



CHIPATALA CHA PA FONI

Healthcare Through Mobile Phones

Acknowledgements

As part of a series led by the Innovation Working Group (IWG) mobile health (mHealth) grant program, this case study aims to illustrate the process, partnerships, and sustainability model of a mHealth program as it scales up, in addition to outlining challenges faced and key lessons learned. The Chipatala Cha Pa Foni program was selected because it serves as an excellent example of an mHealth program that has examined various pathways to scale and sustainability.

The IWG mHealth grant program is generously supported by the Norwegian Agency for Development Cooperation (NORAD) and led by the United Nations Foundation (UNF) and the World Health Organization Department of Reproductive Health and Research (WHO/RHR). Since 2012, the program has awarded 26 catalytic grants across 15 countries to support mHealth solutions that are used by over 8,000 health workers in more than 13,000 facilities, impacting health service delivery for nearly 1.5 million people.

Special thanks to Uyen Tang, Francis Gonzales, Carolyn Florey, and Abigail Manz for their contributions to this document.

Special thanks to Erin Larsen-Cooper and VillageReach for their time and insights.

Table of Contents

Acronyms	3
Executive Summary	5
Overview: Chipatala Cha Pa Foni An mHealth Solution to Healthcare in Malawi	6
About VillageReach	7
The Program	7
CCPF Impact	8
IWG Grant	9
Airtel CCPF	9
Growing CCPF	12
Challenges to Growth	12
Looking Forward	13
Endnotes	14



Acronyms

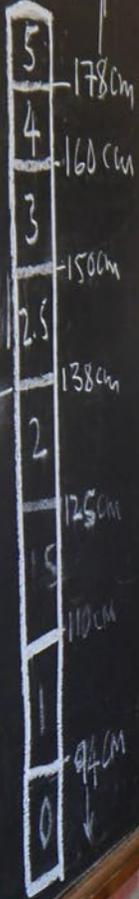
CCPF	Chipatala Cha Pa Foni
IVR	Interactive Voice Response
IWG	Innovation Working Group
MDG 5	Millennium Development Goal 5
mHealth	Mobile health
MOH	Ministry of Health
MNO	Mobile network operator
NGO	Non-governmental organization
NORAD	Norwegian Agency for Development Cooperation
SMS	Short message service
SSDI	USAID's Support for Service Delivery Integration
SWAP	Sector Wide Approach Plan
WHO	World Health Organization
WHO/RHR	World Health Organization Department of Reproductive Health and Research
UNF	United Nations Foundation
USAID	United States Agency for International Development



TABLET POLE

ABWEERA

203



ABWEERA

NUCLEIC ACID

Executive Summary

Malawi is the world's poorest country as measured by GDP per capita, according to the World Bank.¹ Its stark poverty means that access to maternal, child and infant healthcare is difficult to obtain and its maternal and infant mortality rate is one of the highest in Africa. This problem is compounded by the lack of health care facilities and trained medical staff in the country. Other countries in Africa with similar challenges have employed mobile health (mHealth) solutions implemented via mobile phones. Despite having one of the lowest mobile penetration rates in Africa, developing an mHealth platform to improve maternal and child health is a viable option given that mobile phones are the predominant communication method.

Chipatala Cha Pa Foni (CCPF), or Health Center by Phone, was originally developed and implemented in Malawi by the international NGO Concern Worldwide, in partnership with VillageReach as part of the *Innovations for Maternal, Newborn and Child Health* initiative. VillageReach has since expanded CCPF in scale and scope. CCPF consists of a hotline that provides health information and advice to pregnant women and caretakers of young children. Through a recent merger with Airtel Malawi, a leading mobile network operator (MNO) in the country, and their Dial-a-Doc program, which triages calls to doctors, CCPF will extend its reach to include all health issues. CCPF's effectiveness relies on its simplicity and execution through a voice hotline. Users can call the hotline for information and can be referred to a local health facility if necessary. CCPF users can also opt-in to a text and voice messaging system that automatically delivers stage-based messages with healthcare advice to pregnant women and new mothers.

This case study demonstrates how VillageReach approached sustainability and scale at the national level through partnerships with the national Ministry of Health (MOH) and a merger with Airtel. Through this case study, VillageReach shares its lessons learned during the IWG grant program as it pursued sustainability and scale.

OVERVIEW: CHIPATALA CHA PA FONI

An mHealth Solution to Healthcare in Malawi

“It’s good to call the hotline first, we call the hotline because you can find that there are no drugs [at the health center]... We can be wasting time walking to the health center.”

- CCPF User

Access to high quality healthcare for maternal and child health remains a challenge for many Malawians. The challenge is particularly stark in rural communities, where only 63% of births are attended by skilled healthcare workers, compared to 86% of births in urban areas.² According to the United Nations Development Program, Malawi’s maternal mortality rate is 675 deaths per 100,000 live births, making it one of the highest in the world. This is also far higher than its Millennium Development Goal 5 (MDG 5)³ target of 155 maternal deaths per 100,000 live births.⁴ The under-5 child mortality rate is 64 per 100,000 live births.⁵ This number has declined dramatically since 2000, when the under-5 child mortality rate was 189. However, children continue to die from preventable causes.

A number of factors contribute to the high maternal and child mortality rates in Malawi, including diseases, lack of nutrition and poor quality of care during and leading up to the birth. Demand for skilled and trained health workers far outpaces supply, and the number of vacancies in healthcare personnel remain high. In 2009, Malawi only had 1,440 healthcare workers for every 100,000 people, which is below the average in Africa of 1,910 per 100,000 people, and even farther below the WHO recommended minimum of 2,500 health workers per 100,000 people.⁶ Malawi’s government has taken steps to tackle this challenge with the Malawi Health Sector Strategic Plan 2011-2016, which focuses on retaining and attracting healthcare sector talent with tactics such as salary increases and housing for health workers.⁷

These challenges create a difficult environment to develop an mHealth program to improve maternal and child health. What could be done to improve access to healthcare for women and children in a cost-effective manner?



ABOUT VILLAGEREACH

VillageReach is a U.S.-based organization whose mission is to increase healthcare access for underserved communities in low-and-middle-income countries.⁸ Headquartered in Seattle, Washington, the nonprofit organization was established in 2001 and operates field offices in Malawi and Mozambique with a team of 90 employees across all countries.⁹ VillageReach has more than ten years of experience testing and implementing health systems, information and communication technology and field-based training for healthcare services and delivery. VillageReach's experience and partnerships in the private and public sector make it a strong organization to develop innovative healthcare solutions that make an impact.

THE PROGRAM

VillageReach launched CCPF in 2011 as a simple yet effective mHealth solution to provide healthcare information and advice targeting women of childbearing age, pregnant women, and caretakers of children less than five years of age.

CCPF's technology platform has three components:

- 1. Hotline:** A toll-free telephone hotline is open from 7:00am to 7:00pm and anyone can call to receive more information and advice on maternal and child health and reproductive health topics. Currently, there is one hotline center located in Balaka District that receives calls from across the country. Trained hotline workers respond to questions based on Ministry of Health protocols, and can also refer callers to a healthcare facility closest to their location. VillageReach worked with a technology partner, Baobab Health Trust, a Malawian NGO, to develop a software platform that manages incoming calls into the hotline, client data and also guides the hotline worker through the call in order to provide the best advice. When users call into the hotline their information is captured into the software and marked if they are referred to a local healthcare provider. Hotline workers will follow up with the caller to see if they visited the healthcare provider.
- 2. Message System:** CCPF also includes a mobile messaging system that sends regularly scheduled text or voice messages that provide tips and reminders about maternal and infant health. For users who opt-in for voice messaging, they receive a phone call with a pre-recorded message. They can also call into the CCPF interactive voice response (IVR) system to retrieve their message. The messages are tailored and sent out based on the recipient's pregnancy timeline or child's age. CCPF sends out three sets of targeted messages:
 - a. Pregnant women* receive messages once or twice a week, on average, reminding them to visit a health professional, advising them on how to take care of their health, and prompting them to call the hotline to get more information.
 - b. Caretakers* of children under one-year-old receive messages regarding appropriate home and facility based services such as sleeping under a bednet or reminding them to get their child vaccinated.
 - c. Women of child-bearing age* receive health tips on topics of reproductive health, family planning, and reminders to visit a healthcare provider if they suspect they may be pregnant.
- 3. Interactive Voice Response (IVR):** Along with Yo! Uganda, a voice solutions and software development company, VillageReach developed an IVR system that allows users to retrieve messages on-demand.

CCPF's effectiveness is due to its voice system. Although voice airtime is approximately three times the cost of text in Malawi, VillageReach believes that the ability to talk directly to a healthcare worker has a greater impact than texting alone. Its messaging system that sends out reminders and tips to pregnant

“94% of CCPF users were satisfied with their hotline experience and 98% were satisfied with the tips and reminders service”

- Evaluation Study conducted by Invest in Knowledge

women and caretakers uses both text messaging and voice messages. The decision to use voice messages was deliberate because Malawi's adult literacy rate is only 61.3%.

Malawi's mobile penetration rate is one of the lowest in Africa at only 22%, compared to 75% in Botswana.¹⁰ People often share phones and may not have private access to text messages; therefore, it might not be possible to send direct messages to potential users. However, those who need access to the service may be able to find a phone in order to make a call into the hotline for additional information. Because of this challenge, CCPF is both a push and pull system; it pushes out messages and advice via text and pulls users into its hotline where they can access information at any time.

CCPF IMPACT

For VillageReach's target audience of low-income and rural women and children in Malawi, CCPF gives them access to healthcare information and advice without having to travel far distances. In one focus group, the most common reasons that users choose CCPF is for its convenience, respectful treatment from hotline workers, and better service by healthcare providers when referred by CCPF.¹¹ The ability to talk to a trained healthcare professional has been key to the success of the program. The average hotline call time is eight to nine minutes. In December 2015, CCPF fielded 1,351 calls across more than 6 districts in Malawi. It also enrolled 419 new users to its tips and reminders messaging system.

In 2013, Invest in Knowledge, a Malawi-based nonprofit research organization, conducted an evaluation study of VillageReach's CCPF program. Invest in Knowledge used a mixed-method approach including

CCPF'S IMPACT ON KNOWLEDGE AND BEHAVIOR

TOPIC:	Estimated Percentage Point Increase
Knowledge of healthy behavior during pregnancy such as drinking more water	40%
Use bed nets for children under 5 years old	30%
Use bed nets during pregnancy	25%
Breastfed within 1 hour of birth	15%
Started antenatal care in first trimester	30%
Knowledge of what to bring to the health facility for labor and delivery	49%
Knowledge that some traditional medicines can be harmful during pregnancy	50%
Knowledge that a pregnant woman should attend at least 4 ANC visits	25%
Knowledge that a baby born at home should go directly to health center	80%
Knowledge that pregnant women should lift less	15%

quantitative and qualitative tests and surveys. The study found that CCPF had a statistically significant impact on users' knowledge and behavior regarding maternal and child health. (See Table.) The indicators in the table listed below are a subset of all of the indicators on which CCPF has an impact.

IWG GRANT

The IWG program enabled VillageReach to conduct research on the feasibility of multiple business models that would allow it to scale the CCPF program. In order to grow, CCPF needed to expand into more districts in Malawi. Through the IWG grant, CCPF developed its current expansion strategy. CCPF enters new districts by partnering with another nonprofit organization. The nonprofit helps to market the program and support program costs. For example, if 20% of the calls to the hotline came from a particular district, the nonprofit partner would help to pay for 20% of the costs of the program.

Using the “district-by-district” strategy, CCPF expanded to 25% of districts in Malawi, but the strategy is limited in its effectiveness and has two main challenges that make scaling slow:

- **Limited reach:** The first challenge is that CCPF needs to identify the right partner with influence in the district to help market and implement the hotline. Even if the program were adopted in that district, its reach is limited to that district alone.
- **Long funding cycle:** The second challenge is that the partners will also need to seek funding from their donors in order to help support the cost of CCPF. The funding cycles could take up to several months.

The IWG grant also provided critical bridge funding for CCPF as it was moving from a pilot phase to wider-scale growth. Through working with the IWG grant program, VillageReach gained valuable lessons that led them towards sustainability and scale:

- **Multichannel marketing is more effective:** Community outreach is more effective when players from different sectors are engaged. Concern Worldwide Malawi, a CCPF partner in Nkhosokota District, promoted the service by leveraging volunteers to reach out to the community one person at a time, using radio ads and distributing posters and flyers.
- **Find influential champions:** VillageReach was able to achieve the partnership with Airtel with support from GSMA, who helped to broker the relationship. It also helped tremendously that VillageReach had a strong reputation in Malawi and a good relationship with the MOH which served as a “seal of approval” for the organization.
- **Engaging the users in content development:** As CCPF continues to scale, it will continue to seek user feedback to ensure that its messages and vocabulary are relevant, and understood by the end users.
- **Involve more stakeholders:** Church and traditional community leaders are trusted and can be partners in helping to publicize CCPF throughout the community in the future.

AIRTEL CCPF

In January 2016, VillageReach announced a partnership with Airtel, a leading mobile network operator (MNO). Airtel's Dial-a-Doc program launched around the same time that CCPF began. While the two programs were aware of each other since their inceptions and began initial conversations in 2011, it was not until 2015 that the merger talks began in earnest. It was a natural partnership and the two organizations merged their services into one, branding it Airtel CCPF. Now, all calls to Dial-a-Doc are rerouted to the CCPF hotline.¹³ The hotline still operates out of the Balaka District Hospital and is staffed with between two to seven hotline workers, depending on the call volume.

“The IWG grant was a catalyst for us to have a strategy at all.”

- Erin Larsen-Cooper, VillageReach

“Mobile technology, through programs like CCPF, is a viable and valuable part of a solution to increase access to quality healthcare in Malawi, especially in the most rural communities.”

- Senior Chief
Kwitaine of
Ntcheu District

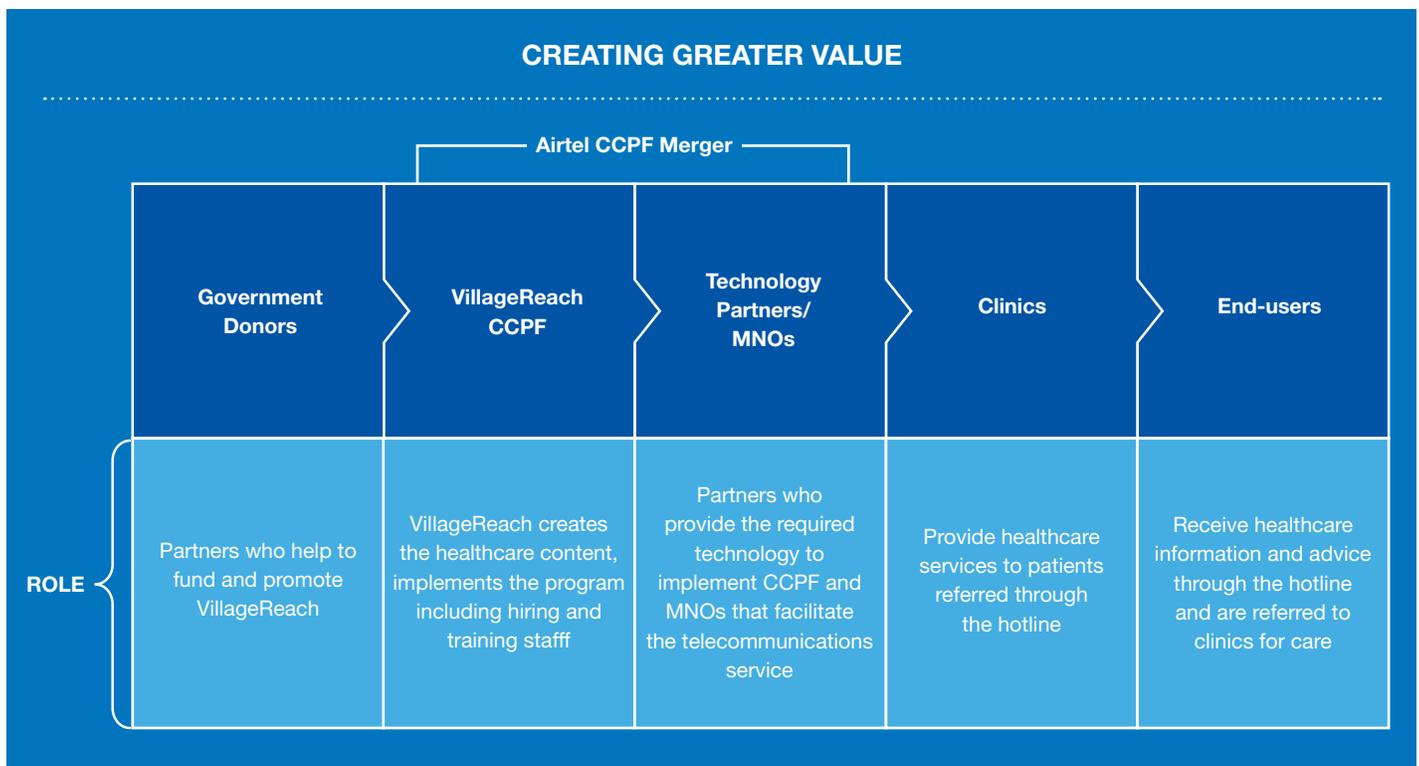
Airtel CCPF will run as a pilot program for up to a year. This timeframe includes monitoring and evaluation of the program’s results. The pilot’s aim is to test the integration of Airtel’s Dial-a-Doc program and CCPF, including the merging of the short codes, ability to include doctors on a call when they are not physically present at the hotline center, and ensuring that the IVR system can support a higher call volume. Airtel CCPF will have three doctors on call. The pilot will also increase the hiring and training of hotline staff. During the pilot, VillageReach will make continuous adjustments to address problems as needed. After the pilot, the partners will evaluate the program to determine the path forward. Some possible measures of success include expanding the program’s reach and being able to develop the program’s business model into an affordable solution that could be adopted by the MOH.

The partnership with Airtel is essential to scaling CCPF rapidly at a nationwide level. Through this partnership, CCPF has now obtained users from all across Malawi. Additionally, the partnership helps to reduce CCPF’s costs because Airtel is absorbing the voice airtime costs of the hotline and voice messages retrieved on the IVR system. Previously, CCPF had been paying Airtel for the airtime, but it now saves up to US\$1,000 per month on airtime costs. VillageReach expects those savings to increase as the program expands to more areas.

This partnership has extended the capabilities and resources of CCPF and places it on a path towards sustainability. It also has the added benefit of making the service more attractive to potential donors or investors. At this time, Airtel CCPF is not generating revenues and relies on its partnerships and donor funds to sustain its operations.

In addition to Airtel, another key partner is the Malawi MOH. While the MOH has not contributed any direct funds to Airtel CCPF, it has provided in-kind support and strong advocacy. The MOH has endorsed CCPF and have encouraged others to also support CCPF. Examples of the MOH’s in-kind support includes: hosting the hotline center at the Balaka District Hospital and providing staffing reinforcements. VillageReach is currently in discussions with the MOH to include Airtel CCPF in its national plan and budget.¹⁴

Other donors and partners include: Concern Worldwide Malawi, CHAI, Baobab Health Trust, Vitol Foundation, Johnson & Johnson, Project Concern International, GIZ and USAID’s Support for Service Delivery Integration (SSDI).



Together, Airtel and CCPF have created a more valuable and scalable system that reaches a large audience and takes advantages of cost efficiencies. Here's how players along the value chain benefit from the Airtel CCPF:

- **Government and donors:** Donors and government institutions such as the MOH who may be providing direct financial or in-kind support.
- **VillageReach:** VillageReach's CCPF hotline realized significant cost savings of up to US\$1,000 by merging with one of its vendors. Now Airtel provides free airtime usage on its network. In addition, Airtel provides marketing support, leveraging its extensive network to promote the service among its subscribers.
- **Airtel:** By merging with CCPF, Airtel is able to leverage VillageReach's expertise in program management and implementation as well as its healthcare knowledge and content. When Airtel ran the Dial-a-Doc hotline, it did not have a competitive advantage in healthcare or health systems knowledge. In addition, the doctors receive triage support from CCPF hotline staff so that the calls they receive are more relevant and their time can be used more effectively.
- **Healthcare facilities:** Clinics benefit from referrals from the two merged hotlines and patients are more knowledgeable about the care they need when they arrive. The hotline also helps relieve the high demand on a stressed healthcare system and can screen patient health problems over the phone to ensure that visits to the clinic only occur when they are truly necessary.
- **End-users:** Users no longer have to travel far distances in order to speak to a trained health worker or doctor. They can receive reliable advice over the hotline or directly on their mobile phone.

Through its partnerships, VillageReach has been able to help diffuse the cost of executing the hotline. Below is a table that shows some of the main costs and how each partner contributes through either an in-kind donation or direct funding.

It is important to note that CCPF maintains partnerships with other MNO vendors. For example, VillageReach works with an international text aggregator to send out its SMS text messages and reminders, and it also works with other carriers in addition to Airtel.

CCPF does not currently earn revenue. VillageReach did analyze potential revenue models such as charging a small user fee and offering a premium subscription service for extra tips and reminders. However, it concluded that the revenue it could potentially generate would not outweigh the risks of losing its target audience or low-income and rural women. At this point, maintaining a free service allows it to reach more people.

PARTNER CONTRIBUTIONS		
 COST	 RESPONSIBLE PARTNER	 IN-KIND OR DIRECT FUNDS
Airtime	Airtel	Sponsors voice airtime for the hotline and IVR message retrieval
Hotline location/facility	MOH	In-kind donation of space
SMS	VillageReach	Direct funding
Staffing	VillageReach	Direct funding
Program Management	VillageReach	Direct funding

VillageReach's ultimate goal is to have the Ministry of Health absorb the CCPF hotline in order to sustain its operations in the long term.

GROWING CCPF

Prior to its merger, CCPF had expanded to 6 out of 28 districts in Malawi.¹⁵ The partnership with Airtel helps CCPF to broaden its reach nationwide. Users from any district can call into the hotline center. The Airtel CCPF hotline center in Balaka can serve a user seeking help from thousands of miles away. In order to deliver value to the larger audience, Airtel CCPF has increased the scope of healthcare topics covered by the hotline. Airtel's Dial-a-Doc program had provided advice on all health needs, while CCPF focused on maternal and child health. VillageReach plans on monitoring the questions received to determine if they need to broaden their topic scope.

Airtel CCPF will also expand its service through staffing the hotline. CCPF staffed the hotline with trained workers who were capable of responding to calls like a community health worker and were supervised by nurses. Now Airtel CCPF will add another staffing layer and hotline workers will be able to phone doctors on call for their advice on caller questions.

VillageReach's ultimate goal is to have the Ministry of Health absorb the CCPF hotline in order to sustain its operations in the long term. To that end, VillageReach has been working closely with the MOH. However, full transition to the MOH and implementing partners requires inclusion of CCPF into governmental budgets and the Sector Wide Approach Plan (SWAP) created by the MOH. VillageReach is actively working with the Department of Planning to ensure that CCPF services are incorporated into future budgets. Over the next several years, VillageReach will continue to work with the MOH toward national scale and transition planning, including seconding staff to the MOH, creating professional implementation manuals, and general capacity building and transition planning for MOH and partners.

CHALLENGES TO GROWTH

The CCPF merger with Airtel has increased CCPF's chances of success in becoming sustainable and scaling up, however, some barriers and challenges remain:

- **Expanding Scope:** As Airtel CCPF receives calls about healthcare topics other than maternal and child health, it will need to determine how best to field those calls, potentially changing their software platform, as well as expanding its text messages. VillageReach has taken steps towards expanding its scope by creating a plan to include nutrition content into the hotline work flows and mobile messages.¹⁶
- **Training Staff:** As the call volume grows, Airtel CCPF will have to grow its staff numbers and determine how to pay them, including the doctors, and how to train new staff in a cost effective manner.¹⁷
- **MOH Adoption:** One of the challenges to the MOH adopting the program is its lack of resources. The MOH would need to be able to manage the hotline, including managing VillageReach's current relationship Airtel and Baobab Health Trust, the local Malawi software developer. One of the first steps towards this goal would be to hire a technical assistant to help train the MOH about CCPF operations.
- **Low Mobile Penetration:** Mobile penetration is only 38% in Malawi and fixed land lines are only 1.9%.¹⁸ Airtel CCPF is dependent on mobile and landlines and relies on the growth of telecom services in order to scale.
- **Marketing and Publicity:** In order to scale the program, Airtel CCPF needs to publicize its services in new districts. It is in the process of producing new communication materials that will inform and educate the public and will leverage its partners to distribute the materials. Through the partnership with Airtel, CCPF can also now advertise via SMS to Airtel subscribers.

LOOKING FORWARD

Looking forward, VillageReach hopes that the MOH will adopt CCPF into its budget and incorporate it into the national plan. CCPF has already developed a platform that will serve a national audience, and an adoption by the MOH will expose the program to a wider audience, and provide long term sustainability.

CCPF's merger with Airtel's Dial-a-Doc service is as a model for other mHealth programs searching for value-added partnerships. The Airtel CCPF program is an attractive investment for donors, social impact investors and governments because it has a scalable platform and strong support from the MOH. Additionally, multiple partners are able to contribute resources to the program to help diversify the risk.

A nationally-scaled CCPF program not only positively impacts individual users' health and the overall state of maternal and child health, but also the general healthcare system in Malawi. It could help alleviate the burden of a healthcare system that is sorely lacking in healthcare providers and healthcare facilities.



ENDNOTES

- 1 “GDP per Capita (current US\$).” *GDP per Capita* (current US\$). World Bank, n.d. Web. 17 Feb. 2016. <http://data.worldbank.org/indicator/NY.GDP.PCAP.CD?order=wbapi_data_value_2014%2Bwbapi_data_value%2Bwbapi_data_value-last&sort=asc>.
- 2 “Millennium Development Goal 5.” UNDP in Malawi. UNDP, n.d. Web. 17 Feb. 2016. <<http://www.mw.undp.org/content/malawi/en/home/post-2015/mdgoverview/overview/mdg5/>>.
- 3 MDG 5 is to improve maternal health and maternal mortality during birth is an indicator for this Millennium Development Goal.
- 4 “Millennium Development Goal 5.” *UNDP in Malawi*. UNDP, n.d. Web. 17 Feb. 2016. <<http://www.mw.undp.org/content/malawi/en/home/post-2015/mdgoverview/overview/mdg5/>>.
- 5 “Mortality Rate, Under-5 (per 1,000).” *Mortality Rate, Under-5 (per 1,000)*. World Bank, n.d. Web. 17 Feb. 2016. <<http://data.worldbank.org/indicator/SH.DYN.MORT>>.
- 6 Vidal, Pauline. “The Emigration of Health-Care Workers: Malawi’s Recurring Challenges.” *Migrationpolicy.org*. The Online Journal of the Migration Policy Institute, 20 Oct. 2015. Web. 17 Feb. 2016. <<http://www.migrationpolicy.org/article/emigration-health-care-workers-malawis-recurring-challenges>>.
- 7 Vidal, Pauline. “The Emigration of Health-Care Workers: Malawi’s Recurring Challenges.” *Migrationpolicy.org*. The Online Journal of the Migration Policy Institute, 20 Oct. 2015. Web. 17 Feb. 2016. <<http://www.migrationpolicy.org/article/emigration-health-care-workers-malawis-recurring-challenges>>.
- 8 “About Us - VillageReach.” *VillageReach About*. VillageReach, n.d. Web. 17 Feb. 2016. <<http://www.villagereach.org/about/>>.
- 9 “VillageReach Overview.” *VillageReach.org*. VillageReach, n.d. Web. 17 Feb. 2016. <http://www.villagereach.org/wp-content/uploads/2014/12/VR_OverviewDoc_021115.pdf>.
- 10 “The Mobile Economy Sub-Saharan Africa 2014.” (n.d.): n. pag. *GSMA Mobile Economy Africa*. GSMA. Web. 17 Feb. 2016. <http://www.gsmamobileeconomyafrica.com/GSMA_ME_SubSaharanAfrica_Web_Singles.pdf>.
- 11 “Evaluation of the Information and Communications Technology for Maternal Newborn and Child Health Project.” (n.d.): n. pag. *VillageReach.org*. VillageReach. Web. 17 Feb. 2016. <http://www.villagereach.org/wp-content/uploads/2009/08/VR-Exec-Summary-of-CCPF-Eval_Feb-21_FINAL.pdf>.
- 12 “Evaluation of the Information and Communications Technology for Maternal Newborn and Child Health Project.” (n.d.): n. pag. *VillageReach.org*. VillageReach. Web. 17 Feb. 2016. <http://www.villagereach.org/wp-content/uploads/2009/08/VR-Exec-Summary-of-CCPF-Eval_Feb-21_FINAL.pdf>.
- 13 Jezman, Zachariah. *Monthly Progress Report on Chipatala Cha Pa Foni for Oct-Dec 2015*. Rep. N.p.: n.p., 2016. Print.
- 14 “Interview with Erin Larsen of VillageReach.” E-mail interview. 12 Feb. 2016.

- 15 Jezman, Zachariah. *Monthly Progress Report on Chipatala Cha Pa Foni for Oct-Dec 2015*. Rep. N.p.: n.p., 2016. Print.
- 16 Jezman, Zachariah. *Monthly Progress Report on Chipatala Cha Pa Foni for Oct-Dec 2015*. Rep. N.p.: n.p., 2016. Print.
- 17 Jezman, Zachariah. *Monthly Progress Report on Chipatala Cha Pa Foni for Oct-Dec 2015*. Rep. N.p.: n.p., 2016. Print.
- 18 "Malawi - Telecoms, Mobile and Broadband - Statistics and Analyses - See More At: [Http://www.budde.com.au/Research/Malawi-Telecoms-Mobile-and-Broadband-Statistics-and-Analyses.html#sthash.ENkDY2wv.dpuf](http://www.budde.com.au/Research/Malawi-Telecoms-Mobile-and-Broadband-Statistics-and-Analyses.html#sthash.ENkDY2wv.dpuf)." BuddeComm. BuddeComm, n.d. Web. 17 Feb. 2016. <<http://www.budde.com.au/Research/Malawi-Telecoms-Mobile-and-Broadband-Statistics-and-Analyses.html>>.

PHOTOGRAPHY CREDITS:

Courtesy of Concern Worldwide:
Front cover
Page 4, 6

Courtesy of VillageReach:
Page 2, 13
Inside Back Cover





1750 Pennsylvania Avenue NW
Suite 300
Washington, D.C. 20006
Phone: 202.887.9040
Fax: 202.887.9021

www.unfoundation.org



Department of Reproductive Health
and Research World Health Organization

Avenue Appia 20, CH-1211
Geneva 27, Switzerland
Phone: + 41 22 791 21 11
Fax: + 41 22 791 31 11

www.who.int/reproductivehealth



USA Headquarters
2900 Eastlake Ave. E,
Suite 230
Seattle, Washington 98102,
Phone: +206 512 1530

www.fhi360.org