

Understanding the Role of Social Support Systems in Health

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Introduction

Health is determined by so much more than what goes on in the clinical setting. Everything from the quality of a person's food and housing to their access to transportation has the power to determine their health outcomes, in addition to the type of healthcare available to them. Such resources and life circumstances which contribute to health are called the *social determinants of health*: "The conditions of the environment in which people are born, live, learn, work, play, worship and age that affect a wide range of health, functioning and quality of life outcomes."¹ Studies suggest that these social, environmental and behavioural factors -- or more generally, the non-medical determinants -- substantively influence health outcomes, often more so than healthcare alone.² Put differently: the best healthcare services can only be part of any solution to fully address the burden of disease, and there is a dire need to understand the root causes of a patient's illness.

¹ Chapman, Audrey R. n.d., "The Social Determinants of Health, Health Equity, and Human Rights," *Global Health, Human Rights and the Challenge of Neoliberal Policies*, 248–82 (2010), https://doi.org/10.1017/cbo9781316104576.007.

² Taylor, Lauren A., Annabel Xulin Tan, Caitlin E. Coyle, Chima Ndumele, Erika Rogan, Maureen Canavan, Leslie A. Curry, and Elizabeth H. Bradley, "Leveraging the Social Determinants of Health: What Works?" *Plos One* 11 (8), (2016), <u>https://doi.org/10.1371/journal.pone.0160217</u>.

Poverty is a major determinant of health. Living in resource-poor communities acts as a vicious force in driving poorer health outcomes while preventing many from accessing the timely healthcare they need.³ The consequences of poverty are widespread and devastating, leading to a grim future for many and increasing the macroeconomic toll on low- and middle-income countries.⁴ This paper examines how one global health nonprofit is working to address the social determinants of health. Partners In Health (PIH), a global health organization based in the United States, defines its mission as:

Provid[ing] a preferential option for the poor in health care. By establishing long-term relationships with sister organizations based in settings of poverty, Partners In Health strives to achieve two overarching goals: to bring the benefits of modern medical science to those most in need of them and to serve as an antidote to despair.⁵

PIH works to achieve these two goals by forming long-term partnerships with local government officials and with healthcare and academic institutions in all the countries where it operates, such as Haiti, Kazakhstan, Lesotho, Liberia, Malawi, Mexico, Navajo Nation, Peru, Sierra Leone, and Rwanda.⁶ As the Boston Globe notes, PIH has a long-term aim to intervene in a specific community by working with a country's government to "train local clinicians, build health centres, and fortify district hospitals."⁷

PIH follows its principal model of accompaniment, which is grounded in providing medical care by working *with* the community -- not just *for* the community. Accompaniment for

5 "Our Mission at PIH®, Partners In Health, Accessed 7 August, 2019, https://www.pih.org/pages/our-mission.

³ Irwin, Alec, Nicole Valentine, Chris Brown, Rene Loewenson, Orielle Solar, Hilary Brown, Theadora Koller, and Jeanette Vega, "The Commission on Social Determinants of Health: Tackling the Social Roots of Health Inequities" *PLoS Medicine* 3 (6) (2006), https://doi.org/10.1371/journal.pmed.003010.

⁴ Alkire, Blake C., Alexander W. Peters, Mark G. Shrime, and John G. Meara, "The Economic Consequences Of Mortality Amenable To High-Quality Health Care In Low- And Middle-Income Countries," *Health Affairs* 37 (6): 988–96 (2018) https://doi.org/10.1377/hlthaff.2017.1233.

^{6 &}quot;Countries", Partners In Health, https://www.pih.org/countries.

⁷ Nierenberg Amelia, "Boston-based Partners in Health receives \$15 million from Wagner Foundation", Boston Globe, August 12, 2018, https://www.bostonglobe.com/metro/2018/08/12/boston-based-partners-health-receives-million-from-wagner-foundation/Kv7q4ludEivk00cC2jHBCM/story.html.

PIH means working alongside patients by walking with them -- "not behind or in front,"^s such that they can actively take part in decisions pertaining to their health. This model seeks to foster and embody social connectedness: a sense of belonging where every individual is valued and can achieve basic human rights and capabilities,⁹ by creating a space where patients can develop long term relationships with their healthcare providers and can receive the emotional and tangible support they need to overcome challenges of poor health, poverty, racism, and illiteracy.¹⁰ In addition to providing healthcare, PIH addresses the social determinants of health by providing social supports in the form of material resources to those in need. As noted in *The New Yorker*, "Partners In Health often helps supply things that fall outside a medical-aid organization's typical purview, such as bridges and satellite dishes and gasoline," which are needed to ensure a healthy living for many.¹¹

Drawing from existing literature on social determinants and social supports, and personal experience of working as community health leaders for PIH, we outline the social support program carried out by PIH and its impact on the wellbeing of those in poverty-stricken settings. This program is known as the Program on Social and Economic Rights (POSER). We describe in depth the different material resources provided. Through this, we aim to generate awareness of the importance of such systems in improving clinical and non-clinical outcomes. Finally, we illustrate the link between these material supports and social connectedness.

⁸ Behforouz, Heidi, "Accompaniment could be the key to reforming and transforming health care", Partners In Health, https://www.pih.org/article/accompaniment-could-be-the-key-to-reforming.

^{9 &}quot;About us", Samuel Centre for Social Connectedness, https://www.socialconnectedness.org/about-us/.

^{10 &}quot;Accompaniment could be the key to reforming and transforming health care"

¹¹ Levy, Ariel, "Ophelia Dahl's National Health Service", December 11, 2017, https://www.newyorker.com/magazine/2017/12/18/ophelia-dahls-national-health-service.

Social Supports: An overview

Previous work has defined social support as a multi-dimensional construct including emotional, appraisal, instrumental, tangible, or informational support.^{12,13,14} Social support also includes supportive relationships and social networks or the perceptions of this support. In this sense, social support is often viewed as perceived or received.^{15,16,17,18} For the purpose of this paper, we define social supports as material resources provided to individuals in resource-poor settings with the aim to have a positive impact on their health and wellbeing.

Studies show that material resources such as cash transfers, housing upgrading programmes and transportation reimbursements have a beneficial impact on a variety of health outcomes.^{19,20,21} There are many examples that point to the success of these programs as they try to address multiple forms of resource inequalities. Some programs have tackled the need for financial support. In Nicaragua, conditional cash transfers were found to be associated with a

¹² Wang, Hsiu-Hung, Su-Zu Wu, and Yea-Ying Liu, "Association Between Social Support and Health Outcomes: A Meta-Analysis." *The Kaohsiung Journal of Medical Sciences* 19 (7), (2003)45–50, https://doi.org/10.1016/s1607-551x(09)70436-x.

¹³ House James S., Work Stress and Social Support, Englewood Cliffs, NJ:Prentice Hall, 1981

¹⁴ Schaefer, Catherine, James C. Coyne, and Richard S. Lazarus, "The Health-Related Functions of Social Support," *Journal of Behavioral Medicine* 4 (4),(1981).381–406, https://doi.org/10.1007/bf00846149.

¹⁵ Wang, Hsiu-Hung, Su-Zu Wu, and Yea-Ying Liu, "Association Between Social Support and Health Outcomes: A Meta-Analysis."

¹⁶ Weiss RS, "The provisions of social relationships". In: Rubin Z, ed. Doing unto Others —Joining, Modeling, Conforming, Helping, Loving, 1st ed. New Jersey: Prentice-Hall, 1974:17–26

¹⁷ Kahn Robert L, Antonucci Toni C. "Convoys over the life course — Attachment, roles, and social support", In: Baltes BP, Brim OG, eds. Life-Span Development and Behavior, 1st ed. Orlando, FL: Academic Press, (1980):253–86

¹⁸ Haber, Mason G., Jay L. Cohen, Todd Lucas, and Boris B. Baltes, "The Relationship between Self-Reported Received and Perceived Social Support: A Meta-Analytic Review," *American Journal of Community Psychology* 39 (1-2): 133–44 (2007). https://doi.org/10.1007/s10464-007-9100-9.

¹⁹ Ranganathan, Meghna, and Mylene Lagarde, "Promoting Healthy Behaviours and Improving Health Outcomes in Low and Middle Income Countries: A Review of the Impact of Conditional Cash Transfer Programmes." *Preventive Medicine* 55 (2012). https://doi.org/10.1016/j.ypmed.2011.11.01.

²⁰ Poortinga, Wouter, Nikki Jones, Simon Lannon, and Huw Jenkins, "Social and Health Outcomes Following Upgrades to a National Housing Standard: a Multilevel Analysis of a Five-Wave Repeated Cross-Sectional Survey," *BMC Public Health* 17 (1),(2017). https://doi.org/10.1186/s12889-017-4928-x.

²¹ Wolff, C. G., "Effect of Improved Housing on Illness in Children under 5 Years Old in Northern Malawi: Cross Sectional Study," *Bmj* 322 (7296): 1209–12. (2001), https://doi.org/10.1136/bmj.322.7296.1209.

decrease in the proportion of under-weight children and magnitude of stunting of children aged 0-5.²² A nation-wide cash transfer program in Mexico (that has existed under various names including *Oportunidades* and *Prospera* but now known as *Becas para el Bienestar*), resulted in a decrease in the prevalence of being overweight and an increase in the mean hemoglobin levels among children.²³ Other programs have addressed housing. A slum upgrading program in India resulted in an 18% decrease in the incidence of waterborne diseases.²⁴ A program that aimed to tackle the spread of malaria through improved and affordable houses in rural Tanzania resulted in a significant reduction in mosquito densities and night-time temperatures in homes, as well as an overall increase in comfort levels.²⁵ Finally, organizations have tackled the issue of unequal access to transportation. Transportation reimbursements through voucher programs in Pakistan resulted in an increase in the number of births delivered by skilled birth attendants.²⁶

Social support systems are key in enhancing wellbeing, yet existing studies largely focus on individual, small scale programs. Less is known about how a single organization may approach providing social supports in multiple contexts. Further, little is known about how these supports, supplementing increased access to healthcare, can improve health for different populations. Thereby, the aim of this paper is to highlight how social supports can be integrated into existing provisions of healthcare that can ultimately lead to an improved quality of life. This

²² Huntington, D., The impact of conditional cash transfers on health outcomes and the use of health services in low- and middle-income countries, May 2010, https://www.who.int/elena/titles/commentary/cash-transfers/en.

²³ Ranganathan, Meghna, and Mylene Lagarde., "Promoting Healthy Behaviours and Improving Health Outcomes in Low and Middle Income Countries: A Review of the Impact of Conditional Cash Transfer Programmes."

²⁴ Butala, Neel M., Michael J. Vanrooyen, and Ronak Bhailal Patel. "Improved Health Outcomes in Urban Slums through Infrastructure Upgrading," *Social Science & Medicine* 71 (5) (2010): 935–40. https://doi.org/10.1016/j.socscimed.2010.05.037.

²⁵ Seidlein, Lorenz Von, Konstantin Ikonomidis, Salum Mshamu, Theresia E Nkya, Mavuto Mukaka, Christopher Pell, Steven W Lindsay, Jacqueline L Deen, William N Kisinza, and Jakob B Knudsen, "Affordable House Designs to Improve Health in Rural Africa: a Field Study from Northeastern Tanzania," *The Lancet Planetary Health* 1 (5) (2017), https://doi.org/10.1016/s2542-5196(17)30078-5.

²⁶ Agha, Sohail, "Impact of a Maternal Health Voucher Scheme on Institutional Delivery among Low Income Women in Pakistan," *Reproductive Health* 8 (1),(2011), https://doi.org/10.1186/1742-4755-8-10.

paper reviews the efforts of Partners In Health and the impact of these efforts on wellbeing in different communities across the globe. In doing so, we show the significance of material support in enhancing health.

Data and Methods

First, we collected and analyzed PIH's official documents (program management guides) describing the PIH POSER program. Next, the authors of this paper who work with the teams in Sierra Leone, Malawi, Rwanda, Liberia, Peru, and Mexico contributed their experiences providing healthcare and social supports to their communities. The PIH Program Management Guide provided a framework for understanding what POSER aims to do; the authors' field observations serve to flesh out this framework. Three authors contributed formal case studies from their experiences in the field.

A dive into PIH's social support provisions and Program on Social and Economic Rights (POSER)

To address the influence of social and environmental circumstances on wellbeing, PIH includes provisions that look at the lack of access to resources such as adequate housing, education, employment and transportation through its Program on Social and Economic Rights (POSER). The POSER program provides social supports that may be directly linked to patients' health in resource-poor environments, addressing the social determinants of health and supporting existing healthcare systems.

PIH POSER programs are run in communities across the globe including in Peru, Rwanda, Malawi, Haiti, Sierra Leone, Lesotho, and Liberia. At the Abwenzi Pa Za Umoyo site in Malawi, the POSER program has supported 2,799 individuals in 2019 and 6,803 individuals in total from 2016 to 2018 by providing direct cash transfers in the form of cash for food, transport, inpatient support, materials such as blankets and clothes, the purchase of artificial limbs for patients with disability, and monthly support to households with acute malnutrition.^{27, 28} In Sierra Leone, the program known as the Acute Needs Program has been providing support to vulnerable patients discharged from Koidu Government Hospital and Wellbody Clinic since 2016, removing obstacles in achieving health through cash transfers, housing and lodging, and minor home repairs. In the past two and a half years (from June 2016 to December 2018), the program in Sierra Leone has supported 1,439 patients.²⁹ In Liberia the program is known as Social Economic Assistance (SEA) where more than 3,000 people have benefitted from various types of social assistance including: transportation reimbursement, food packages, school fees, house rent, and access to peer support group meetings.³⁰ Overall, POSER supports include but are not limited to economic support, educational support, nutrition, housing, and agricultural support. In the following sections, we provide an overview of how PIH has approached providing these supports in different communities.

In countries where there is no formal social support program, PIH still provides these resources. In Mexico -- a country project where the POSER program is not formally implemented but material supports are often made available -- PIH provides social supports to abandoned seniors, adults with terminal illnesses, single mothers without a source of income, families without a coffee field, and families with malnourished children. These social supports

²⁷ Abwenzi Pa Za Umoyo, PIH Malawi, Program at a Glance, Malawi, 2018, Accessed 7 August 2019.

²⁸ Abwenzi Pa Za Umoyo, PIH Malawi, POSER Descriptive Data. Malawi, 2018, Accessed 7 August, 2019.

²⁹ PIH Sierra Leone, Acute Needs Program. Sierra Leone, 2019, Accessed 7 August, 2019.

³⁰ Internal PIH Liberia Records.

have changed over the years, shifting from giving chickens to families in the interest of increasing food security and preventing malnutrition to now providing food packages, construction materials and mobility aid devices.

Economic Support

PIH makes efforts to help break the link between poverty and illness. In Lesotho, the barrier of user fees to access healthcare has been removed by PIH as it initiated supporting the healthcare facility. This resulted in a threefold increase in the number of visits to a healthcare facility from 55 per day to 175 per day.³¹ In Rwanda, PIH covered mandatory annual national health insurance fees for those in the poorest communities and those living with HIV. In Malawi, people are given direct cash support (5000-10,000 MK) which they can use to supplement for food, or to pay for transportation, emergency and in-patient support.³² Approximately 45 million MK/62,000 USD has been disbursed from 2016 to 2018 to reduce financial burden on the poor.³³ In Sierra Leone, PIH provides direct cash transfers, foam mattresses, baby items, or clothing for maternal death orphans and transport reimbursements for follow-up care. In Peru, PIH (known as *Socios En Salud*) has provided 96 families with food support and/or nutritional supplements with the aim of improving response and adherence to medical treatment.³⁴

34 Internal PIH Peru Records, "Reporte SES", (2017).

³¹ Partners In Health, "Unit 11: Addressing the Social Determinants of Health", In PIH® Program Management Guide, 2011.

³² Abwenzi Pa Za Umoyo, PIH Malawi, Program at a Glance. Malawi, 2018, Accessed 7 August 2019.

³³ Abwenzi Pa Za Umoyo, PIH Malawi.

Educational Support

Formal education affects a variety of health outcomes. People with higher education levels report better health, have lower levels of disability, mortality and morbidity, and higher levels of physical functioning than those with lower education levels.³⁵ Moreover, those who are well educated are more likely to be financially stable and are more likely to have fulfilling jobs that have been associated with improved health.³⁶ POSER programs invest in educational programs through provisions of school fees and school materials. These provisions can help reduce income inequalities, stigma around health conditions by including health education in schools, and consequently improve physical and mental health outcomes. In Malawi, PIH has provided school fees, tuition and other essential school supplies to secondary school and university students. These investments have so far supported 267 students in Malawi, including 13 with disabilities, through secondary and university years; and 1,001 students in primary school have been supported with school materials.³⁷ In Rwanda, children are moved between schools based on their academic performance, and ensuring school attendance has been a challenge due to economic costs of registration fees. PIH hired an education manager to provide assistance in paying school fees, monitor student progress and address the needs of each student. PIH (known as Zanmi Lasante) in Haiti has a four year program to reduce adolescent illiteracy. The program built a curriculum in primary education specifically for adolescents who never attended primary school, while their peers complete their conventional primary school. In

³⁵ Ross, Catherine E., and Chia-Ling Wu, "The Links Between Education and Health," *American Sociological Review* 60 (5),(1995), https://doi.org/10.2307/2096319.

³⁶ Ross, Catherine E., and Chia-Ling Wu, "The Links Between Education and Health."

³⁷ Abwenzi Pa Za Umoyo, PIH Malawi.

Liberia, twenty HIV orphans receive educational support in the form of books, uniforms and tuition.³⁸

Housing Support

Poor housing conditions can contribute to the spread of diseases and lead to poor health outcomes such as respiratory diseases and worsened mental health.³⁹ Recognizing the association between housing and health, PIH provides housing assistance by either completely rebuilding homes or aiding with renovations to increase ventilation. PIH housing programs in Malawi have resulted in 253 homes being renovated to establish a secure living space and a total of 109 houses have been built.⁴⁰ Additionally, PIH in Mexico will start introducing provisions in the near future to restructure houses, including equipping them with ramps to make them wheelchair accessible for older people. *Socios En Salud* has built ten houses and improved 26 houses for patients with tuberculosis.⁴¹ Finally, the Acute Needs Program in Sierra Leone provides lodging support and home repairs for patients with tuberculosis (TB), HIV and chronically ill vulnerable patients after careful assessment of needs.

38 Internal PIH Liberia Records .

³⁹ Krieger, James, and Donna L. Higgins, "Housing and Health: Time Again for Public Health Action," *American Journal of Public Health* 92(5) (2002), 758–68, https://doi.org/10.2105/ajph.92.5.758.

⁴⁰ Abwenzi Pa Za Umoyo, PIH Malawi.

⁴¹ Internal PIH Peru Records, "Reporte SES", (2017).

Agricultural Support

Agricultural activities help in reducing food insecurity and increase nutrition for many families.⁴² PIH provides agricultural support in several ways. In Haiti, this support is seen in the form of tools, fertilizers, seeds, and saplings among many other resources to those enrolled in the agricultural program. Patients in Malawi are provided with agricultural resources such as fertilizer and seeds to carry out farming activities. Further, TB patients in Peru are given training on urban farming and planting small garden plots. In Rwanda, those suffering from HIV and malnutrition are given agricultural training. In rural Liberia, Grand Gedeh, PIH has been supporting the HIV peer support groups in growing some of the local food products including rice and cassava. Overall, agricultural support by PIH is designed to address nutritional needs for patients living with chronic conditions while teaching them and their families skills that can improve their economic conditions.

Understanding the Impact: Case Studies

To illustrate the impact of some of the social supports provided by PIH in various sites, we share four case studies from three countries: the stories of Aminata, a mother in Sierra Leone; Kazinga, a student in Malawi; Dalitso, a business owner in Malawi; and Little angel, an 11- year old in Liberia.

⁴² Moucheraud, Corrina, Ram K Chandyo, Sigrun Henjum, Tor A Strand, Manjeswori Ulak, Wafaie W Fawzi, Lindsey M Locks, Patrick Webb, and Andrew L Thorne-Lyman, "Engagement in Agriculture Protects Against Food Insecurity and Malnutrition in Peri-Urban Nepal," *Current Developments in Nutrition* 3 (1) (2018). https://doi.org/10.1093/cdn/nzy078.

Upon learning she was pregnant in early 2017, Aminata Kebbie couldn't stop smiling as she walked around her village in rural Kono District, Sierra Leone. Her joy turned to concern just a few months later when the 28-year-old felt something was off. Although it was her first pregnancy, Kebbie knew the way she felt wasn't usual. She would awake in the night freezing cold, covered in sweat, and gasping for air. "I was panting all the time," she recalls. "The tiredness made my whole body feel heavy, like a stone." With each day that passed, Kebbie lost weight and her lethargy increased until even getting out of bed or leaving the house became a mountainous task. She had no money to see a doctor and, an orphan since she was a teenager, had no one she could turn to for financial support. Ultimately, Aminata would get better and deliver a healthy baby girl, thanks to two things she couldn't have imagined back then. First, free high-quality health care; and second, a network of neighbors and strangers who are part of the well-oiled machine that is PIH's maternal and community-based care in Kono District. The tiniest glimmer of hope first appeared in Kebbie's fifth month of pregnancy. Kumba Soyama, a PIH community health worker, noticed that her neighbor had been staying in her house more than usual. When Soyama visited, she saw that Kebbie was clearly sick, and told her to get a checkup at the PIH-supported Koidu Government Hospital. "She insisted everything was free for pregnant women," says Kebbie. "I couldn't believe it." Soyama accompanied Kebbie to the Hospital, offered moral support during the consultation, and encouraged her to agree to further medical tests after the nurse shared tough news. The new mother had HIV...After discussing it with doctors, she understood that her HIV could be suppressed through antiretroviral therapy, but she worried that friends and neighbors would treat her badly if they found out, and that her baby might not be strong. Here again, her

neighbor played a pivotal role. "Kumba told me something: She was also HIV positive. I was so shocked," says Kebbie... Knowing their common bond, the two women became close friends, supporting one another wherever possible. Kebbie felt inspired by Soyama to do everything she could to stay strong and healthy. "Kumba visited me almost every day," she says. In her seventh month of pregnancy, Kebbie's biggest challenge was adhering to her medication. Though PIH made sure she had enough, and for free, she had a difficult time swallowing them. HIV medications are notoriously harsh on the stomach in the early stages of treatment, and especially difficult to tolerate when hungry—as Kebbie often was. Unknown to Kebbie, Soyama had reached out to a colleague for help, namely Mohammed Bundu, a member of PIH's Acute Needs Program team, which provides qualifying patients with financial support for food, housing, and transportation. Half of HIV/TB patients in Sierra Leone receive financial assistance through the program. After familiarizing himself with her case, Bundu followed up with Kebbie to see how PIH could ensure her recovery. Kebbie remembers their first meeting. "I was sitting on my veranda, as I always did in the afternoon. My baby had grown quite large in my belly by that point, and the midday sun made me very hot," she says. "Mohammed parked his bike near my house and came over to sit next to me. He asked me a series of questions, which I answered happily." A few days later, Bundu returned with 200,000 leones, around \$25, so that she could buy groceries, prepare meals, and have a full stomach with which to take her pills. "I couldn't believe my eyes," remembers Kebbie. "It was then that I knew everything was going to be OK." Kebbie's health continually improved, and her baby daughter, Susan, was safely delivered at Koidu Government Hospital last June. Further still, initial tests reveal that Susan does not have HIV. Mother and daughter now have a small, but thriving, business selling cakes and breads around town.

All that's left, in Kebbie's mind, is to pay the kindness she received forward. She'd like to help others the way Soyama and Bundu helped her. "Without their help, I'm not sure I would have regained my strength," she says. "No one should suffer at home until they can't stand up anymore. Everyone deserves to be healthy."⁴³

Embodying The Poser Spirit: Kazinga's Journey Comes Full Circle

As Doctor Kazinga awaited the results of his final exams for the University of Malawi-Polytechnic in December, more than his own graduation was at stake. Kazinga, 28, was hoping to achieve a new milestone for the people he loves most. "No one had ever gone to university in my family," said Kazinga, who grew up in Malawi's Neno District, a rural, mountainous region where poverty is endemic and educational opportunities are slim. Kazinga had no need to worry about his grades. He passed the finals and, in March, graduated from the university with a bachelor's degree in mathematical sciences, a field he has loved since high school. He focused on statistics, and minored in computer applications and programming. The youngest of seven, he is the first in his family to complete university studies. That's fitting given his first name, Doctor, which is not to be confused with the title of Dr.—at least not yet, anyway. Kazinga also is the first university graduate in Malawi who benefited from the Partners In Health program known as POSER, or the Program on Social and Economic Rights... Kazinga and his family are well-known to the POSER team in Neno. He grew up in Mpakati Village, about an hour and a half by foot from the PIH office

⁴³ Minor, Emma and Suluku, John, "How an HIV Diagnosis Inspired Friendship in Sierra Leone", Partners In Health. December 20, 2018. https://www.pih.org/article/how-hiv-diagnosis-inspired-friendship-sierra-leone.

in Neno's central community. Initially, his studies at Mwanza Secondary School-nearly 40 miles from his family's home, in a neighboring district—were supported by the government's local Office of Social Affairs. During his junior year, funding issues caused an abrupt end to that support. Kazing a had no choice but to leave the school, even though he was only one year away from graduation. He was spending a few weeks back at his family's home in Neno when a POSER staff member visited, because of his mother's poor health. During that visit, the staff member identified Kazinga as a highly driven student, and PIH began paying for his school fees, books, and other materials so that he could continue his education. Then, once he'd obtained his high school diploma, Kazinga attended university in Blantyre, Malawi's capital, through PIH's support. "If POSER hadn't helped, I would have been done with my studies, because there was no money for school fees," Kazinga said. "Had it been that they didn't intervene, I cannot imagine what would have happened." Victor Kanyema, POSER manager for PIH in Malawi, said Kazinga is an exceptional young man who always has been hardworking and reliable. "I am so proud of all that he has achieved," Kanyema said. "When he was accepted into university, we worked closely with the PIH staff in Boston to figure out how POSER could continue to support him, despite financial restraints, and make sure he could continue to go to school. We did everything we could to mobilize resources and help with fees, transportation, accommodation, and other basic necessities." Kanyema joined Kazinga, and Kazinga's father, for the university graduation in March. "He has been so committed, right through the end of his studies. Something we originally thought may not be possible, we made possible. He is a pioneer," Kanyema said. "Because of him, another POSER recipient is able to pursue her university studies right now, following in his footsteps. He is making all of us at POSER—and APZU

—very proud." Kazinga was one of 42 students in the university's mathematical sciences department, but only 18 of them graduated, reflecting the challenges many students and families face when it comes to paying for education. Down the road, Kazinga dreams of pursuing a master's degree in statistics and being involved with research. He already has a head start in that direction. Kazinga is an intern with PIH's community health department in Neno, supporting all of the department's programming, including POSER. He's using many of the skills that he learned throughout his education to support other people and families across Neno, embodying the POSER spirit of investing in people, so that they can invest in their communities.⁴⁴

Vegetables and Goats: Dalitso's Successful Business

On most days, Dalitso Mkango is busy selling her vegetables in the market in the central village of Neno District, Malawi. And if she's not selling her produce, then she's at home working in her gardens. Rumor has it that she has some of the best produce around—likely because of the fertilizer she uses, a homemade mixture of manure from the goats she cares for at her home. How Mkango, 45, came to own those goats—and to use them for a sustainable business—is a story that stretches over 12 years, through a long time connection between her family, her community, and Partners In Health…POSER first met Mkango on a visit to her home in 2007, the same year PIH began working in rural Neno District... During a home visit to understand her circumstances and see if there were ways PIH could support her, the team

44 Mann, Elise. "Malawi Support Program Celebrates First University Grad". Partners In Health. June 13, 2019. https://www.pih.org/article/malawi-support-program-celebrates-first-university-grad.

learned about the severe challenges she and her family were facing. Mkango had learned she was HIV positive in 2006, but had been unable to access antiretroviral therapy until PIH arrived in Neno a year later. She was caring for her three children and ailing mother, despite many economic and social challenges within her family and her community. Mkango had been taking her HIV medication diligently since 2007, but still was getting sick—likely because, at least in part, she wasn't getting enough to eat. With her small garden, she was only able to harvest 10 bags of maize at a time, which was not enough to sustain her household of five. Beyond providing immediate financial support to her and her family, POSER also began helping Mkango work toward financial self-sufficiency. In 2008, the team invited Mkango to join five other women in a knitting collective. The six of them learned to knit and created wool products that were sold in the United States. After two years, when international hurdles slowed that business, the women came together and asked POSER to help them start a restaurant. From 2010-12, Mkango worked as a co-founder of the eatery, while completing formal business training that POSER provided as the women worked. In 2012, she graduated with new knowledge in business management, ready to manage and grow her income. A year later, the POSER team gave her two goats, as part of a PIH-Malawi initiative called Goats Pass On. She now has 12 goats, significantly expanding her financial options—she recently planned to sell one of them to pay for home improvements, for example. And over the past five years, Mkango has been able to dramatically increase the amount of maize she produces, by using manure to boost her fertilizer. While she previously struggled to harvest 10 bags of maize, she now reaps more than 55 bags in each harvest, and has made more than 120,000 kwacha (\$160 US) selling what her family doesn't need. With her cabbage, she's made an additional 250,000 kwacha (\$333 US). And most importantly, her body is much more responsive to her HIV

medication. "I'm just slender, no longer so sick," she said earlier this year. "Before, we struggled, but now I can grow enough maize and vegetables to feed my family and run my own business. My family has no problems with food or money today." Mkango's story embodies POSER's mission. Since 2007, POSER has worked with vulnerable families across Neno to overcome financial and geographic challenges and help them realize their right to health. POSER work is rooted in PIH's belief that medical intervention alone is not enough; in the absence of social and economic support, people can still struggle to care for themselves and their families. In Malawi, the POSER team distributes more than 800,000 kwacha (\$1,066 US) per month to support families with food packages, money for transportation to and from health facilities, household items, and more. The Goats Pass On initiative is one example of the longterm investments POSER makes in individuals so that they, in turn, can invest in their communities. Victor Kanyema, POSER program manager for PIH in Malawi, has known Mkango for years and appreciates how hard she has worked to achieve success with her goats and gardens. "It's not easy to manage goats, you know how they are," he said. "It requires a lot of work, which is a unique part of this program and shows you how committed Dalitso has been in raising her many goats." When asked about Mkango, POSER officer Edwin Kambanga smiled. "She's always been full of so much energy," he said. "She's very special to POSER." In part because of Mkango's success, the POSER team is working towards launching a largescale, multi-year initiative to expand the goats program and related training. Kanyema is optimistic that many more people across Neno could benefit from goats, and their source of fertilizer.

With her ongoing HIV treatment and growing economic opportunities, Mkango is doing better than ever—an outcome that Kanyema hopes to replicate across the district.

"We are proud of her and appreciate all of the lessons she has provided to our programming, which ultimately can help others in Neno," he said.⁴⁵

Little Angel's story

Little Angel is an 11-year old child living in Karloken who was infected with leprosy, which she contracted from her late mother. Living with leprosy negatively affected many aspects of her life, predominantly her relationship with her aunt, who was her primary caregiver when her mother passed. However, due to her leprosy, Little Angel was the subject to much shame, despise, and prejudice from her aunt. In July 2016, Spencer, a CHW, was on his routine home visits for his patients in Pleebo. During this time, he spotted Little Angel crying by the house. He learned that she was thrown out of the house by her aunt and was also forbidden to play with any other children in her community due to the fear that she would spread the disease to them. After making some inquiries and obtaining consent from her aunt, Spencer decided to take Little Angel to JJ Dossen Hospital for treatment. Little Angel was nine-years old when she began treatment for leprosy. Since her diagnosis, PIH has provided food support, school fees, and a mattress for her to sleep on. With this social support, Little Angel successfully completed her treatment in August 2018 and continues to be in school. Spencer, the CHW that initially spotted Little Angel two years ago, has decided to adopt Little Angel. Today, Little Angel is in the second grade and happily living with Spencer and his family in Pleebo.⁴⁶

⁴⁵ Mann, Elise, "Goats, Gardens, and Business Training Empower Mother in Neno," Partners In Health, July 25, 2019. https://www.pih.org/article/goats-gardens-and-business-training-empower-mother-neno.

Challenges

While the POSER program has been successful in improving health outcomes, it is not free of challenges. A few challenges include addressing the long-term social and economic needs of vulnerable patients and addressing the multiple needs of families and patients. For instance, while the POSER program has adapted to the short-term needs of patients, in Sierra Leone there are limited interventions to address continuing needs of patients suffering from HIV/AIDS.

While the need for support is on the rise, funding for these programs has remained constant or declined. It has been difficult for PIH to persuade donors to contribute regularly for long term solutions, as most donations seem to be catered to situations that require immediate assistance and medical aid.⁴⁷ For instance, one of the PIH supported sites began five years ago with an annual budget of seventeen million dollars, which by 2017 dropped to five million dollars as support reduced and donations declined.⁴⁸ Many of the patients are now living with chronic illnesses, and meeting their growing needs with limited funding is one of the greatest challenges PIH faces. Limited funding also leads to challenges in ensuring adherence to treatment as it restricts the ability of care providers to meet all long-term needs of patients on a timely basis. This can demotivate patients from seeking care and adhering to their prescribed treatment regimen.

While key stakeholders appreciate the impact the POSER program is having on clinical outcomes, many are concerned about the ability to sustain its impact in light of dwindling donor support and limited political will. For PIH to continue having a positive impact on the health of those in need, it has to meet the growing needs of its intended beneficiaries. At the same time,

⁴⁷ Levy, Ariel, "Ophelia Dahl's National Health Service".

⁴⁸ Levy, Ariel, "Ophelia Dahl's National Health Service".

PIH has to address the concerns of its stakeholders, and this will require either finding the funds necessary to expand the program or else limit the social supports provided. Keeping in mind the concerns of these key stakeholders while remaining true to its mission is a balance that PIH is constantly having to find.

Discussion

Social support systems play a crucial role in improving physical health for many living in impoverished settings by aiding in economic security, limiting food insecurity and improving access to education. We sought to highlight the efforts of one such organization that provides these supports in multiple contexts, and through this review it can be established that PIH contributes to more than just healthcare; providing those in need with tangible resources to overcome the hardships of poverty, increased access to healthcare facilities while providing healthcare to combat the medical conditions that many are suffering from.

One core aspect of this wellbeing is social connectedness. Structural barriers such as poverty, discrimination and ageism lead to social isolation for those living in conditions of vulnerability and come in the way of achieving social connectedness.⁴⁹ These can lead to social isolation. Social isolation, in this sense, refers to a "lack of connection to people, to place, to purpose and to power," which ultimately prevents one from exercising agency over one's life.⁵⁰ In addition, social isolation is found to lead to adverse health outcomes.⁵¹

49 "About us".

^{50 &}quot;About us".

⁵¹ Haslam, Catherine, Tegan Cruwys, S. Alexander Haslam, and Jolanda Jetten, "Social Connectedness and Health." *Encyclopedia of Geropsychology*, 1–10 (2015), https://doi.org/10.1007/978-981-00287-080-3_46-2.

Social isolation leads to mortality through stress as conditions of social disadvantage serve as ongoing stressors and lead to damaging effects on the body.⁵² Given the detrimental impact of social isolation on health, it is important to note that programs that include social supports to enhance health also appear to create social connectedness. For instance, the team at PIH Mexico regularly visits the elderly to remind them to take required medications, address any questions that they have and to provide emotional support. This addresses social isolation based on ageism by helping them feel more connected to others. Also, social supports provided by PIH address social and economic factors that cause social isolation based on poverty and hinder wellbeing. This is especially visible in its program to increase access to education among the youth. By equipping the youth with the knowledge and skills to improve their life conditions, income inequalities are addressed and economic conditions are improved since education provides agency to individuals to shape their lives and feel connected to their communities.

Limitations and Future Directions

Due to time constraints of data collection for this paper, a few POSER programs have been over represented while others have been underrepresented. Future research should aim to produce a comprehensive review that captures the impact of POSER programs carried out in all the sites where PIH works.

While this paper focuses on qualitative reports to highlight the impact on wellbeing, future studies could showcase both qualitative and quantitative data such as clinical data to

52 Haslam, Catherine, Tegan Cruwys, S. Alexander Haslam, and Jolanda Jetten, "Social Connectedness and Health."

explore and analyze the impact of social supports on clinical outcomes. Quantitative data could also be used to establish a causal link between material resources of housing, economic support, agricultural support and educational support on health outcomes.

Finally, this paper is strengthened by the contributions of community health leaders' field observations, but in its exploratory nature it lacks a systematic collection and analysis process for these observations. To expand upon this project, studies could use formal interviews or ethnographic methods to conduct a systematic data collection. Despite these shortcomings, this paper provides an invaluable look at one organization's efforts to provide social supports and mitigate the link between poor living conditions and health.

Recommendations

Through our research as academics and experiences in the field as community health leaders, the authors of this paper believe it is key to increase awareness and mobilize support that will enhance access to these resources for those living in poverty. We make the following recommendations with the aim of carrying forward the work of PIH.

Along the lines of the POSER program carried out by PIH, organizations that seek to increase access to healthcare in disadvantaged communities should consider the role and provision of social supports to enhance overall quality of life. These resources, which include support such as transportation reimbursements, conditional or unconditional cash transfers and vocational training, should aim to uplift many from poverty while subsequently enhancing physical, mental and social health outcomes. These can include support such as transportation reimbursements, conditional or unconditional training.

23

To increase awareness about the importance of such resources, organizations partnered with PIH can aid in information transfer through their portals or networks. For instance, Samuel Centre for Social Connectedness (SCSC), an organization that seeks to overcome social isolation and build belonging within and between communities, could advocate for increased access to material resources to improve health. In addition to addressing health, SCSC can use the evidence presented here to inform issues that they actively address. Specifically, using the evidence presented in this review on the association between social isolation and social supports, they can conduct and present research to understand the importance of material resources to combat social isolation caused by disease, climate change, ageism, forced migration and other arenas as well. For instance, to aid in reducing social isolation among vulnerable populations during heat waves, SCSC can examine the link between social connectedness and the provisions of material resources such as food and water to vulnerable groups.

The authors of this paper have worked in depth with PIH and recommend expanding the funding base. Addressing issues of social and economic support to those in need should be treated as an essential piece and not merely as an option or add-on component, and expanding funding is critical in incorporating these supports in programs right from the design level -- not as an afterthought. Expanding the funding base should include advocating with donors to support long-term social and economic support to aid in building resilience in health. Finally, PIH and other organizations providing social supports should aim to have a larger number of impact stories that reach a wider audience. Stories act as a powerful tool in advocacy, and PIH could overcome funding issues and encourage donations if it capitalized on them both locally and internationally.

24

Conclusion

This paper summarized the importance of economic, housing, educational and agricultural support as social support systems provided by PIH to individuals suffering from the triple burden of poverty, illness and lack of social connectedness in communities across the globe. Moreover, it has reviewed the impact of these material resources in enhancing wellbeing by depicting how POSER program fosters physical, mental and social health through case studies. Lastly, we have provided recommendations to increase awareness of the importance of social supports in enhancing wellbeing and to overcome challenges in the existing POSER program. PIH has been able to go beyond the immediate clinical setting to address the cause of poor health at its root and has empowered many to live a long and fruitful life.

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Appendix

| Country | Sierra Leone | Liberia | Mexico | Peru | Malawi | Rwanda |
|---------------------|--|--|---|---|--|--|
| Program Da | ita | | | | | |
| Title | Acute Needs* Program | Social Economic Assistance | Social Supports** | Socios En Salud | Addressing*** social determinants of health in Neno to improve health outcome indicators | Program on social and economic rights |
| Year | 2016 | 2017 | 2019 | 2017 | 2007 | 2019-20 |
| Types of Support | Cash transfers, foam mattresses, baby items for maternal death orphans, transport reimbursemen t for follow up care | Transportatio n reimbursemen t for TB, HIV, Leprosy patients Food Packages for TB patients School fees for vulnerable kids. Housing support (rentage payment) | Pantry support - including gluten free pantry for patients with celiac disease- , for elder individuals, palliative care patients and vulnerable families. Glucernas (Meal replacement shakes for those with Type 2 Diabetes). Crutches, mattresses, Prosthesis repair, wheelchairs, ramp material | Food, nutritional supplements, building of houses and improving existing homes, financial support for the purchase of medications and medical exam fees and educational support in the form of scholarships | Direct Social Cash transfers in a form of: Cash for food, transport, in patient support, in kind support(blank et ;clothes) purchase of artificial limbs for patients with disability, monthly support to HH on acute malnutrition | Community insurance "mutuelle" to vulnerable (HIV and no HIV); self- help groups of vulnerable and HIV+ patients are provided with seeds, livestock and fertilisers; school fees, vocational training, food packages for pediatric and adult HIV patients; transportation fees for NCD patients |

Table 1: Social Supports Program Description

| Beneficiaries Data | | | | | | | | | | |
|---------------------------------------|------------|-------|-----------|-----|------------|------|--|--|--|--|
| Female | 62% (1363) | | 46.6% (7) | | 63% (1759) | | | | | |
| Male | 38% (852) | | 53.4% (8) | | 37% (1040) | | | | | |
| Unknown Total Beneficiari es | 2215 | 5,143 | 15 | 295 | 2,799 | 7200 | | | | |

* Data for the time period July 2016 to date ** Data for the time period June 2019 to date *** Data for the time period July 2018 to June 2019