Annual Report 2015

Our Mission
Save lives and improve health by increasing access to quality healthcare for the most underserved communities

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Executive Summary

2015 has been a watershed year for VillageReach. It represents the culmination of work over many years and proves that our model for system innovation is working: governments and institutional partners are changing approaches to last mile healthcare delivery based on VillageReach-generated models in the field.

- 3.5 million doses of vaccines are delivered annually to children in Mozambique as a result of VillageReach’s technical assistance and the Dedicated Logistics System (DLS).
- The first class of Pharmacy Assistants are deployed to rural health centers, improving availability and safety of medicines across Malawi.
- OpenLMIS is increasing supply chain efficiency and data visibility at the last mile in five countries – including two new countries this year.
- The mHealth service Chipatala Cha Pa Foni (CCPF) is serving more mothers and caregivers than ever before and is on a path for national scale-up with the Ministry of Health and Airtel, the largest mobile network operator in Malawi.

Because the global community is now prioritizing the last mile as critical to increasing access to quality healthcare for the most underserved communities, I am optimistic for the year ahead. When I began working with VillageReach in 2004, ‘the last mile’ was not on the international global health agenda, and while it has taken time, the tide is turning. I am proud of the work VillageReach has done to contribute to this progress through our investment in developing, testing and scaling critical last mile innovations like the Pharmacy Assistant Training Program, OpenLMIS, CCPF, and the DLS. At the same time, I know there is still much more to do in order to achieve large-scale change at the global level.

For example, funding models for health supply chains must change, and VillageReach will play a significant role in the change management process through an increase focus on advocacy in the year ahead.

I look forward to seeing CCPF and the Pharmacy Assistant Training Program continue to grow and serve as replicable models the last mile innovation. In the coming year, we will significantly expand CCPF while documenting how private sector partnership works to achieve health impact at scale. We will leverage the key learning from the Pharmacy Assistant Training Program in Malawi to generate demand for similar models in other countries, and increase global awareness of the critical role skilled pharmacy workers can play in improving quality healthcare at the last mile.

I am enthusiastic about new innovations such as the use of UAVs (unmanned aerial vehicles) for last mile medical deliveries. VillageReach is at the forefront of this innovation, applying our last mile expertise and contributing to evidence around the practical use and application of this technology in the field.

I anticipate an exciting year ahead for VillageReach, filled with new ideas, change and continued growth – and an unwavering focus for the world’s most underserved communities.

Allen D. Wilcox, President
2015 Overview

Optimizing the Supply Chain System in Mozambique: The Dedicated Logistics System

In partnership with the Mozambique Ministry of Health, VillageReach developed and implemented the Dedicated Logistics System (DLS), resulting in significant increases in the number of fully vaccinated children, dramatic reductions in stock-outs, and reductions in costs. Since its initial implementation in 2002, the DLS continues to gain recognition within the international community from partners like Gavi, the Global Vaccine Alliance, who recognize the DLS model as part of an improved and highly successful approach for vaccine supply chains. Donor support has been integral to this multi-year advocacy effort and represents one of our biggest achievements in terms of taking an innovation to scale and ensuring sustainability.

2015 saw the expansion of the DLS to a new province in Mozambique, Tete as well as expansion to new geographies in existing provinces. A key aspect of this expansion was the modeling effort conducted in partnership with the HERMES Logistics Team to help analyze new supply chain design choices for each province. These efforts resulted in more efficient transport and distribution, increasing interest for system design at the national level. Current DLS provinces continued to see sustained reductions in stockouts – at less than 3% across all provinces utilizing the DLS.
In September, Mozambique introduced the rotavirus vaccine, which will protect tens of thousands of people from severe dehydration, and even death, due to rotavirus-induced diarrhea. Before the introduction of the vaccine, VillageReach once more worked with the HERMES Modeling Team to identify potential obstacles for successful distribution and design innovative approaches to support the distribution of nearly 1 million vials of vaccine to 1,400 health centers across the country.

VillageReach continued to work with Nexleaf on the introduction of ColdTrace, remote temperature monitoring devices, now installed in over 100 health centers throughout Mozambique. These devices are being piloted to determine the utility of ColdTrace in improving the cold chain and reducing vaccine wastage due to temperature issues. The ColdTrace First Year Report can be found here.

This year, the Dedicated Logistics System and VillageReach were honored as the winner of the Prize for Supply Chain Excellence in Global Health in Low- and Middle Income Countries, which was presented at the 2015 Global Health Supply Chain Conference in Dakar, Senegal in November.

Making Inroads:
Exploring Private Sector Solutions for Last Mile Distribution

There is currently no funded, regular last mile delivery in Mozambique for anti-retroviral (ARV) drugs used to treat HIV, and as a result, stockouts are frequent at the facility level. Leveraging our last mile delivery experience in Mozambique and other countries, VillageReach has begun to look for ways to address this problem. In December of 2015, in collaboration with the Tete Provincial Health Services Department, Médecins Sans Frontières (MSF) and commercial transporters, VillageReach launched a new public-private initiative to improve the availability of medical commodities at the last mile. This partnership in northern Mozambique, with additional support from the Bill & Melinda Gates Foundation and the Vitol Foundation, is an extension and enhancement of the Dedicated Logistics System which operates in four other provinces for vaccine delivery. In Tete, the DLS is delivering both ARV drugs and vaccines in the same delivery using commercial transporters to plan the
routes to health centers, deliver the commodities, and record the inventories. By integrating the delivery of HIV products and immunizations using commercial transporters, this initiative leverages VillageReach’s experience in last mile supply chain with the technical and financial resources of the private sector to meet the needs of remote and hard to reach communities.

Expanding Our Reach: The DRC

In partnership with The World Bank, VillageReach led a supply chain assessment in the provinces of Equateur and Tshuapa in the Democratic Republic of the Congo. The focus of this assessment was on vaccines, family planning, and MNCH tracer commodities. The main objective was to determine supply chain solutions that could improve the availability of vaccines and other health commodities at the facility level based on an objective and contextual assessment supply chain problems and the evidence-based interventions recently experimented with in other countries. In the coming year, VillageReach plans to continue working in DRC to strengthen relationships with local government and partners in the context of continued improvement to the immunization supply chain.

Pharmacy Assistant Training Program: First Cohort Graduation

Together with our partners, the Malawi Ministry of Health, the Malawi College of Health Sciences, and the University of Washington Global Medicines Program, VillageReach designed and implemented the Pharmacy Assistant Training Program, a new approach to the training, deployment, and support of pharmacy assistants in Malawi. The initiative addresses key barriers to medicine availability at the health facility and district level. The program produces a dedicated cadre of individuals with enhanced training in medicine management and supply chain practices to eventually support each of Malawi’s 650 rural health centers.

The first cohort of students graduated from Pharmacy Assistant training in June 2015, adding an additional 48 trained Pharmacy Assistants into the healthcare workforce. Of these 48 graduates, 45 have been deployed to rural health centers and 3 have been deployed at district hospitals. A second cohort of 91 students continues to work through classroom and practicum rotations.

Initial results show an 80% reduction in clinician time spent on logistics in health facilities that have a Pharmacy Assistant student. Additionally, the quality of patient pharmaceutical care improved, proper dispensing practices were more closely followed, drug management standards were met, and data reported to higher supply chain levels increased in quality and timeliness.
A new eLearning system was launched to supplement materials used in the Pharmacy Assistant course. Students receive reminders about their course work, as well as quizzes to test their knowledge and emphasize important points. This system has been successful, with more than 80% of students engaging in these eLearning efforts.

mHealth Innovation:

Chipatala Cha Pa Foni (CCPF) – “Health Center by Phone”

CCPF is an mHealth innovation in Malawi designed to increase access to timely and appropriate maternal, neonatal and child health information, advice and care via a toll-free hotline and a “tips and reminders” text and voice message service. In 2015, CCPF expanded to an additional province, Nkhotakota North to incorporate a total of five provinces and a population of more than 500,000. Several new partnerships also contributed significantly to the expansion of CCPF in both scope and scale:

- VillageReach formed a partnership with Malawi’s largest mobile carrier, Airtel, which merged Airtel’s existing Dial-a-Doc service with CCPF. As part of this groundbreaking partnership, Airtel provides zero-rates airtime associated with calls to the hotline absorbing the cost that VillageReach and its donors have historically funded. This financial support allows the hotline service to remain free of charge for callers and allows other resources to further expand the service in more communities. Using Airtel’s existing network, CCPF is greatly increasing its reach and awareness of the service to Airtel’s customers.

- A new partnership was forged with Johnson & Johnson Corporate Contributions to improve the quality and reach of CCPF including enhancements to CCPF reference materials, staff training and overall program support to help transition the program to national scale with the Malawi government.

- Nexmo partnered with CCPF, adding a cloud SMS API that was integrated into the CCPF call center. This software allowed automated voice, text message and short codes services that were functional within hours of setup. This system partners directly with Malawi phone carriers, which allows messages to be sent on time, rarely drop signal and be less expensive.

OpenLMIS: Leading the Community

Since the initial concept development, VillageReach has played a leading role in the evolution of OpenLMIS, an open source electronic logistics management information system for managing health supply chains. OpenLMIS has become a multi-country, multi-donor, multi-implementer open source community committed to shared learning and shared benefit with the goal of continually improving the performance of health supply chains in LMICs through improved data visibility and utilization.
VillageReach acts as the convener of the OpenLMIS community, utilizing the collective contributions of implementing partners to advance, improve and increase awareness of the product. VillageReach also leads the OpenLMIS global team, leading the development of the core product, and has provided technical assistance for the implementation of OpenLMIS in multiple countries.

OpenLMIS has been implemented in five countries: Tanzania, Zambia, and Mozambique, with the addition of Benin and Cote d’Ivoire in 2015.

In Benin, L’Agence de Medecine Preventive (AMP) and VillageReach implemented the local version of OpenLMIS, Systeme Informatise d’Information de la Gestion Logistique (SIIL) beginning in January. This system supports an informed push vaccine distribution system covering 37 health facilities in the Comé Health Zone. SIIL will support this vaccination system by improving data visibility, ensuring more reliable deliveries, improving quality controls, and reducing vaccine stockouts.

In September, VillageReach together with OpenLMIS partners, led a first-of-its-kind convening of the OpenLMIS Community, bringing together global OpenLMIS stakeholders representing implementers, donors and other partners. The Community made significant progress defining, documenting and prioritizing the governing issues of the community moving forward. Many topics were discussed across plenary, governance and technical sessions ranging from sustainability, system architecture, the product roadmap and defining OpenLMIS.

**ODK Scan**

Many rural and/or low-income communities worldwide rely on predominantly paper-based systems for supply chain management. Often there is no standardized system for collecting and reporting logistics data, particularly in the tracking of health commodities. The lack of such a reporting system leads to frequent stockouts and an inability to provide treatment and services to patients. Improved data visibility is essential for more timely and accurate decision making by health supply chain managers, immunization officers, and other health officials who experience significant challenges in receiving and analyzing data from paper-based systems. In 2015, VillageReach built upon its field work with ODK Scan, a tool within the suite of Open Data Kit tools, in Mozambique, and facilitated additional testing of ODK Scan in Malawi. This field trial sought specific feedback from users on the usability of a redesigned form, ease of data field completion, app workflow intuitiveness, and overall experience with the new process. VillageReach is now working with University of Washington Department of Computer Science and Engineering of Computing to apply key learning from the field trial to further develop and improve the ODK Scan technology for appropriate last-mile implementations. The full report of the field trial can be found here.
Why the Last Mile?

VillageReach seeks to increase access to quality healthcare for the world’s most underserved communities, by improving the capacity and efficiency of health systems in low- and middle-income countries (LMICs). These countries account for a disproportionate share of worldwide deaths, many from vaccine-preventable diseases which continue to kill 1.5 million children annually. The lack of access to healthcare for both prevention and treatment affects peoples’ ability to attain an education, acquire employment, and raise healthy families to improve their economic and social quality of life, thereby perpetuating poverty in the world’s marginalized communities.

Improving the health and welfare of these communities requires more attention and resources be paid to strengthening the final segment or “last mile” of health systems - where healthcare is actually delivered, and the infrastructure that support them. While tremendous investments have been made to bring new medicines, technologies, and other global health innovations to LMICs, barriers to delivering these innovations and providing basic health services remain a significant challenge, especially in the most rural and remote communities. Health systems simply don't have the capacity to effectively respond to demand through to the last mile – where healthcare is delivered.

By improving productivity, quality and access, VillageReach simultaneously seeks to increase the use of health services by increasing trust in the health system. Over time, communities receiving reliable services will come to trust and rely on the health system, thereby improving the overall health of the community.

Our Approach- System Innovation, Starting at the Last Mile

More than a decade of studying and working in low-resource environments around the globe informs our approach— invest in innovations that address the unique needs of weak health systems, with an emphasis on strengthening the “last mile” of healthcare delivery: where healthcare is administered, often the most rural and remote communities, and generally the most difficult and weakest link in healthcare delivery. At this level, the health system and the resources available to it must be spread very thinly across vast geographic areas. To deliver quality healthcare to the last mile, health systems must overcome significant challenges, including: human and financial resource constraints; lack of timely and accurate information regarding health system operations (i.e., data on medical commodities inventory, cold chain performance, delivery capacity and associated constraints); and lack of infrastructure needed to support healthcare delivery (e.g., energy, transport, information communications technology).

To improve healthcare delivery support services at the last mile, VillageReach has built deep and relevant expertise, including the following:

- **Supply Chain Logistics** - VillageReach has more than fifteen years of experience designing, improving and implementing medical commodity supply chain and logistics systems that increase the availability of vaccines, medicines and other medical commodities at the service delivery level.

- **Information & Communication Technology** - VillageReach designs, tests, builds and implements technology solutions ranging from mHealth applications to enterprise-level logistics management information systems designed to support and improve healthcare delivery.
- **Human Resources for Health** - VillageReach excels in designing field-based training opportunities that improve health service delivery while working to ensure health workers and health extension programs have the data and resources needed to provide effective services to patients.

- **Private Sector Engagement** - VillageReach assesses deficiencies in infrastructure and works with the private sector to develop new opportunities to provide the communications, transport, and energy services needed to support healthcare delivery, particularly in remote, rural areas.

- **Outreach** - VillageReach has built and implemented new systems that educate communities, especially those in hard-to-reach regions, regarding available healthcare services and how best to access those services.

- **Advocacy, Change Management and Technical Support** - Across all areas of expertise, VillageReach’s team is experienced in leading the local, national, and global advocacy needed to encourage the adoption of new approaches that improve healthcare delivery. VillageReach also provides the technical assistance, as required, to support ministries of health, global health partners and the private sector as they implement and scale those new approaches.

## 2015 Leadership

### Seattle
- Allen Wilcox, President
- Emily Bancroft, Vice President & Group Lead, Health Systems Group
- John Beale, Director & Group Lead, Private Sector Engagement
- Nancy Geiger, Director, Finance and Operations
- Sarah Jackson, Technology Manager & Group Lead, Information Systems Group

### Mozambique
- Ruth Bechtel, Country Director

### Malawi
- Jessica Crawford, Country Director

### Board of Directors
- Richard Fant, VillageReach Board Chair, Vice President, AVG Technologies
- Valerie Nkamgang Bemo, M.D., MPH – Senior Program Officer, Global Development Initiatives, Bill and Melinda Gates Foundation
- Alexandra Brookshire Esq., Partner, Perkins Coie (Retired)
- Michael Free, OBE, PhD, Senior Advisor Emeritus, PATH
- Karen Glover, Global Integration Partner, K&L Gates LLP (retired)
- Margaret Griffiths, Chief Financial Officer, Qualis Health
- Laura Herman, Managing Director, FSG Social Impact Advisors
- Will Poole, Social Technologist
- Paul Suzman, Founder and President, OfficeLease
- Allen Wilcox, President, VillageReach
- Graça Machel, Chair, FDC; VillageReach Honorary Board Chair
Partners

VillageReach funding and implementation partners make our work possible:

- Agence de Médecine Préventive (AMP)
- Airtel
- Baobab Health Trust
- Barr Foundation
- The Bill & Melinda Gates Foundation
- Clinton Health Access Initiative (CHAI)
- Concern Worldwide Malawi
- Foundation for Community Development (FDC)
- Gavi, the Vaccine Alliance
- GIZ
- GlaxoSmithKline (GSK)
- Global Good
- Health Alliance International (HAI)
- Intellectual Ventures
- I-TECH
- John Snow, Inc. (JSI)
- Johnson & Johnson Corporate Contributions
- The Miami Foundation
- The Mulago Foundation
- Management Sciences for Health
- Médecins Sans Frontières
- Nexleaf
- The Oasis Fund
- Oxfam
- PATH
- Poverty Action
- Project Concern International
- Reproductive Health Supplies Coalition
- Seattle Foundation
- Seattle International Foundation
- Skoll Foundation
- Touch Foundation
- USAID
- USAID|DELIVER Project
- UNICEF
- United Nations Foundation
- United Nations Commission on Life Saving Commodities
- University of Washington Global Medicines Program
- Vitol Foundation
- Vodacom
- William Davidson Institute
- The World Bank

Financial Reports

VillageReach provides its financial reporting online for convenient access. Copies of our Articles of Incorporation, Bylaws, Proof of 501 (c)(3), and archived financial reports can be found here.

The following financial reports are also available online:

- FY 2015 Tax Returns – Will be posted upon submission to the IRS on our website here.
- FY 2015 Audited Financial Statement

THANK YOU

*With your support - vaccines, essential medicines and health supplies reach more communities when they need them, individuals have better access to health information and services, and frontline health workers have the tools and resources they need to provide better quality healthcare at the last mile.*

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