030. Additionally, it is significant to note that It is only recently that Ghana increased progress enough to be reclassified as 'on track' to achieve the SDG target for under age 5 child health, since In a 2016 UNICEF report, Ghana was classified as 'not on track' to reach the SDG of 25 deaths per 1,000 live births by 2030.³

Figure 1: SDG Dashboard for Maternal and Child Health



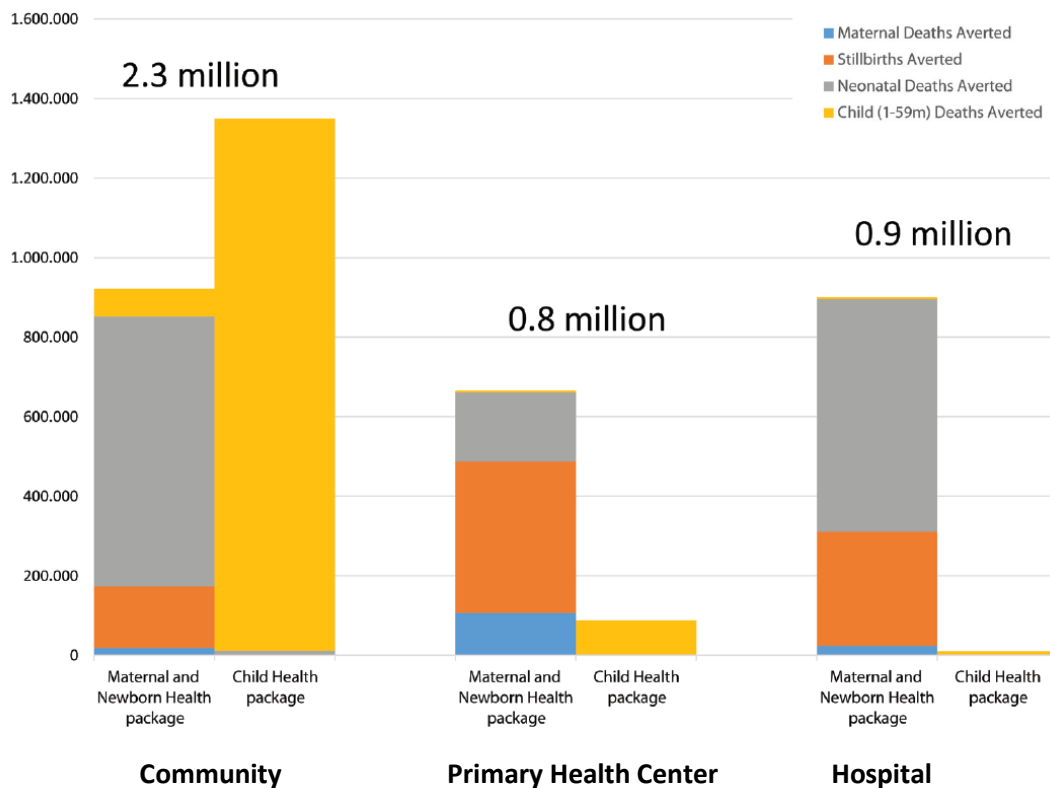
Source: <https://dashboards.sdindex.org/#/GHA>

Community Health

Health Care Delivery Platforms

The potential impact community-based primary health care along with engaging with communities is often overlooked, even though research indicates that easily implemented community interventions can increase healthcare coverage and reduce deaths.¹¹ In a comprehensive review of evidence of effectiveness of community-based primary care to improve child, newborn and maternal health, Black and colleagues report that the community level platform provides the most potential opportunity to prevent deaths, which could be reduced by 2.3 million per year if the total package of evidence-based interventions for communities reached all children and mothers. In comparison, interventions needing implemented at primary healthcare centers and in hospitals would prevent less than half of the total number of deaths (0.8 million, 0.9 million).¹¹

Figure 2: Comparison of Maternal, Perinatal, Newborn and Child Deaths that can be Averted by Health-Care Packages through three Service platforms¹¹



Source: (Black et al, 2017)¹¹

Recommendations from the Expert Panel of Black and colleagues, calls for strengthening health systems through community-based primary healthcare, tracking resources, and recognizing that communities are a valuable resource to bridge the gap between health systems and communities. The community platform can reach people where they live who have the greatest needs to improve health outcomes.¹¹

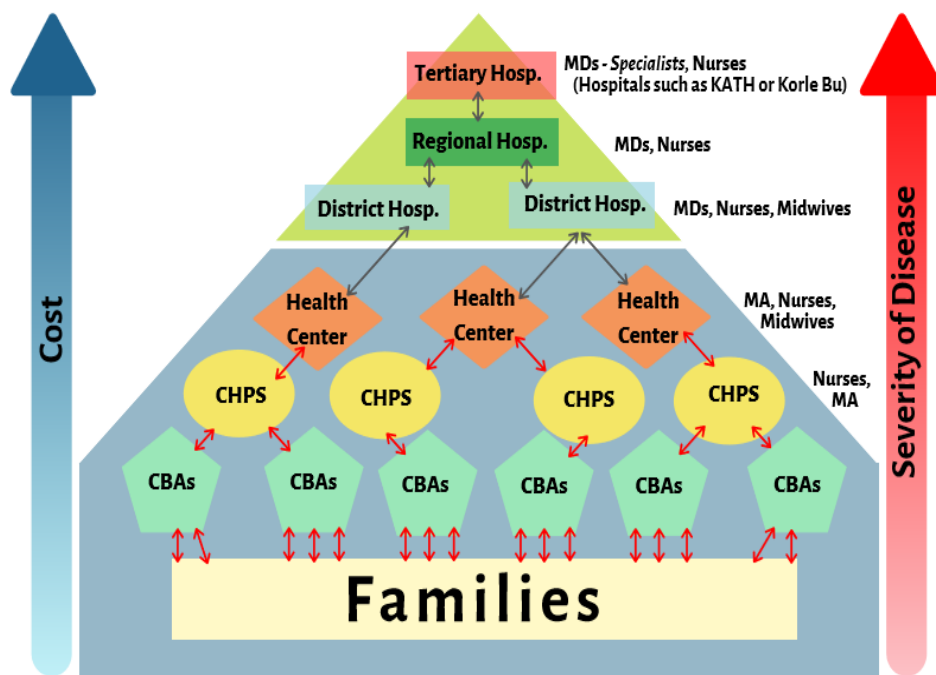
The Health Model, Severity of Disease, and Costs

The significance of the community and household levels in a health care model and their respective potential to prevent illness, improve health, and control costs is underappreciated.

Many resources are allocated to improving health at the top level of the health triangle where costs are highest and outcomes uncertain, yet few resources are invested at the base levels to improve health where the potential returns are greatest. The Ghana Health Systems Model depicted below highlights the relationship between health care access, severity of illness and cost.

Figure 3: Ghana Health Systems Strategy: Severity of Disease and Costs

If health care is delayed, due to lack of access in the community, severity and cost for each higher-level care accessed increases, and outcomes are uncertain.



If health care is accessed early at the family level and treated in the community, and then managed at home, both severity and costs are lower, and outcomes are generally positive.

Past Efforts of Community-based Programs

Although past efforts have been made to address health at the community level through various programs, problems with such programs have been common⁸ including inadequate training, equipment & supplies; lack of effective supervision; failure to engage communities, and disconnection from health system. As a result of these common problems, community health workers are often unable to serve their communities without essential medicines, equipment, ongoing training and supervision. Thus, it is not surprising programs have experienced low demand and uptake of services from residents.

Program Overview

What is Health 2 Go?

Health 2 Go delivers the health system to communities

- Builds community capacity through education and health promotion
- Treats basic illnesses in communities
- Bridges the gap between health system and communities
- Connects complicated illnesses to health facilities

Current System

- People → Healthcare



Health 2 Go

- Healthcare → People



Health 2 Go Mechanisms include

- Appropriate use of the health care system
- Community Health Workers known as Community Based Agents (CBAs)
- World Health Organization (WHO)/UNICEF Integrated Community Case Management of Childhood Illness
- Children under age 5 → mothers → families → communities

Health 2 Go overcomes common challenges of community- based programs:

Common Challenges

- Inadequate suboptimal training
- Inconsistent provision of equipment, medicines and supplies
- Sporadic, ineffective supervision
- Failure to engage communities
- Disconnected from health system
- Insufficient focus on prevention

Health 2 Go Solutions

- Recurrent high-quality training
- Consistent provision of quality equipment, medicines and supplies
- Routine effective supervision
- Continual community engagement
- Clear integration into the health system
- Focus on prevention, health promotion and early treatment

The Health 2 Go Difference

H2Go is unique, in that District and sub-District personnel who oversee the Health 2 Go program as managers are highly engaged in the program and provide direct linkage to health facilities, since they are trained to serve as H2Go facilitator/managers. The managers then train supervisors and community-based agents (CBA) who will serve in communities. The purpose is to provide opportunity so that strong relationships are built among managers, supervisors, and CBAs during the trainings across the levels of health workers. Not only does it ensure that program personnel have deep knowledge of the program, but they take responsibility and ownership of the program as well.

The six (6) differentiating features of H2Go include:

- Recurrent High-Quality Training
- Consistent Provision of Equipment, Medicines and Supplies
- Routine Effective Supervision
- Continual Community Engagement
- Clear Integration into Health System
- Focus on Prevention, Health Promotion, and Early Treatment

Recurrent High-Quality Training

H2Go training follows a comprehensive curriculum consisting of rigorous initial and routine refresher trainings, which utilize the gold standard curriculum from the World Health Organization (WHO) and United Nations Children’s Fund (UNICEF). In addition to classroom training, clinical sessions are conducted in partnership with selected hospitals in the area. Figure 4 illustrates how trainings for managers, supervisors, and CBAs are structured. All CBAs take a competency exam and must have a passing score of at least 80% for CBAs to achieve the H2Go certification.

Figure 4: Health 2 Go Training Model

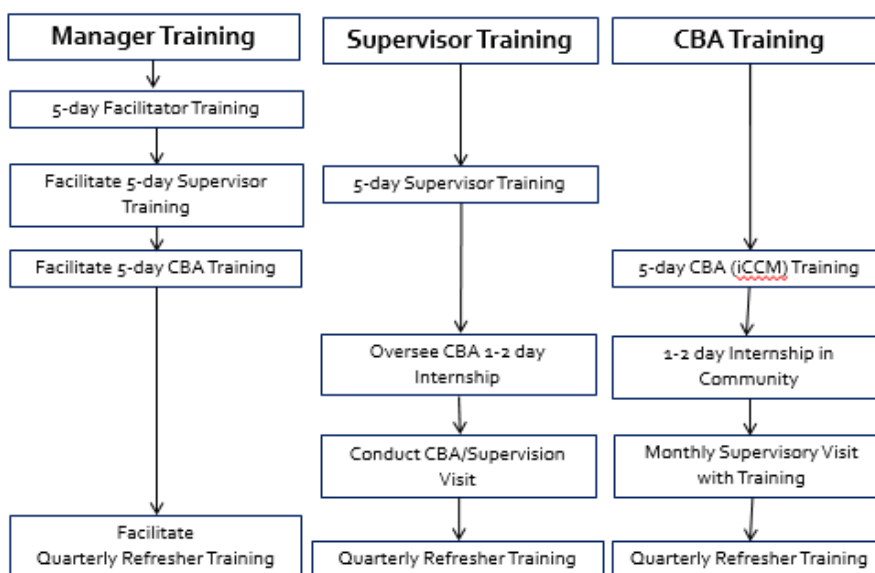


Figure 5: Health 2 Go Training Topics

H2Go training topics

Introduction of H2Go
Expectations of participants during training
Integrated community case management (ICCM) of childhood illness overview
Hand washing
Pregnant woman danger sign assessment
Newborn (0 to 2 months old) danger signs assessment
General danger signs in children (2 months to 5 years old)
Fever/malaria in children (2 months to 5 years old)
Cough/pneumonia in children (2 months to 5 years old)
Diarrhea in children (2 months to 5 years old)
Nutrition in pregnant women, infants, and children
Documentation
Home visits
Role of the CBA



Consistent Provision of Quality Equipment, Medicines and Supplies

High quality equipment along with an uninterrupted provision of medicines and supplies is essential to the success of the H2Go program. Rugged Bicycles are equipped with fully enclosed chains for safety and solid tires to ensure continual mobility and are branded with the H2Go logo for easy identification. Additionally, uniforms, rain gear, cell phones, and treatment equipment is provided to CBAs. A list of basic CBA equipment, medicines and supplies is listed below:

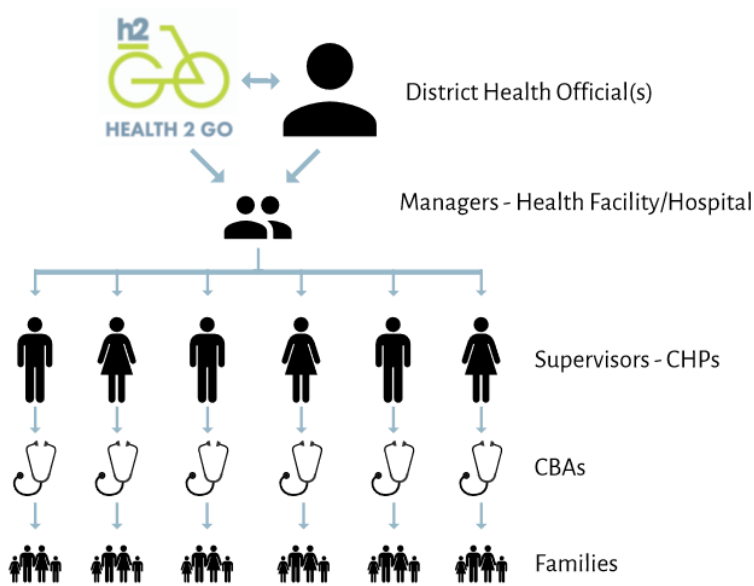
- **Mobility:** H2Go branded *Rugged* bicycles with rear basket, bicycle helmet, H2Go messenger bag, flashlight
- **Uniform/Identification:** H2Go polo and T-shirt; identification badge
- **Communication:** Cell phone
- **Treatment diagnostic/supplies:** Medicine box, timer, ORS mixing equipment, middle upper arm circumference (MUAC) tape, soap, Job Aid
- **Record keeping/documentation:** CBA Register, Referral book, Home visit log, inkpad, pen, pencil, eraser
- **Vision/sight:** Corrective eyeglasses are provided if CBA vision is impaired
- **Medicines/tests:** Rapid Diagnostic Tests (RDT) for malaria, AA for malaria, ORS for diarrhea, amoxicillin suspension for pneumonia/Acute Respiratory Illness (ARI), and paracetamol.
 - H2Go sources all medicines/tests through GHS Regional Medical Supplies
 - Restocking occurs during monthly supervision visit



Routine Effective Supervision

Community health officers are trained as supervisors, while CBAs provide healthcare services to communities. The H2Go supervision structure is established to be supportive, as CBAs receive support from their supervisors and are encouraged to develop relationships with their supervisors. In addition to supporting CBAs, supervisors are indirectly involved with communities, as they provide outreach services in the communities by conducting routine monthly visits. Overall, H2Go is structured in such a way that reinforces linkage to health facilities and integration into the national health system (Fig. 6).

Figure 6: Health 2 Go Supervision Structure



Continual Community Engagement

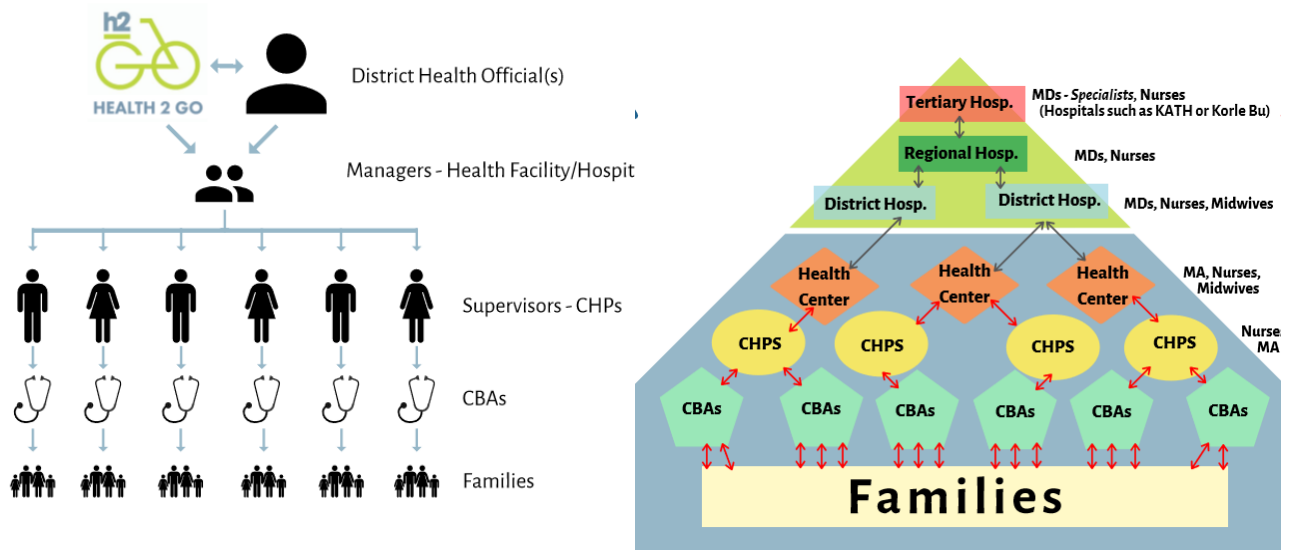
- Communities are engaged through all stages of H2Go
- Official entry/welcome into communities
- Routine durbars (town hall meeting) for feedback on H2Go activities within the communities



Clear Integration into Health System

- H2Go structure aligns with the Ghana Health Model (Figure 7)
- Integrated from the District level to sub-district level to CHPs zone down to community level
- District Health administrators, providers, and nurses serve as H2Go managers and supervisors
- Strong linkage to health facilities and hospitals that receive referrals by Health 2 Go Community
- Strong leadership and ownership of program by District Health

Figure 7: Alignment of Health 2 Go Supervisor Structure and Ghana Health Systems Strategy



Focus on Prevention, Health Promotion, and Early Treatment

Educational home visits are another core component of the program. CBAs routinely educate mothers or caregivers during monthly household visits on illness prevention, health-promoting behaviors, nutrition, and seeking early treatment for illness. CBAs receive performance-based stipends per household visit. 10 home visits per week for a total of 40 per month are required for CBAs to receive the entire stipend. CBAs also encourage mothers during home visits to bring their children to outreach activities in which they can access life-saving interventions such as immunizations.

“Our dream is to see communities where women are empowered and equipped with basic knowledge on health, especially child health, and continuously strive to improve and reduce child mortality. We believe that we can change our communities by positively impacting them.”

-Mrs. Irina Ofei, Municipal Director of Health Service, Lower Manya Krobo Municipality

Health 2 Go: Wawase CHPS Zone Pilot

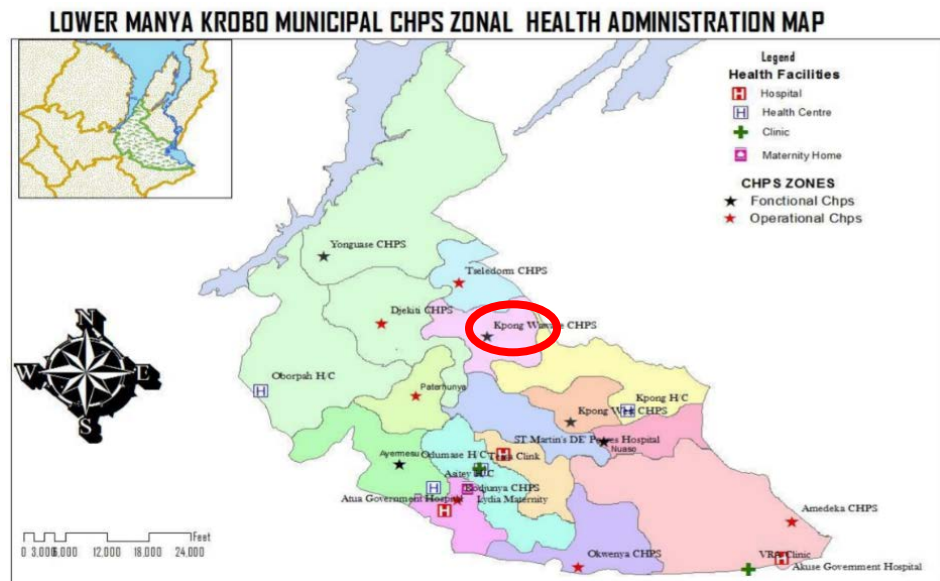
Implementation Overview

Health 2 Go launched in six (6) small communities serving approximately 1,500 people in the Wawase CHPS zone in the Kpong sub-district of the Lower Manya Krobo District in the Eastern Region of Ghana on Oct. 24, 2016. It is approximately 3 hours to the nearest health facility, which includes walking long distances, then obtaining public transportation.

Figure 8: Wawase/Kpong Health 2 Go Pilot Site in Lower Manya Krobo District (Eastern Region)

Communities include:

1. Aplah
2. Abobeng
3. Wawase
4. Piengua
5. Obelemanya
6. Atotorisi



Preceding the official program launch in the Wawase CHPS Zone, initial training took place for 12 GHS Personnel and 10 CBAs which occurred at Ensign College with clinical sessions held St. Martin's Hospital and Atua Hospital during July and August of 2016. Following initial basic training, CBAs performed a 2-day community internship in their respective communities during Aug 2016, which was overseen by H2Go Supervisors and Managers. In conjunction with the introduction of the program, two multi-community Durbars were held in which residents expressed gratitude for the program being implemented in their communities. CBAs were given bikes, medicines, cell phones, rain gear and solar torches. CBAs began serving their communities on Nov. 1, 2016.

The communities continue to receive services from H2Go CBAs and supporting Ghana Health Services (GHS) personnel trained as H2Go Managers and Supervisors, with no interruption of continuity since implementation began in November 2016.

Impact of Health 2 Go

The Impact of the H2Go Wawase CHPS Zone Pilot and the service of CBAs to families in their communities cannot be overstated. All CBAs are actively engaged in serving families through conducting routine household visits to educate mothers and caregivers on nutrition, preventing illness, and promoting health through behaviors such as handwashing.

Recent H2Go Wawase CHPS Zone Pilot Activities

Ongoing service activities continued in the Wawase CHPS Zone Pilot for this quarter as CBAs served to treat common child illness in the community, refer serious life-threatening illness, and perform monthly home visits to educate mothers on prevention of illness, health promotion, nutrition and early care seeking. Additionally, routine monthly supervisory visits were conducted by GHS Community Health Nurses/Officers trained as H2Go supervisors. There were no formal H2Go events conducted in the Wawase CHPS Zone Pilot for this quarter since both the biannual Refresher Training and the equipment assessment occurred last quarter. The next Refresher Training and Durbar are scheduled in the subsequent quarter (Oct. – Dec. 2019).

Routine Supervisory Visit (September 2019)

During routine supervisory visits that generally occur monthly, CBAs are evaluated by supervisors who use a checklist evaluating all of the critical domains of CBA service. This includes the following:

- CBA assessment of a child during a home visit, including CBA protocol for assessing for malnutrition
- Assessment of knowledge of CBA treatment for each illness, danger signs in pregnant women and newborns, and referral practices
- Check of CBA Community Registers for accuracy in record keeping (and data collection)
- Checking condition of equipment and supplies
- Assessing medicine supply and restocking

Supervisors provide feedback to CBAs through ‘supportive supervision’ principles which includes mentoring CBAs in a supportive, encouraging manner. The supervisory visits and the Refresher Trainings are interlinked with each other as the supervision visit reinforces concepts covered in refresher trainings and alternately refresher trainings address CBA challenges as reported by Supervisors and Managers.

Supervision of Wawase CBAs

Below is narrative summary compiled by H2Go Wawase CHPS Zone Coordinator, Gideon Kwarteng Achempomg of five of the CBAs performance during the September 2019 supervisory visit:

ALEX TETTEY (CBA)

Alex was again excellent in this month’s supervisory visit, excelling at all competencies. His field logistics including his mobile phone, wellington boots, soap dish and raincoat were in good condition and his thumbprint ink pad and torchlight batteries replaced. He was restocked with Paracetamol tablets.

EMMANUEL AYERNOR (CBA)

Emmanuel during this month’s supervisory visit excelled at demonstrating all the critical domains. His knowledge on medications and treatment was adequate. His thumbprint ink pad and torchlight batteries were replaced. His field logistics including his mobile phone, soap dish and raincoat were in great condition. He was restocked with Paracetamol and Malaria RDT kits.

DAVID TETTEH (CBA)

David continued his impressive performance of excelling at all his demonstrations. He was restocked with Artesunate Amodiaquine, Paracetamol and Amoxicillin Oral Suspension. His field logistics including his mobile phone, soap dish and raincoat were in great condition while his thumbprint ink pad and torchlight batteries were as well replaced.

ELIZABETH SANGMORKIE (CBA)

Elizabeth demonstrated all critical domains with proficiency during this month's visit. Her knowledge on treatment and medication was adequate. Field logistics including his mobile phone, soap dish and raincoat were in great condition while her thumbprint ink pad and torchlight batteries were as well replaced. She was restocked with Paracetamol, Artesunate Amodiaquine and Amoxicillin Oral Suspension.

STEPHEN TEYE (CBA)

Stephen demonstrated with proficiency all competencies during this month's supervisory visit. His thumbprint ink pad and torchlight batteries were replaced. His field logistics including his mobile phone, wellington boots, soap dish and raincoat were in great condition. He was restocked with Zinc 10mg and Paracetamol.



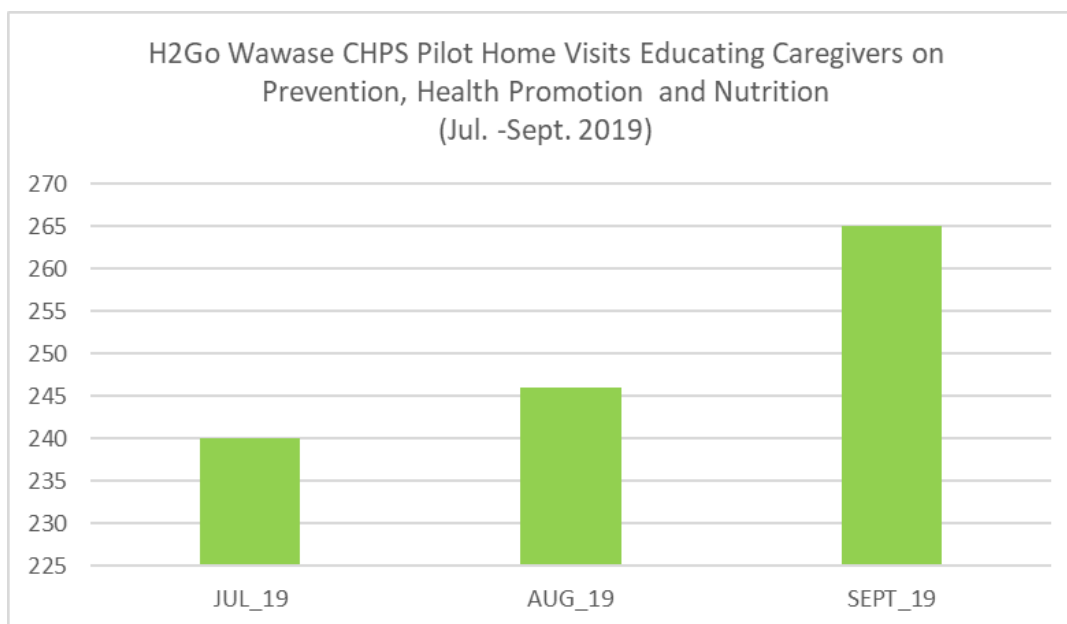
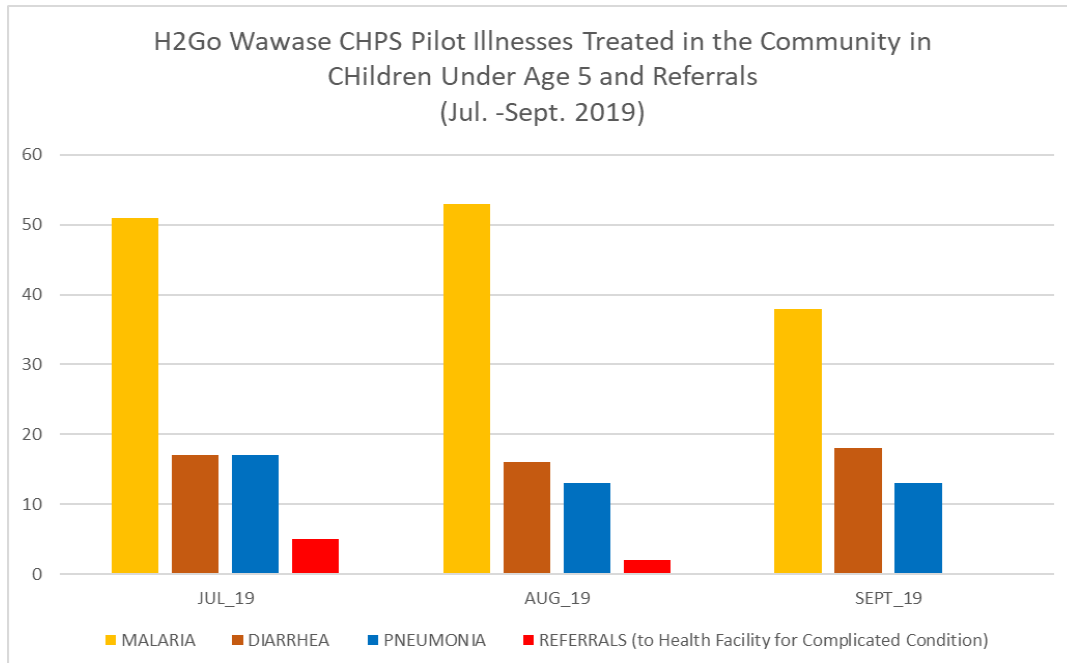
Stephen Nartey, Aplah Community being evaluated by his supervisor

Wawase CHPS Zone Results

From Jul. to Sept. 2019, results are as follows:

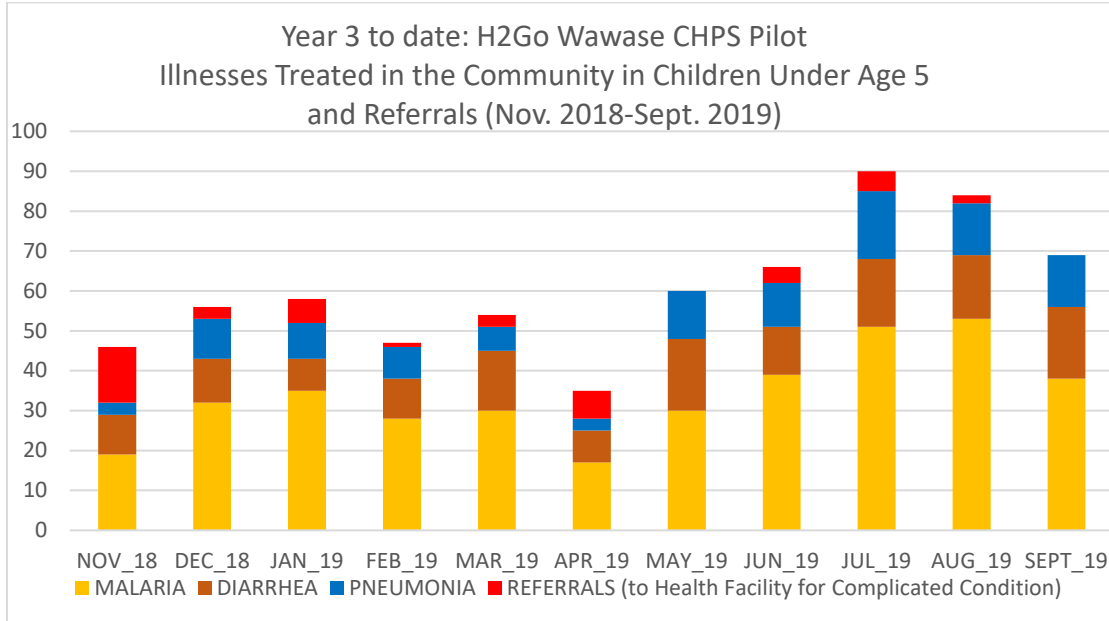
Among approximately 200 children under age 5,

- 236 Illnesses treated in the community by H2Go CBAs
 - 142 malaria; 51 diarrhea; 43 pneumonia/Acute Respiratory Illness (ARI);;
- 7 referrals were made to hospital for serious illness and life-threatening illness
- 751 Home Visits



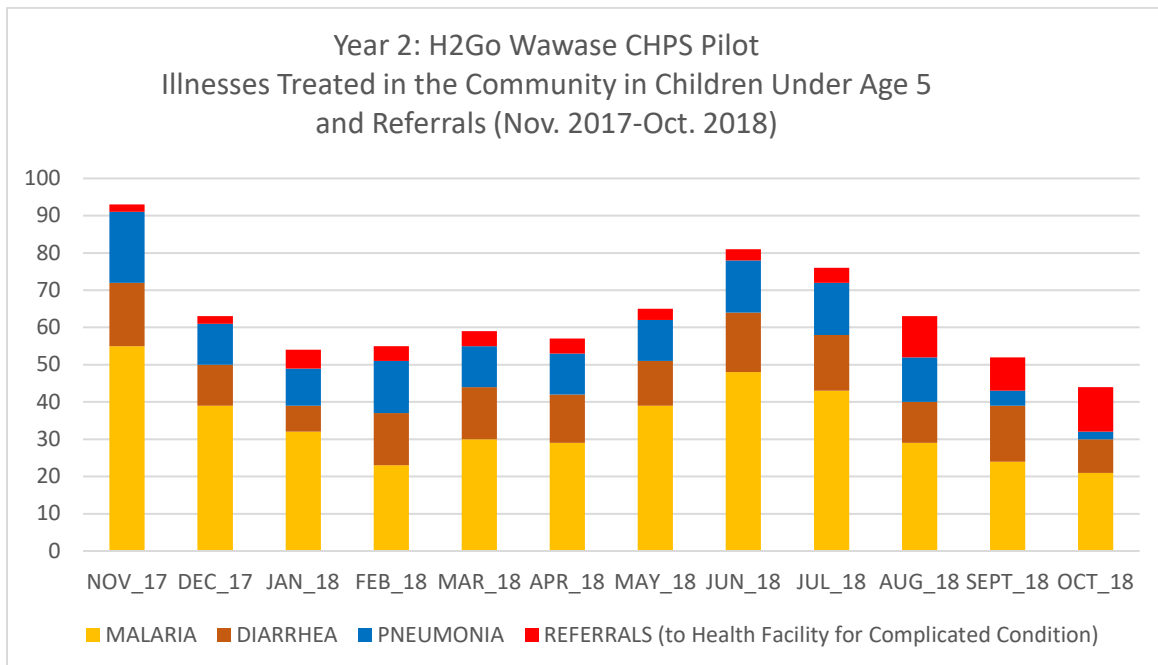
Year 3 to date (Nov. 2018-Sept. 2019): Among approximately 200 children under age 5:

- 620 Illnesses treated in the community by H2Go Wawase CHPS Zone CBAs
 - 372 malaria; 143 diarrhea; 105 pneumonia/Acute Respiratory Illness (ARI)
- 45 Referrals to health facility for serious and life-threatening illnesses; 2,571 Home Visits



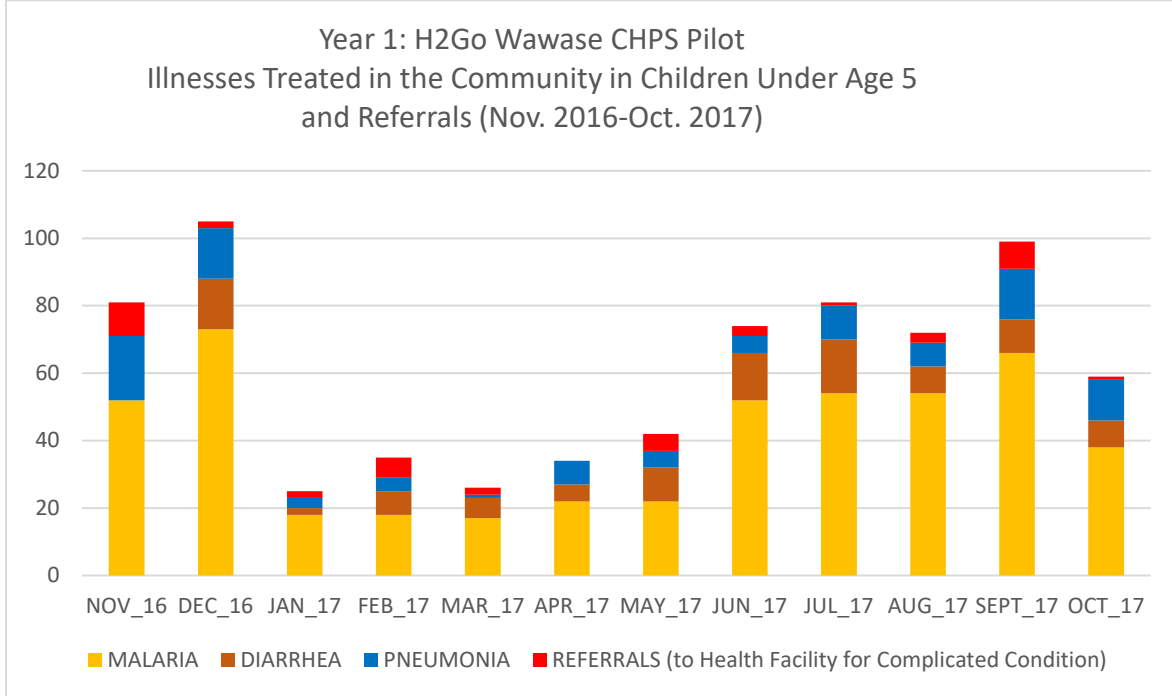
Year 2: Among approximately 200 children under age 5 (Nov 2017-Oct. 2018):

- 699 Illnesses treated in the community by H2Go Wawase CHPS Zone CBAs
 - 412 malaria; 154 diarrhea; 133 pneumonia/Acute Respiratory Illness (ARI)
- 63 Referrals to health facility for serious and life-threatening illnesses; 3,197 Home Visits



Year 1: Among approximately 200 children under age 5 (Nov 2016-Oct. 2017):

- 690 Conditions treated in the community by H2Go Wawase CHPS Zone CBAs
 - 486 malaria; 101 diarrhea; 103 pneumonia/Acute Respiratory Illness (ARI)
- 43 Referrals to health facility for serious and life-threatening illnesses; 3,524 Home Visits

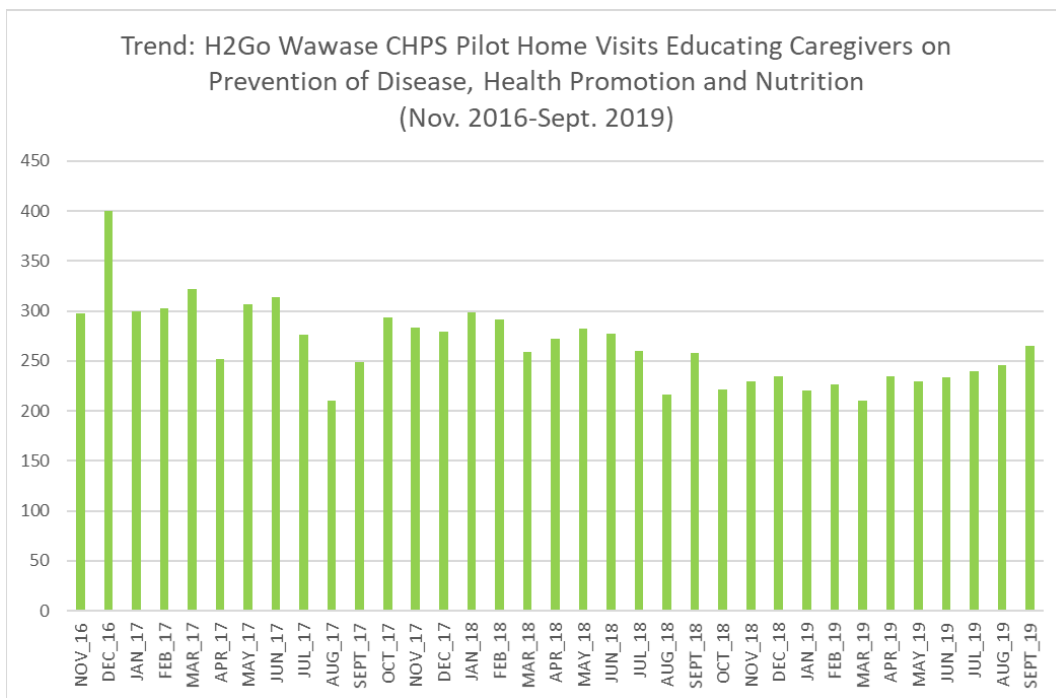
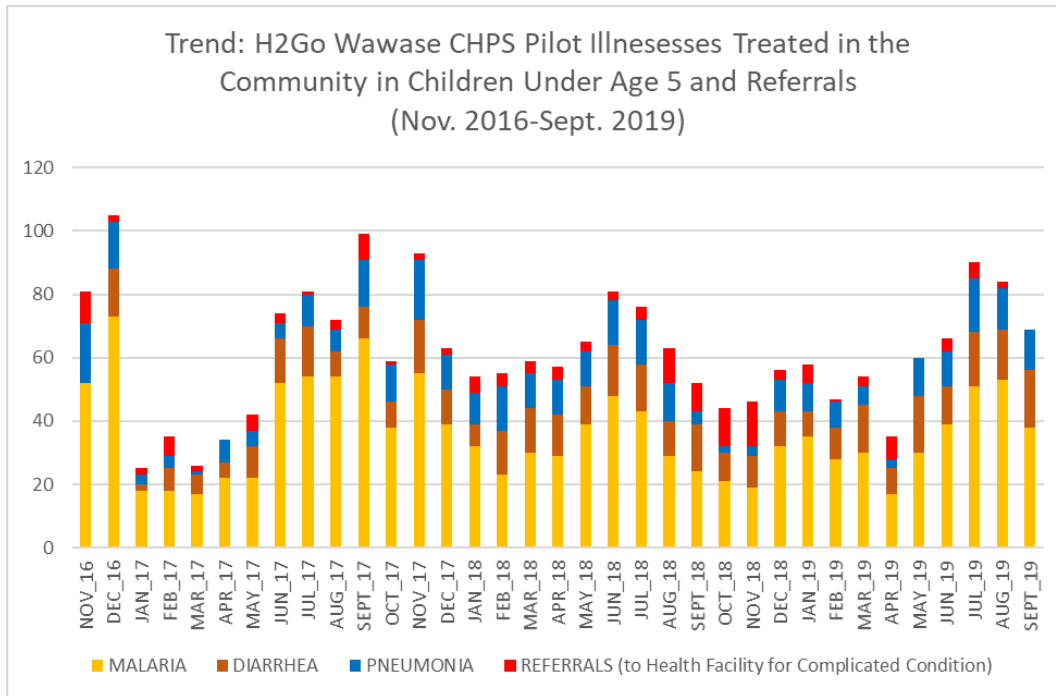


CBA Abednego Mensah counsels a mother on the results of malaria test in Piengua.

Trends to date (Nov. 2016-Sept. 2019):

Trend-Project total: Among approximately 200 children under age 5:

- 2,009 Illnesses treated in the community by H2Go Wawase CHPS Zone CBAs
 - 1270 malaria; 398 diarrhea; 341 pneumonia/Acute Respiratory Illness (ARI)
- 151 children referred to collaborating health facilities for serious and life-threatening illnesses
- 9,292 Home visits



Health 2 Go BCCDP Demonstration Project

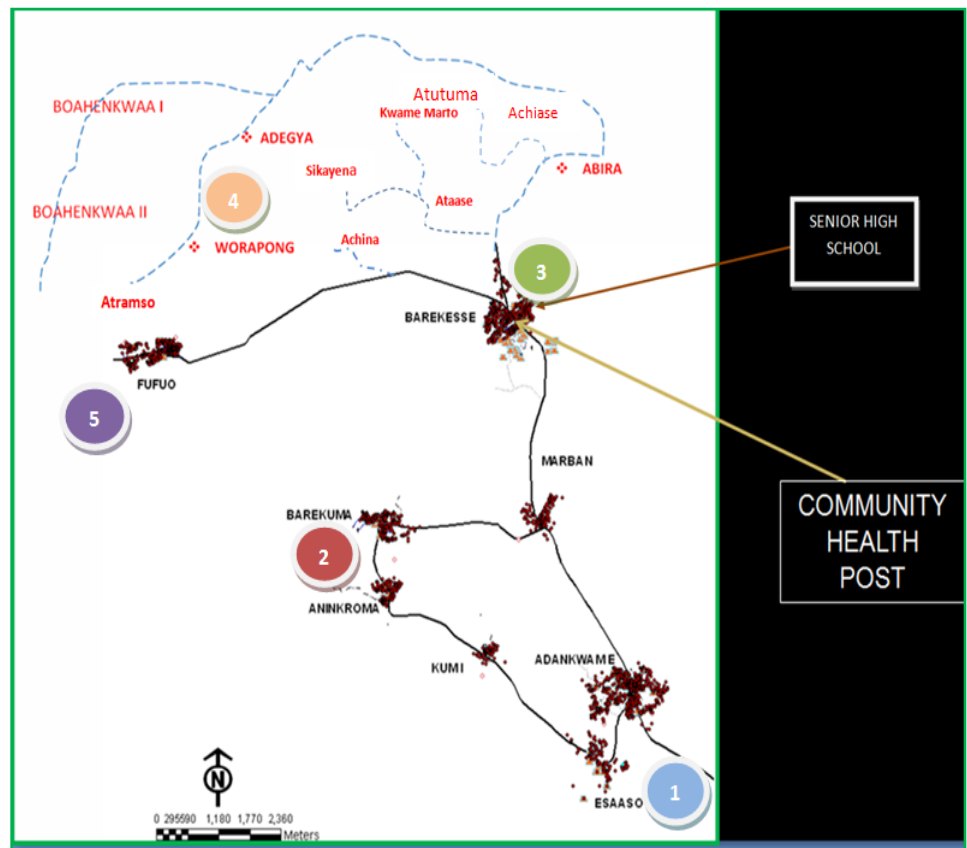
Implementation Overview

The expansion of Health 2 Go into a larger Demonstration project for the BCCDP follows the success of the Kpong Pilot, launching in May 2019. Approximately 20,000 people in 20 rural communities in the Atwima Nwabiagya North District near Kumasi in the Ashanti Region are being served by 30 H2Go CBAs.

Figure 9: BCCDP Communities

Communities include:

1. Boahenkwa I
2. Boahenkwa II
3. Adegya
4. Worapong
5. Atramso
6. Sikayena
7. Achina
8. Atutuma
9. Kwame Marto
10. Ataase
11. Achiase
12. Abira
13. Berekesse
14. Marban
15. Fufuoo
16. Barekuma
17. Aninkroma
18. Kumi
19. Adankwame
20. Esaaso



Initial Training

Preceding the launch of the H2Go BCCDP Demonstration Project in communities, initial training was completed for 14 GHS Personnel and 30 CBAs which occurred at Ensign College with clinical sessions held at St. Martin’s Hospital and Atua Hospital in Kpong during February and April of 2018.

Community Internship

Following initial basic training, CBAs performed a 1-day community internship on April 25, 2018 in three communities. The primary purpose of the internship is to provide CBAs an opportunity to repeatedly practice newly learned clinical skills, particularly performing rapid diagnostic tests (RDT) for malaria and reading results, while receiving supportive supervision by Managers and Supervisors. Additionally, the

community internship engages communities and introduces them to the H2Go program. The three communities where the internship occurred included Barekese, Barekuma, and Fufuo.

Turnout of mothers with children was high, as the H2Go Community Internship had been announced in communities the week prior to the event. Over 250 children were tested for malaria, and treated if results were positive, by CBAs. In addition to testing for malaria, CBAs assessed children for pneumonia, diarrhea, danger signs, and malnutrition. Children were treated for respective conditions or referred if necessary. Newly trained H2Go GHS personnel serving as BCCDP Managers and Supervisors provided oversight and mentoring.



H2Go BCCDP Demonstration Project Launch and Press Event

BCCDP was launched on April 26, 2018 in two multi-community Durbars. Press coverage was provided by national TV and radio stations, including Metro TV and UTV.

- Adegya Community
- Fufuo Community



In attendance were Ashanti Regional Director of Health Services (Dr. Tinkorang); Atwima Nwabiagya District Director of Health Services (Dr. Kingsley Osei-Kwakye); H2GO Team (Dr. Manortey, Gideon Acheampong and Daniel Opoku Agyemang); Prof. Steve Alder; Traditional leaders, Assemblymen and women, H2Go BCCDP Manger/Facilitators, Supervisors, and CBAs. Speakers included Prof. Ansong, Dr. Manortey, Dr. Osei-Kwakye, and Dr. Tinkorang. Traditional leaders also spoke to show appreciation and support for the project. CBAs were given their certificates and logistics following the durbars.

Recent H2Go BCCDP Activities

In addition to routine activities related to ongoing service by CBAs to treat common child illnesses in the community, refer serious life-threatening illness, conduct monthly home visits to educate mothers, and routine monthly supervisory visits by GHS Community Health Nurses/Officers trained as H2Go supervisors, one formal H2Go activities occurred, which was an assessment of CBA equipment. The next Refresher Training, Site visit by the Ghana in-country Principal Investigator (Dr. Manortey), and Community Durbar are scheduled for the following quarter (Oct. – Dec. 2019).

CBA Equipment Assessment

The assessment of CBA equipment and supplies was conducted on July 20, 2019 by a 6 member team that included the President of Ensign College (Prof. Stephen Alder) and his wife, Rick Haskins, and 3 students representing three different U.S. universities (University of Utah, Utah State, and North Carolina Chapel Hill). The team conducted an assessment of CBA equipment, supplies, and medicines. The BCCDP equipment was in markedly better condition than the Wawase equipment due to the fact that it is newer and hasn't had as much use. The exercise revealed that most CBAs had an adequate supply of medicines and rapid diagnostic tests (RDT). Additionally, H2Go uniforms and rain gear were in excellent condition. While bikes were in overall good conditions, there were a few common problems detailed below.

Below is a brief summary of findings:

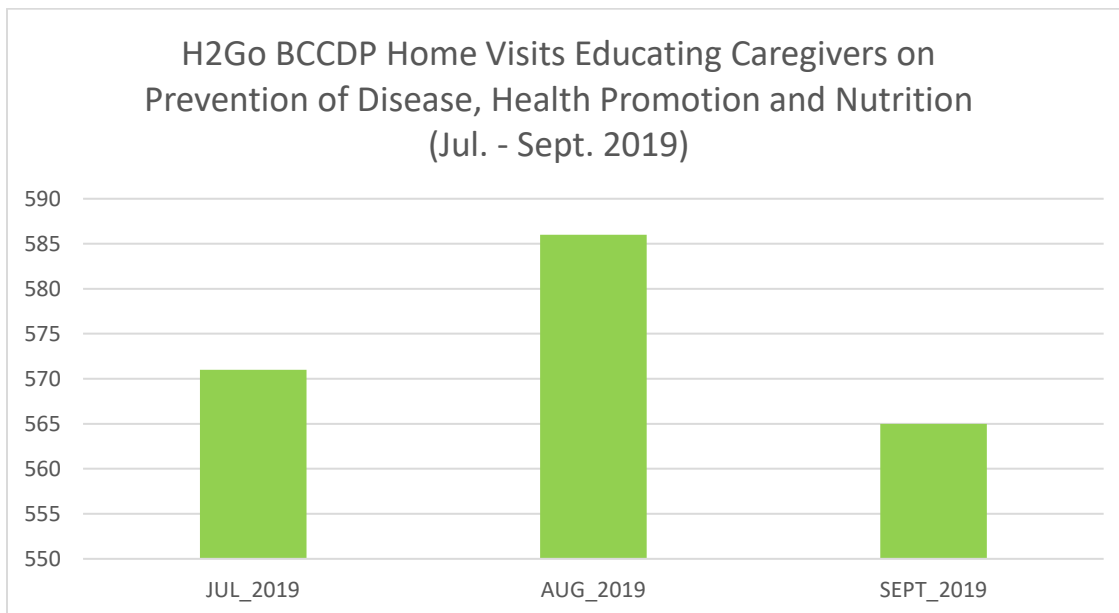
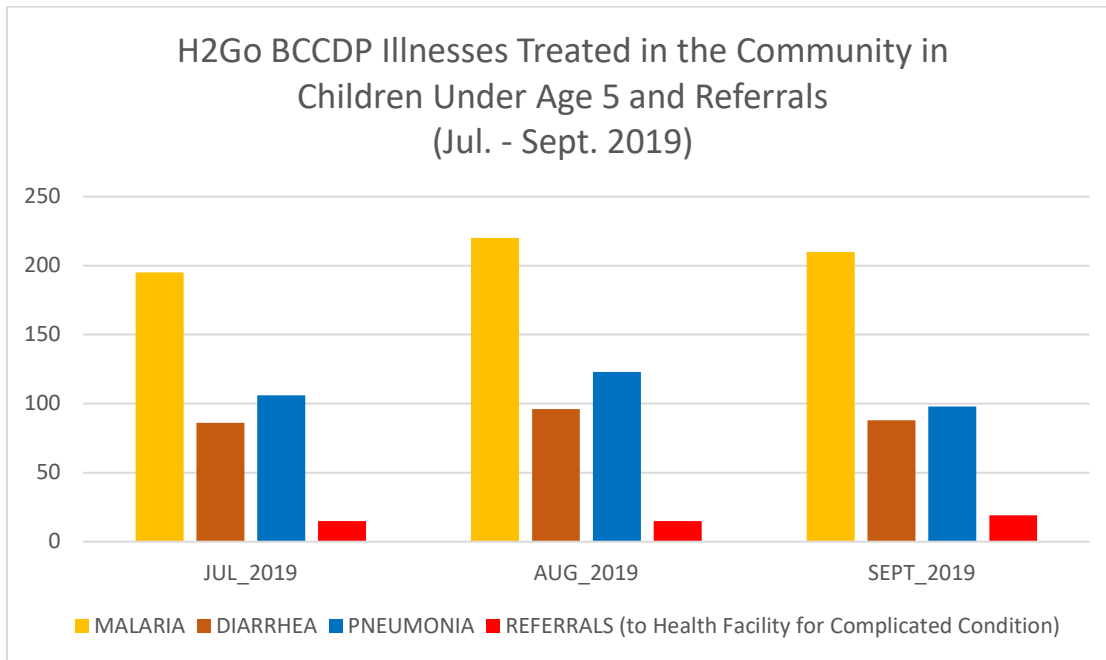
- **Medicines:** Majority of CBAs had an adequate provision of medicines and malaria tests.
- **Uniform:** H2Go shirts were in excellent condition as were rain boots.
- **Bicycles:** Bikes were in overall good condition. However, there were a few problems including seats beginning to tear, rear racks loosening, locks becoming loose and chain enclosures falling off.
- **Cell Phone:** Two of the cell phones needed replaced.
- **Supplies:** All CBAs had an adequate provision of supplies.
- **Solar torch:** Six of the solar torches needed replaced.



BCCDP Demonstration Project Results

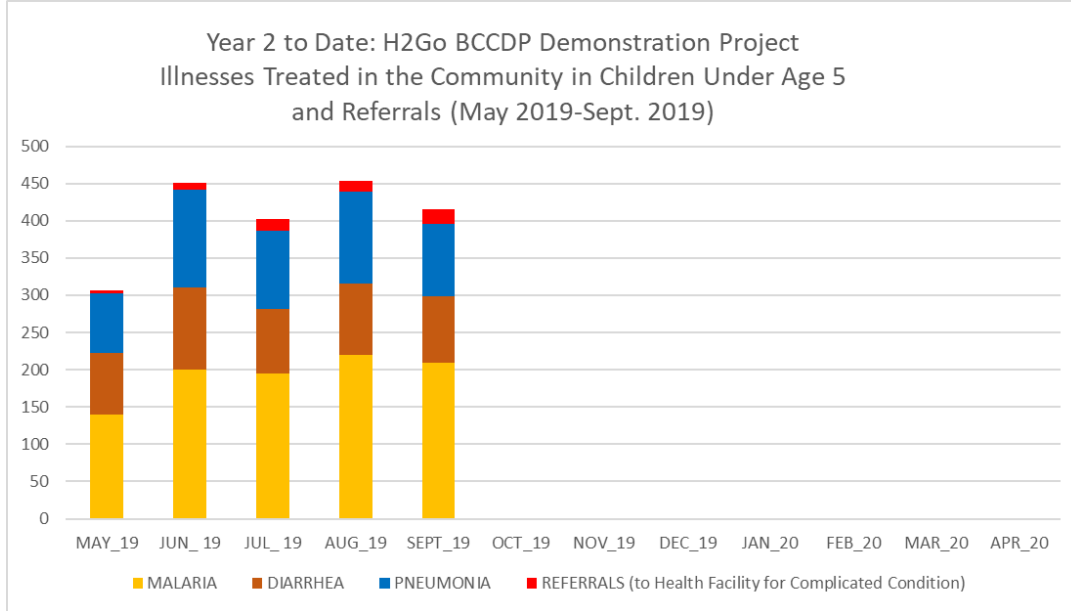
Among approximately 2,200 children under age 5, (Jul. – Sept. 2019):

- 1,198 illnesses were treated in the community by H2Go BCCDP CBAs
 - 601 Malaria; 270 Diarrhea; 327 Pneumonia;/(Acute Respiratory Illness (ARI)
- 49 Referrals were made to health facilities for serious illness ;
- 1,770 Home Visits



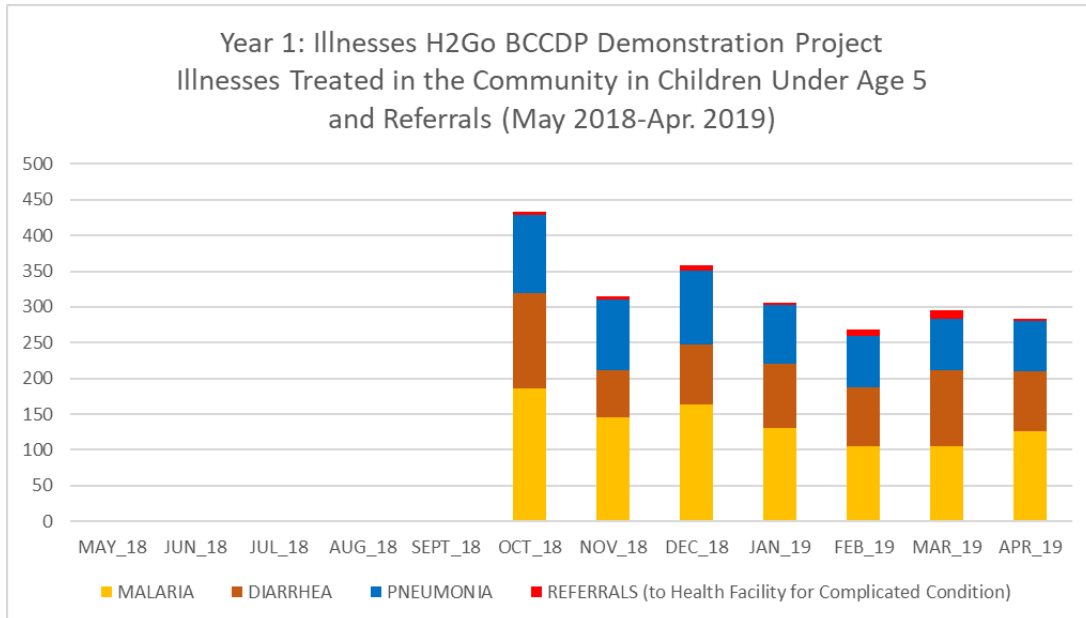
Year 2: Among approx. 2,200 children under age 5, (May 2019 -Sept. 2019):

- 1,943 illnesses were treated in the community by H2Go BCCDP CBAs
 - 941 Malaria; 463 Diarrhea; 539 Pneumonia/Acute Respiratory Illness (ARI)
- 62 Referrals were made to health facilities for serious illness;; 2,921 Home Visits



Year 1: Among approx. 2,200 children under age 5, (May 2018 -Apr. 2019)*:

- 2,234 illnesses were treated in the community by H2Go BCCDP CBAs
 - 987 Malaria; 635 Diarrhea; 612 Pneumonia/Acute Respiratory Illness (ARI);
- 41 Referrals were made to health facilities for serious illness; 8,043 Home Visits

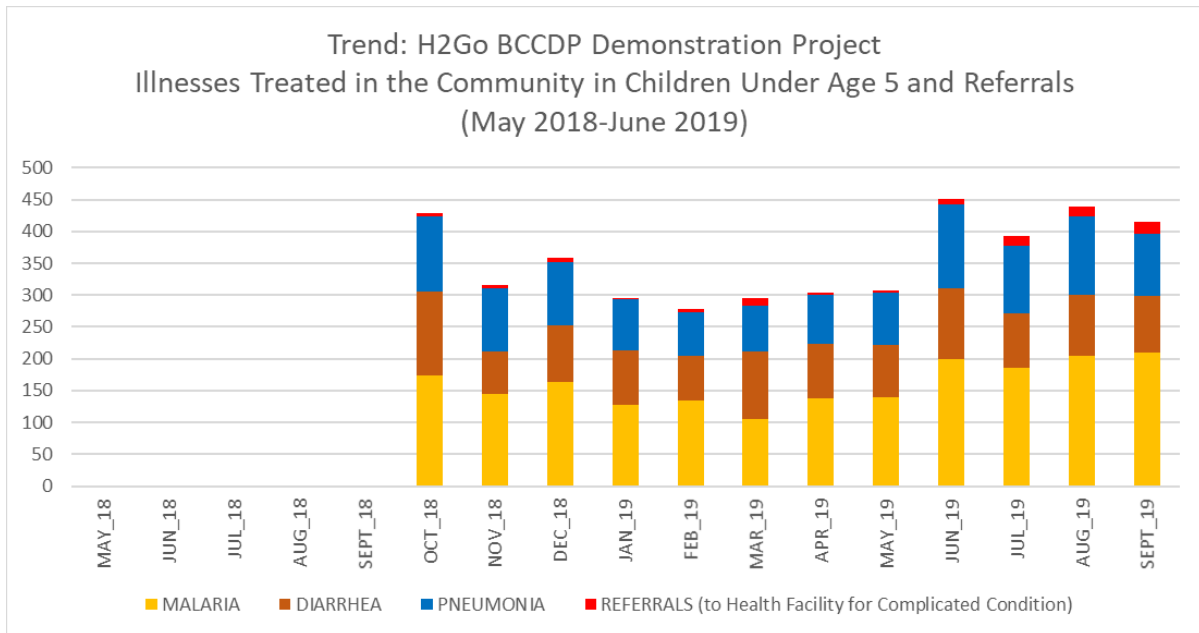


*CBAs did not have medicines until Oct. 2018, but began conducting home visits in May 2018

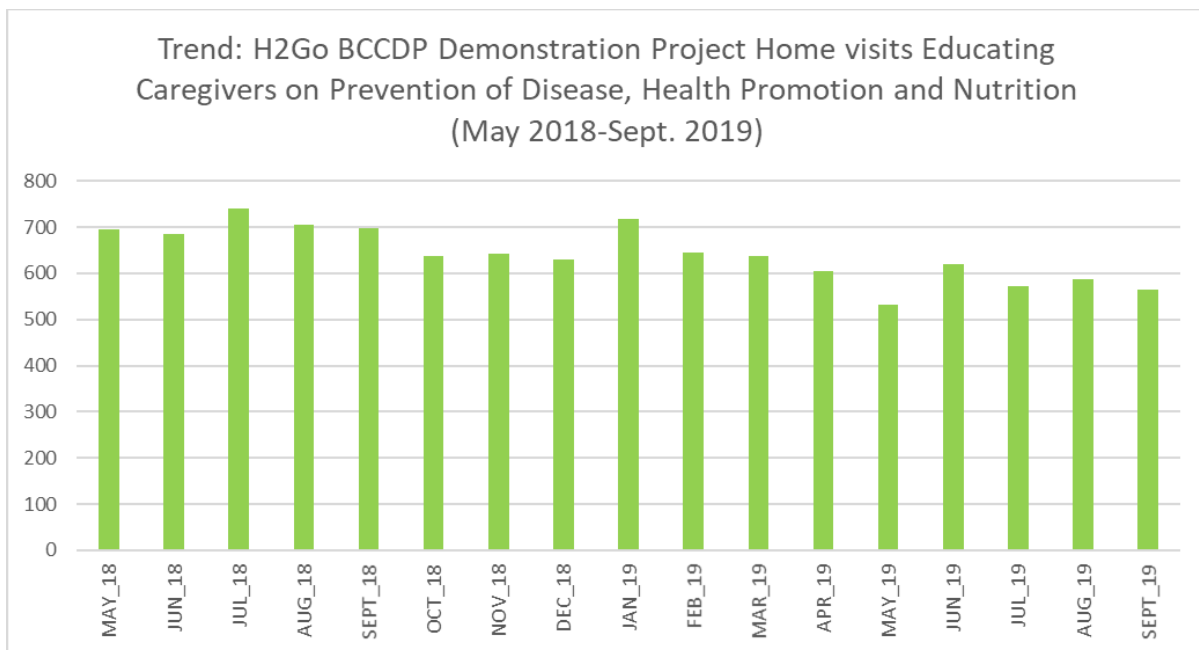
Trends to date (May 2018-Sept. 2019)*:

Trend-Project total: Among approximately 2,200 children under age 5:

- 4,177 illnesses treated in the community by H2Go BCCDP CBAs
- 1,928 malaria; 1,098 diarrhea; 1,151 pneumonia/Acute Respiratory Illness (ARI);
- 103 referrals for serious and life-threatening illnesses
- 10,964 household health educational household visits



*CBAs did not have medicines until Oct. 2018, but began conducting home visits in May 2018



Lessons Learned

Wawase CHPS Zone Pilot

Lessons learned from the Wawase CHPZ Zone Pilot have been significant as H2Go has tested Training, Implementation and Monitoring and Evaluation processes in a limited population and a manageable geographically defined site. In addition to improving overall healthcare and encouraging health prevention in households, the successful implementation of H2Go enabled health facilities to address urgent care more effectively.

Key learning includes:

- Determining the right amount of initial and refresher training
- Creation of additional tools and job aids to support CBA activities
- Development of a comprehensive CBA competency exam
- Linkage of supervision to training
- Community internship and supervision processes
- Appropriate equipment and replacement strategy

BCCDP Demonstration Project

Key lessons learned thus far include:

- Refinement of training model for adaptation in the community
- Reinforcing training skills with community internship
- Expansion to a larger site

Next Steps

With the implementation of the Wawase CHPS Zone Pilot and the expansion to the larger BCCDP Demonstration Project, H2Go aims to scale up to a larger area of District level, and create a means for country-wide implementation as well as adaptation and expansion to other countries.

- Present H2Go program to National House of Chiefs
- Prepare for expansion to a larger area of District level in Ho (Volta Region)
- Expand Countrywide in Ghana
- Prepare for implementation and expansion to additional countries
- Seek additional funding (USAID grant)
- Evaluate impact of the H2Go program

CHPS Zone (Wawase CHPS Zone Pilot < 2,000 pop.) → Sub-District (BCCDP Demonstration Site, approx. 20,000 pop.) → District Level (Approx. 100,000 pop.) → Country-wide and Additional Countries

Appendix 1: Health 2 Go Timeline

2015

January -June

- Extensive research conducted on community-based programs
- Determined to begin with child and maternal health with the concept of eventually expanding to address other populations within the community
- Program outcomes and objectives identified
- Selected evidence based gold standard curriculum WHO/UNICEF Integrated Community Case Management, 'Caring for newborns and children in the community.'
- Connected with World Health Organization, UNICEF, Ghana MOH, and Child health leaders to obtain relevant program information and resources
- Health 2 Go logo designed

July-December

- Ghana visit to Kumasi and Kpong for needs assessment and site research (July 2015)
- Established and worked with a planning group
- Initiated Health 2 Go Program in Ghana with partnership of University of Utah, Ensign College of Public Health, Cast a Pebble and Ghana Health Service (GHS)
- Worked with Lower Manya Krobo Municipal Health to identify administrative personnel and site
- Identified a cluster of 6 small communities in the Wawase CHPs zone for Kpong Pilot
- Research and test equipment for program

2016

January – June

- Sourced CBA equipment in Ghana and US
- Worked with Municipal Health to identify 10 CBAs in communities in Wawase CHPS Zone
- Prepared material for Manager, Supervisor and CBA training
- Developed launch promotional materials, including press kits
- Engaged communities; received official entry and welcome by chiefs (May)
- Formed direct linkage to hospital and health facility that receive referrals by Health 2 Go

July – December

- Manager/Facilitator Training (5-days) conducted by former Ghana national (iCCM) facilitator to train 6 GHS administrators and providers as H2Go Wawase CHPS Zone Managers and Facilitators held at Ensign College with clinical sessions at St. Martin's and Atua Hospitals (July 4-8)
- Press event at Ensign with national TV and regional newspaper coverage to promote H2Go Kpong Pilot (July 14)
- Supervisor Training (3-days) to train 5 GHS Community Health Officers as H2Go Kpong Supervisors; held at Ensign College, St. Martin's and Atua Hospitals (July 25-27)

- CBA training (6-days) to train 10 community members as H2Go Wawase CHPS Zone CBAs held at Ensign College with clinical sessions at St. Martin's and Atua Hospitals (Aug. 1-6)
- CBA Community Internship (2-days) in CBAs communities in Wawase CHPS Zone (Aug. 23, Aug 30)
- Engagement of communities through multi-community durbars (town hall meeting) to introduce H2Go in Wawase CHPS Zone (Oct. 24)
- Official H2Go launch in 6 communities in the Wawase CHPS Zone; total pop. 1,500 people (Oct. 24)
- H2Go BCCDP CBA bikes, medicine boxes and supplies delivered (Oct. 24)
- CBAs begin service in H2Go Wawase CHPS Zone Pilot communities (Nov. 1)
- Supportive supervision provided for H2Go Wawase CHPS Zone Pilot CBAs beginning this month (Dec.)

2017

January – June

- First Kpong Refresher Training (1-day) held at Ensign College with clinical sessions at St. Martin's and Atua Hospitals (Jan.)
- Engagement of communities through multi-community durbars (Town Hall Meeting) to discuss program (Mar.)
- H2Go Wawase CHPS Zone Refresher Training (2-days) at Ensign College with clinical sessions at St. Martin's and Atua Hospitals (Apr.)
- Completed GIS Mapping, Census, and Health Behavior Survey in communities (June)

July-December

- H2Go Wawase CHPS Zone Refresher Training (2-days) at Ensign College with clinical sessions at St. Martin's and Atua Hospitals (Jul.)
- Engagement of communities through multi-community durbars (Town Hall Meeting) to discuss H2Go Wawase CHPS Zone program (Sep.)

2018

January – June

- H2Go Wawase CHPS Zone Refresher Training (2-days) at Ensign College with clinical sessions at St. Martin's and Atua Hospitals, included press coverage as part of H2Go BCCDP promotion (Jan. 18-19)
- Press event was held at Ensign College with Ghana National TV and regional newspaper coverage to promote H2Go expansion to BCCDP (Jan. 19)
- Met with Ghana Health Service (GHS) regarding medicine supply to ensure program's sustainability (Jan.)
- Established strong relations with Regional, District, sub-District, and community leaders associated with BCCDP (Jan.)

- Formed direct linkage to health facilities (Berekese Heath Center and St. Patrick's Hospital) that will receive H2Go referrals (Feb.)
- Completed the initial H2Go BCCDP 5-day training for 6 GHS administrators and providers trained as H2Go Managers/Facilitators (Feb. 19-23)
- Completed the initial H2Go BCCDP 5-day training for 7 GHS community health officers trained as H2Go supervisors (Apr. 16-20)
- Completed the initial H2Go BCCDP 5-day training for 30 community members trained as H2Go community-based agents (CBAs) (Apr. 16-20)
- 1 day H2Go Community Internship at 3 BCCDP communities (Berekese, Barekuma, and Fufuo) (Apr. 25)
- Engagement of BCCDP communities through 2 multi-community Durbars (town hall meetings) (Apr. 26)
- Press event at durbars with Ghana National TV, radio and newspaper (Apr. 26)
- H2Go BCCDP CBA bikes, medicine boxes and supplies delivered (Apr. 26)
- CBAs began service in H2Go BCCDP communities (May 1)
- Supportive supervision provided for CBAs beginning this month (Jun.)

July-December

- H2Go Wawase CHPS Zone Refresher Training (2-days) at Ensign College with clinical sessions at St. Martin's and Atua Hospitals (Aug.)
- H2Go team have agreed on supplying medicines for CBA's on-the-job training, scheduled to occur in September
- H2Go BCCDP CBA equipment and supplies such as torchlight, raincoat, and rainboots delivered (Sep.)
- 1-day H2Go BCCDP Refresher Training and distribution of 1-month medicine supply for Fufuo, Barekuma, and Maban Zones at Berekese (Sep. 27)
- 1-day H2Go BCCDP Refresher Training and distribution of 1-month medicine supply for Abira and Warpong Zones (Oct. 2)
- Engagement of communities through multi-community durbars (Town Hall Meeting) to discuss H2Go Kpong program at Abobeng and Wawase (Oct. 9)
- Engagement of communities through multi-community durbars (Town Hall Meeting) to discuss H2Go Kpong program held at Abobeng and Wawase (Dec. 11)
- Cast-a-Pebble agreed to fund H2Go BCCDP CBA medicines for one year (Dec.)
- Cast-a-Pebble indicated they would fund H2Go Wawase CHPS Zone Pilot for an additional year

2019

January –June

- H2Go BCCDP Refresher Training held SDA Nursing Training School and St. Patrick's Hospital in Barekese, Kumasi (Jan 17-18)
- Wawase CHPS Zone Refresher Training (2-days) at Ensign College with clinical sessions at St. Martin's and Atua Hospitals (Mar. 7-8)
- Site visit to BCCDP conducted (May 21)

- Assessment of H2Go Wawase Pilot Zone CBA equipment (June 20)
- H2Go BCCDP Refresher Training held at SDA Nursing Training School and St. Patrick's Hospital in Barekese, Kumasi (June 27-28)

July-September

- Assessment of H2Go BCCDP Demonstration Project CBA equipment (July 17)

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