# Landscape Assessment:



# **Bringing Health to Local Communities**

Strategies from global health

*This review summarizes some of the most effective interventions from global health and their potential applications to improve health in low-resourced US populations.* 



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# **Table of Contents**

List of Tables & Figures	3
Abbreviations	3
Executive summary	4
Introduction	8
Global to Local	8
Methods	9
Findings	10
1. Community Health Workers	10
2. Mobile Health (mHealth)	16
3. Social Media and Mass Media Campaigns	23
4. Mobilizing and Empowering Community-based Organizations	28
5. Linking Economic Development & Health	34
6. Linking Primary Health Care with Public Health	41
7. Community Mobilization and Leadership Development	46
8. Gender Norms and Gender Equity in Public Health and Primary Care	53
9. Coordinated and Patient-Centered Care	60
10. Leveraging Public-Private Partnerships	67
11. Retraining and Relicensing Foreign Medical Professionals	74
Conclusion	78
Appendix: Search strategy outline	79
References	82

# **List of Tables & Figures**

Table 1. Global health interventions that can apply to domestic low-resource settings.	5
Table 2. Summary of the benefits of CHWS.	11
Table 3. Summary of benefits of mHealth.	17
Table 4. Summary of benefits of targeted health campaigns.	24
Table 5. Summary of the benefits of community-based organizations (CBOs).	29
Table 6. Summary of benefits of economic development.	35
Table 7. Summary of benefits of integrating public health services and primary care.	42
Table 8. Summary of evidence of community empowerment and leadership development.	47
Table 9. Summary of benefits of gender integration.	54
Table 10. Summary of evidence for patient-centered primary care.	61
Table 11. Summary of benefits of public-private partnerships.	68
Figure 1. Levels and determinants of health.	5
Figure 2. Models of care.	62
Figure 3. Distribution of Accountable Care Orgs.	64

## **Abbreviations**

ACO	Accountable Care Organizations
CHW	community health worker
COPC	Community-Oriented Primary Care
FIN	Food Innovation Network
GBV	gender-based violence
G2L	Global to Local
HIC	high-income countries
IPV	intimate partner violence
LMIC	low-and middle-income countries

MACEPA	Malaria Control and Elimination Partnership in Africa
mHealth	mobile health
NGO	nongovernmental organization
PPP	public-private partnership
SMS	Short Message Service
STD	sexually transmitted disease
STI	sexually transmitted infection
ТВ	tuberculosis

## **EXECUTIVE SUMMARY Bringing Health to Local Communities** *Strategies from global health*



This review summarizes some of the most effective and innovative interventions from global health, with a focus on how they might be implemented to improve health in low-resource US populations.



## **The Landscape Assessment**

Across the United States, people face significant disparities in their access to and utilization of health services, leading to unequal health. Many of the root causes of these issues are related to health systems challenges: a fragmented health care system, inability to afford health care, and a mismatch between the health system and the needs of diverse or hard-to-reach populations. But these health systems and service-related factors are not the only drivers of poor health. "Social determinants of health" are just as important: a person's income and wealth; education; social and community context; and neighborhood and environment.

The cities of SeaTac and Tukwila, Washington, are within one of the wealthiest regions in the country. Yet SeaTac and Tukwila have twice as many people living below the federal poverty line and higher age-adjusted mortality rates than the national average. Solving health issues in these cities requires combining proven best practices with a dose of innovation. Since 2010, Global to Local, a SeaTac based organization, has been identifying best practices from global health and implementing them in communities at home.

## Why global health?

"Global health" refers to the study and practice of health in the global context, typically with a focus on low-income countries. With the expansion of international aid, there is a robust body of research on "what works" to improve the health of populations in settings where there are often not enough resources, where health systems are often not as integrated and effective as they could be, and where disparities related to income and empowerment pose important barriers. Many US communities face these same challenges.



Photo credit: PATH

## How were the interventions chosen?

Interventions in this review were selected based on their (1) effectiveness and cost-effectiveness; (2) ability to have the greatest impact on the most disadvantaged populations (i.e., equity); (3) ability to address social determinants of health; and (4) transferability and feasibility in low-resource domestic settings. This resulted in a list of 11 interventions, which are summarized throughout this report.

#### Interventions in this review address multiple levels and determinants of health

Figure 1 shows how multiple levels influence an individual's health. It is well established that health is impacted more by the policy level and by social, economic, and environmental influences (i.e., "social determinants of health") than by individual or health systems factors. While many of the interventions in this review are centered on health providers and health care systems, we attempted to ensure that the interventions cross all levels and inputs of good health. The implementation of cross-cutting interventions is made possible by the presence of Global to Local (G2L) who acts as a bridge between clients, the community, health and social services, and the wider health system.





## **The Interventions: A Summary**

We explored 11 effective and innovative global health interventions with potential transferability to low-resource domestic settings (Table 1).

#### Table 1. Global health interventions that can apply to domestic low-resource settings

Note: G2L= Global to Local; LMIC=low- and middle-income countries; NCDs=noncommunicable diseases.

Intervention	Level	Outcomes	Effective?	Transferable?	G2L Lessons Learned
1. Community health workers (CHWs)		<ul> <li>Promote and improve healthy behaviors</li> <li>Increase access to and coverage of preventive and curative services</li> <li>Reduce costs</li> <li>Reduce inequities and disparities</li> </ul>	Highly effective	Highly transferable	CHWs can be highly effective for providing low-cost, culturally specific support in a community setting.
2. Mobile health (mHealth)		<ul> <li>Increase treatment uptake and adherence</li> <li>Strengthen health systems</li> <li>Improve health service efficiency</li> <li>Reduce barriers to care delivery and access</li> </ul>	Potential for high effectiveness	Highly transferable	mHealth has the potential to provide high-quality care for lower cost, while reducing common barriers to access.

Intervention	Level	Outcomes	Effective?	Transferable?	G2L Lessons Learned
3. Social media and mass media health campaigns		<ul> <li>Promote and improve healthy behaviors</li> <li>Increase access to and coverage of preventive and curative services</li> <li>Reduce costs</li> <li>Reduce inequities and disparities</li> </ul>	Effectiveness depends on targeting; often not cost- effective	Transferable	Mass media campaigns are slowly transitioning towards social media campaigns in LMIC; with high cost and unclear causal mechanisms it remains unclear the amount of impact this intervention has on health outcomes.
4. Promote community asset building through community-based organizations		<ul> <li>Increase access and coverage to preventive and curative services</li> <li>Reduce health inequalities and disparities</li> <li>Coordinate community-based research production and use</li> </ul>	Mixed evidence of effectiveness	Transferable with adaptations	Asset-based community development can promote well-being of communities through skills and confidence building, increasing community self-efficacy (van de Venter 2016).
5. Improving economic development and wealth		<ul> <li>Reduce health disparities</li> <li>Improve health outcomes</li> <li>Improve use of health services</li> </ul>	Effective	Transferable	Improving access to income and income- generating opportunities can free up household wealth to invest in nutrition and health care, improving household well- being and health outcomes.
6. Linking primary care and public health		<ul> <li>Improve access to population and public health services</li> <li>Increase access to social services</li> <li>Reduce health disparities</li> <li>Strengthen health systems</li> </ul>	Effective	Transferability depends on local systems	Linking primary care with public health is effective at improving access and quality of services while reducing health disparities. However, depending on the health system, this can be a costly undertaking.
7. Community mobilization & community leadership development		<ul> <li>Reduce health disparities</li> <li>Increase efficiency and cost- effectiveness of programs</li> </ul>	Mixed evidence of effectiveness	Transferable	Community engagement as part of a multifaceted approach to health promotion may have positive impacts on health outcomes, reduced incidence and risk of NCDs, and has the potential to be cost- effective. Community engagement and empowerment is a critical component to broader health interventions.
8. Gender integration		<ul> <li>Improve health</li> <li>Improve effectiveness of health providers</li> <li>Strengthen health systems</li> <li>Improve gender equality</li> </ul>	Unknown effectiveness	Transferability depends on local context	The impact of these interventions depends on the specific outcome or behavior the intervention is aiming to address. One of the main limitations to gender and women's empowerment approaches is that they are vulnerable to whoever holds the power in those cultures and communities.
9. Coordinated and patient-centered primary care		<ul> <li>Improve the quality of health delivery</li> <li>Improve quality of life and targeted health outcomes</li> <li>Improve population health and reduce inequities</li> <li>Increase efficiency and cost-effectiveness of health systems</li> </ul>	Unknown effectiveness	Transferability depends on structure of current health system	Weak health systems serve as an impediment to improving health outcomes for individuals and households in both developed and developing countries. Implementing global health best practices and interventions through a cohesive and collaborative way will ultimately lead to enhanced institutional capacity and stronger health delivery systems.

Intervention	Level	Outcomes	Effective?	Transferable?	G2L Lessons Learned
10. Public-private partnerships (PPPs)		<ul> <li>Reduce health disparities</li> <li>Increase efficiency and cost- effectiveness of services</li> <li>Improve quality</li> <li>Improve access to health services</li> </ul>	Effectiveness depends on individual context	Transferable	PPPs are specific to context, culture, and their specific use, but have the potential to increase health system efficiencies, reduce barriers to access, and improve quality of services.
11. Relicensing foreign medical professionals		<ul> <li>Guide foreign medical professionals into productive practice in the US</li> <li>Improve diversity and cultural approach of health care delivery</li> <li>Strengthen health systems through expanded perspectives</li> </ul>	Unknown effectiveness	Transferable within the US, however it is dependent on state specific laws, regulation, and licensing	CBOs can act as a navigator for foreign- trained medical professionals to become retrained and licensed within their states.

### **Lessons Learned**

Throughout our research, several themes emerged as common factors and barriers to the success of established global health interventions. Interventions that demonstrated success often included the community in the intervention from the beginning, securing local buy-in and support. Communities tend to be involved in the needs assessments and program design and implementation. Incorporating a social-determinants approach to global health work has also demonstrated success, as seen in Section 5: Linking Economic Development Interventions to Improve Health Outcomes. Cultural sensitivity and appropriateness were also cited as critical considerations impacting a program's success. When possible, successful interventions could form partnerships to collect and share resources to achieve a common goal. It is critical that programs use SMART objectives (Specific; Measurable; Achievable; Realistic; and Time-bound) and collect and use data to inform program processes.

Barriers to success often center on lack of funding, political will, information sharing, and capacity. Lack of funding on the part of governments, donors, and organizations can inhibit the success of programs. There is also a need for this funding to be sustained to ensure a smooth exit from the target population. Lack of political will on behalf of funders and governments can deter investment in areas in which communities and nongovernmental organizations (NGOs) have expressed interest. Just as leveraging and sharing resources can bring success to a program or intervention, the lack of cross-sector collaboration and information sharing can be barriers

to the success of programs. Limited capacity and infrastructure was by far the most common theme. Health systems and health professionals often lack the administrative and operational capacity, as well as funding, to take on the extra work of a policy, program, or intervention. It is necessary to provide leadership development and capacitybuilding for a program to demonstrate success. Limited infrastructure in rural and remote areas can also present barriers, inhibiting physical and technological access to these areas. G2L and other domestic organizations can take these lessons learned and apply them to their own programs.



Photo credit: G2L

## **Global to Local**

Global to Local (G2L) was founded in 2010 through a partnership between Swedish Health Services, HealthPoint, Public Health Seattle & King County, and the Washington Global Health Alliance, along with the cities of SeaTac and Tukwila. G2L's approaches recognizes that access to health services depends on all social determinants of health, including economic opportunity, education, language, race and ethnicity, and job skills.

Since 2010, G2L has piloted approaches to improve individual and community health outcomes, lower health care costs, and empower economic development in two of the most diverse and underserved communities in King County: SeaTac and Tukwila. Although King County is one of the wealthiest regions in Washington State and the country, SeaTac and Tukwila have twice as many people living below the federal poverty line and higher age-adjusted mortality rates than the rest of the county. G2L's long-term goal is to design a sustainable model of care for low-resource, highly diverse communities around the country that face similar health and economic disparities.



## Update to the 2010 landscape analysis

To achieve its goal of improving health outcomes and reducing health disparities in the local communities of South King County, G2L draws on innovative and effective strategies from the global health arena. In 2010, PATH, a global health organization based in Seattle, conducted a landscape analysis and literature review of six global health strategies. The 2010 report summarized the evidence of each strategy's effectiveness, including the factors that both enhanced and hindered their success.

#### These factors can be summarized as follows:

- 1. Training and deployingcommunity health workers (CHWs).
- 2. Using technology to overcome barriers and transform community health practices.
- 3. Generating focused campaigns around health issues.
- 4. Mobilizing and empowering community-based organizations (CBOs).
- 5. Linking health with local economic development.
- 6. Linking primary health care with public health services.

While the focus was on the international context in which each of these strategies was implemented, PATH also reviewed literature from domestic examples to provide a useful comparison to the lessons learned, specifically with attention to the different types of populations, health needs, and overall geographic and social environments in which these strategies were implemented. Of important note, while each of strategies reviewed in the initial landscape analysis has been used across a wide array of populations, both globally and domestically, there are no examples in which these strategies have been tailored for use within a population as diverse in racial, linguistic, and sociocultural backgrounds as found in Tukwila and SeaTac.

## **Current program successes and challenges**

Following the previous landscape analysis, G2L has implemented several programs based on evidence-driven successes from global and domestic health interventions. G2L has launched nearly ten community programs since 2010, including remote/mobile phone case management of chronic diseases, CHWs, and culturally tailored physical activity and health promotion programs. Examples of these G2L programs are provided throughout the report.

## Using tested global health interventions to solve local problems

G2L has again collaborated with PATH, with financial support from the Robert Wood Johnson Foundation, to update the 2010 landscape analysis with the addition of six additional themes and strategies commonly employed in global health programs:

- 1. Community mobilization and empowerment.
- 2. Addressing gender norms and equity, with a focus on gender-based violence.
- 3. Improving the continuity and transition of care through integrated, patient-centered primary care.
- 4. Leveraging resources through public-private partnerships.
- 5. Recertifying international health care and medical professionals.

## **Methods**

For each global health topic in this report, PATH employed a pragmatic search strategy first targeting existing systematic reviews of evidence (see box). We searched three primary databases of systematic reviews: Health Systems Evidence<sup>a</sup>, PubMed<sup>b</sup>, and the Cochrane Library.<sup>c</sup> The first two are databases which compile systematic reviews from all sources and rate the quality of the reviews. The Cochrane Library publishes only systematic reviews which have met their highest standards of quality. We included evidence from low/middle-income and high-income country studies with a focus on evidence published from 2011 to 2016.

When systematic reviews were not available for a given theme, we searched for single studies in the peer-reviewed literature and aimed to synthesize the results across relevant studies. In these cases, we narrowed the search strategy to focus on the effectiveness of the intervention on specific outcomes (e.g., the effectiveness of mobile health interventions on adopting healthy behaviors).

As much as possible, we summarized study findings related to the cost-effectiveness and feasibility of each intervention.

#### What is a 'systematic review'?

Systematic reviews search for and compile all the peer-reviewed literature on a topic, assess the quality and findings of each, and synthesize the findings of the highquality studies using systematic methods. Systematic reviews provide a highly valid estimate of an intervention's effectiveness. In pooling across multiple high-quality studies, they remove bias often seen in single studies. This makes them more trustworthy for patients and policymakers than single studies.

a www.healthsystemsevidence.org b www.ncbi.nlm.nih.gov/pubmed

c www.cochrane.org



1. Community Health Workers

# Training and deploying community health workers to bridge the gap between access and delivery

## What is a CHW?

Community health workers (CHWs) are frontline public health workers that are either a trusted member of a community or who have in-depth knowledge of the communities they serve. CHWs or lay health workers require minimal formal training or licensing, serving as a bridge between health care access and service delivery. They can be paid or can work voluntarily. They can often be trained to perform routine screenings or immunizations. CHWs in low- and middle-income countries (LMIC), tend to work within a health facility or local health clinic to provide low-level medical services in the community. CHWs in high-income countries (HIC), particularly the United States, can work as "community health promoters" to provide health education to the community, connect people with essential services, and coordinate with primary care providers, often outside of formal health facilities.

## What problems do community health workers address?

CHWs have been introduced in a wide range of settings as a response to challenges related to suboptimal access and utilization of health services.

#### The root causes of these challenges include:

- · Geographic or financial barriers that limit timely access to care.
- Cultural disparity between service users, providers, and the health system.
- Suboptimal coverage of preventive, routine treatment, or educational interventions.

## **Summary of evidence**

The findings on the benefits of CHWs are as follows:

- There is strong evidence from systematic reviews in HIC that CHWs, compared to traditional health care services, improve physical activity, health promotion, self-management of chronic conditions, and smoking cessation.<sup>1,2</sup>
- There is sufficient evidence to demonstrate that CHWs reduce health care costs for consumers and increase access and use of health care services in low-resource settings with marginalized populations.<sup>3</sup>
- Evidence from systematic reviews in LMIC illustrating that CHWs, compared to traditional health care services, improve childhood immunization, pre- and postnatal care, health education, reproductive health education, and HIV/AIDS screening, testing, and treatment.<sup>4</sup>
- CHWs in both developed and developing countries settings have been demonstrated to reduce barriers to access and delivery of health care services due to reduced costs and culturally appropriate care and are relatively easy to train and implement in marginalized or rural communities.

Table 2 summarizes the evidence across each intended outcome of CHWs.

Outcome/Goal	Summary of Evidence
Promote and Improve Healthy Behaviors	<ul> <li>CHWs have been shown to:</li> <li>Increase health education and medication adherence for reproductive health and HIV/AIDS in developing countries.<sup>5,6</sup></li> <li>Increase the adoption and maintenance of healthy behaviors in both HIC and LMIC, improve overall health, and decrease risk associated with chronic diseases.<sup>7,8</sup></li> </ul>
Increase Coverage and Access to Preventive and Curative Services	CHWs have been shown to: • Increase screening rates. <sup>9,10,11,12</sup> • Increase immunization rates. <sup>13,14,15</sup> • Increase timely access to treatment for childhood illnesses. <sup>16</sup>
Reduce Cost to Health System	CHW programs have been shown to be: • Cost-effective at providing public health-based education programs. <sup>17</sup> • Cost-effective at providing treatment and medication regimens. <sup>18</sup>
Reduce Health Inequities and Disparities	<ul> <li>CHW programs have been shown to:</li> <li>Reduce barriers to health, increasing health equity among marginalized populations (Najafizada 2015; Johnson 2015).<sup>19,20</sup></li> <li>Reduce attrition in health programs since CHWs can provide an individualized, culturally-appropriate approach.<sup>21</sup></li> </ul>

#### Table 2. Summary of the benefits of CHWS.

Note: CHWs=community health workers; HIC=high-income countries; LMIC=low- to middle-income countries.

## Community health workers in low- and middle-income countries

CHW programs can be found in every region of the developing world. The CHW model of health services is particularly well-developed in Southeast Asia and South America, where government health systems often include CHWs.<sup>22</sup> In LMIC, the use of CHWs has been demonstrated to bridge the gap between access and delivery of health services, improving malaria prevention efforts, prenatal/ postnatal care, immunization, maternal child health, provision of tuberculosis (TB), and adherence to HIV/AIDS drug regimens (Lunsford 2015, Sarkar 2015, Mangham-Jefferies 2014, Kabagenyi 2014, Druetz 2014).<sup>23,24,25,26,27</sup> In LMIC, CHWs also work in marginalized and hard-to-reach populations in rural areas, often far from access to traditional health care services.

When CHW programs are integrated into the government health system, these countries have well-established record-keeping channels, well-structured CHW roles, regular training, and commensurate professional incentives.<sup>28</sup> Many countries in sub-Saharan Africa use CHW programs to address barriers to access, but these programs tend to be funded by nongovernmental organization (NGOs) and external donors. Thus, these programs lack the centralized coordination, consistent strategy and messaging, and financial stability of their Southeast Asian and South American counterparts.<sup>29,30</sup> In many countries in sub-Saharan Africa, CHWs operate as a de facto health professional without a clear job description as they aim to fill in the gap between rural, low-resource communities and the central health ministry.

#### Types of interventions and target populations

CHW programs in developing countries often work in several different settings on multiple interventions. CHW programs have been used extensively to raise awareness about HIV/AIDS, malaria, and TB.<sup>31,32</sup> CHW programs provide linkages between communities and education, prevention, treatment, and care services. Recently, in many countries in sub-Saharan Africa, CHWs have been integral in family planning interventions, working with both sexes to educate, prevent, and treat many STIs and sexually transmitted diseases (STDs), as well as openly discuss forms of birth control and reproductive health.<sup>33,34</sup> CHWs are becoming increasingly involved in mental health interventions, acting as a link between individuals in need and doctors that can counsel and provide access to necessary medications.<sup>35</sup> CHWs in developing nations are committed to improving health outcomes in chronic and noncommunicable disease prevention, education, and treatment.<sup>36,37,38</sup> Lay health workers often work with pregnant women and mothers on educating, training, and improving maternal child health, reducing mortality and morbidity, and improving child nutrition.<sup>39,40</sup>



Photo credit: PATH

CHW programs in developing countries tend to operate in homogenous environments where one or two predominant ethnic identities compose most the target population. The main goal of CHWs in LMIC is to extend beyond the reach and limitations of the health system. For this reason, CHW programs in developing countries operate mainly in rural settings, where access to traditional health services is limited. This approach is often call the "last mile approach," where CHWs extend the reach of health services by allowing access to quality health services for those living in remote, rural, low-resource communities.

#### Common factors to success

Clear successes with CHW programs in LMIC include the following:

- **Training and incentives:** CHW programs are generally considered successful when they receive adequate training on their specific intervention or focus and are incentivized commensurate to the value added.
- **Supervision:** When CHWs have adequate and supportive supervision they tend to produce high-quality work in improving health outcomes.
- Scope of work: CHWs are successful in most cases when their roles are clearly defined and their specific focus or intervention is relevant and defined.
- **Community support and health systems integration:** CHWs tend to be more successful when there are strong ties and involvement between health care facilities and community groups and when they are incorporated into the health system rather than working as a satellite. CHWs are successful when they are based in and respond to community needs.

#### **Common barriers to success**

Identified barriers to CHW programs in LMIC are as follows:

- **Scope creep and supervision:** When position roles and the scope of the intervention are not clearly defined, or expectations are unrealistic, CHWs tend to be less successful at impacting positive health outcomes. When CHWs are left without supervision and support, they are often less motivated to perform their jobs or are prone to scope creep.<sup>41</sup>
- **Stock and supply shortages:** Given the nature of their work, CHWs are heavily reliant on stocks of vaccines and health supplies from local health clinics and hospitals. Due to either inefficiencies in delivery or shortages during crises, CHWs are less effective in performing their duties when they do not have access to the necessary tools.
- **Funding and political will:** CHWs are integrated into the health system in many developing countries, but given political instability and unrest, there is job insecurity. In other regions, CHW programs are funded by external donor aid, leaving CHWs vulnerable to shifts in their strategic and program directions.
- **Generalist vs. specialist:** In many cases, unlike in developed countries, CHWs in developing countries need to be generalists. In remote, rural, and low-resource settings, CHWs may be the only access to health care their target population has.

#### Case Study: PATH and MACEPA

For more than ten years, PATH's Malaria Control and Elimination Partnership in Africa (MACEPA) program has worked closely with Zambia's Ministry of Health to stop malaria. Over time, innovations in diagnostics, drugs, and strategies have dramatically accelerated our efforts. Yet from the beginning, the heart of our efforts—and the root of Zambia's success—has been the daily passion and dedication of the people with whom we work. CHWs have truly exemplified the everyday innovation necessary in achieving the goals of MACEPA. In Zambia's rural area, limited access to remote health centers can hinder the timely access of quality care. Seasonal rains flood the roads, making travel difficult. Peak malaria season follows the rains. When fever and symptoms strike, many families opt to forgo travel and rely on traditional medicines, costing lives.



Photo credit: PATH

In cooperation with the government, CHWs have volunteers to staff a fleet of "mobile hospitals," equipped with medical equipment and tires equipped to handle the rough road conditions. CHWs work in their communities to diagnose and treat malaria, as well as meet the health needs of their communities. CHWs are so effective because they are liked and trusted in their communities. In fact, because of their training and reach, households sometimes greet them as "mobile hospitals." CHWs work together to track and identify areas of malaria prevalence, reporting the data back to the health ministry. CHWs are now able to effectively diagnose and treat malaria cases in their communities as well as share data across communities.

## **Community health workers in high-income countries**

In wealthier countries, CHWs are generally based out of a community health clinic or affiliated with a large organization of medical professionals and tend to target specific hard-to-reach populations. The health outcomes and behaviors addressed by CHW programs are distinctly different from their low- and middle-income counterparts. CHW programs in HIC tend to focus on chronic disease management and health promotion. In general, the goals of these targeted interventions are to increase screening and immunization rates, decrease avoidable hospitalizations, and promote and improve healthy behaviors such as diet and exercise.

#### Types of interventions and target populations

In HIC, CHWs are often used to provide outreach and engagement, preventative care (e.g., oral health services), screening education (primarily for cancer and heart disease), nutritional counseling, and diabetes care. In both contexts, CHWs are often used to target rural areas with limited access to health services or marginalized populations that are underserved by the standard health system. CHW programs are often engaged with target populations based on shared demographic characteristics, particularly shared language, or culture. Examples from the literature of CHW-oriented programs in the United States and Canada involve CHWs using their knowledge and connections within the community to affect change in health behaviors.<sup>42,43,44,45,46,47</sup> In urban areas, ethnic backgrounds frequently targeted for CHW programs are Korean-American, Vietnamese-American, Latino, and African-American populations. In rural settings, CHW programs tend to focus on Latino/Hispanic and Native American communities.

CHWs are key to local and national efforts at reducing health care disparities and advancing health equity, as well as improving health care service delivery to vulnerable and underserved populations.<sup>48</sup> Studies show that CHWs have positive impacts on diabetes care, cancer screening and treatment adherence, and management of other chronic diseases.<sup>49,50,51</sup> CHWs play a critical role in health promotion and education interventions in developed countries, including promoting smoking cessation, physical activity, and improving maternal child health and access to pediatric care.<sup>52,53</sup>

CHWs are key to local and national efforts at reducing health care disparities and advancing health equity.

#### **Common factors to success**

Clear successes with CHW programs in HIC include the following:

- Homogeneity within the target populations: CHWs programs tend to target smaller groups of geographically and demographically similar individuals. CHWs work at a small enough scale to each work with specific marginalized populations.
- **Cultural sensitivity and cultural competency:** CHWs experience the most success when they are members of the target population, a culturally competent approach is critical to their success.
- Incentives: CHWs and lay health workers are often offered professional incentives, viewing their work in their communities as a stepping stone for personal and professional growth.<sup>54,55,56,57</sup>
- **Training:** Repeating training and professional and continuing education are critical components to maintaining an effective and impactful workforce.
- **Coordinated care:** CHWs are more effective when integrated into the larger primary health care and public health effort. CHWs are integral in bridging the gaps between individuals and accessing primary health care, and when integrated into the system they limit attrition of their target population in seeking health care services.

#### **Common barriers to success**

Identified barriers to CHW programs in HIC are as follows:

- **Funding:** The funding of the health care system in the United States is convoluted and often overlapping, thus, CHW programs rely heavily on philanthropic funding. This dependence on philanthropic funding poses problems to the financial and economic sustainability of CHW services. Additionally, Medicaid and Medicare do not reimburse for CHW services, creating funding shortages that strain capacity and barriers to accessing poor, low-resource, aging, and marginalized populations that fall outside the current private health care insurance system.
- **Complexity of health care system:** CHWs are employed to fill a variety of roles in this complex health system, on both the private and public health sides. CHWs trained on a specific focus or intervention may have trouble in assisting clients in navigating the health system.

- **Political will:** The sustainability and financing of CHW programs remains tied to the will and whims of philanthropic funding. A lack of political and social will has the possibility of putting this work into serious jeopardy.
- **Professional stigma:** CHWs are often not recognized as legitimate health care providers and can face challenges in receiving opportunities for professional growth.<sup>58</sup>

#### Case Study: G2L Example

Aisha Dahir is a Somali-born social worker who grew up in Tukwila, Washington. Prior to joining Global to Local, she worked at Harborview Medical Center and saw daily how many of her fellow Somali immigrants were facing complications from diabetes, high blood pressure, and other chronic disease. When she joined G2L, she developed prevention-oriented programs to support Somali community members who face cultural barriers to improving their health. For example, when Somali women told her that fitness facilities didn't address their cultural needs related to modesty, she started a collaboration with a local community recreation facility to offer women-only fitness programs. These classes are very popular and help women lose weight, eat better, manage and prevent chronic disease, and develop important social connections. Not only has Aisha become an important bridge between her community and available health and social



Photo credit: G2L

services, but she has also become a leader in her community to advocate for and develop new services.

## **Recommendations for future investment in CHWs**

In G2L's experience, CHWs can be highly effective for providing low-cost, culturally specific support in a community setting. One of the great benefits G2L has seen is the ability of CHWs to deeply engage their communities to identify barriers and solutions that the health care system would very likely not recognize through regular provider-patient engagement. By empowering CHWs to co-design community-based solutions that respond to community-identified needs and priorities, there is an opportunity to truly engage underserved communities in promoting health. Challenges that remain include identifying a sustainable funding source (i.e., insurers, Medicaid) and ensuring that community-based activities are integrated with clinical efforts (i.e., more consistent referral processes and data sharing between CHWs and providers). It is recommended that other organizations continue to invest in CHWs for the clear community benefits they bring while testing approaches that can address these challenges.



### 2. Mobile Health (mHealth)

# Using mHealth to overcome barriers and transform health behaviors to improve overall health outcomes

## What is mHealth?

Mobile health (mHealth) is a type of health intervention that uses mobile phones and other information technologies to help improve medical care, medication adherence, and health education and promote positive health outcomes. One of the most common applications of mHealth is in the use of mobile phones and communication devices to educate the target population about preventive health services.

## What problems does mHealth address?

mHealth and other information technology services have been introduced in a variety of settings as a response to challenges related to access to information, data gathering, treatment access and adherence, and developing support networks for health workers.<sup>59</sup>

#### The root causes of these challenges include:

- · Geographic or financial barriers that limit access to care.
- · Lack of physicians and certified health professionals in number and capacity.
- · Lack of data-use culture and the use of data to inform and improve processes and health outcomes.

### **Summary of evidence**

The findings on the benefits of mHealth are as follows:

 There is evidence from systematic reviews that mHealth interventions can improve medication adherence and improve health behavior for those living with HIV/AIDS in LMIC.<sup>60,61</sup> However, there is limited and inconclusive evidence on the longterm effectiveness of mHealth interventions at improving health outcomes. Some research suggests that the technology may not be readily available to use in low-resource settings and is not researched enough to scale up.<sup>63</sup>

- There is evidence from systematic reviews conducted in HIC that mHealth interventions can increase medication adherence for those with HIV/AIDS and chronic disease, as well as promote healthy behaviors.<sup>64,65</sup> There is insufficient and inconclusive evidence that mHealth can improve long-term health outcomes, although there have been many short-term successes.<sup>66,67,68</sup>
- There is strong evidence that mHealth is cost-effective, generalizable, easy to implement, sustainable, and culturally adaptable in both HIC and LMIC.<sup>69,70,71</sup> However, the research points to lack of systematic evidence and impact assessments on the long-term impact of mHealth on the targeted health outcomes.

Table 3 summarizes the evidences across each desired outcome and goal of mHealth.

Outcome/Goal	Summary of Evidence
Increase uptake and adherence to treatments	<ul> <li>mHealth interventions have been shown to:</li> <li>Improve quality of maternal and neonatal health services in LMIC.<sup>72</sup></li> <li>Improve treatment adherence, attendance at follow-up appointments, and data gathering.<sup>73,74</sup></li> <li>Increase treatment adherence in HIC for chronic disease management and smoking cessation.<sup>75</sup></li> </ul>
Strengthen health systems through routine data collection and use	<ul> <li>mHealth programs have been shown to:</li> <li>Integrate disparate health solutions and interventions to improve health outcomes, health service provisions, and health information systems.<sup>76</sup></li> <li>Improve retention and follow-up rates for patients.<sup>77</sup></li> </ul>
Improve health service efficiency	mHealth programs have been shown to: • Improve scope and efficiency of health service delivery through the sharing of information and data. <sup>78,79</sup> • Strengthen the relationship between patients, health services, and health workers. <sup>80</sup>

#### Table 3. Summary of benefits of mHealth.

## **Overview of intervention**

In high-income country settings, particularly in North America and Western Europe, mHealth programs focus on increasing compliance in treatment and management of chronic disease, promoting preventative health behaviors (particularly sexually transmitted infection [STI] education, smoking cessation, and healthy living education), and reducing attrition to follow-up care. In LMIC, mHealth programs are primarily developed and targeted to community-level health workers who use mobile phones and other information technologies to improve the reach of health services in previously hard-to-reach populations.<sup>81</sup> Recently, mHealth has experienced increased usage in the education, prevention, and diagnosis of infectious diseases, such as TB, and HIV/AIDS, as well as reproductive and maternal health. These varying approaches to the use of mHealth are discussed in more detail below.

## mHealth in low and middle-income countries

#### Types of interventions and target populations

mHealth programs in LMIC target both providers and patients. However, for the purposes of this landscape review, we chose to narrow the literature to include only the patient-side interventions. mHealth technologies in the developing world have improved accessibility to health care, health promotion, disease monitoring, and quality of health care while reducing health care costs.<sup>82</sup> However, systematic evidence and rigorous evaluation of impacts remains limited.

#### HIV/AIDS

In urban areas, with higher concentrations and easier access to mobile network operators, patient-targeted programs generally focus on improving and monitoring adherence to medication regimens for TB and HIV/AIDS, sexual and reproductive health behavior change, and HIV prevention.<sup>83</sup> The researchers describe positive results in adherence to HIV/AIDS medication schedules with the use of Short Message Service (SMS) reminders.<sup>84</sup> Evidence from a systematic review demonstrates that mHealth can play a critical role in retention care through the long-term management and adherence to HIV/AIDS treatment regimens.<sup>85</sup> mHealth has also been shown to lead to behavior change around HIV/AIDS awareness and has increased contraceptive use.<sup>86</sup>

#### Maternal and child health

mHealth has been used to improve maternal and neonatal service utilization, using an integrated approach that provides care information to patients and CHWs at every stage.<sup>87,88</sup> Evidence from a systematic review indicates that SMS messaging can improve infant and breastfeeding practices, potentially reducing infant mortality.<sup>89</sup> There is also evidence that SMS reminders can positively influence patient behavior change for antenatal and postnatal attendance, as well as childhood immunization rates.<sup>90</sup> mHealth interventions can also span to include the exchange of healthrelated information between patients and providers in the provision of the various aspects of maternal, prenatal, neonatal, and postnatal care.<sup>91</sup> However, some conclusions drawn from systematic reviews highlight the need for more rigorous evaluation to determine the magnitude of impact on maternal and infant health and the underlying causal mechanisms.<sup>92</sup>



#### Noncommunicable disease

mHealth interventions, including SMS reminders and information resources, can improve medication adherence and overall disease outcomes.<sup>93</sup> Emerging evidence from the literature finds that mHealth intervention may improve cardiovascular-related lifestyle behaviors and contribute to better overall patient disease management.<sup>94</sup> SMS reminders and health-related information exchange can have a positive effect on diabetes control and improved outcomes.<sup>95</sup> Other research indicates the feasibility aspect of implementing mHealth interventions (mainly in the form of SMS reminders) for follow-up and retention of patients, as well as providing peer support networks.<sup>96</sup> While there is insufficient evidence of the impact of mHealth on noncommunicable disease outcomes, preliminary evidence is promising.

Developing country programs tend to have less ethnic and cultural diversity, like CHW interventions in LMIC as CHWs are often implementing and overseeing mHealth programs and interventions. mHealth programs in these settings are targeted both towards patients and health workers. mHealth programs targeted towards patients aim at improving health outcomes by engaging them outside of the clinic, while those targeted towards health workers aim to improve their administrative efficiency and impact while promoting data use to inform their processes.

#### Common factors to success

Factors for successful use of mHealth in LMIC include the following:

• **Partnerships:** To grow to scale, program designers and developers must work with and within existing institutions, including government ministries, universities, or private-sector companies. Programs that experienced the greatest success in implementation identified and engaged stakeholders early in the program implementation and incentivized their continued involvement.

- **Iterative testing:** Mobile phone users' technical abilities range widely from high technical prowess to the technically illiterate. A successful mHealth application must accommodate these varying levels of technical proficiency, as well as how different cultures view, process, and record information.
- **Simplicity:** When mHealth interventions used simple hardware and platform interfaces and met the minimum necessary requirements to function, the interventions were ultimately more successful in promoting the targeted health behavior and collecting quality, usable data. Programs that added unnecessary complexity were ultimately less successful.
- **Collection and sharing of resources:** mHealth interventions demonstrated higher usage and improved functionality when program developers and health providers collaborated and shared resources. This includes cooperation across sectors of development interventions. In many cases, mHealth interventions were coupled with digital financial services and financial inclusion interventions that were already active and successful in the target population.
- **User incentives:** The mHealth programs that offered users incentives or conditional reimbursements—such as free air time, data, hardware upgrades, or cash incentives—had higher user uptake, lower levels of attrition, and improved outcomes.

#### **Common barriers to success**

Identified barriers to mHealth in LMIC are as follows:

- **Information sharing:** Low levels of cross-sector information sharing in health systems, lack of a standardized evaluation system which can slow down or impede improvements to the health system, and lack of infrastructure.<sup>97</sup>
- Lack of data-use culture: mHealth interventions faced challenges and barriers to implementation in cultures with an existing culture of data and technology use. mHealth interventions were more successful when the intervention targeted populations that had previously embraced the use of technologies and data to improve processes and health outcomes.<sup>98</sup>
- **Burdensome and complex technologies:** In some cases, overcomplicated interfaces and application designs confused program participants, leading to a decrease in the number of active users over time. mHealth interventions were not successful in instances where the use of the technology itself was more burdensome or time consuming than meeting face-to-face with a CHW or medical professional.
- **Cost of mobile phone use:** Many programs provided reimbursements for minutes and data used, but this was not present in all cases. The costs associated with owning and maintaining a mobile phone, combined with the costs of the additional products and services needed for the program, posed a barrier for some populations.

#### Case study: The BID initiative

PATH's BID Initiative is an example of provider-side mobile information technology that is designed to make health workers' jobs in sub-Saharan Africa easier by empowering countries to enhance immunization and overall health service delivery by improving data collection, quality, and use. PATH collaborated with two countries, Tanzania and Zambia, to pilot the initiative to identify the most critical immunization service-delivery challenges. To address them, we are using a comprehensive approach that focuses on information system products, data management policies, and the practices of people that use them. Our goal is to ensure solutions reflect the realities on the ground and can be sustained over time.



Photo credit: PATH

The package of solutions includes a national electronic immunization registry, developed in collaboration with users from all levels of the health system. The new tool ensures data are timely, complete, and accurate—and puts the power of data in the hands of health workers so they can do

(Continued)

their jobs more effectively and efficiently. The electronic immunization registry automatically sends the information they need to a tablet device: how many children are due for vaccines, which immunizations they need, and how much vaccine stock and supplies the clinic needs on hand. Children are entered into the registry at birth to ensure they do not miss a life-protecting vaccine.

The BID Initiative is coupling information system products with policies and practices aimed at creating a data-use culture. From campaigns that motivate health workers to use data to make their jobs easier, to simple tools like the messaging service WhatsApp that connect peers in neighboring facilities for support and advice, health workers are using the power of data to make better decisions about service delivery and ways to improve care.

## mHealth in high-income countries

#### Types of interventions and target populations

In developed countries, mHealth programs focus largely on patient compliance to health regimens treating chronic illnesses and conditions such as chronic heart disease, diabetes, HIV, and asthma. Given the sophistication of information technology infrastructures and high usage of mobile phones, text messaging and phone applications are the predominant means of diffusing mHealth. Text

messaging and app reminders are often used for encouraging healthpromoting behaviors and adherence to prevention or treatment regimens in target populations. Text messaging reminders are commonly used to improve attendance for outpatient attendance and reduce attrition for followup appointments. Research in high-income countries stressed the need for developing an understanding of the target population and their context-specific needs, with a specific focus on the feasibility and sustainability of mobile and digital interventions in the target regions.<sup>99</sup>

Text messaging and app reminders are often used for encouraging health-promoting behaviors and adherence to prevention or treatment regimens in target populations.

For individuals with diabetes, mHealth interventions can improve health outcomes in similar ways as face-to-face or conventional telephone delivery of care.<sup>100</sup> mHealth, however, is easier to implement in areas where access to routine care is difficult. This is often in low-resource and rural regions in developed countries. Evidence from a single study examining individuals with diabetes found SMS reminders and peer support groups to significantly decrease health distress and blood pressure in the intervention group, empowering program participants to gain control of their diabetes.<sup>101</sup> mHealth interventions is a rapidly expanding area of treatment in diabetes care, and while evidence on the long-term impacts of the intervention is weak, preliminary research is promising.<sup>102</sup>

There is insufficient evidence from HIC that mHealth has a positive effect on health outcomes for individuals with chronic disease.<sup>103,104</sup> However, mHealth can be of added value in diabetes and chronic disease case management approaches, providing care when care is difficult to access.

mHealth is only effective in improving health outcomes when the intervention is targeted at preventing disease and improving adherence to self-care regimens for chronic disease management, HIV/AIDS, smoking cessation, and health promotion. In patients with diabetes, mHealth interventions show promise at improving adherence to treatment regimens and retention of care.<sup>105</sup> mHealth does not show any effect in treating or improving health outcomes for those with mental health disorders, such as depression or bipolar disorder.<sup>106,107</sup>

#### **Common factors to success**

Clear successes with mHealth in HIC include the following:

- **Iterative program and application design:** The design process for the application and the program incorporated user input into the technology designs and implementation strategy tended to lead to more successful programs. Interventions demonstrated success when the technology has been properly piloted and potential bugs and system disruptions were tested and resolved prior to large-scale application.
- **Data-use culture:** Populations with existing technology and data usage patterns like the desired patterns necessary for an mHealth program had more successful uptake than those with limited access to IT infrastructure, information technologies, and data use.<sup>108</sup> Interventions were successful when the programs did not require additional technology and the interventions used technology and software systems already used by program participants.

#### **Common barriers to success**

Identified barriers to mHealth in HIC are as follows:

- Lack of testing: In some cases, technologies were not properly tested prior to implementation, resulting in low uptake or misuse of the technology and poor data quality on which to improve the application.
- Lack of regulation: Currently, as mHealth is a new and expanding area for intervention, there is minimal regulation of mHealth platforms, leading to an oversaturation in the market, which targets similar outcomes using similar processes. These redundancies result in duplicative data that cannot be translated for large, population-based analysis.
- **Equity considerations:** mHealth highlights some existing health equity concerns, and the use of mobile phones and recent information technologies may magnify existing health disparities. Mobile phones tend to be used by wealthier, more literate, and less marginalized members of society. mHealth interventions target those already active in using the health care system and may be widening the gap in positive improvements in health outcomes between the adequately served and the underserved.

#### Case study: G2L and Swedish diabetes case management mobile software

Providing diabetes patients with access to a smart phone app and text-message-based case management, G2L is pioneering a new approach to diabetes management in the United States. In a study conducted with the University of Washington, G2L found that 36 percent of participants in their pilot study reduced their HbA1C by an average of 1.26 percent, which is associated with a 45 percent reduction in the risk of dying from a heart attack. A separate analysis also found that the cost savings associated with these health improvements more than paid for the cost of the intervention, with a positive return on investment of over US\$500 per participant only six months after the end of the intervention. With the success of this pilot program, G2L is now working with other health care systems to replicate and scale this intervention to reach a much greater number of people.



Photo credit: G2L

## **Recommendations for future investment in mHealth**

mHealth interventions present the opportunity to overcome barriers to access and delivery of health and social services. G2L's experience, particularly what was gleaned through our qualitative study of the project described above, is that while the technology facilitated a cost-effective connection with patients that addressed many barriers that they faced in seeking diabetes care (cost, access, transportation, fears of the health care system), the most important element of the intervention was the personal connection that participants felt with their case manager—even if established through text messaging. As they told us, they felt like they were accountable to someone and that someone cared about them. While G2L is excited to pursue other technology-based interventions, we are also mindful that technology can never fully replace the human relationship. Thus, G2L recommends that other agencies continue to study where automated technology solutions can effectively meet the needs of people, and at what point the human element remains crucial.

Certain mHealth and other health information technology services have been found to be cost-effective, with the potential to enhance the quality of health care while reducing health care costs.<sup>109</sup> Research suggests that the integrated use of mHealth in standard care promotes increased access to care and can strengthen the relationship between patients, providers, and health services.<sup>110</sup> The evidence regarding the potential benefits of interventions using smart phones, social media, and text messaging is still developing; there is minimal consensus on the long-term effects of mHealth on improving or impacting the desired health outcomes. mHealth provides a low-cost, linguistically and culturally adaptive method to reduce both geographic and physical access to care for populations that have been historically difficult to reach.



## 3. Social Media and Mass Media Campaigns

# Generating focused campaigns around public health issues to improve health outcomes

## What is a public health campaign?

A public health campaign can be defined as a coordinated effort to implement an activity, communication strategy, or a combination of the two to target a specific health outcome or behavior change. Health campaigns use multiple avenues for dissemination depending on the context and the outcome they are trying to achieve:

- Communication campaigns, such as those targeting smoking cessation, HIV education, or healthy eating, use a combination of Internet, social media, email, television, radio, or print ads to circulate key messages.
- Mass campaigns, such as vaccine or malaria prevention efforts, use a combination of standard health delivery mechanisms, such as CHWs, clinics, hospitals, and schools, or may employ a temporary campaign-specific workforce to carry out the distribution, education, and administration of a health service.

Illustrative examples of focused campaigns in developed and developing countries are discussed below. Health campaigns can be applied in multiple contexts, promoting multiple health behaviors.

## What problems do targeted health campaigns address?

Targeted health campaigns have been used to disseminate health information, products, and services in response to wide public health issues and risks.

#### The root causes of these public health problems include:

- Widespread behaviors that are detrimental for individual and population health.
- · Emerging disease or viruses that could lead to pandemic emergencies.
- · Low levels of health education.

## **Summary of evidence**

The findings on the benefits of target health campaigns are as follows:

- Using targeted campaign strategies to disseminate health information, products, and services has been demonstrated to be one the most effective ways of achieving positive impact on specific health outcomes.
- Health campaigns, in both high-income and low- and middle-income settings, are thought to be effective at communicating health-promotion behaviors (smoking cessation and healthy lifestyles), educating the public on health issues related to HIV/ AIDS, promoting oral health and preventive health screenings, and encouraging testing for STIs and HIV/AIDS.
- Health campaigns are generalizable and can be applied in numerous contexts, and similar campaigns are seen throughout the world: most notably, smoking cessation and HIV/AIDS education and treatment. Health campaigns are most successful when the information is targeted to a specific population or demographic and when the information presented is clear and digestible.
- Health campaigns present high up-front costs in creating and disseminating the message, but the overall costs are cheaper when the target population makes changes in their behavior and improvement in health outcomes is achieved. There is evidence that health campaigns were not efficient nor cost-effective when the health messaging was too narrow.<sup>111,112</sup>

health campaigns. Social media is often lower cost than traditional media advertisements and can reach more diverse and younger populations.<sup>113,114</sup>

· Social media is a rapidly expanding component of mass media and

Table 4 summarizes the evidence across each intended outcome and goal of health campaigns.

Table 4. Summary of benefits of targeted health campaigns.           Note: LMIC=low- to medium-income countries; hic=high-income countries; STD=sexually transmitted disease.		
Outcome/Goal	Summary of Evidence	
Promote Health Behavior Change	<ul> <li>Health campaigns have demonstrated an ability to:</li> <li>Increase access to educational resources to make positive impacts on health behavior.<sup>115,116,117</sup></li> <li>Improve oral health behaviors in LMIC.<sup>118</sup></li> <li>Increase screening rates and testing for communicable and noncommunicable diseases in HIC.<sup>119</sup></li> </ul>	
Disseminate Information on Health Risks	<ul> <li>Health campaigns have been shown to:</li> <li>Improve knowledge of specific health risks and promote healthy behaviors among target populations.<sup>120,121,122</sup></li> <li>Provide necessary educational information so that target populations can make informed decisions regarding their health.<sup>123</sup></li> </ul>	
Reduce Health Risks and Morbidity	<ul> <li>Health campaigns have been shown to:</li> <li>Positively impact health behaviors to improve child survival in LMIC.<sup>124</sup></li> <li>Reduce HIV/STD infections among at-risk populations in the United States.<sup>125</sup></li> </ul>	

## Health campaigns in low- and middle-income countries

#### Types of interventions and target populations

Health campaigns in LMIC often fall into one of two categories: social marketing campaigns designed to raise awareness about a specific health issue, providing education and information on treatment, and health service supply campaigns, aimed at achieving a specific objective, such as vaccination or bednet distribution, and targeted to a large population.

Social marketing is a relatively new phenomenon within global health and the developing world and faces distinctly different challenges from social marketing in developed nations. Social marketing campaigns in LMIC tend to focus on HIV/AIDS, maternal and child health, malaria treatment and prevention, and reproductive health.<sup>126,127,128,129,130,131</sup> Social marketing campaigns have been demonstrated to be effective at initiating behavior change and are relatively cost-effective mechanisms for health promotion.<sup>132</sup>

Immunization and malaria prevention campaigns are the most common forms of health service campaign. Health service campaigns disseminate specific health interventions through existing, vertically organized programs.<sup>133,134,135,136,137</sup> These campaigns use dedicated staff, supplies, and delivery systems to achieve a wide range of coverage in a short period.

Social marketing campaigns have been demonstrated to be effective at initiating behavior change and are relatively costeffective mechanisms for health promotion.

#### **Common factors to success**

Clear successes with health campaigns in LMIC include the following:

- **Understanding of the audience:** Researching the target audience and eliciting community input throughout the campaign design and implementation helped to tailor the message so that is was appropriate for the intended audience.
- **Saturation of the network:** The use of multiple channels for dissemination (such as radio, Internet, television, printed media, and social media) increases exposure to these campaigns, ultimately influencing individuals' behavior and impacting health outcomes.
- **Sustainable funding:** Identifying and maintaining funding sources is as critical to the success of health media campaigns in developing countries as it is in developed country settings, and mainly for the same reasons.
- **Effective coordination:** Campaigns often bring multiple parties together to implement large-scale interventions, often at different stages in the process; a single, centralized coordinator with adequate decision-making authority is essential in mobilizing resources when appropriate and overseeing the implementation of different stages of the campaign.

#### **Common barriers to success**

Identified barriers to health campaigns in LMIC are as follows:

- **Limited capacity:** Limited capacity in designing and implementing the campaign, in addition to limited knowledge of the social-marketing sphere, can inhibit the design, implementation, and evaluation of health campaign interventions.
- Limited infrastructure: In developing countries, there is often a lack of the basic infrastructure requirements to successfully implement a health campaign, including lack of electricity and good roads for transporting supplies and health workers to remote regions. As social media is used in higher frequency and depth, the need for working technological infrastructure has never been greater. In many countries, access to mobile phones and Internet is limited, constraining the use of social media and more advanced technologies.

## Health campaigns in high-income countries

#### Types of interventions and target populations

In developed countries, public health campaigns tend to focus on mass media communication strategies that target health behaviors, specifically sexual health and those leading to chronic disease. These campaigns compete with commercial advertising and other media messaging, often addressing culturally entrenched health behaviors that are difficult to modify at the individual or population level.<sup>138</sup> Social marketing, in this way, has been demonstrated to be highly effective in disseminating health promotion messaging.<sup>139</sup> Common topics for health promotion campaigns in developed countries include HIV and sexual education, smoking cessation, cancer screening, diabetes prevention and treatment, and nutrition.<sup>140,141,142,143,144</sup>

Traditionally, developed country campaigns to promote health use the standard media outlets to circulate their messaging, and the audience of these campaign messages tend to be wealthier, with more education, and coming from less marginalized communities. Organizations seeking to design a health campaign targeting marginalized communities must engage community members in dialogue during the planning stages to ensure that the messaging is culturally appropriate, that the proposed solution is viable, and that it is the most effective and efficient way to message and engage those communities. For a health communication campaign to be effective, the message must saturate the individual's social network, establishing new peer norms around the specific behavior.<sup>145</sup>

#### **Common factors to success**

Clear successes with health campaigns in HIC include the following:

- **Comprehensive messaging:** Broad-based communication campaigns reach large audiences with varying backgrounds, ethnicities, and languages. Campaigns launched in diverse, marginalized communities must be broad enough to resonate and attract multiple cultures, while specific enough to engage the target audience.
- **Cultural competency and local engagement:** Adapting approaches to address local realities, including cultural and low-resource issues, were essential components in effective health campaigns. An understanding of the culture and local needs came from partnerships with community leaders. When the processes of design and implementation were inclusive and engaged both



Photo credit: G2L

institutional partners and health leaders, health campaigns were ultimately successful at achieving the desired impact.

• **Demonstration of theoretical and evidence-based campaigns:** Incorporating evidence and grounded theoretical frameworks into the design and implementation of targeted health campaigns improved saturation in the target population. Disseminating messaging through multiple channels in the target population's lives, like school, work, health care centers, and the community, also demonstrated success.

#### **Common barriers to success**

Identified barriers to health campaigns in HIC are as follows:

- **Audience diversity:** The most effective campaigns used messaging designed with a specific target audience in mind. It becomes more difficult to direct a specific message to increasingly diverse communities. There is a thin line between too specific and too general that health communications messaging must walk.
- **Sustainable funding:** Health campaigns that use mass media and multiple channels to disseminate their message require long-term, sustainable funding and are often confronted with large upfront costs for design and initial implementation. Continuing to disseminate creative and key message requires a sustainable funding stream.
- Integration with policy and advocacy: A successful health campaign should be aligned with new and existing public policy and advocacy efforts. Health campaigns are unsuccessful in cases where the health behavior contradicts policy. To sustain positive change, health campaigns must be implemented in enabling environments.

#### Case study: An example from G2L

While this has been an attractive approach for G2L to pursue, to date it has proven challenging to implement due to the media costs associated with running a mass media public-awareness campaign. In addition, we are convinced that any communication campaign—through mass media, targeted channels, or social media—could only be successful once we have understood at a deep level the sort of messaging that would resonate with the communities we serve—something we are now much better prepared for than we were when G2L launched. Thus, G2L remains interested in this approach, assuming we can find a cost-effective way of carrying it out. Moving forward, G2L will explore options using social media platforms as well as targeted local media (e.g. local ethnic radio stations). back to the health ministry. CHWs are now able to effectively diagnose and treat malaria cases in their communities as well as share data across communities.



## **Recommendations for future investment in public health campaigns**

Depending on the target audience, it seems targeted communication campaigns, using local media or social media, may offer the most affordable and cost-effective approach to health promotion and health behavior change. Whatever the approach, community engagement and input is necessary to facilitate appropriate messages and their targeting.

Traditional mass media health campaigns have high upfront costs and are generally thought to be successful at targeting a specific health behavior change. However, while traditional mass media health messaging may be outside the scope of what G2L can feasibly accomplish, social media campaigns remain a promising intervention. Social media health campaigns have the potential to demonstrate effectiveness at altering targeted health behaviors when implemented as a component of a holistic community-empowerment intervention, driven by community needs and input. Recent literature on the use and effectiveness of mass media and health campaigns has highlighted the need for more research into the causal chain producing these changes in behavior: is it the campaign that directly leads to a change in health behavior, or is there another intervening variable? Research in the scientific and gray literature has cited a trend among donors who tend to be moving away from mass media campaigns in LMIC in favor of other interventions that have also been demonstrated to be effective, but at a lower cost and with a more targeted scope.



4. Mobilizing and Empowering Community-based Organizations

## Mobilizing and empowering community-based organizations to achieve local health promotion and improved health outcomes

## What is a CBO?

A community-based organization (CBO) is defined as any service organization that provides social services at the local level. CBOs are engaged in a myriad of health promotion activities in both HIC and LMIC, in urban and rural settings. These organizations serve as coordinating bodies for community-based research, communication outlets in marginalized and hard-to-reach populations, points of contact for service provision, and local advocates and implementers for larger health programs.

## What problems do targeted health campaigns address?

CBOs have been introduced in a wide range of settings as a response to challenges related to suboptimal access and utilization of health services and health education.

#### The root causes of these challenges include:

- · Cultural and gender inequities between service users, providers, and the health system.
- Suboptimal coverage of health education, preventive or routine treatment, and access to counseling services.
- Geographic or financial barriers that limit adequate access to care.

## **Summary of evidence**

The findings on the benefits of CBOs are as follows:

- CBOs are primarily involved in health promotion and prevention activities in both developed and developing country settings. These activities can include healthy eating and physical activity promotion, basic health screenings, and serving as a point of contact for other health and social services.
- There is evidence from high-income countries that CBOs are successful at reaching diverse and marginalized populations, offering health services for HIV/AIDS testing and counseling, cancer treatment and support, oral health, and health and physical activity promotion.<sup>146,147</sup>
- Research from LMIC that CBOs have demonstrated positive, yet marginal, results on improved health outcomes in HIV/ AIDS education and counseling, maternal and child health, and infectious disease and malaria education and treatment.<sup>148,149</sup>
- There is limited evidence from both develop and developing countries as to the long-term impacts on population- and community-based health outcomes. There is a need for systematic reviews and controlled impact evaluations to determine the real impact of community-based organizations on desired health outcomes.

Table 5 summarizes the evidence across each outcome or goal of community-based organizations.

Outcome/Goal	Summary of Evidence
Increase Coverage and Access to Preventive and Treatment Services	<ul> <li>CBO programs have been shown to:</li> <li>Increase health education and medication adherence for HIV/AIDS and other infectious diseases such as TB and malaria.<sup>150,151,152</sup></li> <li>Promote and advocate for the increased adoption of healthy behaviors and education surrounding pre- and postnatal care for mothers and pregnant women.<sup>153,154,155</sup></li> </ul>
Reduce Health Inequities and Disparities	<ul> <li>CBOs have been demonstrated to:</li> <li>Reduce barriers to health, increasing health equity among marginalized and diverse populations.<sup>156</sup></li> <li>Increase women's access to sexual and reproductive health through education and women's counseling groups.<sup>157</sup></li> </ul>
Coordinate Community-Based Research Production and Use for Hard-to-Reach Populations	CBO programs have been shown to: • Foster a climate for using research evidence and producing research evidence relevant to improving health outcomes in developed and developing countries. <sup>158</sup>

#### Table 5. Summary of the benefits of community-based organizations (CBOs).

## **Community-based organizations in low- and middle-income countries**

CBOs in LMIC provide services that underfunded government health centers and clinics cannot, such as primary care, nutritional programs, reproductive health and family planning programs, medication distribution and adherence, and HIV/AIDS testing and counseling services.<sup>159,160,161</sup> CBOs in developing countries are involved in promoting health primarily in rural areas. However, as urban planning becomes an increased focus of international development efforts, more CBOs are becoming involved in urban projects in developing countries.

CBOs in developing countries tend to fall into one of two categories: community-founded coalitions and advisory boards, and NGOsponsored service providers. Community-founded coalitions provide community leadership and decision-making, while the latter tends to be funded by larger NGOs and partnerships. This creates issues of sustainability and dependency of the CBOs as NGOs change their strategic directions, and many CBOs are formed as short-term Band-aid solutions used by NGOs to execute on a broader development agenda.

A third type of CBO was uncovered in the research: community-based financial support groups. These groups of community members can be informal in nature, or facilitated by outside institutions. These groups often pool their assets to form emergency loans funds, community-based insurance, or informal savings groups to provide cash in intervals that make sense for their specific community. This type of CBO is discussed in more depth in the section on health and economic development.

#### Types of interventions and target populations

CBOs in developing countries tend to be the implementation arms of larger organizations and partnership programs targeting a specific health outcome or set of outcomes for a target population. CBOs are often the organizing body for CHWs recruited to provide specific health services to the community. These interventions range from TB therapy and family planning services to maternal and child health and malaria prevention. In addition, CBOs may use community mobilization to guide improvements in infrastructure through small-scale projects to achieve a larger improvement in health outcomes, such as building latrines or establishing a waste management system. CBOs may also serve in an administrative capacity for the community, providing and overseeing the provision of health services and community-based insurance.

CBOs focusing on maternal and child health outcomes in LMIC dominate the literature. In many cases, these local organizations offer education and assistance for mothers and pregnant women to provide information on proper nutrition, distribute supplemented food, and encourage pre- and postnatal screenings and delivery in a clinic or hospital by a medical professional.<sup>162,163,164</sup> These types of interventions are generally thought to be successful as they are packaged for each specific target population through a range of CHWs and health promotion groups. However, there is limited systematic evidence on the long-term health outcomes of these interventions on women and children.

CBOs are often targeted as resources for programs identifying and training lay health workers who provide education, treatment, and medication adherence support for HIV/AIDS in the communities in which they work. Through education programs, communities have a higher knowledge and decreased stigma surrounding HIV/AIDS, as well as a psychosocial benefit through counseling and a judgement-free space to express themselves.<sup>165</sup> Higher CBO engagement in the community has been correlated with higher condom use and increases in social capital and democratization.<sup>166,167</sup> CBOs add value in specific ways that are closely aligned with the services provided. Increasing CBO engagement in areas that need improvement is an effective measure in scaling up prevention and treatment efforts in those areas.

CBOs are established to represent and service the interests of communities in which they reside. CBOs tend to target marginalized populations within those communities that may be left out of the health system due to social stigma, biases, or inequalities. For this reason, most women-directed programs are implemented through CBOs.<sup>168,169,170</sup> CBOs provide these populations with representation, advocacy, and education.

*CBOs tend to target marginalized populations within those communities that may be left out of the health system due to social stigma, biases, or inequalities.* 

#### **Common success factors**

Clear successes with CBOs in LMIC include the following:

- **Needs assessment:** CBO programs were most successful at achieving their objectives when those health outcomes were determined and defined through a community-level needs assessment carried out in partnership with the CBOs.
- **Sustainability:** Successful CBO interventions used foundation-building strategies to establish peer-based capacity-building efforts for continuing the program after initial external funding has expired.
- **Operational and managerial authority:** This is closely tied with the needs assessments. CBOs were most successful when they acted as project or program managers when implementing programs in their communities.

#### **Common barriers to success**

Identified barriers to CBOs in LMIC are as follows:

- **Funding priorities:** CBOs are vulnerable to changing political will and the funding priorities of NGOs and foundations, producing organizational failures of CBOS as they compete against each other for access to resources.
- Limited institutional and operational capacity: CBOs have limited capacity for institutional growth and expanded service delivery. These organizations are often only able focus on one program at a time to the detriment of other needed services.

## **Community-based organizations in high-income countries**

CBOs in HIC have varying structures, funding sources, and missions. Not all CBOs are not-for-profit—many are faith-based organizations, funded by government grants, some profit through the provision of services, and some are privately funded charitable organizations. CBOs can also be informal in structure, formed by a network of community opinion leaders or a coalition of community stakeholders. In general, CBOs tend to lack the capacity to implement large-scale interventions.

#### Types of interventions and target populations

CBOs can serve urban neighborhoods, suburban cities, or rural counties, and population segments defined by a commonality, usually an ethnic identity, shared health status, or location-specific cause. In the United States, CBOs are directly involved in health promotion activities; they are often community health centers or multi-service agency hubs that bring together CHWs and other community agents or services. These community health centers focus on addressing the needs of individuals with specific health issues, such as: chronic disease management, heart disease, cancer care coordination, HIV/AIDS prevention, counseling and education, oral health, and smoking cessation.<sup>171,172</sup>

CBOs can address specific health topics instead of serving larger communities with a network of services. Examples of the types of health topics addressed are many and include HIV testing and counseling; substance abuse testing and treatment; cancer treatment and therapy; violence prevention; sexual education, and reproductive health and family planning support; oral health awareness; and health and physical activity promotion.<sup>173,174</sup> These organizations track health outcomes in their specific geographic areas and tend to follow more rigorous research practices for evaluating results of their programs due to their use of more quantitative analysis.

CBOs with mandates specific to the needs of a targeted population aid in accessing and navigating the complex system of social services intended to help underserved and underrepresented populations. Like CHWs, these organizations are usually founded and staffed by members of the target population who share a common language and sociocultural perspective, like CHW programs that have demonstrated effectiveness.<sup>175</sup>

These organizations address health needs through a variety of direct and indirect methods, including:

- Assigning patient advocates to assist with navigating confusing health systems.<sup>176</sup>
- Disseminating health promotion communication materials tailored to the unique needs of the community.<sup>177</sup>
- Developing youth programs that address issues of reproductive health, adolescent sexual health, and youth violence.<sup>178,179</sup>
- Engaging outside services to meet a specific limited need such as mobile vans for oral health screenings and promotion.<sup>180</sup>

CBOs that offer health-related services tend to fall into two categories: those that serve individuals with a common health issue and those that serve individuals with similar demographic characteristics. These organizations generally serve poorer, marginalized

populations in low-resource settings, although there are some exceptions in the case of cancer support groups, which tend to serve more heterogeneous target populations. CBOs with health-related mandates are more commonly located in urban areas where diverse stakeholders will have greater proximity to services offered. CBOs that serve populations with shared sociocultural backgrounds are found in both urban and rural settings and tend to work with communities with high levels of diversity and limited English language proficiency.

CBOs that offer health-related services tend to fall into two categories: those that serve individuals with a common health issue and those that serve individuals with similar demographic characteristics.

#### **Common success factors**

Clear successes with CBOs in HIC include the following:

- **Networks of services:** CBO programs and interventions were more likely to be successful in improving health outcomes when they offer or add to a network of services to address the multifaceted nature of community- and population-based health.
- **Cultural competency:** CBOs are most effective when they frame their objectives and activities around the dominant health belief and social expectations of the groups within which they are working.
- Interorganizational collaboration: CBOs tend to be smaller organizations focused on a specific target population or health outcome. CBOs who collaborate with other organizations and institutions have more success in approaching and addressing health improvements from multiple angles by leveraging their resources and expertise.

#### Common barriers to success

Identified barriers to CBOs in HIC are as follows:

- **Capacity and scope:** Individual CBOs are good at identifying the needs and designing interventions to meet the needs of the communities they work in but lack the capacity to scale up successful projects. CBOs seeking overall improvements in health caused by a network of barriers find they must become experts in everything even though they lack the capacity to do so. These organizations suffer from mission drift and scope creep.
- **Rigorous research and evaluation:** Without a needs assessment, CBOs tend to be largely ineffective. Without this research and impact evaluations, it is difficult to discern the correlation or causation in health outcomes from the work of CBOs or external forces. Controlled studies measuring defined outcomes are less frequent (Wilson 2010).

#### Case study: G2L

G2L is, itself, a CBO, created to align along many of the recommendations outlined above. We quickly recognized that the health challenges of the communities we serve are too great for our organization to address on its own, so we have sought to build partnerships for every intervention we have pursued, leveraging existing assets, and seeking to fill gaps where they exist. This strategy also speaks to the need to address all determinants of good health, not only those related to health care. By building these partnerships, we have also aimed to avoid the barrier described above of trying to do too much (which is wildly tempting). So, rather than jumping into the housing arena—one of the primary needs in our communities we collaborate with existing housing agencies and focus our efforts on ensuring that our diverse communities can access those services. Similar partnerships have been developed



Photo credit: G2L

for transportation, workforce development, fitness, and more. G2L has also aimed to support the development of small CBOs that can address other gaps and needs in the community. For example, we are currently serving as the fiscal sponsor for an organization designed to meet the needs of Congolese refugees, and we are providing office space for two other organizations that address workforce development needs.

### **Recommendations for future investment in CBOs**

While it is easy to point to the disparities and deficits that marginalized communities experience, it is crucial to recognize the assets that exist within these communities and invest in building these up. CBOs—and specifically a healthy network of CBOs—play a crucial role in this process. Rather than following a deficit-based approach and focusing on what is missing in a community (which often leads to trying to pay for things you don't have), it can often be more effective to invest in what is working, and what could work even better with greater resources. Based on G2L's experience, we recommend that groups pursuing this approach focus on building up existing CBOs, serve as a convener of CBOs that have connected goals but may not be working together, and provide support for those partners to align their work and actively participate in a collective effort to improve community health.



#### 5. Linking Economic Development & Health

# Linking economic development interventions to improve health outcomes

### What are economic development interventions?

Improvements in health outcomes can be seen when an individual or household experiences an increase in income. Interventions to increase income range from nonconditional cash transfers (e.g., giving people money) to changes to tax systems, to microfinance and micro-credit interventions. The theoretical link is clear: increases in income allow individuals and household to pursue options that would otherwise not be available or feasible at a lower income level. Households can now afford higher quality and routine health care for adults and children. Improved health indicators mean that adults and children can seek care, increasing their number of healthy days and, in turn, increasing their educational attendance and workforce productivity, leading to increases in individual and household wealth. Increased income or wealth may also contribute indirectly to improved health by reducing anxiety and improving quality of life.<sup>181</sup>

## What problems do health and local economic development address?

The link between increased individual and household income and improved health is well established. When an individual or household experiences a temporary or permanent increase in income, they tend to invest the extra earnings into improving the health of their family through primary care visits and routine medical care. Even when other, often intervening, socioeconomic factors are controlled for, research has demonstrated a clear correlation between incremental increases in income and improved health indicators.<sup>182,183</sup>

The causal mechanism works in the other way: improved health outcomes can also work to increase household income and socioeconomic status. Poor health can pose a significant economic burden not only on the individual and household level but also on the greater economy in terms of direct and indirect costs. Individuals in poor health experience decreased productivity, leading to decreased income or unemployment, continuing the cycle of poor health. Poor health indicators have also been linked to increased government spending on health care. Without consistent and collaborative action linking health outcomes to economic growth, health disparities and income inequality continue to grow. However, for the purposes of this landscape review, this section will be focusing on how improved economic status and household wealth impacts health.

Socioeconomic status is indicated as a key social determinant of health. The social determinants of health are the conditions in which people are born, develop, work, live, and age. The social determinants of a health framework also incorporate the wider set of forces and systems shaping the conditions of daily life, such as economic policies and systems, development agenda, social norms, social policies, and political systems.<sup>184</sup> There are numerous intervening variables between health and economic development, the most prominent being education. The link between formal educational achievement and quality of health is well established in both HIC and LMIC, despite the widely different health outcomes associated with lower levels of education between the two contexts.<sup>185</sup> Additionally, there is significant research and evidence on the link between educational achievement and increases in individual and household income.

## **Summary of evidence**

The findings on the benefits of economic development interventions are as follows:

- In developed countries, wealth is more often directly linked with health outcomes than in developing countries. Poor individuals in high-income countries bear a larger burden of health risks and poor health outcomes than their wealthier counterparts. Community economic development initiatives are usually targeted at improving chronic conditions and health promotion to vulnerable populations. These are generally thought to be successful; however, larger reforms need to be taken at a national level to achieve greater income and health equality.
- In LMIC, health and development programs are often funded by external donors and managed locally by NGOs and CBOs. These programs focus on improving maternal child health, nutrition, TB and HIV/AIDS medication adherence and treatment, as well as increasing the use of preventive methods. These programs use a variety of different methods to achieve their goals, including cash transfers, microfinance, financial inclusion, job creation, and community-based health insurance. These interventions are generally thought to be successful and financially sustainable.

Table 6 summarizes the evidence across each intended outcome and goal of economic development interventions.

Outcome/Goal	Summary of Evidence
Reduce health disparities across the population	Economic development interventions have been shown to: • Reduce income inequality. <sup>186,187</sup> • Increase investments in public health. <sup>188,189</sup> • Improve gender equity. <sup>190,191</sup>
Improve health outcomes	Economic development interventions have been shown to:
through increased education and	• Increase education levels. <sup>192</sup>
medication adherence	• Reduce burden and risk of disease on poor populations. <sup>193</sup>
Improve use of existing,	Economic development interventions have been demonstrated to:
demonstrated, effective health	• Reduce child malnutrition. <sup>194,195</sup>
services	• Improve antenatal and postnatal care. <sup>196</sup>

#### Table 6. Summary of benefits of economic development.

## **Overview of intervention**

Interventions focusing on health and economic development vary greatly between HIC and LMIC. Economic development interventions to improve health in developed nations tend to focus on community economic development and the education and treatment of chronic conditions, HIV/AIDS, primary care, and health promotion. Health and economic development interventions in developing countries tend

to focus on improving access to financial services and income generating opportunities to increase household investment in available health services, such as maternal child health, nutrition, immunizations, infectious disease prevention and treatment, and overall health promotion.

# **Community economic development and health in low- and middle-income countries**

In developing countries, gains in income are most frequently associated with child health outcomes, particularly nutrition and routine immunizations. There is a demonstrated body of evidence of the association between income and health at the individual level. Additionally, there is significant evidence that improved community health contributes to a greater community-level economic development, although the impact of economic development at the community level on the overall health of that community's members has a smaller base of evidence.<sup>197,198,199,200</sup>

In LMIC, financial constraints consistently force families to choose among daily essentials, leaving little money for other emergencies or financial setbacks such as illness or unemployment. Compared to developed countries where income insecurity and inequality tends to be linked with chronic illnesses, in developing countries poverty is linked with more acute health outcomes, such as long-term or permanent disability, poor adherence to medications and treatment regimens, and growth stunting and child and infant malnourishment and malnutrition.<sup>201,202,203,204,205,206</sup> There is strong evidence that economic security can

There is strong evidence that economic security can positively impact an individual's or household's health and, in turn, sustainably improve a family's income and economic security.

positively impact an individual's or household's health and, in turn, sustainably improve a family's income and economic security.

#### Types of interventions and target populations

Economic development interventions aimed at improving health outcomes in developing countries are most often seen as microfinance, cash-transfer, vouchers, community-based health insurance, CHW programs, and job creation strategies. Many of these programs are designed and managed by external NGOs and external donors, CBOs frequently carry out the day-to-day management and implementation of these strategies. These locally run organizations offer a wide array of mechanisms for community members to access financial resources to ensure sufficient financial stability to meet the basic nutritional, housing, education, and health needs of their households.

#### Microfinance

Microfinance has been demonstrated to offer long-term, broad-reaching solutions that, when managed well, can achieve sustainability by being self-perpetuating and free of donor support. Micro-loans and micro-insurance provides those without the capital or collateral an opportunity to generate income and work for themselves. The structure of microfinance allows for the flexibility that these households need and that traditional financial or insurance services do not allow. Access to sustained income enable poor families to invest in education, health services, and housing and to create savings which allows them to avoid vulnerability during times of crisis or illness.

#### Cash transfers and vouchers

Vouchers and cash transfers (both conditional and unconditional) are intended to override financial barriers to accessing health services by providing coupons that can be exchanged for monetary incentive (cash) for use of those services. Vouchers provide direct coupons for service provision where services are not free, while cash transfers are a mechanism for encouraging health
care-seeking behavior in settings where health services are free, but other barriers exist to accessing those services.<sup>207</sup> There is a significant gender component to the use of cash transfers and vouchers. Studies have found that targeting transfers to women can improve household health and increased investments in children's health and education.<sup>208</sup>

Evidence from a systematic review demonstrates that there is no significant difference between conditional cash transfer and direct transfers in improving nutritional outcomes.<sup>209</sup> However, other systematic reviews point to higher uptake in preventive services and behaviors in conditional cash transfer programs as compared to in-kind transfers.<sup>210</sup> Evidence from a systematic review looking at the effects of cash transfer programs on TB medication adherence found that the intervention group has a higher chance of treatment success (73 percent) compared to the control group at 60 percent.<sup>211</sup> The incentive structure in the conditional cash transfer program, in these cases, appeared to significantly improve treatment outcomes and even lower the death rate in the intervention group by 23 percent over the control group.<sup>212</sup>

## Community-based insurance

Community-based health insurance programs have been used to bolster financial inclusion and security within communities and have been shown to increase health-seeking behaviors.<sup>213</sup> However, these strategies are prone to fluctuating in membership and are often the first expense a family will sacrifice when forced to make financial trade-offs. Community-based health insurance has experienced greater success in situations where it is integrated into national health-financing strategies.



Like many other health interventions in developing countries, economic development programs tend to be targeted towards rural populations where economic opportunity is scarcer. These programs usually focus on a specific population with similar socioeconomic characteristics or health indicators. These populations, unlike their developed-nation counterparts, need not necessarily be marginalized, diverse populations and are often homogenous groups.

### **Common success factors**

Clear successes with economic development interventions in LMIC include the following:

- **Macro-level support:** Without pro-poor policies at the national government level, economic development interventions will not achieve sustainable success. Governments must recognize the link between financial security, population health, and national expenditures on health care and must develop integrated policies that target both economic development and health promotion, particularly among the poor and informal labor sectors.
- Strong partnerships with local NGOs and CBOs: To successfully introduce economic development programs, it is critical to understand the needs of the community and any unseen barriers. Collaborating with CBOs and eliciting feedback from community members ensures that financial incentives and income-generating projects will reach their intended beneficiaries and achieve the desired outcomes. This includes incorporating needs assessments and landscape analysis to determine if the programs are needed in that community and if the culture will be amenable to that program.

### **Common barriers to success**

Identified barriers to economic development interventions in LMIC are as follows:

• Local politics: Local governments are heterogeneous institutions with many departments operating at different levels that impact economic development and health. They may have pro-poor policies in one department, but not in another, dampening the overall effect on the well-being of a community. Additionally, the local government may have many pro-poor policies, but there is politicking and feet-dragging that inhibits the success of the overall effort.

• Economic development interventions separate from health: Economic development should not be a separate issue from health. In most local governments, social and economic initiatives are institutionally separate and often delivered by different agencies. This creates inefficiencies in services offered, which not only is costly to the local government implementing the services but also has a high opportunity cost for the individuals receiving the services.

### Case study: PATH's Safe Water Project

In the Indian village of Vavilala, women have found a way to improve the lives of their families. With microfinance loans and each other's support, they have been able to improve the yields on their farms and start small businesses. They still must drink water from the village's wells, but the water is turbid and unsafe to drink. Water filters can eliminate the risk of water-borne illness and diarrheal disease, but even affordable filters can cost as much as a third of a family's monthly income. Microfinance can help get the filters into rural homes.



Photo credit: PATH

Creating a distribution network to villages is costly for water filter companies. PATH linked companies with local microfinance organizations. Women take a low-interest microloan for the filter and pay it back in installments over six months. It's a model that multiplies—one woman buys a water filter, then others become interested and the idea spreads. By collaborating with microfinance organizations, PATH can reach families with clean drinking water.<sup>214</sup>

## Health and local economic development in high-income countries

In developed nations, the link between income and health is well documented across almost all health outcomes, affecting individuals in HIC, including chronic disease, diabetes, depression, heart disease, cancer, and even nutrition.<sup>215,216,217,218</sup>

In the United States and other developed countries, individual wealth has been demonstrated to be directly linked to health outcomes, with poorer individuals suffering increased health risks. Individuals who are uninsured or underinsured are at a significantly greater risk of adverse health outcomes, even when free or low-cost health services are available. For example, people without health insurance tend to delay seeking treatment for an illness, compounding health problems and resulting in higher emergency medical costs.<sup>219</sup> Individuals without insurance are also less likely to seek preventive, prenatal, and maintenance care, compounding health problems and negatively impacting economic development in the long run, while increases in wealth directly impact an individual's ability to access health services and achieve good health. This barrier is compounded by the subtler connection between health and the macro-level social determinants of health that enable an individual to engage in a healthy lifestyle.

## Types of interventions and target populations

Strategies for tackling health disparities in social determinants of health in the developed world are broad, holistic, and policy-oriented. Many authors have proposed innovative approaches for reducing health disparities in HIC, including policy changes that encourage availability and affordability of fresh foods, employment laws to protect vulnerable and marginalized groups from hiring exclusion, incorporating health best practices into housing and built environments, and incorporating community engagement and capacity-building activities into housing and public health initiatives.<sup>220,221</sup>

Efforts for local and community economic development and health interventions have largely targeted urban low-income communities, although these interventions have also been introduced in rural areas working with diverse and marginalized populations, particularly Native American and migrant agricultural communities. In the United States, neighborhoods targeted for community development interventions tend to have more pronounced diversity than their more affluent counterparts, have lowers social capital, and include groups of recent immigrants, often with limited English proficiency. Communities that are engaged in these types of interventions often have a history of social marginalization, have limited access to municipal or regional services, and have a significantly lower average education level than the mean for that area.

#### **Common barriers to success**

Identified barriers to economic development interventions in HIC are as follows:

- **Income inequality:** Income inequality in the United States and other developed nations proves to be a major barrier to income growth and health outcomes for poorer individuals. Given the systemic nature of the problem, interventions aimed at improving health outcomes through economic development interventions have not yet demonstrated success. A national reform effort is needed.
- Identifying the causal linkages: The causal linkages between health and economic development measured as increased income or human capital remain fuzzy in the literature. Evidence does not clearly demonstrate that health leads to economic development or vice versa: there are many intervening factors. This does not diminish the importance of economic development in improving health outcomes, or improved health increasing an individual's or household's wealth.

#### Case study: G2L's Food Innovation Network

When G2L conducted its initial community needs assessment, the top responses they heard to the question, "What makes it hard for you to be healthy?" were related to economic stability. While health care access is important, so are jobs, good wages, and the ability to pay for a roof over one's head and put food on the table. One way G2L has responded to this community priority is to launch, alongside many partners, the Food Innovation Network (FIN). Network members support low-income individuals to start food businesses with the dual goals of improving food access and supporting economic development. To date FIN has supported dozens of food entrepreneurs along their path to achieving their dream of owning a food business, and in 2017 the network is opening a commercial kitchen where entrepreneurs can launch their business with the support of FIN service providers.



Photo credit: G2L

## Recommendations for future investment in economic development to improve public health

Because economic security is such a high priority for the communities we serve, G2L will continue to invest in this approach and in multiple ways. In the coming year, G2L will train its CHWs to be financial coaches and will partner with a local credit union to support savings efforts. We are also collaborating with local agencies and health care providers to create employment pathways for immigrants

and refugees who were trained health care professionals in their country of origin but are doing low-wage work in the United States. All of this will be integrated into our health programing with the expectation that in combining these themes we will see better outcomes in each area. While the outcomes of these interventions remain to be seen, we are already hearing that our community is excited for this new program because it is exactly what people have been asking for. Based on this response, G2L hopes that other organizations will step outside of their comfort zone-particularly if they are a traditional "health organization" – and think about the role that financial security plays in health. If the community is saying that economic hardship is the biggest factor impacting their health, shouldn't the health sector pay attention to that?



## 6. Linking Primary Health Care with Public Health

## Linking primary health care with public health services to improve integration and efficiency in health service delivery

## What does linking primary health care with public health services mean?

Linking public health with primary care requires integrating population-based health services with primary care delivery and vice versa. In the United States, there is a clear distinction between public health services provided by the government and the primary care services operated by private organizations. Although there are some exceptions for state hospitals and publicly funded community health or free clinics. In many LMIC, providing primary health services is the responsibility of the national health ministry. The ministries of health operate clinics at every level, from the national to the community level and, thus, there is no separation between primary and public health services.

The American public and private health systems have made a concerted effort to divide the responsibility for different types of care delivery. Public health departments often cut services from their clinics that can be handled by private primary care providers, to better serve population-based health interventions. In the United States, this trend can be seen in the transfer of responsibilities for childhood vaccinations from public health departments and clinics to primary care providers.

## What problem does integrating public health services with primary care address?

Public health and primary care services are often disjointed and disconnected in HIC, specifically the United States. Integrating public health interventions with primary care services answers:

- The need for integrated, collaborative service delivery to promote and manage population health.
- · The need for coordinated service delivery during times of crisis.
- · The disconnect between private primary care and access to social services and vice versa.

There is a growing recognition in the United States of a need for better integration and collaboration of public health and primary care to respond to the increased risk of infectious diseases, as well as a need to better respond to the health needs of individual communities that may be underserved by both health systems.

## **Summary of evidence**

The findings on the benefits of linking public health services and primary care are as follows:

- Integrating public health with primary care services will require a restructuring of the current health delivery system in the United States and is not cost-effective in the short run, but it provides extraordinary potential for cost savings and effectiveness in the long run.
- There is strong evidence that in HIC, increased integration and collaboration between public health and primary care can improve not only access to services but also increased health education, increased usage of the health system, and expanded access to additional social services. The evidence also demonstrates potential for improved health outcomes.
- Evidence demonstrates that adding services to routine care in LMIC can be a costeffective way to enhance the continuum of care, but their coverage remains quite limited.<sup>222</sup> There is inconclusive evidence from LMIC that integrating public health services into routine care improves health outcomes or that it increases either patient knowledge of health behaviors and risks or utilization.<sup>223</sup>

Table 7 summarizes the evidence across the main outcomes or goals of integrating public health services with primary health care.

Outcome/Goal	Summary of Evidence
Improve public health education and access to population health interventions	Integrating public health and primary care services is shown to: • Improve childhood immunization coverage. <sup>224</sup> • Improve health outcomes for those in HIC suffering from chronic diseases Martin-Misener 2012). <sup>225</sup>
Improve interagency collaboration and increase access to social and health services	<ul> <li>Integrating public health and primary care services is shown to:</li> <li>Increase rates of immunizations in HIC.<sup>226</sup></li> <li>Increase capacity and coordination in times of emergencies.<sup>227</sup></li> <li>Increase and sustain participation by primary care providers and general practitioners in these interventions.<sup>228</sup></li> <li>Increase delivery of preventive services.<sup>229</sup></li> </ul>
Reduce health disparities and inequities	Integrating public health and primary care services is shown to: • Improve access to health care and reduce health disparities in LMIC. <sup>230</sup>
Strengthen Health Systems	Integrating public health and primary care services is shown to: • Contribute to comprehensive health care, strengthening the health system in a sustainable manner. <sup>231</sup>

### Table 7. Summary of benefits of integrating public health services and primary care.

## Integrating public health and primary care services in low- and middleincome countries

In LMIC, access to primary care is severely limited by costs, inefficient or nonexistent infrastructure, and human resources capacities; outcome-oriented public health priorities are often the foundation for other health services offered. In many situations, the only comprehensive health care individuals will receive occurs at the time that they access a service, such as immunization, HIV testing,

or family planning. Thus, health program planners in developing countries recognize and attempt to optimize the brief and infrequent visits individuals have with health professionals by integrating critical primary care components into outcome-specific health care.

## Types of interventions and target populations

One of the most common examples of integration of outcome-specific services in developing countries is the effort to combine child survival interventions with immunizations. These interventions piggyback on existing robust health delivery systems and distribution systems for vaccinations and malaria prevention supplies to improve the breadth and depth of coverage for vital child survival interventions. Included in immunization services are supplements; growth monitoring; bednet distribution; health education and education on treatments for common health problems; HIV/AIDS awareness; family planning services; and distribution of key vitamins and minerals to supplement their diets.<sup>232</sup>

In addition to providing additional services at regular child immunization visits, health professionals in developing countries are looking to provide communities with health education at existing facilities.<sup>233</sup> Child survival interventions have been integrated with immunization as part of routine immunization services. Services added to routine antenatal and immunization care are reported to be cost-effective strategies to improving access and maintaining participation in the continuum of care.<sup>234</sup> However, the evidence is inconclusive as to whether integrating STD education, family planning, and maternal and child health services into routine care instead of "vertical services" improves health outcomes and client knowledge or increases service utilization.<sup>235</sup>



Photo credit: G2L

## **Common factors to success**

Clear successes with integration in LMIC include the following:

- **Strong organization and leadership:** Primary care and public health in developing countries have a long history of service integration. Adapting an already strong system to include additional services is much easier and cost-effective than establishing an entirely new vertical program, as would be the case in HIC like the United States.
- Effective and substantive outreach: Using existing networks of CHWs and other common outreach strategies in immunizations extends services to remote, rural, low-resource areas.

### Common barriers to success

Identified barriers to integration in LMIC are as follows:

- **Disparate coverage:** The concentration of interventions around existing systems and service delivery areas might compound disparity by providing additional service to people with existing access to health services. Individuals who are not already receiving services from one vertical system, such as immunization, will not have access to any health services added into that system. Alternatively, unintegrated programs may seek out different target populations, providing fewer services to more people.
- Lack of sufficient evidence: Despite a growing trend towards comprehensive integration, there is minimal evidence of the effectiveness and impact of this approach on improving targeted health outcomes. The data that is available offers conflicting interpretations of the effectiveness and impact of integration.

## Integrating public health and primary care services in high-income countries

Despite the historic separation of public health and primary care in the United States, there is a growing recognition that better health outcomes can be achieved through increased coordination and collaboration between primary care and public health, especially in the case of emergency and disaster health services.<sup>236</sup> While the separation of public health and primary care is the norm in the United States, there are both innovative and existing models that can foster the integration of services. Community-Oriented Primary Care (COPC) is a model of health service development that integrates public health and primary care to deliver prioritized services to a defined population. There has been a recent surge of multiservice centers that integrate health care with a wide range of community support services and can provide insight into how integration can be expanded domestically.

#### Types of interventions and target populations

While many clinics practice COPC, the level of integration of services varies dramatically. In addition to COPC, partnerships, collaboration, and cooperation can take many different forms. In some cases, services remain firmly in the domain of medical care while in others expansive partnerships have been formed with the goal of connecting clients to a wide range of medical and social services. In many instances, these partnerships are formed between several organizations that operate out of different facilities, although there is a growing trend to consolidate these services under one roof.

These interventions are place- and context-specific and focus on collaborating across the local landscape of available services. Programs try to create broad partnerships that will respond to a wide range of needs in the target population. Through both expanding the range of available services within the health center and by forming creative partnerships, projects seek to address the full range of issues that impact the health of the communities in which they work.

Programs try to create broad partnerships that will respond to a wide range of needs in the target population.

In some cases, integrating public health into primary care services requires training primary care providers on public health and population health-related tasks. These interventions led to positive changes in health outcomes and wider participation in other public health initiatives.<sup>237,238,239</sup> In high-income countries, mainly the United States, these programs were targeted at decreasing the incidence and severity of obesity and chronic disease through integrating preventive care, screening, and health promotion activities.<sup>240</sup> Integration of public health in primary care services also incorporated the use of referrals and recommendations by primary care providers for patients to seek out vaccinations, screenings, and other public health interventions.<sup>241</sup>

In HIC, the burden of chronic diseases such as hypertension, diabetes, and heart disease are generally higher than in low- and middle-income-country settings. These programs aimed to incorporate proven public health strategies into primary care to produce the desired health outcomes. Evidence proves these interventions to be effective at improving the targeted health outcomes, as well as improving uptake in other public health-related programs.<sup>242,243</sup> These programs tend to target a specific geographic area, and the target populations tend to be minorities in low-resource settings.

#### **Common factors to success**

Clear successes with integration in HIC include the following:

- **Coordinated approach:** The integration of public health interventions and primary care services were most successful when expectations aligned and when partners involved were coordinated in their approach from program design to implementation.
- **Standardization of data collection:** Programs that aligned and standardized their data collection, analysis, and dissemination were generally more successful.

- Leadership: Successful integrations and collaborations are often associated with endeavors that had strong, inspired leadership. These leaders, both individuals and groups, were instrumental in setting the vision and the direction and followed the intervention through implementation and evaluation.
- **Mutual trust:** For public health and primary care integration to be successful, clear expectations and responsibilities need to be set by all actors involved to build mutual trust and reduce moral hazard and principal-agent problems.
- **Geographical proximity:** Interventions where the health centers and social services were in close geographical proximity, or even in the same building, were far more successful at reaching target populations than those where services were in disparate facilities.

#### **Common barriers to success**

Identified barriers to integration in HIC are as follows:

- Lack of funding: Due to the siloed nature of the health care system in the United States, to integrate public health services and primary care, robust and sustainable funding is necessary. These interventions require medical and social service professionals to rethink the delivery of health care, which requires a lot of capital. Interventions that lacked enough funding to sustain these services were often less successful than their counterparts.
- Increased or burdensome cost on consumer: Interventions that set additional costs and restrictions on the consumer were often less effective than those that were free or centrally located, reducing the amount of time needed to receive services. Studies indicated that programs need to be mindful of the impact of fees on the populations they serve, as they are usually vulnerable and marginalized populations in low-resource settings.
- Lack of racial and social justice component: Programs were often unsuccessful when they failed to consider the culture- and context-specific needs of their target populations. Interventions that incorporated racial and social justice components into their programs were often more well-received by the community and their target population.

### Case study: G2L's Connection Desk

Launched in partnership with HealthPoint in 2013, G2L's Connection Desk deploys volunteer university students to address the underlying social issues that often drive poor health—things like access to food, transportation, language training, and employment. To date the Connection Desk has provided over 9,000 referrals, including over 5,000 people enrolled in health insurance under the Affordable Care Act. G2L is now working with other health care systems to replicate and scale this program.



Photo credit: G2L

## **Recommendations for future investment in integrating primary care and public health services**

The Centers for Medicare and Medicaid Services is increasingly investing in social service and clinical integration, and there is hope that this sort of work (like the Connection Desk) could be funded in the future. Despite some uncertainty about where these efforts will go under a new administration, there is an increasing understanding that health cannot be achieved without addressing the underlying factors that promote (or inhibit) health. Thus, we hope that other efforts will continue to seek out linkages between clinical care and public health services and experiment with new partnerships and approaches that bring these areas together. Ideas include increasing the presence of public health services in medical facilities, building partnerships between health services and workforce development, and piloting programs that allow providers to write prescriptions for food or housing.



7. Community Mobilization and Leadership Development

# **Community mobilization and empowerment to promote leadership development at the community level**

## What is community mobilization and empowerment?

Community mobilization and empowerment approaches can be implemented as a standalone intervention or as part of a broad community-based health intervention. Community empowerment seeks to engage the community in the program design and implementation, solidifying the community as a stakeholder in the overall success of the program through social accountability and community-leadership development.

Literature on community empowerment and mobilization recognizes the central role that individuals and groups have in becoming leaders and champions of their own health. Empowerment and ownership of their health status and health improvements by communities is often marked as a sign of success for interventions aimed at promoting population health. Through community participation and empowerment, communities can define their greatest health challenges and specify their needs to national health systems, donors, and external actors, allowing for a targeted health intervention that suits the needs of the community and is relevant to the context and the culture of that community. Collective ownership of programs and interventions are designed to address social and structural barriers to their overall health and human rights.

## What problems does community mobilization and empowerment address?

Community mobilization and empowerment approaches have been introduced in a variety of settings as a response to the following challenges:

- · Health service access, availability, or delivery that is not determined by community needs.
- Health programs and interventions that do not adequately reflect the cultures or communities of their target populations.
- Unstable and unsustainable transitions from externally-managed interventions to community-led interventions.

## **Summary of evidence**

The findings on the benefits of community mobilization and empowerment are as follows:

- Systematic review, meta-analyses, and single studies indicate that there is conflicting evidence that community engagement and empowerment in health interventions leads to improvements in targeted health outcomes.<sup>244,245,246</sup> There is insufficient evidence to determine whether one model of community engagement is more effective than another.
- From economic impact analyses, there is weak and inconsistent evidence that community engagement interventions are cost-effective.<sup>247,248,249</sup>
- Evidence from systematic reviews conducted in HIC indicates that community engagement as part of a multifaceted approach to health promotion may have positive impacts on health outcomes, reduced incidence and risk of noncommunicable diseases, and has the potential to be cost-effective.<sup>250</sup> However, there is limited evidence from systematic reviews and meta-analyses of the impact of cost-effectiveness of a specific community engagement component.
- Evidence from systematic reviews conducted in LMIC indicates that community engagement and empowerment is a critical component to broader health interventions.<sup>251</sup> Community engagement is a necessary component to carrying out needs assessments and social mapping.<sup>252</sup>

Table 8 summarizes the evidence acrosseach intended outcome of communitymobilization and empowerment.

Goal	Summary of Evidence
Reduce health inequalities and disparities	<ul> <li>Community empowerment has been shown to:</li> <li>Engage members of disadvantaged and marginalized communities in public health initiatives.<sup>253</sup></li> <li>Expand access to care for disadvantaged and marginalized groups by identifying community health needs and opportunities for collaboration and leading delivery interventions.<sup>254</sup></li> </ul>
Increase efficiency and cost- effectiveness of programming	<ul> <li>Community empowerment has demonstrated:</li> <li>A potential for cost-effectiveness when used in combination with existing community-based interventions and community empowerment models.<sup>255</sup></li> <li>A positive outcome from community mobilization to bring about cost-effective and substantial reductions in health risks and improve long-term health outcomes, reducing future costs to the health system.<sup>256</sup></li> </ul>

#### Table 8. Summary of evidence of community empowerment and leadership development.

## **Overview of intervention**

There is a broad consensus among the global health community that local communities should be actively involved in improving their own health. Community mobilization and empowerment can include any of the previously discussed interventions, covering a wide range of diseases and health outcomes. Unlike the interventions previously discussed in this landscape analysis, community mobilization and empowerment is not a standalone intervention. Increasing community participation and enhancing leadership development tends to be used in conjunction with other interventions to target specific health outcomes. The literature on empowerment and leadership-development interventions tends to focus on two different levels: the individual and the community. For the sake of this landscape analysis and the scope of this intervention, we chose to focus specifically on the leadership development and empowerment of the community in improving health outcomes.

Leadership development and empowerment literature tends to focus on health promotion interventions. Health promotion often comprises a tension between "bottom-up" and "top-down' program design.<sup>257</sup> Bottom-up programming tends to focus on concepts

of community empowerment, directing issues of concern to groups or individuals. Bottom-up programming also targets some improvement in their overall power or capacity to make decisions and claim ownership of their health as the key health outcomes. Top-down programming is more associated with disease prevention efforts, involving groups or individuals in issues and activities defined by health agencies and global health agendas, regarding improvement in certain health behaviors as the key health outcome.<sup>258</sup> The focus of this section is the bottom-up approach: empowering and enabling communities to take ownership of their health and promote the health outcomes they deem most relevant and needed.

## **Community mobilization and empowerment in low- and middle-income countries**

There has been a trend in global health interventions in LMIC, historically, where external funders and actors implement programming with little to no consultation with their target population or their community in program design and implementation. This historical trend has led to mixed results, some interventions having cited an improvement in critical health indicators while other programs cited no significant impacts. In the last 20 years, literature has cited a change in this trend, incorporating and involving communities into needs assessments, program design, and implementation. Community empowerment and participation focuses on making communities leaders in their health decisions and outcomes.

### Types of interventions and target populations

Many community empowerment and mobilization approaches engage local leaders in the process of designing and implementing public health initiatives. The types of engagement exist on a spectrum from informing to consulting, collaborating, partnering, and empowering through leadership development.<sup>259</sup> Community participation and leadership development can include engaging local leaders and groups at each stage in the process, creating committees to tackle specific tasks and issues, responding to the advice and needs of the community, social mapping of the community, and census taking.<sup>260</sup>



Photo credit: PATH

Community empowerment and mobilization has the potential to impact a multitude of health interventions in LMIC, especially those with the highest burden of disease, including maternal and child health, health promotion, malaria and infectious disease, HIV/AIDS and reproductive health, and noncommunicable disease. Additionally, there is evidence that community mobilization is an effective method for promoting participation and empowering communities among a wide range of other non-health-related outcomes.<sup>261</sup>

Evidence from a systematic review demonstrated that community participation had statistically significant positive impact on maternal and newborn health as a part of a package of interventions.<sup>262</sup> Evidence from systematic reviews indicates significant reductions in maternal morbidity (28 percent), neonatal mortality (69 percent), and still births (66 percent) because of implementation of community-based interventional care packages.<sup>263</sup> Brunton et al. (2014) looked at how community engagement interventions worked with implementing skilled birth attendants. Evidence from the systematic review points to community collaboration models as potentially effective in increasing coverage rates and health outcomes.<sup>264</sup> Trial evidence based on the experience pre- and post-Alma-Ata Declaration indicates that community mobilization can bring about cost-effective and substantial reductions in mortality and improvements in neonatal, maternal, and child health outcomes.<sup>265</sup> However, long-term impacts on maternal, newborn, and child health outcomes have not yet been observed or closely studied. Malaria interventions require higher levels of community engagement. To employ a community engagement or mobilization model so that communities can be invested and champions of their own health outcomes, a program must:<sup>266</sup>

- · Increase knowledge at the community level of the disease-how it works, prevention and treatment.
- Work with communities to develop acceptable and effective intervention packages.
- Understand and address the community and household incentives and disincentives for participating (e.g., opportunity costs).
- · Be sensitive to gender and cultural conditions to increase participation and engagement.
- Work at all levels to develop social cohesion between the program and the community.
- Ensure the commitment of authorities to genuine participation and decentralization of decision-making.
- Engage support and ensure resources for participation and locally embedded civil society agencies.

Community engagement and participation has played a crucial role in successful disease control and elimination. Malaria prevention and control is dependent on vectors, with different strains present in different vectors. Movement between vectors with individuals carrying different strains of the disease can lead to an increase in malaria transmission within a community.<sup>267</sup> Controlling the disease within a vector requires community empowerment and involvement in prevention and control of the disease. Evidence from a systematic review shows statistically significant reductions in disease incidence and prevalence using various forms of

Evidence from a systematic review shows statistically significant reductions in disease incidence and prevalence using various forms of community engagement.

community engagement. The current global malaria elimination campaign calls for a health systems strengthening approach to provide a conducive environment for elimination and treatment programs in developing countries. To realize the benefits of this approach, it is necessary to engage and mobilize the "people" component of health systems and understand the multi-level factors that influence their participation.<sup>268</sup> It is critical to the success of malaria treatment and control efforts to engage the communities in the process of program design and implementation to secure their buy-in to improving health outcomes and become champions and leaders of the program.

Community empowerment can play a vital role in destigmatizing and preventing HIV/AIDS in sex workers. Evidence from two systematic reviews indicates the community empowerment–based approaches to addressing HIV/AIDS among sex workers are significantly associated with reductions in HIV/AIDS and other sexually transmitted diseases and with increases in consistent condom use among clients.<sup>269,270</sup> However, despite the promise of community empowerment approaches, the studies identified structural barriers to implementation and scale-up, including regressive international discourse and pressure, funding constraints, national laws criminalizing sex work, and pervasive social stigma, discrimination, and violence.<sup>271</sup>

Overall, systematic reviews and meta-analyses indicate that there is solid evidence that community engagement interventions have a positive impact on health behaviors, consequences, self-efficacy, and perceived social support outcomes across various conditions.<sup>272</sup> However, the literature points to a lack of clarity on whether one model of community engagement is likely to be more effective than another. Additionally, there is insufficient data to suggest that community empowerment models improve social inequalities.<sup>273</sup> Given the breadth and depth of the range of interventions, populations, and outcomes, systematic analysis and interpretation of these interventions is difficult.

### **Common success factors**

Clear successes with community mobilization and empowerment in LMIC include the following:

• Social accountability: Engaging communities from the beginning of the program allows for buy-in to their eventual success and for the communities to set priorities based on their specific needs. This buy-in is critical to the success of a public health intervention as it makes communities accountable for their own success.<sup>274</sup>

• **Coalition and partnership building:** Community empowerment approaches were most successful when coalitions and partnerships were built and maintained during program design and implementation.<sup>275</sup> These partnerships formed a foundation for communities to empower themselves, becoming leaders and champions of the intervention to lead to better health outcomes for the entire community.

#### **Common barriers to success**

Identified barriers to community mobilization and empowerment in LMIC are as follows:

- **Funding and budget priorities:** As with many other interventions, community mobilization and empowerment requires adequate long-term funding to achieve improvements in health outcomes. Community empowerment requires resources up front to build both relationships and the program, as well as funding over time to maintain those relationships and carry out the program. Without adequate long-term funding, community empowerment approaches are vulnerable to program attrition and erosion.
- **Political will:** In the same vein as the barrier listed above, community empowerment interventions are vulnerable to changes in political will and strategic priorities. Due to the long-term nature of these approaches and observable outcomes, they can often deter policymakers from continued interest and funding, presenting a barrier to the overall success for the program.<sup>276</sup>

## **Community mobilization and empowerment in high-income countries**

Community participation and leadership is a central principle of public health policy and practice in high-income country settings. Community engagement approaches are used in a variety of water to facilitate participation and leadership development, ranging from the more utilitarian, involving lay delivery of established programs, to more empowerment-oriented approaches.<sup>277</sup> In HIC,

community empowerment and mobilization approaches typically take a population-based approach, focusing on health promotion and behavior change with a multitude of different community engagement approaches and strategies.

Community participation and empowerment in HIC focuses on building skills, capabilities, and knowledge through social networks and community organizations.<sup>278</sup> Participation in HIC is focused around representation, community leadership, and activism. Community empowerment approaches go one step farther than community-based approaches; they are focused on mobilizing assets within communities, promoting equity, and increasing the community's control over their own health outcomes.



Photo credit: PATH

Conclusions drawn from the literature show that community empowerment and mobilization is commonly thought of as an intervention, in the utilitarian sense, focusing on the health impacts of professionally implemented programs. However, it becomes harder to capture the full effects of an intervention as professional control is relinquished and communities can lead the interventions on their own.

### Types of interventions and target populations

The most common types of interventions associated with community empowerment and mobilization in HIC are health promotion to reduce noncommunicable disease prevalence or morbidity, mental health, and maternal and child health. In HIC, community empowerment approaches tend to be incorporated into the larger program design, instead of a standalone program component. However, the research demonstrates that community engagement and participation can positively impact targeted health outcomes.

Evidence from a meta-analysis revealed that by incorporating a community engagement approach into health promotion programming, there was a small, but significant reduction in body mass index among participants in intervention communities.<sup>279</sup> This review suggests that population-based, community engagement interventions can be effective in achieving modest reductions in obesity and weight gain among communities. However, results are mixed. Results from a single study conducted in the United Kingdom indicate no evidence of impact on primary outcomes associated with health promotion: healthy eating and weight gain.<sup>280</sup> There was evidence

of positive impacts on some secondary outcomes, such as reducing unhealthy eating and increased perception of neighborhood cohesion and cooperation. Similar studies have found that, while the evidence of the impact on health promotion remains limited and context-specific, these initiatives showed mixed results in improving population health through health promotion, as well as positive results in secondary outcomes, such as housing, crime, social capital, and community empowerment.<sup>281</sup>

These initiatives showed positive results in secondary outcomes, such as housing, crime, social capital, and community empowerment.

Mental health and maternal child health represented small portions of the available research from systematic reviews and metaanalyses but showed promise in improving health outcomes in the target communities. A community-based collaborative care model for mental health was shown to have a greater influence in reducing psychiatric admissions than the standard, control group.<sup>282</sup> There was no statistical significance in cost between the standard intervention and the collaborative care model, with a community participation approach.

A single study focused on maternal and child health in the United Kingdom used a community organizing approach to their community engagement and empowerment model. They sought to implement an intervention of social support to increase social capital, reduce stress, and improve overall well-being in pregnant women and mothers with infants as old as two years of age.<sup>283</sup> The program did not note any significant improvement in well-being, but did indicate increases in social capital and community empowerment. The study concludes that community organizing and empowerment is a promising model and method of facilitating community engagement in health but calls for more research on health effects.

### **Common factors to success**

Clear successes with community mobilization and empowerment in HIC include the following:

- **Volunteerism:** Community mobilization and empowerment approaches were easily implemented and demonstrated success in communities and cultures with a commitment to volunteerism. Volunteerism allowed these approaches to increase participation and disseminate information through existing networks and activism.
- **Multifaceted approach:** Community empowerment approaches tend to demonstrate success when used in combination with other proven global health interventions. Community empowerment, as it has been expressed in the literature, is not a standalone intervention.

#### **Common barriers to success**

Identified barriers to community mobilization and empowerment in HIC are as follows:

• Limited evidence of impact: There are a multitude of different community engagement, participation, empowerment, and mobilization approaches. A main barrier to success for these programs is the lack of systematic evidence on which approaches tend to be most useful or impactful in achieving long-term health outcomes. The most useful approaches should be identified and used as a starting point for new interventions. The lack of systematic research and evidence on this topic poses a potential barrier to success because programs often do not know where to begin.

### Case study: G2L example

G2L is partnering with Forterra and the Cities of SeaTac and Tukwila to support new leadership in immigrant and refugee communities. G2L has provided training and mentorship to over 50 new leaders speaking over 15 languages, supporting them to get engaged in civic activities and weigh in on policies and systems that impact their health. Areas where community leaders have been engaged include shaping local comprehensive plans and local transit planning; conducting community surveys on safety, housing, and economic development; hosting community gatherings with police and fire; and supporting the creation of community gardens. In the coming year, G2L will be further building out its leadership program, taking specific learnings from a highly successful program from Sierra Leone, as described below.

Youth-led community engagement: Restless Development is a youth-led development agency that supports youth leadership programs in nine countries. In Sierra Leone, the organization's Volunteer Peer Educator Program has been operating for a decade and has recruited, trained, and supported more than 2,000 young Sierra Leoneans to live and work in remote communities across the country for up to nine months, often relocating far from their original communities. "Young Leaders" work as community resources to mobilize young people and their communities on issues related to sexual and reproductive health, civic participation and livelihoods in schools, clinics, and youth centers. They provide a valuable link between local resources and support young people



Photo credit: G2L

to work with local leaders (formal, traditional, and religious) on issues of importance to the community. During the 2014 to 2015 Ebola outbreak, the Restless Development model was expanded to 60 percent of Sierra Leonean communities. 2,500 Ebola social mobilizers played an essential leadership role in supporting communities to protect themselves from the disease.

## **Recommendations for future investment in community empowerment and leadership development**

Without new, strong leadership in the communities we serve, G2L sees little hope that our efforts will be sustainable over the long run, or that we will see tangible community-level improvements in health. Thus, G2L is dramatically increasing its investment in leadership development. As we have heard from the community, they feel like they have no voice, and only when they find that voice will they be able to play an active role in changing the systems that have led to the disparities we witness in our society. We encourage investments in leadership development for adults and youth—particularly for those who are most marginalized. As G2L has learned, communities often have solutions to the challenges they face, they only need the opportunity and the support required to put their ideas into action.



8. Gender Norms and Gender Equity in Public Health and Primary Care

## Incorporating gender norms and gender equity in public health and primary care interventions to improve health outcomes and women's well-being

## What is gender integration?

Gender norms, roles, and relations are powerful determinants of the health and social and economic well-being of individuals and communities around the world. Gender inequality continues to have a negative impact on many global health outcomes. Gender-related power imbalances contribute to unnecessary female mortality and morbidity across the globe. Under the Sustainable Development Goals, specifically Goals 3 and 5, the global health and development community has highlighted the importance of gender equality and the empowerment of women and girls as a critical component to achieving sustainable development and improvements in women's and maternal health.

Integrating women's empowerment into global health requires using the expertise of local women's organizations in the region you are working in, highlighting women's equity and equality in the organizational infrastructure, disseminating research findings and program successes to policymakers in the locale to influence health priorities and encourage gender integration, and publicizing the social conditions that are linked to women and girls' poor health outcomes.<sup>284</sup>

## What problems does gender integration seek to solve?

Gender considerations and gender equity have been largely passed over by the global health and international development community over the past half century, exacerbating existing, and often discriminatory, gender stereotypes and norms. Gender integration and framing has been introduced in a wide range of settings as a response to gender-based violence (GBV) and broad gender inequality, negatively impacting women's health and access to health services.

#### The root causes of these challenges include:

- · Pervasive societal gender norms that limit women's equal access to health care and social services.
- Male-dominated cultures and societal norms that make it difficult for women's empowerment through access to education and health care.
- · Lack of female health professionals in LMIC, making it difficult for women to define their health status and health needs.

## **Summary of evidence**

The findings on the benefits of incorporating gender equity into health care are as follows:

- Gender considerations or specific focus of health interventions on gender have largely been absent from domestic public health and global health in recent decades.
- In HIC, primary care providers are uniquely positioned to respond to instances of GBV. Educating these providers on intimate partner violence (IPV), preventive health screenings, and referral to counseling or social services can improve their patients' long-term health outcomes.<sup>285</sup>
- In LMIC, women often face more discrimination and are more vulnerable to GBV because of discriminatory gender norms.
   Women in these settings often do not have the same autonomy or authority to seek care when needed, leading to negative health impacts.<sup>286,287</sup>
- Incorporating gender-specific treatments and screenings into existing health visits is likely to improve women's health outcomes and increase GBV identification, while providing a non-judgmental space for counseling and referral to relevant social services.

*Table 9 summarizes the evidence across the main goals and outcomes of gender equity and integration interventions.* 

#### Table 9. Summary of benefits of gender integration.

Note: GBV=gender-based violence.

Goal	Summary of Evidence
Improve women's health outcomes	<ul> <li>Gender integration interventions have been shown to:</li> <li>Reduce the incidence of GBV through routine screenings on primary care visits and increased referrals to relevant social services.<sup>288,289</sup></li> </ul>
Improve efficiency and efficacy of frontline health providers on issues relating to GBV	<ul> <li>Gender mainstreaming has been demonstrated to:</li> <li>Improve capacity and competency of medical and lay health workers through routine and ongoing sensitivity and GBV counseling and training.<sup>290</sup></li> </ul>
Strengthen health systems	<ul> <li>Gender mainstreaming interventions have been demonstrated to:</li> <li>Increase women's empowerment and participation in health services, leading to democratic development and strengthening institutional capacity.<sup>291</sup></li> </ul>
Improve sustainable gender equality through intersectionality	<ul> <li>Gender integration has been shown to:</li> <li>Increase women's empowerment and decision-making authority over her own health and the health of her children.<sup>292</sup></li> <li>Alter and shift cultural and societal norms dictating roles and responsibilities for women, offering women the same access to health opportunities as men.<sup>293</sup></li> <li>Change gendered power structures in favor of a more equitable distribution of power among men and women.</li> </ul>

## **Overview of intervention**

Violence against women, particularly IPV and sexual violence, presents major global public health problems and violates women's human rights. The UN defines violence against women as the following:

## "Any act of gender-based violence that results in, or is likely to result in, physical, sexual or mental harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life." <sup>a</sup>

Violence against women can negatively affect their mental, physical, sexual, and reproductive health, increasing their vulnerability to HIV/AIDS and affecting the health and nutrition of their children. A common factor associated with GBV is the cultural and societal norms of accepting violence and pervasive gender inequality.

The WHO estimates that about 1 in 3 (or 35 percent) of women have either experienced physical, sexual, or emotional violence by an intimate partner or non-partner in their lifetime.<sup>b</sup> Much of this violence is IPV, with nearly 30 percent of women having been in a relationship in which they experience some sort of violence by their intimate partner in their lifetime.<sup>c</sup> IPV can take many forms, including:<sup>d</sup>

- Physical violence
- · Sexual violence, including rape, sexual abuse, or sexual assault
- Stalking
- Psychological or emotional aggression

Empowering women with the same rights and opportunities as men can improve the health and productivity of households and communities.

Gender equality is a current focus of the international development and global health programs. Gender equity and equality are closely tied to human rights: women are entitled to live with dignity and the same freedoms afforded to men. Empowering

women with the same rights and opportunities as men can improve the health and productivity of households and communities. Pervasive and regressive gender norms and ideologies have been demonstrated to lead to widespread and systemic gender inequalities in global health and primary care interventions.<sup>294</sup> In global health crises, women often do not have the same autonomy or authority available to seek health care as men; culturally pervasive and structural gender inequalities can inhibit women and their children from seeking care.<sup>295</sup>

Gender norms and cultural ideologies can lead to increase incidence of GBV for many reasons. If women are not in a position of power, they are increasingly vulnerable to those in power. This position of power, usually held by men, can be exercised in many ways, including violence against women. Women might be conditioned to accept violence against them because of their culture or a belief that they deserve it. This violence can lead to and exacerbate negative health outcomes.

As there are different levels of gender biases and inequality in global health across different regions, there are interventions aimed to address those issues at every level. There are several different interventions that address gender equality, gender norms, and GBV. These interventions are implemented at all levels: structural and institutional, at the provider level, and at the individual level. Interventions can involve male inclusion into maternal and child health, HIV/AIDS education, IPV screening, and counseling provided by CHWs.

a Violence against women. World Health Organization. http://www.who.int/mediacentre/factsheets/fs239/en/. Published November 2016. Accessed February 27, 2017. b WHO, 2016

c WHO, 2016

d Breiding MJ, Basile KC, Smith SG, Black MC, Mahendra RR. Intimate Partner Violence Surveillance: Uniform Definitions and Recommended Data Elements, Version 2.0[PDF 283KB]. Atlanta (GA): National Center for Injury Prevention and Control, Centers for Disease Control and Prevention; 2015.

Many articles and research from gray literature points to the need for a "Gender Integration Strategy" into the programs funded by government health ministries, NGOs, and foundations. Incorporating a gender focus into development work involves more than empowering women through education and economic opportunity. Gender integration involves including men and communities in on why gender equality is important and how it can improve their livelihoods. Gender inequality and gender norms do not just disadvantage women but can also lead to provider ineffectiveness, health disparities, and economic inefficiency.<sup>296</sup>

## Gender integration strategies in low- and middle-income countries

It is more common in LMIC for gender norms to be unequal. Gender roles are often more defined in the household, particularly in rural and agricultural areas. Interventions aimed at addressing gender disparities, women's empowerment, and women's health often include a domestic violence component in addition to specialized prevention and treatment programs. However, there are many settings in which women do not feel empowered to seek help or services. In many cases, cultural norms condition women to accept discrimination and violence against them.

Women in LMIC take on different roles relative to their gender than their developed nation counterparts and are often assigned different and more difficult tasks to be completed in the household. Women in developing countries tend to be unemployed at higher rates than men, and many women are homemakers with their husbands as sole earners of income. In addition to raising and caring for children, women often are assigned to gather water from distant wells or rivers. For example, women in rural sub-Saharan Africa often experience increased rates of infection from faecally transmitted diseases.<sup>297</sup> In the same study, the researchers found that women experience increased risk of chronic or persistent infections and fatigue caused by carrying water over long distances, often on uneven terrain. Water loads can cause injury, especially if women are pregnant, carrying babies, or have recently given birth. These cultural and gender norms, can lead to adverse health disparities, not experienced by men.

Progress towards mainstreaming gender into global health will require the disaggregation by gender or sex in global health research, interventions, and monitoring and evaluation.<sup>298</sup> Cultural and societal shifts also need to take place: mindsets need to be altered to recognize that gender norms affect everyone's health and that gender in global health is often a political issue. Research has also pointed to a notable lack of dialogue between gender advocates in developed and developing countries. There needs to be a cohesive direction promoting gender mainstreaming, shifting power structures and male hierarchies towards gender inclusion, reducing the incidence of GBV, and improving health outcomes for women and girls.



Photo credit: PATH

During the recent Ebola crisis in West Africa, women were conspicuously invisible in global health governance: even though they are present and contribute much of the care work, they remain invisible in global health policy.<sup>299</sup> Both the short- and long-term responses to the disease outbreak lacked a discussion on the gendered impacts of the disease, epidemiological data disaggregated by sex was late coming, and there was no coherent strategy to include gender indicators. In the countries, most affected by the disease, cultural gender norms and gender inequalities were magnified during the crisis. Women were often left to care for the dead or dying, leaving them particularly vulnerable to the disease. There was a lack of gender framework in the Ebola crisis that could then have been translated to the Zika crisis that disproportionately affects women, leaving them vulnerable during pregnancy. Authors cite that in both cases, the responses at the outbreak of the crises presume women have the economic, social, or regulatory option available to them to exercise the autonomy contained in international advice.<sup>300</sup> However, in many cases women lack the autonomy to make their own health care decisions and lack authority to make decisions for their children and families. Women may also lack the health education needed to take appropriate action.

#### Types of interventions and target populations

Gendered interventions and programs in developing countries often work in several different interventions. A focus on gender has been incorporated into HIV/AIDS interventions, CHW programs, mHealth, primary care, and maternal and child health, as well as malaria treatment and prevention of other infectious tropical diseases.

Gender norms have an impact on the work and the effectiveness of CHWs. Social inequities and biases, safety and security, education levels, and knowledge of health care tend to inhibit women from seeking health care services. Just as cultural norms keep women from accessing health care for themselves and their children, CHWs often bring their own biases to their work which can, in turn, impact their performance and effectiveness.<sup>301,302</sup> Gender inequalities and norms can inhibit women from seeking treatment, especially in the case of life-threatening disease testing and preventions.<sup>303,304,305,306</sup>

Social inequities and biases, safety and security, education levels, and knowledge of health care tend to inhibit women from seeking health care services.

The link between intimate-partner violence and women's health is clear: IPV leads to wide-ranging and serious health effects for women. Incorporating screenings and counseling into primary care services can improve outcomes.<sup>307</sup> When women have existing access to health services, such as primary health care provided by a doctor or CHW, adding an additional component to address women's health issues and GBV tends to be more successful. mHealth interventions have also been demonstrated to increase women's empowerment and decision-making, providing positive avenues for women to communicate with their health providers, as well as enabling greater male participation in women's health.<sup>308</sup> However, mHealth interventions should be designed with existing gender-based power imbalances in mind, or else they run the risk of exacerbating gender inequalities.

Gendered interventions in LMIC tend to target rural populations, where access to health care is often more limited. Women is rural areas tend to report higher instances of GBV and report feeling less empowered than their urban counterparts. Given the breadth of interventions that can incorporate a gendered component or work to reduce GBV, the characteristics and composition of the target populations can vary widely depending on the specific context and scope of the intervention.

#### Common factors to success

Clear successes with gendered interventions in LMIC include the following:

- **Gender integration strategy:** Interventions that specifically sought to increase women's empowerment and decision-making were generally successful when they accounted for existing gender imbalances by seeking to correct them through an inclusive gender framework, working around gender inequalities, and incorporating men into the program design in a constructive way.
- **Comprehensive:** Interventions in IPV and GBV that use complex, comprehensive, and systems-wide approaches have been demonstrated to be effective and sustainable. These kinds of interventions tackle system- and societal-level barriers to women's equity.

#### **Common barriers to success**

Identified barriers to gendered interventions in LMIC are as follows:

- Institutional capacity: In LMIC, the strength of the health systems and reduced institutional capacity can serve as a barrier to sustainable gains towards increasing women's empowerment and health outcomes while reducing gender biases and GBV.
- **Cultural competency:** Cultural and contextual relevancy are integral to the success and maintenance of an intervention targeting gender inequality and GBV. Interventions that fail to address cultural norms and biases in a respectful, collaborative way tend to be unsustainable and ineffective.

### Case study: PATH's Sayana Press

The Sayana Press is PATH's latest innovation to empower women to take charge of their reproductive health. The Sayana Press is an all-in-one injectable contraceptive, using the same medicine found in Depo-Provera. PATH and our partners are currently working on piloting the technology in countries. In Uganda, PATH trained 2,000 village health workers to educate women about family planning. These volunteers are selected because they are respected and trusted by their communities, a critical component to the success of CHW interventions.



Photo credit: PATH/Gabe Bienczycki

The volunteers were trained to counsel individuals about the range of contraceptive options available to them, with the ability to dispense shortterm methods (e.g., condoms and the pill). The Ugandan Ministry of Health realized that putting a contraceptive in the women's hands helps them to overcome many of the hurdles women face when accessing family planning—the time and money is takes to get to distant health centers to the lack of privacy. Sayana Press breaks down those barriers: contraception is now available at the community level and discreet. Women are now empowered to make family planning decisions that make sense for them, in the comfort of their own community and without their partners knowing. PATH found that in Uganda, 90 percent of women could correctly inject themselves, 95 percent remembered their next injection date, and 98 percent wanted to continue with the self-injection method. When you talk to women and health care providers about why they like Sayana Press, there is a common response: Sayana Press puts women in charge of their reproductive health.

## Gender integration strategies in high-income countries

Gender norms tend to be more equalized in HIC, where women generally have access to the same services as men. Although, in the US domestic context, reproductive rights and sexual health for women are often controversial due to religious beliefs around abortion, family planning, and sexual education. In pursuit of gender equality and reductions in GBV, gender- and women's-based health interventions tend to focus on the delivery of care and services.

### **Types of Interventions and Target Populations**

In developed-country settings, women's health and IPV interventions tend to focus on integrating screenings, counseling, and referral services at the point of care, usually a primary or urgent care nurse or physician. Primary care providers are uniquely positioned to respond to patients' disclosure of domestic and IPV. There is a level of trust that individuals share with their doctors, and visits are often a safe space, so women feel secure to share their experience. The medical professional can then provide additional health services on top of routine screenings, such as mammograms or pap smears.<sup>309</sup> Recent health interventions have highlighted the need for these health care professionals to offer referral services, such as counseling and social services, to improve the woman's physical and emotional health in the long term.<sup>310,311,312</sup> Educating medical providers on IPV and warning signs can further inform their approach on recommending screenings and specialized referrals.<sup>313</sup>

When seeing a primary care physician is not an option for seeking health advice and services, several other, confidential options are available to women who have experienced abuse. There are hotlines that can provide health education and referrals to social and counseling services. With the increased usage of smart phone and mobile information technology, women can now download apps from several different sources that provide information and resources to women. The National Network to End Domestic Violence offers an app that provides tips, information, and resources for women and app developers who aim to address and resolve this issue. The United States Navy offers an app that provides information, education, and resources to members of the armed forces to satisfy their

General Military Training requirements for domestic violence prevention. This helps members of the Navy to identify and direct victims of abuse to the services they need.

Another app, the Aspire News app, takes a completely different approach to addressing domestic violence on a mobile platform. What looks like a news aggregator can potentially be a lifesaving domestic violence alert system. Its "help" page provides a list of local domestic violence resources, and its "go" button alerts the users chosen contacts, local authorities, and service providers about the violent or potentially violent situation.

## **Common factors to success**

Clear successes with gendered interventions in HIC include the following:

- **Education component:** Incorporating gender frameworks tend to be more sustainable when accompanied with an educational component. Women can then share their new knowledge with members of their family or community.
- **Cultural sensitivity and competency:** As with many other interventions in HIC, aligning the program design and desired outcomes with cultural norms and sensitivity is an integral component to the success of the program. An intervention that is not relevant to a specific culture or context is unlikely to experience success.
- **Comprehensive approach:** Women may not know how to access the most relevant services when experiencing GBV. Many of the successful interventions added other services under their umbrella or offered referrals to other services so that women and children can seek the care they need.

## **Common barriers to success**

Identified barriers to gendered interventions in HIC are as follows:

- No male involvement: Programs and interventions that failed to include men into their design and implementation tended to be less successful that their counterparts. Male involvement has demonstrated to be a critical component to improving health and gender equity outcomes.
- Lack of provider training: To improve women's health outcomes who have experienced GBV, providers need adequate and ongoing counseling and competency training. Providers who do not have sensitivity training or has not recently been updated tend to provide ineffective or insensitive services and counseling.

## Recommendations for future investment in gender integration in public health

While G2L has not explicitly focused to date on the interventions described above, we have engaged almost entirely with women with our CHW work, through our fitness and nutrition programs. G2L has not yet focused on reproductive rights and GBV in our community. We have established good, working relationships with the One of the main limitations to gender and women's empowerment approaches is that they are vulnerable to who holds the power in those cultures and communities.

women in our community and are well-placed to pursue many of the strategies listed above. Moving forward, however, the impact of these interventions depends on the specific outcome or behavior the intervention is aiming to address. One of the main limitations to gender and women's empowerment approaches is that they are vulnerable to who holds the power in those cultures and communities. Globally, cultures tend to be patriarchal, meaning that women's empowerment and gender integration is often seen as a threat to male power, making interventions of this nature difficult. This can be seen in the current conservative-dominated US federal government, where women's reproductive health and rights are a controversial issue. Most notably, the Trump administration re-introduced the global gag rule (aka Mexico City policy), sending a strong message to organizations that the United States will no longer fund programs that include abortion as a family planning option.



## 9. Coordinated and Patient-Centered Care

# Improving the continuity and transition of care through integrated, patient-centered primary care

## **Summary of evidence**

The findings on the benefits of integrated patient-centered care are as follows:

- Coordinated care and primary care integration models are relatively new interventions, and while there is little evidence on the benefits to long-term health outcomes, these interventions have demonstrated efficiency in reducing costs and increasing collaboration among providers.
- There is sufficient evidence from systematic reviews that health systems strengthening and patient-centered care improves quality of care, access to care through the integration of services, and innovative service delivery, with a specific focus on patients and communities.<sup>314</sup>
- Health systems strengthening focuses on improving principal-agent linkages and governance through performance
  management, performance-based financing, and multi-directional integration of services and service delivery.<sup>315</sup> In both HIC
  and LMIC, health systems strengthening has been demonstrated to reduce health disparities and inequities and increase
  access to quality health services through patient-centered care and systems thinking approaches.<sup>316,317</sup>
- In high-income countries like the United States, primary care is often isolated from specialty care and social services. The creation of coordinated care models and Accountable Care Organizations (ACOs) in the United States have provided an effective way for providers to cut costs and increase cooperation and collaboration while providing high-quality care to patients. Research remains limited on the long-term health benefits of these interventions.
- In most LMIC, primary care models also suffer from highly vertical and fragmented health systems. Implementing horizontal, coordinated primary care models requires strong institutions and administrative oversight. There is evidence that these interventions decrease costs to providers and opportunity costs to patients, while improving their access to high-quality care under a single roof. There is limited evidence on the long-term impacts on health outcomes and health systems.
- Evidence remains limited on the long-term impacts to health indicators and health systems of these interventions. However, available data demonstrate an improvement in the quality and timely access to care, as well as an increased usage in primary and specialty care.

## What problem does integrated, patient-centered primary care seek to solve?

Primary care service integration models have been introduced as a response to challenges related to suboptimal access and quality of primary and specialty health services.

#### The root causes of these challenges include:

- Weak health systems in LMIC.
- Suboptimal primary care coverage and access, including preventive and routine treatment.
- Geographic or financial barriers that limit adequate access to timely care.
- Low levels of linkages and cooperation between primary care providers and specialty health and social services.

Table 10 summarizes the evidence across each outcome and goal of integrating primary health care services.

Goal	Summary of Evidence
Improve the quality of health delivery	Coordinated care models have been shown to: • Improve the utilization and outputs of health care delivery. • Improve health care linkages for individuals with chronic illness such as cancer and diabetes. <sup>318,319</sup> • Improve the quality and access to mental health services. <sup>320</sup> • Improve the patient experience of transitioning between care. <sup>321</sup> • Integrate service delivery through innovative approaches aimed at tackling NCDs and multi-morbidity in LMIC. <sup>322</sup>
Improve quality of life and targeted health outcomes	<ul> <li>Primary care integration models have been demonstrated to:</li> <li>Reduce hospital admissions and admissions of people with chronic conditions.<sup>323,324</sup></li> <li>Increase access and number of screenings for TB and HIV during routine care.<sup>325</sup></li> <li>Improve medication and treatment adherence for those with chronic conditions and noncommunicable diseases.<sup>326</sup></li> </ul>
Improve population health and reduce inequities	Coordinated care models have been shown to: • Improve maternal and child health, reducing maternal and neonatal mortality. <sup>327</sup> • Improve access to care for diverse and marginalized populations. <sup>328</sup> • Improve health care delivery systems, created to be culturally competent for diverse populations and designed to understand and meet patient preferences. <sup>329</sup>
Increase efficiency, access, and cost-effectiveness of health systems	<ul> <li>Primary care integration models have been demonstrated to:</li> <li>Streamline health care delivery and improve comprehensive care management, reducing costs to patients and providers.<sup>330</sup></li> <li>Integrate often disparate health platforms into a patient-centered care model, avoiding fragmentation of health services and making it easier for patients to access timely care.<sup>331</sup></li> </ul>

#### Table 10. Summary of evidence for patient-centered primary care.

## **Overview of intervention**

With disparate, overlapping health systems and services in both HIC and LMIC, a new approach has changed the way we think about strengthening and reorganizing these systems: the systems thinking approach. Global health theory and research demonstrated that systems thinking tools and strategies have the potential for transformational change in health systems. These strategies include collaboration across disciplines, sectors, and organizations; frequent and iterative learning for individuals and organizations; and transformational leadership.<sup>332,333,334</sup>

Characterized by a high degree of collaboration and communication, coordinated and integrated primary care seeks to improve access to and quality of health services, contributing to overall health systems strengthening efforts. These interventions can include general practitioners and specialists working together for a common purpose, usually the care of single disease. These interventions can include vertical and horizontal integration of health care professionals and health care facilities to offer a coordinated continuum of health care to a defined geographic population or to address a specific health problem or improve a specific health outcome. Care coordination is the deliberate organization of patient care treatments between two or more medical or social service professionals involved in a patient's care to facilitate the appropriate delivery of health care services.<sup>335</sup> Figure 2 above demonstrates the coordinated vs. traditional model of care.

Figure 2. Models of care.



## Integrating primary health care services in low- and middle-income countries

As mentioned in previous sections, LMIC tend to have integrated public health and primary care services. However, like their developed country counterparts, primary care delivery is often separate from social and specialist health services, and their integration faces many of the same barriers as in the United States (e.g., lack of political will, entrenched interests in the existing system), as well as the unique pressure of external donors and funders who have historically channeled funding to one disease area (e.g., HIV/AIDS) as opposed to primary health care or health systems more broadly.

In some LMIC, separate vertical programs can deliver specific interventions that have been demonstrated to improve longterm health outcomes but can fragment services in the process.<sup>336</sup> Other interventions seek to offer a universal integrated model delivered at a single point of care, using a standard approach to each patient based on the patient history and physical examination. There has been a growing recognition in LMIC that vertical programs should be integrated, using the primary health center as that point of integration.

## Types of interventions and target populations

Given the nature of the intervention generally, the specific programs are targeted towards individuals and populations with similar health risks and demographic characteristics. Chronic conditions, mental health, HIV/AIDS and infectious disease, and maternal child health often require collaboration between primary care and specialist health professionals.<sup>337,338,339,340,341</sup> In developing-country settings, interventions are targeted towards creating a single point of care to better address these health issues. Having one point of care to treat many facets of an individual's specific health needs has been demonstrated to decrease the opportunity costs to consumers of health care while increasing collaboration between health specialists and generalists.

Interventions that demonstrated success and improvements in short- and medium-term health outcomes targeted populations with similar health needs and demographic characteristics. In LMIC, target populations were often in remote or rural settings where access to primary and specialty care was difficult. The target populations share similar health indicators and experience the same health and environmental health risks. These interventions sought to make relevant care accessible to these populations by bringing the necessary care to them, often under the same roof.

There is little evidence that a fuller form of integration in low- and middle-income country settings can improve health care delivery or health status. Available evidence suggests that a full integration model has the potential to decrease the knowledge and utilization of specific services and may not result in health status improvement.<sup>342</sup>

### **Common factors to success**

Clear successes with coordinated care in LMIC include the following:

- Linkages: Creating linkages from provider to provider, facility to facility, and patient to patient can make the complex organizational structure of these interventions easier to navigate. Linkages can be observed through mobile outreach, task shifting, and the streamlining of policies and procedures.
- **Standardization of intervention:** Clearly articulating the vision of the intervention and the desired outcomes to all parties involved, as well as clearly defining their roles, demonstrated success and beneficial effects to patients.

## Common barriers to success

Identified barriers to coordinated care in LMIC are as follows:

- Weak primary health care models: In many developing countries, there is a shortage of primary care doctors, placing an additional burden on non-physician clinicians and CHWs to prevent and manage chronic diseases. Lack of formal medical education and adequate personnel inhibits progress towards improved health outcomes.
- **Political authority:** In circumstances where government or health institutions lack political authority, health systems strengthening interventions can experience implementation problems or can fail to gain the necessary political traction to sustain implementation.
- **Institutional capacity:** Health systems strengthening requires a certain degree of institutional capacity to carry out the interventions to contribute to the further increasing institutional capacity. Weak institutions can hinder the progress towards health systems strengthening.
- **Different policies and procedures:** Integrating services can prove to be difficult when different organizations have different policies and procedures. This gray area can prove to be difficult to navigate across disparate facilities, often with limited resources.

## Integrating primary health care services in high-income countries

HIC have very different primary care delivery systems from LMIC, and primary care systems differ by country. In the United States, primary care service delivery models are often very separate from specialist medicines and social services. Other than referrals, there is little communication between primary care providers and other medical and social service professionals. As discussed below, coordinated and integrated primary care can take several approaches to improve the transition and continuity of health services, while having the potential to be efficient and cost-effective for patients and providers.

## **Accountable Care Organizations in the United States**

In the United States, since the passage of the Affordable Care and Patient Protection Act in 2010, Accountable Care Organizations (ACOs) have been implemented by groups of doctors, hospitals, and specialty care providers to give coordinated, high-quality care to their patients. While initially intended for government-run health insurance (Medicaid and Medicare), ACOs have been implemented voluntarily by private-sector health professionals and organizations.<sup>343</sup> At the beginning of 2016, there were a reported 838 active ACOs across the country with services areas in all 50 states and the District of Columbia (see Figure 3).<sup>344</sup> Research estimates that 28.3 million Americans are now covered by an ACO arrangement.

The goal of ACOs is like the goal of horizontal primary care integration models: ensuring patients receive the right care at the right time, avoiding unnecessary duplication of services, and preventing medical error. ACOs can deliver high-quality, timely care while spending health care investments by individuals and government programs more wisely. ACOs are often seen to decrease government health care spending while improving access to care and health outcomes.

In the United States, for both private and public services, ACOs are a voluntary arrangement and are vulnerable to changes in funding priorities and political will. Under a new presidential administration, the future of ACOs in the United States remains unclear. There is limited systematic research on the effectiveness of ACOs to improve long-term health outcomes. However, evidence of its cost-savings potential remains promising. Figure 3. Distribution of Accountable Care Orgs.



#### Types of interventions and target populations

In developed country settings, interventions aimed at integrating primary care services tend to focus on chronic disease management, noncommunicable disease treatment, and palliative care. The target populations of these interventions tend to be homogenous, with a common health concern, from a specific geographic area, or share similar social and economic characteristics. These interventions tend to be targeted towards a specific chronic illness or health treatment, offering individualized treatment and access to relevant services.

Different health care providers, such as primary care physicians, specialists, and nurses, typically provide different components of care.<sup>345</sup> Integrated disease management is a multidisciplinary approach, requiring cooperation and collaboration by different health care providers to ensure efficient and good quality care. Integrated disease management for managing chronic conditions has the potential to improve quality of life outcomes but also reduces hospital admissions and hospital days for treatment of the chronic condition.<sup>346</sup> Studies have been conducted on the beneficial effects of incorporating pharmacists into chronic disease management, finding that there was a positive impact on medication adherence and quality of life.<sup>347,348</sup>

In primary care integration and coordinated care models, a new discipline for a non-physician health worker has emerged: a navigator. A medical or social services professional who acts as a connector between a patient and various health and social services. Patient navigation has emerged in recent decades as a promising strategy to reduce health disparities.<sup>349</sup> Navigators tend to be employed by a health organization or CBO and can have a professional and educational background as a CHW or social

Patient navigation has emerged in recent decades as a promising strategy to reduce health disparities.

worker. These navigators serve as a single point of contact for individuals with chronic or mental health conditions. Navigators can also be implemented in low-resource areas, working with diverse communities.<sup>350</sup> Navigators seek to overcome poor communication and cooperation between primary and specialty care professional. Care coordinators have been demonstrated as effective for ensuring timely access to care and best-practice care.<sup>351</sup> The use of health care navigators has been demonstrated to have positive health impacts on chronic disease management, cancer treatments, and palliative care.<sup>352</sup> However, this is a relatively recent innovation and more research needs to be conducted on whether navigators can improve medication adherence and long-term health outcomes.

There is often insufficient and conflicting evidence on whether integrating primary health care service delivery with other medical specialties and social services has an impact on improving health practice or health outcomes for individuals living with chronic diseases.<sup>353,354</sup> However, many systematic reviews point to integrated delivery and coordinated care models being cost-effective, efficient, and having a positive impact on health outcomes and medication adherence.

In the context of the United States, the Patient Protection and Affordable Care Act provides additional opportunities for the incorporation of patient navigators. Patient navigators have the potential to help previous disadvantaged or marginalized groups access quality health care and benefit from an integrate care model. Research suggests that navigators can lead to greater treatment engagement for those with chronic conditions or mental illness and improve health outcomes for ethnic minority groups.<sup>355</sup> However, specifically in the United States, there is limited evidence showing the impact of social workers and lay health workers on patient outcomes. Nevertheless, what evidence is available is promising.<sup>356</sup>

### **Common factors to success**

Clear successes with coordinated care in HIC include the following:

- **Confidentiality arrangements and agreements:** Defining the intervention and the roles of each medical professional in that intervention, as well as clarifying confidentiality agreements, streamlines the process of horizontal integration of primary care services. Agreeing upon a standard definition of the intervention and code of conduct eases the process of collaboration.
- **Cultural sensitivity:** Successful primary care integration models have focused on the specific population they are working in and with, tailoring their approach to be culturally relevant.
- **Research and evaluation:** Primary care integration models have demonstrated success in provider-side efficiency and patient-side effectiveness when a needs assessment was conducted and measurement and data were used as a quality improvement tool.

#### Common barriers to success

Identified barriers to coordinated care in HIC are as follows:

- Strength of health systems: Integrating primary care service delivery with other specialty medical disciplines and social services requires an existing degree of cooperation and collaboration.
- Poor governance structures and oversight: To improve access to services for patients and collaboration between service providers, there needs to be strong administrative and operational oversight. Interventions that lacked clear definition of roles and reporting mechanisms were found to be less successful than their peers.

## Case study: G2Lexample

Nearly all of G2L's interventions have been carried out in partnership with HealthPoint to strengthen their clinic's ability to integrate community-based health with their clinical efforts. A great deal of this work has also focused on strengthening HealthPoint's ability to address language and cultural barriers that the communities they serve face. In one example, G2L supported HealthPoint to address a challenge that both their providers and patients were struggling with: interpretation services. HealthPoint had been using an expensive and inefficient combination of in-person interpreters and phone-based interpretation services, both of which present a variety of problems. With G2L's guidance, HealthPoint adopted a new



technology solution, bringing video remote interpretation into their clinics. This approach has proven to better meet patient and provider needs while at the same time cutting costs. After successfully piloting this approach in one clinic, HealthPoint has expanded it to all the clinics within their network.

## **Recommendations for future investment in health systems strengthening**

While G2L is fortunate to partner with HealthPoint to pilot approaches that can strengthen health systems at a very local level, the goal of this work is to identify approaches that can be scaled to the broader health care system and other connected services. Though we have already had some success in this area through the scaling of our Connection Desk and mHealth diabetes programs with other health care partners, we are also seeing an increased need to share our work with policy-makers who can support broader systems change. To this end, G2L is increasingly participating in policy-making efforts, such as our recent involvement on Washington State's Community Health Worker task force—an effort to study the potential of expanding and funding CHW work. By sharing what we are learning through our interventions we see the opportunity to influence future policy that could make the types of services we are developing available to a much broader population. We hope that with time we can support the development of a learning community of similarly-focused organizations where we are all sharing our learnings and seeking opportunities for health systems change. The goal of many of the health interventions discussed in this landscape analysis are to improve institutional capacity, enhance regulations, improve access and quality of care, leading to a stronger health system. Weak health systems serve as an impediment to improving health outcomes for individuals and households in both developed and developing countries. Implementing the previously mentioned global health best practices and interventions through a cohesive and collaborative way, will ultimately lead to enhanced institutional capacity and stronger health delivery systems.



10. Leveraging Public-Private Partnerships

## Public-private partnerships: leveraging private resources and efficiencies in promoting public health outcomes

## What are public-private partnerships?

Public-private partnerships (PPPs) can be broadly defined as a cooperative, formal agreement between a private enterprise and public entity to provide public assets or services, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance.<sup>357</sup> PPPs use the efficiency of private market mechanisms to build health infrastructure and provide health services. Public health care providers and government institutions through PPP arrangements hope to avoid up-front capital costs and harness the efficiencies of the private-sector, while the private-sector partners aim for a return on their investment. The private sector is generally thought to be more efficient and effective at providing goods and services to the public at a lower cost for the provider and the recipient. PPPs in health have been demonstrated to enhance the capacity of health systems, with the objective to meet international goals of universal access to health care.

Reasons for the increased usage of PPPs are manifold, ranging from rising expenditures for refurbishing, maintaining, and operating public assets to seeking innovation through private-sector acumen and aiming for better risk management.<sup>358</sup> PPPs can provide goods and services consistent with public-sector goals of effectiveness, efficiency, and equity. PPP models have incorporated risk, benefit cost analysis, political and social impacts, expertise, collaboration, and performance management to improve partnership's public accountability. PPPs are vulnerable to principal-agent problems or information asymmetry, requiring strong contracts, incentives for good performance, and penalties for poor performance.

## What problems do public-private partnerships address?

PPPs have been introduced in a wide variety of settings, both inside and outside the health care sector, as a response to the following challenges:

- · Increasing costs of maintaining, refurbishing, and operating publicly-owned assets or services
- · Reduction in budgets and capacities of public health organizations and institutions
- Inequalities in access and delivery of health services based on limited financial resources of public health centers, hospitals, and larger organizations
- · Overall lack of innovation in technologies and approaches in public health

## **Summary of evidence**

The findings on the benefits of PPPs in LMIC are as follows:

- PPPs have increased in popularity in recent years, in both LMIC as well HIC. Collaboration between local health organizations and local government is commonly considered best practice.
- Evidence from systematic reviews was limited given the nature of the intervention. Each PPP is contractually different, each with a specific set of duties and goals, making comparisons across interventions difficult.
- Despite the significance of PPPs, there is limited evidence of the effects on access to and quality of health of these interventions and strategic partnerships.<sup>359,360</sup> Financial implications have been studied; however, few studies have examined the partnerships' impact on clinical performance outcomes.
- Evidence from single studies seems promising. PPPs can increase access and quality of health services, while maintaining cost-effectiveness, efficiency, and equity. However, there is limited evidence on the long-term impacts on health outcomes of these partnerships compared to standard services.<sup>361</sup>
- The potential limitation associated with PPPs in the literature is the chance of leakage in terms of private interests having a substantial influence in the public domain.<sup>362</sup> The other possible limitations and considerations in PPPs is lack of accountability and transparency.<sup>363,364</sup>
   Consideration needs to be given in program and contract design, as well as implementation, as to the accountability and transparency mechanisms, because the desired outcome tends to be centered around improvements in public health.

Goal	Summary of Evidence
Reduce health disparities and inequities	<ul> <li>Public-private partnerships have been demonstrated to:</li> <li>Increase access to maternal and child health care for vulnerable populations of women by using the private sector to deliver care subsidized by state funds.<sup>365</sup></li> <li>Contribute to overall health systems, strengthening efforts by decreasing barriers to access to coordinated care for maternal and women's health.<sup>366,367</sup></li> <li>Increased immunization coverage to children in poor households over public models.</li> </ul>
Increase efficiency and cost- effectiveness	<ul> <li>Public-private partnerships have been shown to:</li> <li>Achieve greater efficiencies at lower costs overall, especially in implementing accommodation-only PPPs for public hospitals in HIC.<sup>368</sup></li> <li>Improve access, quality, and efficiency in health care in public hospitals in LMIC.<sup>369</sup></li> </ul>
Improve quality of health care services and delivery	<ul> <li>Public-private partnerships have been shown to:</li> <li>Expand prevention, screening and treatment coverage through a diagonal strategy based on a continuum of care model for women's cervical cancer and expand reach of HPV vaccine.<sup>370</sup></li> <li>Deliver more and higher quality services, leading to improvements in clinical outcomes in a single study from Lesotho.<sup>371</sup></li> </ul>
Improve access to health services	Public-private partnerships have been shown to: • Expand access to preventive services and treatment by leveraging resources to expand coverage. <sup>372,373</sup>

#### Table 11. Summary of benefits of public-private partnerships.

## **Overview of intervention**

PPPs are tailor made to address health and policy issues in specific contexts. Throughout the literature, there is one type of intervention that is most cited, and that is hospital maintenance, construction, or operations. The literature teased out a few common models of PPPs that can be found in both HIC and LMIC. There the literature identified five main types of PPP structures:<sup>374</sup>

- Accommodation-only model: Private companies design, build, and operate infrastructure facilities based on specific contracts with government entities.
- **Quasi-public-private partnership:** A special-purpose publicly owned company has the responsibility to deliver facilities, with the state continuing to deliver and provide health services.
- Twin accommodation/clinical services joint venture: The infrastructure element is like the "accommodation-only" model, but clinical services companies with different, and often shorter-term financing, provides the medical services and has a contractual and shareholding relationship to asset providers.
- **Franchising:** The public entity in this case licenses the private company to development a replacement for a public hospital, including the financing, construction, and management inclusive of medical services (Sekhri, et al. 2011 calls this model an "integrated partnership").
- **Full-service provision:** The private contractor builds and operates the hospital or health service facility and some or all associated community primary care provision, with contract to provide care for defined geographic area.

The more typical model in global health are PPPs such as Gavi and the Global Fund which bring together UN agencies and technical partners, bilateral donors and foundations, civil society, recipient governments, and possibly private-sector manufacturers to solve particularly complex disease problems. While we note them here, this type of PPP is less transferable to local contexts.

## Public-private partnerships in low- and middle-income countries

The range of publicly provided health services varies based on country and context. Health services availability and quality in LMIC tends to be lower than in HIC. PPPs in LMIC can capitalize on the efficiencies expertise of domestic and international private enterprises in improving the access to and quality of health care.<sup>375</sup> In global health, PPPs exist at the international level to leverage the comparative advantages of diverse partners to solve particularly difficult and complex global health challenges. Examples include Gavi, the Vaccine Alliance, and the Global Fund to Fight HIV/AIDS, Tuberculosis, and Malaria.

Inadequate infrastructure and equipment, shortages of medicines and supplies, and low quality of care are cited in the literature as the general characteristics of health systems and services in LMIC. Public health facilities in LMIC that are directly managed by government tend to perform poorly. Harnessing the expertise and resources of the private sector to solve public-sector challenges and inefficiencies to achieve public health and policy goals is one of the most appealing aspects of PPPs and the reason for their increase in popularity.<sup>376</sup> PPPs have the potential to improve access, quality, and efficiency in health care. However, the literature cites the need for more rigorous evaluation on the long-term cost-effectiveness and impact on health outcomes.



Photo credit: PATH

### Types of interventions and target populations

PPPs in LMIC have been used to address a wide range of health care needs, everything from primary health care and hospitals to maternal child health and neglected tropical disease. Existing public health services in many LMIC are inadequate to cater to the growing demands of quality health care. PPPs have evolved over the last decade to better leverage the resource of the private sector while still being accountable to public health goals. PPPs can take different forms with different health goals and desired impacts.

PPPs can also be implemented to boost capacities of health systems and development sustainable workforce competencies. Successful PPPs for health have included NGOs, who can use their resources to pinpoint health and social issues, creating a list of priorities.<sup>377</sup> NGOs are also able to form networks with other actors working in the region, including private sector and public health organizations, to coordinate and leverage resources to tackle the highest priority health issues.

In malaria-endemic areas, mainly sub-Saharan Africa, public health systems have been collaborating with NGOs, foundations, and private enterprises at each stage in prevention, education, and treatment. Many programs have focused on improving the human resources capacity of public health services, including patient case management. A recent study from Ethiopia found that public-private

partnerships for disease treatment and management significantly improved the malaria case management practice of health care providers at formal, private health facilities.<sup>378</sup> The same study also cited higher rates of treatment adherence, citing a 44.1 percent increase in chloroquine adherence in the first year. Partnerships for malaria prevention and control demonstrate the power of combining different skill sets and strengths, evolving to include actors that otherwise would have been out of the sphere of influence for global health.<sup>379</sup>

PPPs have demonstrated success in improving rates of malaria treatment adherence, enhancing access to maternal health care, and increasing immunization rates.

A study in rural India found public-private partnerships to be an effective strategy for enhancing access to maternal health care. The specific program capitalized on a huge private health sector already working in the state and reduced the financial barriers to access adequate care by subsidizing the costs of maternity care to poor and vulnerable women. The state of Gujarat could provide a lump sum payment to private health care providers, making services free for women who met specific socioeconomic criteria. The program cited that these services were made free to women, benefitting over 600,000 women in Gujarat, India.<sup>380</sup>

PPPs have also demonstrated success in increasing immunization rates. A study from Cambodia found that in districts served by contractors, children in the poorest 50 percent of households were more likely to be fully immunized than their peers in districts overseen by a traditional government-only model.<sup>381</sup> The contracting approach described in this study suggests a means of moving towards a more equitable distribution of immunization services in LMIC.

PPPs for hospital maintenance and operations are also common in LMIC. PPPs in this case aim to leverage private-sector expertise to improve clinical performance in hospitals. Evidence from a single pre- and post-study from Lesotho found that PPPs have the potential to improve hospital performance in developing countries and can strengthen management and leadership practices that may contribute to the differences in clinical outcomes.<sup>382</sup> A single study from Brazil found that public hospitals perform poorly on their own, and interventions aimed at increasing internal management and operational capacity alone have been unsuccessful.<sup>383</sup> The PPP model in this case gave facility managers the necessary latitude to manage human resources and operations on their own, building their operational and institutional capacity. This was deemed a critical factor to the success of this PPP model. Other interventions went one step farther, integrating common hospital building and maintenance arrangements with the delivery of clinical services. These types of PPPs have the potential to improve access, guality, and efficiency in health care.<sup>384</sup>

#### **Common success factors**

Success factors with PPPs in LMIC include the following:

- **Mutual interest:** Early engagement of key stakeholders is critical to the success of PPPs. A shared interest in improving health outcomes and providing high-quality services is key to the success and longevity of PPPs.
- **Incorporation of capacity building and technical skills:** PPP models that included a component to build the capacity and technical ability of public providers and institutions, using private-sector expertise, were often more successful in achieving their objectives and being cost-effective.

#### **Common barriers to success**

Identified barriers to PPPs in LMIC are as follows:

- **Power dynamics:** PPP models where there existed an unequal power dynamic between the private- and public-sector parties tended to be unsuccessful in achieving the objectives of the contract. Circumstances of unequal power relations tended to exacerbate principal-agent problems and information asymmetries.
- **Unequal distribution of resources:** Privately-funded public ventures can reflect private interests over public need, potentially leading to an unequal distribution of resources and exclusion of populations, or neglect of diseases outside the interests of private enterprises.
- **Poor governance and administrative capacity:** The success of PPPs depends on strong governance, administrative capacity, and rule of law to monitor and enforce contracts. PPPs have not demonstrated success in cases where contracts were not well-conceived or monitored and enforced.

### Case Study: The Added Value of the Gavi, The Vaccine Alliance, Partnership

Gavi, the Vaccine Alliance (formerly known as the Global Alliance for Vaccines and Immunizations) is an early example of a global health public-private partnership. Founded in 2000, Gavi was created as a partnership between multilateral organizations (including UN agencies and the Bill & Melinda Gates Foundation), bilateral aid organizations, developing country governments, research institutes, civil society, and vaccine manufacturers. The premise was that each partner could leverage their unique comparative advantages to achieve a common mission of increasing access to childhood vaccines in



Photo credit: G2L

the poorest countries. Over time, certain partners became more prominent and others less so. WHO and UNICEF have played a core technical role in the partnership and have enabled the translation of Gavi's resources into the adoption and implementation of new and underutilized vaccines. These partners appreciate that Gavi has removed some of their burden of raising resources, allowing them to instead focus on doing the technical work. Private-sector partners, who were initially questioned in terms of their potential conflicts of interest, have played a lesser role; an initial hypothesis that their presence in the partnership would lead to greater operating efficiencies and innovation has not been fully realized.<sup>385</sup>

## **Public-private partnerships in high-income countries**

Much like their counterparts in LMIC, PPPs in HIC seek to provide their populations with universal access to health systems and services. Governments in HIC are increasingly engaging and interacting with the private sector in initiatives to enhance the capacity of health systems to meet this objective. Public entities and organizations, faced with budget shortfalls and changes in political priorities, are leveraging the efficiencies and resources of their private-sector partners to meet public health outcomes.<sup>386</sup>

Understanding the values that motivate partnerships and demonstrating commitment for building relationships were found to be key lessons in building effective PPPs.<sup>387</sup> In a single study from Hong Kong in 2015, seven key factors initiating commitment in a partnership, deemed critical for sustainable PPPs, were identified as follows: (1) building of trust; (2) clearly defined objectives and roles; (3) time commitment; (4) transparency and candid information, particularly in relation to risk and benefit; (5) contract flexibility; (6) technical assistance or financial incentive behind procedural arrangements; and (7) the awareness and acceptability of structural changes related to responsibility and decisions (power and authority), (Wong 2015).

PPPs with large corporations offer many potential benefits to the health sector, but many concerns have also been raised, highlighting the need for appropriate and enforceable safeguards against information asymmetries and common principal-agent problems. Other research highlights the need to vet potential partners, warning against choosing partners with conflicts of interest.<sup>388,389</sup> Much of the research highlights the need to align goals early in the partnership and adjust the contract to align with those goals and to ensure adequate and appropriate enforcement of performance.

## Types of interventions and target populations

Governments in Western Europe and North America, prompted by budget constraints of the recent global financial crisis, are increasingly collaborating with the private sector to underwrite the costs of constructing and operating public hospitals and other health care facilities. Through this, governments hope to avoid the upfront capital costs and harness the administrative, operational, and cost efficiencies of the private sector, while their private-sector partners aim for a return on their investment. Experience with PPPs has been mixed, and long-term impacts have yet to be systematically measured, because like many other global health interventions, they rely on the specific context of the contract, the arrangement, and the policy goals of the partnership.

PPPs are also involved in health promotion efforts to combat the high incidence of noncommunicable disease in HIC. PPPs are becoming a popular tool in efforts to reduce and prevent obesity and the epidemic of noncommunicable diseases.<sup>390</sup> PPPs help to leverage resources and efficiencies to effectively treat comorbidities, diabetes, cancer, and heart disease.<sup>391</sup> PPPs can introduce new life-saving technologies and information technology, change operational and administrative structures to increase effectiveness, and alter how patients are treated, leading to patient-centered care and case management approaches.

While many PPP interventions appear promising, there is a significant lack of evidence on the long-term impacts of using PPPs compared to standard services. Difficulties in primary studies and incomplete implementation of initiatives have prevented the

development of a strong evidence base on the short- and long-term impacts of PPPs on public health.<sup>392</sup> The results from PPPs in HIC demonstrate that collaborative community partnerships can be established to deliver interventions, but it is critical to agree on goals, methods of working, and monitoring and evaluation before implementation to protect program fidelity and increase the potential for effectiveness.

It is critical to agree on goals, methods of working, and monitoring and evaluation before implementation to protect program fidelity and increase the potential for effectiveness.

### **Common success factors**

Success factors with PPPs in HIC include the following:

- **Trust:** It is critical to the success of a PPP to establish trust and mutual understanding before a program or intervention is implemented.<sup>393</sup> This ensures that both parties know the role they play and how to carry out their work because the scope of work and roles have been previously defined, allowing the partnership to establish trust and mutual understanding.
- **Risk sharing and interdependence:** Along with establishing trust in the partnership, it is critical to establish a certain degree of risk sharing and interdependence.<sup>394</sup> Written into and enforced in the contract, each party should have equal standing in the
partnership and equal risk. Results from a study in the UK indicate that risk sharing can lead to recruiting a more diverse and individualized workforce, a common goal across many health systems.

• **Minimal conflict of interest:** When there is minimal conflict of interest, there can also be more trust in the partnership in achieving its objectives and desired outcomes.<sup>395</sup> Without conflicts of interest, parties can focus on the mission of the partnership and not on side influences and self-interest.

### Common barriers to success

Identified barriers to PPPs in HIC are as follows:

- Lack of definition: Without a defined relationship or specific defined roles, PPPs can be vulnerable to scope creep, competing interests, and possible redundancies. Lack of a defined relationship, mission/outcome/goal, and roles can be a barrier to the success of a PPP.
- **Monitoring and enforcement:** Much of the literature suggests that principal-agent problems are present in public-private partnerships, including information asymmetries and moral hazard. Without the proper mechanisms for monitoring and enforcement, often built into the contract or agreement, PPPs have been limited in their ability to achieve their objectives, presenting a barrier to success.

### Case study: G2L and Swedish

G2L has had great success in attracting private-sector investors, in great part due to the relationships Swedish and Providence have with these companies, plus the fact that the hospitals often pay large sums of money to these companies for services that they need. In one example, Swedish/ Providence, who pays millions of dollars to AT&T for mobile phone and other communications services each year, could leverage this relationship to establish a partnership between AT&T and G2L. For G2L's mobile phone-based diabetes project, AT&T provided free iPhones to all project participants, as well as free data and voice services. They were also able to introduce G2L to one of their corporate partners who had developed a diabetes app, which G2L used to kick off the intervention. Other partners have also come to the table thanks to similar relationships, including groups like Bartell Drugs, T-Mobile, and Starbucks.

### **Recommendations for future investment in PPPs**

PPPs can be useful in identifying and leveraging resources and have the potential to harness the comparative advantages and expertise of the private sector in the delivery of public goods, such as health and social care. To be effective, private partners must be there for the right reasons and must be fully engaged. This requires careful planning and management of the roles, responsibilities, and mandates of each partner. Often, a secretariat or convener is necessary to manage the partnership, and G2L could easily act in this role considering their management and administrative capacity. Finally, the most effective partnerships are characterized by mutual trust among partners and should be a key consideration in developing any PPP.



### **11. Retraining and Relicensing Foreign Medical Professionals**

# Retraining and relicensing foreign, immigrant, or refugee medical professionals in the United States and Washington State

### What is a foreign-trained medical professional?

United States and Washington State loosely define a foreign-trained medical professional as an individual who received medical education and training outside of the United States and Canada. A foreign-trained medical professional can include physicians from general practice to specialty care, nurses and nurse practitioners, and dentists. These individuals can be recently educated without much of any practicing experience or can have years of experience outside of medical education and post-graduate residency training.

### What problems does retraining, relicensing, and recertification seek to address?

Immigrant and refugee physicians, nurses, and health care professionals face many barriers to practicing medicine and working in their communities when they come to the United States. Historically, the United States brings in foreign-trained physicians and nurses to provide health care in low-resource and under-staffed areas, but these individuals typically leave after 3 to 4 years.<sup>396</sup>

Providing services and licensure to foreign-trained medical professionals, typically immigrant and refugees, can help to address the following issues:

- · Assimilation: immigrants can contribute more easily to the economy.
- **Community economic development:** immigrants can work in their own communities, contributing to the health and well-being of their neighbors.
- **Culturally appropriate care:** immigrant physicians, nurses, and other licensed health practitioners can provide culturally appropriate care to members of their community.
- **Shortage of health care professionals:** there are many areas of the United States, particularly rural areas, that suffer poor health outcomes from a lack of medical and health professionals.

# **Summary of evidence**

Because of the US' decentralized federal system, no single institution governs professional certification in regulated occupations. Individual states create processes and protocols to certify foreign-trained professionals, often including provisions on appropriate professional language proficiency, completion of continuing medical education, and completion of domestic medical residency. A "profusion of overlapping, sometimes contradictory, local, state, or national rules, procedures, and examinations make it complicated, time-consuming, and expensive for immigrants and refugees to become recertified" in the United States.<sup>397</sup>

Barriers to professional practice are particularly daunting for immigrants and refugees in the medical profession. Many immigrants find it difficult to demonstrate the equivalence of formal medical qualifications. US-trained physicians undertake a long, expensive, and highly structured training program before becoming fully licensed. Foreign-trained medical professionals must validate foreign academic training; prepare for and pass medical licensing examinations; and learn a new system of treatment protocols and methods, vocabulary, workplace structures, and professional ethics, as well as apply for membership to professional associations.<sup>398</sup> Additionally, some states often require that foreign-trained professionals complete a three- to eight-year residency, even if they have progressed past this stage in their careers abroad.

Foreign-trained medical professionals need to secure either an H-1B or J-1 visa to hold a position in a health facility. To qualify for these visas, medical professionals must "hold an unrestricted state license, registration or certification which authorizes them to fully practice the specialty occupation and be engaged in the specialty in the state of intended employment."<sup>399</sup> Despite the strong demand for qualified health professionals, including those who have secured temporary

Foreign-trained medical professionals need to secure either an H-1B or J-1 visa to hold a position in a health facility.

visas, a significant number of immigrant and refugee physicians already in the United States face sizable obstacles to recertification and licensure. Many states and professional associations have acknowledged that failing to provide a clear roadmap is a problem to addressing the underlying problems of lack of health professionals and providing career paths to immigrants and refugees; thus, several private, public, and nonprofit programs have sprung up in the past decade to assist immigrant and refugee health professionals.

For the purposes of this landscape analysis, we will only provide information and research on how foreign-trained physicians can attain medical certification in the United States and Washington State. The certification and licensing process varies by state and by profession, each with a long and complicated process.

# Retraining, relicensing, and recertification in the United States, at the federal level

Professionals trained in health care and medicine often find it difficult to work in their field in the United States, including Washington. This transition often requires some combination or all of the following: securing credential evaluation, a new degree or additional coursework, additional clinical or medical residency, English language proficiency – including technical language specific to the medical profession, passing professional exams, obtaining new professional licenses, and finding work.

In order to be licensed to practice medicine in the United States, graduates of non-Canadian foreign medical schools (also known as international medical graduates) must make it through a series of complex requirements. First, they must obtain certification from the Educational Commission for Foreign Medical Graduates (ECFMG), which is in itself a multistep process entailing considerable time, effort, and expense. Once ECFMG is obtained, medical school graduates must complete a residency program after passing the first two in a series of three examinations. For a foreign-trained physician who has practiced in another country, this means they must complete a

new residency program in addition to the one they had previously completed overseas. Research indicates that while 95% of graduates from U.S. and Canadian medical school who apply for residency programs are matched with a residency program, only 40% of their foreign-trained counterparts (both native-born and immigrant populations) are accepted into a residency program.<sup>400</sup>

ECFMG certification provides medical directors of residency and fellowship programs that an international medical graduate or professional has met the minimum standards of eligibility. ECFMG is authorized by the U.S. State Department to sponsor foreign national physicians for the J-1 visa to receive medical education or training. ECFMG certification is the first step in the series to obtaining medical licensing and certification in the United States.

An international medical graduate or professional must first apply to ECFMG for a United States Medical Licensing Examination (USMLE) and ECFMG identification number, and then they can complete the application for ECFMG certification. Once the application has been submitted, the individual can then apply for examination.<sup>401</sup> To be certified, an individual must meet both the examination and medical education credential requirements. These requirements include passing performance on medical and clinical skills and science examinations and obtaining primary-source verification of medical education credentials, including the final diploma and final school transcript.<sup>402</sup> Once ECFMG certification is obtained, the individual must work to meet the state requirements of certification and licensure. This process of ECFMG certification, professional examinations, residency application costs, and licensing fees can range anywhere from \$7,500 to \$15,000.<sup>403</sup>



Photo credit: PATH

## **Retraining, relicensing, and recertification in Washington State**

Licensing of medical occurs at the state level; each state has its own program and legal requirements for certification. In Washington State, licensure is overseen by the Washington State Department of Health (DOH). In regards to physician licensure in the state of Washington, a foreign medical graduate or professional would need to have a valid ECFMG certificate, complete and pass all three steps of the USMLE and complete at least 24 months of postgraduate training and/or residency for an accredited program in the United States or Canada according to the DOH.

WAC 18.71.051 details the outline for application and eligibility requirements of foreign medical school graduates.<sup>404</sup> This applies for physicians and surgeons. Nurses, dentists, and other medical specialists require different licensing under Washington State law.

"Applicants for licensure to practice medicine who have graduated from a school of medicine located outside of the states, territories, and possessions of the United States, the District of Columbia, or the Dominion of Canada, shall file an application for licensure with the commission on a form prepared by the secretary with the approval of the commission. Each applicant shall furnish proof satisfactory to the commission of the following:

- 1. That he or she has completed in a school of medicine a resident course of professional instruction equivalent to that required in this chapter for applicants generally;
- 2.
- a. Except as provided in (b) of this subsection, that he or she meets all the requirements which must be met by graduates of the United States and Canadian school of medicine except that he or she need not have graduated from a school of medicine approved by the commission;

- b. An applicant for licensure under this section is not required to meet the requirements of RCW 18.71.050(1)(b) if he or she furnishes proof satisfactory to the commission that he or she has:
  - i. Been
    - 1. Admitted as a permanent immigrant to the United States as a person of exceptional ability in sciences pursuant to the rules of the United States department of labor; or
    - 2. Issued a permanent immigration visa; and
  - *ii.* Received multiple sclerosis certified specialist status from the consortium of multiple sclerosis centers; and
  - *iii.* Successfully completed at least twenty-four months of training in multiple sclerosis at an educational institution in the United States with an accredited residency program in neurology or rehabilitation;
- 3. That he or she has satisfactorily passed the examination given by the educational council for foreign medical graduates or has met the requirements in lieu thereof as set forth in rules adopted by the commission;
- 4. That he or she has the ability to read, write, speak, understand, and be understood in the English language."405

Additionally, international medical graduates and practicing foreign-trained physicians must complete the following under WAC 246-919-340:

"All graduates of medical schools outside the United States, Canada, or Puerto Rico must have either:

- 1. Been licensed in another state prior to 1958;
- 2. Obtained a certificate with an indefinite status granted by the Educational Commission for Foreign Medical Graduates (ECFMG); or
- 3. Successfully completed one year of supervised academic clinical training in the United States, commonly referred to as a Fifth Pathway program."<sup>406</sup>

Foreign-trained medical graduates and professionals do not need to take an examination if they are already licensed to practice medicine in another state for at least for years or has completed a medical residency as required by the other state.<sup>407</sup>

There are several nonprofits in the Seattle area that can assist immigrants and refugees in finding work, but none that specialize in navigating these individuals through the necessary application, certification, and licensure process at both the federal and state levels. Organizations like the Fair Work Center, Upwardly Global, Khmer Community of Seattle-King County, North Seattle Community College International Program, and Refugee Assistance Program/USCCB can assist new immigrants and refugees in filing an I-765 petition for employment authorization and navigating them through the job seeking process. AILA Washington State provides legal assistance and community resources.

### Conclusions

In the Seattle-area there is a considerable gap between nonprofit employment assistance and the medical field. G2L could expand its role as a navigator of the health system and provide additional services for foreign-trained medical professionals and recent graduates in obtaining certification and licensure in Washington State.

# G2L has the overarching goal of improving health outcomes and reducing health disparities in US communities using innovative, effective, and proven strategies from the global health arena.

This landscape analysis, performed on behalf of G2L, provided an update to the original 2011 landscape analysis, as well as including five new interventions, with the goal of assessing the evidence behind each strategy's outcomes and synthesizing the key lessons learned from each so that they may be applied in a local, domestic context. Each strategy analyzed included the types of populations, health needs, and overall geographic and social environments in which these interventions were implemented and what factors both enhanced and hindered their success in these circumstances.

It is important to note, while each of the strategies reviewed has been used across a wide array of populations, both globally and domestically, there are no examples in which these strategies have been tailored for use within a population as diverse in racial, linguistic, and sociocultural backgrounds as found in G2L's home base of SeaTac and Tukwila. Since the 2011 landscape analysis, G2L has had the unique opportunity to tailor the use of these strategies such that it meets the needs of a multitude of distinct and overlapping populations within these communities. With the addition of five more interventions, G2L will be able to continue to implement and tailor these global health interventions to fit the unique character of many communities. What is noted in the analysis above, what G2L has done, and what is critical to the success of their programs, has been the involvement of communities in the design and development of these interventions.

It is hoped that the lessons learned from the experience and extensive evidence-base on these strategies, both in the global and domestic arenas, can inform the design and development of a model for integrated health programs that successfully reduce disparities and improves the health of men, women, and children in Washington State and communities across the US.

For more information regarding G2L services or programs or to request technical assistance, visit our website at www.globaltolocal.org

Global to Local







### 1. Community health workers

An initial search of peer-reviewed literature yielded over 900 relevant results. Following an initial review of abstracts, the body of literature was narrowed to 26 publications which were scanned in full-text review. Because of the abundance of literature on community health workers, we conducted an additional literature search on specific programs identified in the initial search or by expert colleagues. The search terms used were combinations of key words and phrases: community health workers, reproductive health, chronic disease management, low-income countries, high-income countries, and low-resource settings. We further narrowed the scope of our search by specifying the range of dates from the systematic reviews, medical studies, and meta-analyses to be from 2011 to 2016, to reflect any recent innovation in CHW service delivery, programs offered, or educational training. After narrowing the search and a review of the abstract, we ended up with 14 relevant articles from LMIC and 12 from HIC.

### 2. mHealth

The initial peer-reviewed literature yielded 1,000 relevant results, which were narrowed in an initial review of abstracts to 31 full-text reviews. The search terms used for the systematic review were combinations of key words and phrases: cellular, mobile, phone, telemedicine, telehealth, mobile health (mHealth), information, systems, chronic disease, and health management. The literature was then further narrowed to systematic reviews and meta-analyses conducted after 2011, when the last landscape analysis was published. We added the search terms "chronic disease management" and "health management" to further align with what G2L is currently using mHealth for in their application for diabetes management. Ultimately, we included 14 sources from HIC and 17 from LMIC.

# **3. Social and mass media health campaigns**

A general search of the literature published from 2010 to 2016 using the terms "public health campaign," "mass media health campaign," and "social media health campaign" generated over 12,000 results. In order to narrow the scope of the literature review, we included the words "mass media, information, communication, routine, immunization, behavior change, chronic disease, family planning, reproductive health, sexual health, malaria, and AIDS/HIV." In all, the refined search returned 1,922 results. Results were then sorted by date and scanned for relevance. Thirty-three sources made it into our final analysis, including 18 from HIC and 13 from LMIC, with few sources covering both developing and developed countries.

# 4. Community-based organizations

An initial search of the literature using the search term "community-based organization" AND "health" generated 1,072 results. The search was then limited to results from 2010 to 2016 and expanded to include the following search terms: "community organizations," "community nonprofits," and "local nonprofits." After a review of abstracts for relevancy and analytical rigor, the literature was narrowed down to 25 articles that were deemed to be of sufficient quality and relevance. We found little to no high-quality systematic reviews and metaanalyses and substituted this lack of generalizable evidence with single studies and articles from peer-reviewed journals. Ultimately, we included 12 that reflected experiences from HIC and 5 that reflected experiences and research from LMIC.

# **5. Improving economic development and wealth**

An initial search of the literature using the search terms "economic development," "economic growth," OR "social capital," OR "human capital," OR "income," OR "income inequality," OR "income growth," AND "poverty reduction," AND "health," AND "community," and "household" resulted in over 3,000 hits. Articles pertaining to environmental policy and development were excluded for the sake of this landscape review, generating over 500 titles for review. These were then limited to references published from 2010 to 2016, yielding over 200 references. The abstracts and full texts were reviewed until 9 articles were identified describing the impact of community-level economic development on health outcomes in developed nations for the entire search phrase. An additional 30 articles were identified for developing countries. For this topic, 44 articles were considered sufficient saturation for the purposes of this review. The same terms were used in an online search of grey literature. In addition, expert colleagues shared lessons learned from their own experiences.

# 6. Linking delivery of primary health care with public health services

The initial search of peer-reviewed literature yielded over 650 results when using the terms "public health primary care integration," "community-oriented primary care" and "multiservice center," and "integrated care." To narrow down the literature further, we defined the date range as 2010 to 2016 and further refined our search to focus on integration and collaboration in service delivery. After a full review of abstracts, 22 relevant articles and reviews were included in our research. Seventeen of these articles represented studies and systematic reviews from high-income countries, while 5 were representative of LMIC.

# 7. Community empowerment and leadership development

The preliminary search of peer-reviewed literature yielded over 4,500 results when using the following search terms: "community leadership," "community empowerment," "community participation," "community-based approach," "leadership development," "community-based leadership," "community engagement," and "community leadership development." To further narrow the scope of the literature, we define the date range as from 2010 to 2016. We then performed an analysis of the abstracts and found two distinct theoretical arenas for leadership development. One focused on empowering individuals to lead, and the other focused on how to empower communities as a whole to lead health interventions. After a full review of abstracts, 29 relevant articles, single studies, systematic reviews, and meta-analyses were included in our research. Eleven of these sources represented evidence from LMIC, while 14 focused on HIC.

# 8. Gender integration

The initial search of peer-reviewed literature yielded over 330 relevant results when using the following search terms: gender, gender norms, gender equity, gender inequity, GBV, violence against women, marital violence, IPV, domestic violence, gender integration, gender lens, and gender disparity. To further narrow down the literature, we defined the date range from 2010 to 2016 to highlight and narrow in on the most recent innovations and interventions. To narrow down our search further, we looked specifically at the literature on the intersection of global health and the many variations of gender-based violence. After a full review of abstracts, 27 relevant articles, studies, and reviews were included in our research. Eighteen of these articles represented evidence from LMIC, while 9 focus specifically on HIC.

# 9. Coordinated and patient-centered primary care

An initial search of the literature yielded over 6,500 results when using the following search terms: "integrated primary care," "integrated care," "coordinated care," "transition of care," "transitional care," "continuity of care," "integrated service delivery," "delivery integration," "service integration," "health systems strengthening," "capacity-building," "institutional capacity," "systems thinking," "patient-centered care," "patientoriented care," "community-oriented care," and "communitycentered care." To narrow the results of the search for relevant studies, systematic reviews, and meta-analyses, we defined the date range from 2010 to 2016 to encompass the most recent innovations and interventions. We also refined our search to only include literature focused on primary care interventions for non-communicable disease. The second refined search of the literature yielded 567 results. We then scanned the abstracts for relevance and yielded 24 results for HIC and 26 for LMIC.

# **10. Public-private partnerships**

An initial search of the literature found over 3,250 results when using the following search term: "public-private partnerships." To narrow down the literature to yield only the most relevant results, we altered our search terms to include "cross-sector collaboration," "public-private engagement," "public-private collaboration," "social franchising," and "triple bottom line." To keep pace with current interventions, we only looked at literature published between 2010 and 2016, emphasizing data collected after 2005. The refined search of the literature yielded over 31 results, with 8 represented from HIC and 17 from LMIC.

# **11. Recertification of foreign-trained medical professionals**

Due to the structure of this section, we conducted a Google search of education, certification, and licensure requirements for the United States and the State of Washington. We contacted the Washington State Department of Health to reference specific laws and criteria for licensing and certification of foreign-trained professionals, specifically physicians.

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