I) Final Narrative Report for IWG mHealth Catalytic Grant Mechanism: VillageReach

A) General Information

1	**Project Title**	Chipatala Cha Pa Foni
2	**Report Author's Name and title**	Zachariah Jezman, Project Manager
3	**Target Geography** (please be as specific as possible - e.g. Country, State, District, City, etc)	Balaka and Mulanje Districts in Southern Malawi and Ntcheu and Nkhotakota Districts in Central Malawi
4	**Target Beneficiary Group(s**) (please be as specific as possible- e.g. pregnant women, newborns, children under 5, adolescents, general population, etc)	Women of reproductive age, pregnant women, and caregivers of children under five.
5	**Reporting period from**	January 1, 2013 to December 31, 2015

B) Results

The section below is focused on the results of your two years of implementation. The **Notated Evaluation/ Results Framework** table provides an opportunity to share updates based on the proposed objectives and outcomes of the project. The challenges and plans to overcome challenges can be expanded upon in the lessons learned section following (Section C). In addition, the **Measurements of Scale** table is focused on quantitative measurements of scale in terms of reaching more women, children, health workers, health facilities, etc. The Measurements of Scale table requests baseline, intended reach, and actual reach so that we can assess the level of scale achieved. We are also interested in understanding the key barriers to reaching scale-up goals and plans to address these barriers to put these quantitative measurements in context.

1) Notated Evaluation/Results Framework: The table below should include evaluation of both the project (e.g. plans to train 50 CHWs to use the service) and the mHealth innovation (e.g. showing that the innovation improves # of ANC visits for pregnant women) supported by IWG catalytic funding.

Specific purpose of the catalytic funding: To expand CCPF to additional districts in order to reach more individuals with lifesaving advice and to build the evidence base supporting the impact and cost-effectiveness of the service in preparation for a national scale-up.				
Objective	**Planned Outcome**	**Progress Update: Report 2**	**Challenges**	**Plans to overcome challenges**
Improve the quality of MNCH case management	Successfully identify danger signs and symptoms of callers	CCPF continued to provide critical case management to pregnant women and caregivers of young children. On average, 20% of callers have danger signs identified and are referred to a community health worker or health facility. Calls are reviewed by nurse supervisors on a weekly basis. Over time, the proportion of calls where hotline workers adhere to protocols has improved and is generally over 90%.	Use of the hotline is lower than expected in two of the three scale-up districts, limiting the overall reach of the service.	In one of our scale up districts, Nkhotakota, CCPF is promoted by a local, community based organization partner. This strategy has been very successful in generating demand for CCPF. In future scale-up activities, we will advocate for a similar model to promote CCPF.
Improve health-seeking behavior	Increased preventive and curative care for MNCH issues	In 2013, an independent evaluation found that CCPF led to statistically significant improvements in maternal and child health indicators including; • Increased use of antenatal care (ANC) within the first trimester • Increased use of a bed net during pregnancy and for children under five • Early initiation of breastfeeding • Increased knowledge of healthy behaviors in pregnancy including drinking more water and minimizing strenuous lifting	While we know that preventative care has improved among users of CCPF, we did not track use of curative services. It is challenging to follow up with users to determine what they do with information from CCPF (i.e. following up with callers referred to a health center) due to lack of quality data at the health centers, poor networks and lack of phone access. All the evidence we do have (focus group discussion, results from the pilot evaluation, etc) imply that CCPF does lead to improvements in health	VillageReach is exploring opportunities to work with other mHealth implementers in Malawi to integrate services for improving overall case management across the full spectrum of care – including referral tracking for pregnant women and sick children.

		• Increased knowledge that some traditional medicines can be harmful in pregnancy • Increased knowledge of maternal health services including number of recommended prenatal visits In addition, VillageReach incorporated referral tracking into CCPF activities. Hotline workers are directed to follow up with women who were referred for care. Of those that were reached, 100% had indicated that they followed the direction of the hotline workers.	seeking behavior among those who use it.	
Increase community confidence in health system	Improved client satisfaction	Clients consistently report high satisfaction with CCPF and the impact evaluation found that 94% of CCPF users were satisfied or highly satisfied with their hotline experience. 98% were satisfied or highly satisfied with the tips and reminders mobile messaging service. Clients cite the ability to access the service from home as particularly valuable, saving time and personal costs associated with travel to a health center. Qualitative data from the impact evaluation revealed that users of CCPF felt that they were treated better at a health center after having called the hotline.	Improving community confidence in the health system is one of the most challenging objectives of CCPF because so much of the care provided by the health system is beyond the scope of CCPF. That said, we have found that women perceive their quality of care to be enhanced after talking with a HLW, perhaps due to their own knowledge, or feeling empowered as a result of advice provided by CCPF.	As CCPF scales nationally, the incorporation of the service into the national health services may continue to improve client satisfaction with the health system by continuing to provide

Optimize return on investment	High stakeholder assessment of value	We have completed our economic evaluation from the pilot and are currently looking for relevant journals to publish the results. We found that during the pilot, CCPF cost $29.33 per user and $4.33 per successful contact (contacts include calls to the hotline and tips and reminders messages). Our cost analysis showed that increasing scale and utilization of the service will increase cost effectiveness; our analysis indicates that operating at full capacity, we could reduce cost per user by 48% ($2.23 per successful contact). Scaling to three new districts is a great step toward achieving economies of scale.	One of the best ways to measure our return on investment would be to measure the financial impact of CCPF on the health system. Unfortunately the complexity and cost of this kind of study is beyond our current capacity.	We are actively working toward increasing the scale and utilization of CCPF which will lead to significant reductions in cost per user.
Identify collaborating partners to support the scale up of CCPF to other districts	Partners identified to support CCPF scale up	The Malawi MoH is a critical partner in the scale-up of CCPF and VillageReach is working with the Planning Department at the MoH to incorporate CCPF into the national plan. In the meantime, VillageReach is currently working with five partners for scale up of CCPF, including the Malawi MoH, and has pending contracts for three additional partners to support current districts and scale CCPF to seven total districts in 2015.	While VillageReach has been successful in identifying partners for scale-up, the process has been slow and the scale geographically has been less than anticipated in the time period. Many partners share the same objectives as CCPF and express a desire to incorporate CCPF into their plans, however, most partners, including the MOH do not have funding to	VillageReach will continue to work with the MOH as the critical partner for scale. While the MoH currently supports the space and some of the staffing of the CCPF services, full integration into governmental budgets requires integration into the Sector Wide Approach (SWAp) plan and into annual budgets and plans created by the MoH. This will allow MOH partners to support CCPF more directly. In addition, VillageReach is working with other mHealth partners toward integration and with Airtel and GSMA to

			support the hotline operations and telecom costs.	incorporate CCPF into Airtel's national health content offerings.
Engage government actively and advocate for CCPF adoption and support	CCPF approved and endorsed by RHU Directorate and IMCI.	CCPF was officially endorsed by the MoH Reproductive Health Unit (RHU). The Director of the RHU has engaged the Planning Department in plans to scale CCPF nationally. In addition, she has directed potential partners to invest in CCPF. VillageReach is also an active member of the MOH mHealth Technical Working Group and is seen as a leader in mHealth in Malawi.	The MOH is often overwhelmed by multiple mHealth projects and we've found that new pilot projects are popping up in different parts of the country without coordination at a central level. This can be challenging and confusing for many stakeholders when they hear about services that may seem duplicative.	The Department of Planning is calling for a meeting of implementers to avoid duplication of efforts and attempt to streamline services provided. VillageReach is committed to the idea of integration in Malawi and the future of mHealth.
Scale up CCPF nationally in Malawi	CCPF is incorporated into national plans and is supported by the MOH and their partners.	VillageReach met with the Director of Planning to present CCPF. The Director was very supportive of incorporating CCPF into national plans and sent a delegation to the hotline to determine next steps late	Integration into national plans takes time and resources. While VillageReach and their partners work towards integration into MoH plans and budgets, support is needed to prepare CCPF for scale and continue to provide services.	VillageReach is actively working with the Department of Planning to ensure that CCPF services are incorporated into future budgets and plans by 2016 and making plans for a relocation of the call center from rural Balaka to the capital city of Lilongwe.

2) Measurement of Scale: The measurements of scale (i.e. # of women, # of children, etc.) are illustrative examples, please share your most up to date figures in these categories as relevant and add categories as necessary.

	Baseline as of January 1, 2013	**Intended reach as of January 1, 2015**	**Actual reach as of January 1, 2015**	**Please explain the key barriers if you did not meet your scale-up goals**	**How do you plan to address these barriers? Is additional support needed?**
Number of women reached	2,958	We aimed to reach 25,000	8,831	An additional 895 people were reached but due to missing data	We intend to explore additional and demand generation and access

Number of children reached	3,289	callers by the end of the grant period	6,980	on age, could not be categorized here. The information on male callers is slightly misleading in that most male callers are registered as either a partner to a pregnant woman or a caregiver of a child. Unfortunately, our data do not provide us with better details about how many male callers were registered as a pregnant woman or caregiver. Use of the hotline is lower than expected in two of the three scale-up districts, limiting the overall reach of the service. During the pilot, approximately 20% of women of child bearing age used the service during a two-year period. There were also barriers to utilization that impacted our overall numbers. These included phone access in some of the target communities, a lack of understanding about the concept of a reverse-billed or toll-free line which limited sharing of phones to call the hotline, and limited perception of need (e.g., a belief that only sick women and children used the service).	strategies as the services are scaled nationally, taking advantage of print and radio media, existing health networks and local community based organizations.
Number of men reached	17		43		
Number of health workers trained and using service (please break down by position i.e. CHW vs District manager)	Volunteers: 429 Nurses and Clinicians: 15 HSAs :103 Managers in Health: District:30	n/a	Volunteers: 1570 Community facilitators: 14 Nurses and Clinicians: 155 HSAs :over 520 Managers in Health:	We did not have specific targets for the number of health centers and staff that were included in the scale-up process. In each of the scale-up districts, we were able to orient volunteers,	

	Regional:9 National: 40		District:110 Regional:19 National: 50	community members, and health workers to CCPF.	
Number of health facilities using service (break down by type of facility i.e. hospital vs clinic)	Health Centres: 5 Rural Hospitals: 0 District Hospitals: 1	Health facilities in 3 districts.	Health Centres: 39 Rural Hospitals: 4 District Hospitals: 4	We aimed to scale-up CCPF services to two additional districts during the grant period. We were successful in scaling the service to three additional districts for a total of four districts. CCPF has not been introduced in all health center catchment areas in each of the districts yet.	
Selected Call Outcomes					
% of relevant calls	94%	>95%	88%	We've had an increase in irrelevant calls since expanding to new districts. We suspect this is due to outreach efforts not adequately explaining when and why individuals should call.	We update implementing partners on the number of irrelevant calls from their districts so that they can follow up with more targeted demand generation activities.
% of repeat callers	25%	n/a	29%	We don't have a specific target for this indicator but we believe a steady rate of repeat callers indicates that most people get what they need from only one call but people trust the service enough to call back when needed or when facing a new issue.	

% of unanswered calls	32%	<15%	19%	The cumulative unanswered call rate is affected the by high unanswered call rate of the pilot; if you look at just the last 2 years our unanswered call rate is <10% (9.9%).	
% of callers requiring referral to a health facility	16%	n/a	15%	We did not have a target for the proportion of callers requiring a referral to a health facility.	
Average Monthly Call Volume	522	800	565	The average monthly call volume is over the two year grant period. More recently, call volume has reached over 1,000 calls per month for the past three months as the service has scaled more broadly. Similar to the indicator on overall number of clients reached, we anticipated higher call volumes. The major barriers to use include phone access, network coverage, limited demand generation in scale-up districts, and misunderstandings about the service at the community level.	Similar to the number of clients reached indicator, we will explore and utilize various demand generation and access strategies as the service is scaled nationally.
Tips and Reminders Subscribers	4,567	16,000	11,568	The number of tips and reminders subscribers is also less than we aimed for at the end of the two year grant period for the same reasons noted above.	Same as above.

C) Major Lessons

Please reflect on **the two years** and describe the major **successes** and **challenges** that your team faced in implementing the project. From the experience, please share the **lessons** in the form of advice you would give to other organizations who may be interested in starting a similar project. The questions to consider in each section should give you a sense of the types of information we are interested in.

Sustainability		**Questions to Consider:** • Has your business model proven to be sustainable? What are the plans for the project now that the IWG funds have ended? *(Required)* • Did you plan for scale from the outset of your project? If so, what did that process and those plans look like? And how do those plans compare to your plans now? • How did you identify the necessary partners for scale? What was the process and findings if you have used methods like value chain analysis for stakeholder engagement? • What was the process and findings if you have worked to cost your project and/or develop a sustainable business model?
1	**Major successes and accomplishments** (What has worked well?) Be specific.	The development of a business model included research into a variety of strategies evaluated against a set of core criteria including; effectiveness, reach to targeted clients, overall cost, cost-effectiveness, feasibility, and sustainability. VillageReach considered several models for scale-up: 1) Partnership Model: VillageReach will have an ongoing role in the Chipatala Cha Pa Foni hotline and SMS/IVR service. We will work with additional partners to scale the service to additional districts or nationwide; 2) VillageReach Implementation Model: VillageReach will operate all aspects of Chipatala Cha Pa Foni; 3) Toolkit Model: VillageReach will design a "toolkit" that will allow other organizations to replicate Chipatala Cha Pa Foni in other districts. 4) Pay for Service Model: CCPF would be available at a cost to users or as a "freemium" service whereby some services are offered for free to users while other, more premium services, are offered at a price. We excluded the pay for service or "freemium" service from our models based on research and feedback from stakeholders in Malawi, GSMA, and our economic evaluation which demonstrated that the high cost of telecom and low ability to pay for services were major barriers in the creation of a commercially viable solution. In addition, the model failed the reach to targeted clients and feasibility criteria. Our research found that the "partnership model" appeared to be the most feasible option for initial scale-up with the MoH and their donors and implementing partners as the lead based on the criteria established. As such, VillageReach focused efforts on gaining MoH endorsement and building the evidence based needed for MOH partners and donors to support CCPF going forward. VillageReach has been successful in gaining MOH support but

		funding for the service has not yet been identified for national scale. Up to now, the business model has not been proven to be sustainable but we are making progress toward sustainability. The next critical step towards sustainability is developing a stronger partnership with Airtel as a key component of their health content offerings in the country. We are currently working on this strategy with the support of GSMA.
2	**Major challenges** (What has been some of the notable challenges so far?). Be specific.	The major challenges in sustainability of mHealth interventions in Malawi include the difficulty in working with MNOs, a lack of aggregators, and the high costs of mobile. A recent report by GSMA on the feasibility of mHealth solutions in Malawi indicated that Malawi has one of the highest costs of mobile in Africa with consumers already paying an average of 20% of their monthly income on mobile. Thus, a commercially viable product was not deemed feasible. As mentioned above, our business model instead focused on the Ministry of Health adoption of the service and inclusion of CCPF in the national strategic plan. A major challenge to this strategy is that the Malawi MOH relies heavily on donor/partner funding. While the MOH is the critical partner to achieve scale and sustainability in Malawi, the over-reliance on donors and partners requires their buy-in as well.
3	**Lessons to take forward** (What advice would your team give when an organization wants practical advice on starting a project like yours?).	Work with MOH and other national level stakeholders including MNOs from the beginning to ensure that project meets national strategic goals for health and mHealth.

Partnerships	**Questions to Consider:** • What does the process of building successful partnerships and buy-in with stakeholders at the local, regional, and national levels at different stages of scale-up require? Did these requirements meet or exceed your expectations at the outset? • How has your relationship with the Ministry of Health and other governmental bodies evolved throughout the project's progression? *(Required)* • What has the process of working to institutionalize mHealth innovations in national public health systems been like? At what point in your project did you start to engage MoH officials and what affect has that had on your pathway to scale/institutionalization? • What has the process of working with MNOs been like? Have you been able to demonstrate the value of mHealth services in terms that resonate with them? If you have worked with aggregators to help engage with MNOs, what has that process been like?

1	**Major successes** (What has worked well?) Be specific.	From the beginning, VillageReach developed relationships with national- and district-level MoH staff and pre-established Technical Working Groups were engaged to provide feedback on the project, approve its implementation, and review relevant content as needed. This proved to be successful when advocating for ongoing MOH support and endorsement. In addition, MoH engagement provided beneficial guidance for project improvement. We were also able to provide our partners and stakeholders with routine monitoring and evaluation information which helped to keep them engaged and informed of the successes and challenges in implementation. VillageReach successfully identified collaborating partners that have helped CCPF to expand in Malawi. We have worked with these partners in various ways: • Create cost-sharing agreements with implementing partners to support hotline operations and telecom costs, • Utilize existing programs and networks to implement CCPF in a new geographic area, • Engage local community based organizations to assist in demand generation activities, and • Build technology capacity and functionality.
2	**Major challenges** (What has been some of the notable challenges so far?). Be specific.	Despite national level Technical Working Groups, there is poor coordination between mHealth projects in Malawi. This can create challenges when seemingly overlapping or duplicative interventions are created and introduced in different geographic areas. Because mHealth is relatively new to Malawi, the MoH does not have existing policies or tools to guide the implementation of new pilots or to advocate for integration of existing tools. Engaging with the MNOs in country has also been challenging due to limited capacity and the myriad organizations implementing mHealth initiatives.
3	**Lessons to take forward** (What advice would your team give when an organization wants practical advice on starting a project like yours?).	Having an evidence base that demonstrates that CCPF increases uptake of home and facility-based MNCH practices has helped generate interest amongst the MOH and potential partners and funders – particularly because these are government identified priorities. Government engagement is critical but can be challenging to obtain and maintain. Having a vocal champion is important for directing potential partners and donors in the direction of the project. There is not always a clear path forward so we've had to adapt and change strategies as we go, explore multiple ideas simultaneously and be flexible due to shifting priorities of partners, donors, and the MoH.

Capacity Building	**Questions to Consider:** • How have you worked to match capacity building efforts to the changing needs of users and implementing partners as your project scales, growing in size and complexity? • How have your capacity building efforts varied by stakeholder (e.g. implementing partner, MoH, MNO, CHWs, etc.)?

1	**Major successes** (What has worked well?) Be specific.	Throughout the course of the project, VillageReach has invested in quality assurance measures to continue to build the capacity of the hotline workers and support staff needed to operate the hotline and eventually hand over to MoH staff. Calls are recorded and reviewed bi-weekly by nurses. Their feedback is then summarized for the hotline workers and refresher trainings on areas of weakness are organized by hospital staff. In addition, we closely monitor the unanswered call volumes to determine when/if more staff are needed to meet demand. In order for clients to access CCPF, they need to be familiar enough with mobile phones to dial a short code and to receive SMS messages. VillageReach trained community volunteers and HSAs and equipped them with phones to assist women in the community and increase the number of access points. In addition, VillageReach has worked with other implementing partners to orient existing community based organizations and volunteer networks to do the same. For potential partners, VillageReach prepared a detailed implementation manual for partners interested in implementing CCPF. The implementation manual provides extensive information about the process that was undertaken for the development and implementation of the overall project as well as provides lessons learned throughout the process. In addition, VillageReach provides partners with existing demand generation resources such as fliers and posters to aid in their activities.
2	**Major challenges** (What has been some of the notable challenges so far?). Be specific.	The limited capacity of MNOs in Malawi has been challenging. For example, our telecom partner has been unable to generate an invoice for the use of airtime since the beginning of the project. Instead, VillageReach prepares the invoice amounts based on our own IVR call records. We have been slow to move forward with a contract for a TNM short-code due to a limited legal team at the MNO. The capacity of the call center will soon be reaching a point at which more space and staff will be needed to meet call volumes associated with increased scale. VillageReach is aiming to move the call center to Lilongwe for more visibility, capacity, and oversight. Limited phone penetration and network connectivity have limited the use of CCPF among hard to reach populations. Despite efforts to increase the number of access points, connectivity remains a challenge. In the beginning of the project, VillageReach was notified of fears being expressed among community members that the service was somehow satanic because hotline workers and mobile messages were able to convey accurate information about a woman's pregnancy without direct interaction. VillageReach was able to work closely with traditional leaders and community members to help address these concerns.

3	**Lessons to take forward** (What advice would your team give when an organization wants practical advice on starting a project like yours?).	Document lessons learned throughout project so that you can share with stakeholders and potential implementing partners. Create easy to share materials and invest in quality improvement/assurance measures to identify and address capacity concerns. Where phone penetration is poor especially among hard to reach communities, uptake of the service can be compromised as such there is need to put in place measures to increase access points. It is helpful to work with grassroots leadership both for health and traditional reasons. It helps to manage fears and myths that might be associated with the project.

Understanding the User		**Questions to Consider:** • How have you designed your service and intervention to address the needs of the women you serve? If you have found it necessary to involve men or other key gatekeepers please share those experiences as well. • How do you engage with your users to find the key drivers and deterrents of use? • How have you localized content and ensured that the service works within the existing flow of care for health workers and beneficiaries?
1	**Major successes** (What has worked well?) Be specific.	CCPF was designed to address the needs of pregnant women, caregivers of young children, and women of child bearing age by providing direct access to health workers and targeted health messaging through mobile phones. The service is toll-free and easy to access by dialing a simple short code to talk with a hotline worker. Women and caregivers are able to ask health related questions, receive healthcare advice, or be referred to a health center for care from home. Registration in the mobile messaging service is done over the phone with skilled hotline workers and women and caregivers are able to receive messages directly to their personal phones. If a woman does not have a personal phone, she is able to access her weekly messages by dialing the short code and following a series of prompts through an IVR. Community feedback was obtained in the beginning of the project on the content for the mobile messages through consultation with end users, community health workers, traditional leaders, and district health staff to ensure that it was relevant and understandable. In addition, phone based surveys, meetings with community volunteers, and focus group discussions were conducted throughout the project period to ensure that messages remained relevant, that clients were able to access the services, and for general feedback on the hotline experience. This information was used to improve services as needed. During the course of the project, we identified the need for more male engagement. One way we worked to engage more men, was including them in the birth planning process. All pregnant women are encouraged to create a birth plan (i.e. plan for place they will deliver, transport they will use, how they will save money). Hotline workers encourage pregnant women to have their husbands call the hotline to also learn about the birth planning process, acknowledging that husbands often have huge influence on birth planning, including decisions about money and transportation.

2	**Major challenges** (What has been some of the notable challenges so far?). Be specific.	Gathering feedback from end users is a resource intensive undertaking and was challenging to do throughout the project.
3	**Lessons to take forward** (What advice would your team give when an organization wants practical advice on starting a project like yours?).	Engage end users in the content creation phase.

Monitoring and Evaluation		**Questions to Consider:** • How have you balanced monitoring and evaluation efforts to improve program implementation and demonstrate impact with the evidence claims that partners need to see to support scale-up? • How have your M&E results assisted in your project's progression and/or ability to influence stakeholders? • What are the key enablers or deterrents to your project being able to demonstrate health impact and make the evidence claims you need to scale-up? • What has your project learned about the use of research approaches, monitoring and evaluation, or costing for the scale-up process?
1	**Major successes** (What has worked well?) Be specific.	VillageReach has robust monitoring and evaluation procedures in place for CCPF. Monthly reports are generated from data entered into the hotline software and from the IVR. In addition, VillageReach monitors the numbers of text and voice messages sent and the success rate of message delivery. This information has been useful to improve service delivery; for example, altering the time of day messages are sent to improve delivery success or add staff to the hotline to avoid unanswered calls. In addition, VillageReach prepares monthly reports for implementing partners. These reports provide partners with an update on information such as call volumes, outcomes of calls, and tips and reminders registrations that assist partners in their own demand generation initiatives. In addition to routine monitoring and evaluation, CCPF was able to use the results of a robust, independent evaluation demonstrating significant improvements in knowledge and care practices among users of the service to advocate for national scale of the service. Results of cost modeling and economic evaluation have also been used to demonstrate that CCPF is a cost-effective intervention.

2	**Major challenges** (What has been some of the notable challenges so far?). Be specific.	Good monitoring and evaluation is time and resource intensive. Data and evidence are not always used as the basis for decision making by stakeholders, particularly around resource allocations. While the evidence of CCPF's impact and success were useful in gaining MoH support and endorsement, thus far, they have been minimally effective in attracting financial support for the hotline. The Impact evaluation does not answer all questions for all stakeholders. For example, it would be useful to demonstrate the health system impact of CCPF, not just the user impact. However, we do not have resources to conduct a study to demonstrate this.
3	**Lessons to take forward** (What advice would your team give when an organization wants practical advice on starting a project like yours?).	Design evaluation with key questions about impact (for various stakeholders) in mind. Establish M&E systems that are robust yet easy to use. Ensure good data to monitor program quality and share with stakeholders

(EDITED)

E) Communications and Advocacy

The information requested below will help UNF and WHO to best represent your organization and IWG funded project in print and digital communications. This succinct and accurate information will help us tell your story to a variety of stakeholders. It is also helpful to understand the level of exposure the project received in 2014 and to have a resource library of publications, journal articles, etc. from IWG funded projects.

1	**Overview of mHealth portfolio at organization and description of how IWG project fits in** (2 paragraphs or less)	VillageReach has expertise in developing and deploying information and communication technology systems – from mHealth applications to enterprise-level platforms – in low-income environments to support health system needs. In weak health systems, health workers struggle to deliver quality healthcare due to unreliable or non-existent information and communication services. VillageReach develops locally-appropriate solutions specifically developed for low-resource environments to optimize data collection, improve data visualization, and improve communications for better health outcomes. Our current and past mHealth portfolio includes integrating mobile stock tracking tools with logistics management platforms, developing new mobile scanning applications for quickly digitizing paper-based data, mobile decision-support tool implementation, and developing new communications and messaging platforms to enhance the health systems ability to communicate directly with the community. CCPF fits well within our mHealth portfolio as we've grown our experience and expertise to connect last mile communities with the health system.
2	**Health goal for IWG funded project** (In 2 sentences or less describe the intended health impact)	CCPF aims to strengthen maternal and child health outcome and increase health system efficiency by improving the knowledge and use of appropriate home and facility based maternal, neonatal, and child health care practices.

3	**Contribution to achievement of MDGs 4, 5, and/or 6** (In 2 paragraphs or less please describe how your project and the results of your evaluation relates and/or contributes to the achievement of MDGs 4, 5, and/or 6)	Maternal, newborn, and child mortality rates in Malawi are among the highest in the world. A woman living in Malawi has a 1 in 34 chance of dying during childbirth[1] and 71 out of 1,000 children are expected to die before their fifth birthday.[2] Underlying causes of poor health for women and children include limited availability of timely and reliable health information for decision-making and poor access to and use of health facilities. Pregnant women and mothers may delay seeking care or taking appropriate preventative or curative action, may not be able to access appropriate health services, or they may access health facilities unnecessarily, thereby increasing the load on the already overburdened health system. Lack of transportation, poor infrastructure, and long distances to health centers are barriers to accessing care in a country where the vast majority of the population lives in rural areas. Knowing where to go for care – and when – are integral to maximizing health care access and utilization and reducing maternal and child mortality. CCPF is an efficient intervention reaching 185,000 women of childbearing age and 135,000 children in four rural districts of Malawi from one call center with a modest base personnel. CCPF receives more than 1,000 calls per month and more than 10,000 clients are registered for the tips and reminders mobile messaging service. Users cite the friendliness of the hotline workers and the ability to access the service from home - saving them time and money associated with travel to a health center - as particularly valuable aspects of CCPF. In addition, CCPF encourages appropriate use of the health system. Over 80% of calls to CCPF's hotline are resolved without a referral to a health facility. As a result, CCPF reduces undue burden on health facilities by encouraging minor ailments to be treated at home or by community health workers. CCPF provides an important additional point of contact with the health system in an environment where geographic distances and overburdened health facilities and health workers create additional barriers to advice and care. In 2013, an independent evaluation found that CCPF led to statistically significant improvements in maternal and child health indicators including; • Increased use of antenatal care (ANC) within the first trimester • Increased use of a bed net during pregnancy and for children under five • Early initiation of breastfeeding • Increased knowledge of healthy behaviors in pregnancy including drinking more water and minimizing strenuous lifting • Increased knowledge that some traditional medicines can be harmful in pregnancy • Increased knowledge of maternal health services including number of recommended prenatal visits
4	**Scale goal for IWG funded project** (In 2 sentences or less describe the level of scale you would like to achieve at the end of the 2 year grant)	At the end of the two year grant period, we wanted to achieve scale-up to two additional districts beyond the pilot district as well as build the foundation and evidence base for national scale. By 2017, we aim to expand CCPF nationally in Malawi.

5	**Describe your project in 3 sentences or less** (think of this as a quick elevator pitch to a potential partner who can help you reach your health and scale goals)	CCPF is a proven mHealth intervention in Malawi that addresses the lack of access to timely and appropriate reproductive, maternal and child health information, advice and care that many rural communities face. Where many other mHealth programs and platforms focus on one-way communication only, CCPF combines a toll-free staffed hotline with mobile messaging, providing the opportunity for clients to speak directly with a trained health worker in addition to receiving regular text or voice messages on reproductive, maternal, and newborn health topics tailored to the client's week of pregnancy or a child's age. An independent evaluation found that CCPF contributed to statistically significant improvements in maternal and child health indicators, garnering the support the Malawi Ministry of Health (MoH) who has endorsed CCPF and stated its desire to see the program scale nationally.
6	**Number of mentions in news/media outlets** (for IWG funded project specifically)	11 (2013-2014)
7	**Number of mentions and coverage in blog outlets** (Blog posts can be written by your staff or someone else, as long as they are posted in outlets other than those run by your organization and for IWG funded project specifically)	6 (2013-2014)

[1] World Bank, 2015
[2] UNICEF, 2012

8	**Journal articles or grey literature associated with your IWG funded project** (Please include links or copies in the appendices)	• *Global Health and Sciences and Practices*: SMS versus voice messaging to deliver MNCH communication in rural Malawi: assessment of delivery success and user experience, multiple authors. (Feb. 2014) LINK • *Evaluation of the Information and Communications Technology for Maternal Newborn and Child Health Project*, by Invest in Knowledge Initiative. (Dec. 2013) LINK • *Health is the best wealth: A cost-outcome analysis of an mHealth intervention in Malawi* (not yet published) • A series of papers based on the results of the impact evaluation are currently pending publication in the Journal of African Population Studies: *Fostering the use of quasi-experimental designs for evaluating public health interventions: Insights from an mHealth project in Malawi*. By Jean Christophe Fotso, Amanda Robinson, Aaltje Noordam, Jessica Crawford *Improving care-seeking for facility-based health services in a rural, resource-limited setting: Effects and potential of an mHealth project*. By Ariel Higgins-Steele, Aaltje Noordam, Jessica Crawford, Jean Christophe Fotso *Where there is no phone: Extending the reach of mHealth to individuals without personal phones in Balaka District, Malawi*. By Erin Larsen-Cooper, Emily Bancroft, Maggie O'Toole, Zachariah Jezman *Strengthening the home-to-facility continuum of newborn and child health care through mHealth: Findings from an intervention in rural Malawi*. By Jean Christophe Fotso, Lauren Bellhouse, Linda Vesel, Zachariah Jezman
9	**Any additional publications and reports** (please include links or copies in the appendices)	• *mHealth Guide for Newborn Health*, by CORE GROUP, CCPF featured on page 14. LINK • *Sustainable Financing for Mobile Health (mHealth): Options and opportunities for mHealth financial models in low and middle-income countries*, by mHealth Alliance and Vital Wave Consulting, CCPF Case Study on page 23. LINK • GSMA Country Feasibility Report: Malawi, 2014. LINK

F) Feedback on Joint Learning Group

The Joint Learning Group is made up of UNF, WHO, JHU, other advisors, and the IWG grantees and acts as a collaborative group that addresses some of the largest barriers to scale. Your participation in the joint learning group is a key component of the IWG grants mechanism and complements the financial grant. We seek to improve the structure and support offered through the joint learning group each year and your feedback will help us plan for 2015.

1	**Benefits** to being a part of the Joint Problem Solving Group	The Joint Learning Group helped VillageReach learn from others experiences and how they resolved their problems but also provided a platform to share its experiences. Being an IWG grantee provided VillageReach with the opportunity to meet, collaborate, and share strategies and lessons learned with other grantees at various forums during the two year grant period. It created some new connections for us to advance our work and our knowledge of possible platforms or solutions (e.g., learning from Praekelt Foundation / MAMA South Africa about options for decreasing costs of IVR services, etc) and to disseminate information and evidence from the CCPF project. In addition, through the JLG, we built new contacts and relationships in Malawi (e.g., working with CHAI on ANC Connect) and were able to access resources that we otherwise would not have had access to (e.g., GSMA introductions, getting Alain's support on our some of our research, and intern from Hopkins).
2	**Suggestions to enhance/modify** the Joint Problem Solving Group	One suggestion would be to have a summary at intervals of crucial issues which were resolved and shared to the members. More regular communication would also be welcomed. Finally, we would appreciate more follow up and communication in general. For example, we would do a lot of work to prepare for meetings and then there would be little follow-up afterwards on the outputs and outcomes of the meetings or on some of the resources discussed.
3	How has participation in the IWG Catalytic mHealth Scale-up Grants impacted your project's **understanding of the scale-up process**?	Participation in the IWG Catalytic mHealth Scale-up grant allowed us to scale CCPF to new areas and test different models for achieving scale. The funding allowed us to move from the pilot stage of an mHealth project to a scale-up stage, much better positioned for national scale. We were able to learn from others in the group on business model strategies and the connection with GSMA was particularly helpful to us in Malawi. The grant provided us direct access to experts in the field of mHealth and gave us a global presence. That said, we would have benefited from more direct feedback, guidance, and support on our scale-up process overall.

4	What has your team learned from participating in **workshops organized by the UN Foundation and WHO** and how have you applied that knowledge? What was the most valuable aspect of the workshops and how do you think they could be improved?	Our participation in the workshops enhanced our understanding of mHealth in general and enlightened on what can be done to successfully implement mHealth projects. It also provided us the most needed platform to share our experiences with the rest of mHealth players. The knowledge gained was used to get the necessary support from government and its partners as well as improving the project in terms of service delivery.
5	Have you benefited from **working with an advisor** provided by UNF, WHO, or JHU or with a fellow grantee? If so, please explain.	We benefited greatly from an academic advisor at JHU who provided us with an intern and support for research. In addition, UNF has been quick to reply to our questions and provide guidance on applicable resources and connections.

G) Appendices

Please find the following appendices attached:

A. CCPF Draft Implementation Manual
B. Executive Summary of Impact Evaluation
C. 2 page summary of CCPF
D. Media Contact List

II) Budget

Attached.