

Gi4SaveLife: Lifeline Nehemiah Project's Community-based voluntary blood donation scheme



Project report 2023



Introduction

The World Health Organisation has a stated aim for countries to work towards relying on voluntary blood donation (1). Sierra Leone is far from this goal, with only around 15% of blood transfusions coming from voluntary donors. Relying on family members incurs inevitable delays and blood often has to be bought, putting it out of reach of many women without a willing family member.

Lifeline Nehemiah Projects is a community-based organisation seeking to find solutions to the challenges of poverty by equipping individuals, families, and communities for sustainable development. Their approach to blood donation differs from other schemes in that it is community-led, eliciting and addressing barriers and providing bespoke education, creating a community of donors with a group identity and sense of ownership. This is in contrast to blood drives led by health workers where different communities are targeted for each blood drive and there is little follow-up or sense of ownership amongst communities.

Background

In 2016, a household survey in the Kuntoloh area of Eastern Freetown showed a 1 in 10 maternal mortality for under-18 year old girls, and a following qualitative study exploring this issue found that a strong theme in the data was that young women often die from postpartum haemorrhage, due in the most part to their increased rate of anaemia related to poor diet and lack of antenatal care (2). These factors are addressed in [2YoungLives](#), a community-based mentoring scheme developed in 2017 in response to the study.(3)

A major finding was that because the vast majority of blood transfusions in Sierra Leone come from emergency donations by family members, and most pregnant adolescents are devoid of this support, leading to huge delays in receiving blood, if it happens at all. Focus group discussions revealed a number of barriers to voluntary blood donation, including myths such as blood donation causing infertility, fears around donation causing sickness and weakness, and a lack of awareness of blood donation as a significant life-saving intervention; barriers common in many LMIC's (4,5)). One of the participants in a focus group of young men was [a nurse from LNP](#). His exposure to patients dying due to unavailability of donated blood

led him to engage with his community to become voluntary donors, focusing on youth (e.g. social clubs, colleges and motorbike riders), addressing fears and misconceptions around blood donation. This initiative has grown to be the major contributor to Freetown's only referral hospital, the Princess Christian Maternity Hospital (PCMH), with regular blood drives of 70 – 90 donors, both at the hospital and as mobile drives at the Lifeline compound.



Young donors celebrate World Donor Day by giving blood.

Recognising the huge need across the country, LNP wanted to pilot this scheme in a rural area away from Freetown, and started to build a relationship with Koidu Government Hospital blood bank which was renovated in 2016 and has safe and effective screening and storage facilities. Engagement in March 2022 with the blood bank coordinator highlighted that the limiting factor was now voluntary blood donors. She also was keen to explain that adolescents regularly die for lack of a family donor.

In Koidu hospital, of the 117 units of blood given in January 2022 to maternity patients, none were from voluntary blood donors, but from family members being called upon in an emergency, meaning that there was a significant delay to women.

This KCL ESRC International Impact fund has allowed for this pilot to take place and lessons to be learned for future replication. The overall aim is to report on the impact of a community-led voluntary blood donation project in a rural area in the Eastern Province of Sierra Leone, in order to develop a sustainable solution to the perennial and acute lack of donated blood which leads to many maternal deaths in Sierra Leone.



The LNP team and Koidu Government Hospital team

Community Engagement and Involvement (CEI)

Gi4SaveLife is an intervention which changes mindsets, and respectful community engagement at different levels is the key ingredient. LNP's CEI strategy involved:

- Initially meeting with local town chiefs from the 3 communities of Sewefeh, Punduru and Manjendu for them to engage their people leading to
- Meetings with almost 100 community stakeholders (e.g. women's leaders, section chiefs, youth leaders, an Iman, pastors, football coaches, the chairman of the Okada (motorbike) riders, head of schools and secret society heads.)
- A community survey devised by the local team to understand this specific context of 137 people (47% women, 53% men), done face to face with a member of the LNP team to overcome issues around illiteracy, with age range 16 years to 59

years (Appendix 1). This informed the content of the Hub member training and the community engagement topics for discussion

- Ongoing proactive engagement with the team from the Koidu Government Hospital
- Bringing these together by hosting engagement events between the blood bank team and the community stakeholders for three days,



- A final online survey was conducted via Qualtrics to understand experiences of blood donors and their motivators for learning and adaptation.

At these events, LNP Executive Director gave an overview of the organisation with its vision to empower communities to solve their own problems with community-based interventions. He reflected with the community the sad reality that many pregnant women, lactating mothers, under-fives and teenage mothers have lost their lives due to blood not being readily available at the blood bank, and explained that the aim of the project; to supply the blood bank with blood in order to minimise the need for family and replacement donation.

Despite community stakeholders having benefited from blood donation in various ways, there were some persistent myths and misunderstandings around blood donation, the scale of which was elicited by the survey. For example, that donated blood is sold by health workers and used for witchcraft, that women cannot donate blood whilst menstruating, or that smokers cannot donate. By bringing the community and the blood bank team together, these issues were addressed, with stakeholders hearing directly from the blood donor coordinator.

Amongst questions raised were; how will this blood benefit their community; will they have to pay if they should need blood themselves; how do I know I have enough blood to donate; what should I eat after donating blood; what is the age limit for a blood donor; will we be given money after donating. With credible health professionals and the LNP team

available to answer these questions, this was a great opportunity for the communities to voice and get resolve on their concerns. It also allowed community members to share stories of the lifesaving power of donated blood. For example, one of chief's daughters was suffering from sickle cell and was given 13 units of blood that saved her life.

Recruitment and education of hub leaders and hub members



A hub team and LNP team

The Gi4SL model is based around community 'hubs', with a hub leader and 5 hub members. These roles are key to the success of the model, as they catch hold of the vision and pass it on, leading to community ownership. After the community stakeholders engagement, the chiefs were asked to appoint young people who the community would respect and listen to. Thirty-three were nominated, and after a training process, 25 were selected. All hub members are opinion leaders with important roles in their various communities, known and respected particularly by other young people. For example a youth chairman, bike riders chairman and young women leaders.

Five hubs were set up across these three communities, proportionate to the population; Sewefeh (2 hubs), Punduru (2 hubs) and Manjendu (1 hub). It was the responsibility of each hub to recruit 10 donors for each blood drive, a total of 50 donors for each drive. They sensitised their communities about blood donation; recruited and monitored donors after each bleeding session to ensure their wellbeing, especially first time donors; and liaised with Koidu hospital when a community member was referred to the hospital for a blood transfusion.

Training is a two day training workshop; the first day focusses on myths, motivators and barriers to blood donation, including the issues raised during the community stakeholder discussions. On the second

day, the focus is on the Lifeline Nehemiah Project values and how they apply, giving all the trainees an opportunity to practice recruitment of donors in different local languages. This enabled the 25 best trainees to be selected from among the 33 nominated candidates, selecting based on their attitude and communication skills.

Recruiting blood donors

Hub members are responsible for recruiting and mobilising donors prior to the arrival of team from the blood bank for the monthly drive. They engage farmers, students, okada (motorbike) riders, traders, footballers and other suitable groups by meeting them at their different places of work and study. The team reported an increased sense of confidence to approach these stakeholders as they saw their success on successive months, and regarded this as an enjoyable part of their role.



The LNP team meets with community stakeholders

Although there were a lot of misconceptions among community members initially, many of the key stakeholders have led by example. For example, one senior stakeholder was initially sabotaging the work due to their religious beliefs. However, during this time one of their family members who was pregnant gave birth at Koidu government hospital. They were requested to pay for 4 units of blood because there was no family member to provide replacement blood. When they gave their address, the fee was waived because of the amount of donated blood that had come from their community. Since this time, they have been a strong advocate for the project and have since donated blood themselves.



Hub members talking to community members about blood donation

Another community leader recognised the importance of blood donation when his wife required a transfusion. Although he was unable to give blood himself due to being over 60 years old, he brought a younger family member to donate. Many new donors and their family members received preferential treatment when the need for transfusion arose, and this has been a key motivator for other new donors coming on board; it is seen as an insurance strategy in the case of future need.

A further recruitment strategy which has proved highly effective is the opportunity afforded by community members who come tentatively to observe the blood drive. Many young people came to witness the process, and were therefore present for a motivational health talk, leading them to decide to donate. This has led to hub members deliberately encouraging people to come along to witness the program any time in order to raise awareness either to donate at that session or the next.

Publicity

Education has been the key driving force behind the success of this project, and in addition to face-to-face community engagement and social media, another strategy this project has used to address the knowledge, attitudes and practices of Sierra Leoneans in relation to blood is the use of the popular media of radio, television and newspapers.



On 9th October 2022 Gi4SaveLife were featured on Eastern Radio Koidu City; on 11th November 2022 on Justice Radio; on 26th January 2023, Eastern Radio in Koidu city; and on 12th February 2023 Radio Maria. The topic was ‘the ready availability of blood in blood banks saves lives’, and the points shared were as follows:

- The vision to bring change into the current situation by encouraging recognition that blood donation can save lives, potentially their own
- To raise awareness that donating blood does not have any negative impacts on health
- To promote a sense of community involvement, of love for others, and of the universal values of family, by establishing regular blood donation as a voluntary, individual yet corporate, act of solidarity and civic pride
- To fulfil the key component of the project to initiate a change of cultural mind-set which embraces and supports an environment which ensures a readily available supply of blood at blood bank
- To minimise, and eventually seek to eradicate, the current idea that treatment must wait until immediate replacement donations from relatives are available, through establishing a regular voluntary blood donation program into hospital blood banks.

Gi4SaveLife was also featured on [TV channel Star TV](#) on 23rd December 2022

Blood drives

Units collected per drive

Donor numbers exceeded the project aims, with the highest number of units being collected at the last drive.

Date of blood drive	Total # donors (# predicted)	# 1 st time donors (# predicted)	# repeat donors (# predicted)
07/07/2022	58 (50)	58 (50)	
26/08/2022	68 (50)	68 (50)	
04/11/2022	48 (50)	43 (50)	4 (0)
25/11/2022	57 (80)	51 (50)	6 (30)
16/12/2022	65 (80)	56 (50)	8 (30)
27/01/2023	80 (80)	72 (50)	8 (30)
18/03/2023	80 (60)	0 (0)	80 (60)
12/05/2023	83 (60)	28 (0)	55 (60)
Total	539 (510)	376 (300)	161 (210)

Table 1: units donated per blood drive July 2022 to May 2023.

Process

Within the five communities, hub members were constantly recruiting suitable donors. When a date for a blood drive was communicated to the hub leads they went around their community with a megaphone to inform donors to assemble at the agreed site early in the morning. They also used a WhatsApp group to keep in touch with hub members. At the beginning of each session there was a short reorientation session to allay fears, and serve food since most donors arrived without having breakfast and this served as a key motivator.

Other motivators were wrist bands being given to donors to identify them within their community, and on one occasion a football was given to the donors to organise a football match between them which was very well received. The atmosphere at the drives was always friendly; most first time donors were nervous but as the process continued they gained confidence. People with infections were told that their infections would be kept confidential and if they tested positive for any of the tested infections, a follow-up appointment for treatment was made. The stigma of coming to donate and then being rejected was

mitigated by the fact that people who are anaemic also cannot donate.

Motivators for donation: Online survey

It was imperative to understand more about the experiences of the donors for ongoing learning and adaptation. A formative online survey designed using Qualtrics was sent out to all donors after the 5th drive, with the additional option of completing the survey with an LNP team member face-to-face. 84 donors completed the survey, with a range of 1st, 2nd and 3rd time donors responding. 20% of respondents were women and 80% men, slightly over-representing women who were 12% of total number of donors.

Participants were asked to choose up to 5 reasons from a list of 10 reasons why they chose to donate blood. (Appendix 2). The most common motivators were 'I want to save lives' (71%), 'If I need blood or my family member needs blood one day, we will get it' (49%), 'I enjoy being known as a blood donor' (52%), 'I get my blood checked for HIV and other diseases' (48%), and 'I get food at the blood drive' (35%). This survey confirmed the importance of the motivational strategies such as providing food, wrist bands, assurance from the hospital that blood would be available if needed, and the high levels of confidentiality around blood testing.

Challenges / Lessons Learned

One of the key challenges has been acting as a bridge between the communities and the hospital. Since Gi4SaveLife is a new approach to blood donation, it was clear that there would be a high level of engagement needed with community stakeholders as has been described above. However what also became apparent and had not been anticipated was the high level of engagement what would be needed with hospital staff and management to adjust ways of thinking about blood donation, and what community-based voluntary blood donation would entail. The mindset change and culture shift regarding working in partnership with communities was more challenging for the hospital than had been envisaged. If LNP was to be the bridge between the community and the hospital, aiming to gradually narrow the gap to such a point that they could step back, the learning point for the LNP team was that the gap was bigger and the time taken to narrow it was longer than had been anticipated.

Another key lesson learnt was the use of financial incentives as a means of motivating donors. Previously, working with other NGOs and hospitals, LNP had mobilised donors for specific purposes with



the common understanding that there would be a small financial incentive to cover transportation to the blood bank or community blood drive. For this pilot however, a new approach was agreed by the team, to test out other forms of motivation such as food, a football match, wrist bands, and intrinsic motivators such as being part of a social group, doing good to others, or deferred incentive of receiving blood in the future if needed by themselves or a family member. Despite this, in a desire to attract donors, as a response to the expectations of prospective donors, and as a result of some misunderstanding around the agreed policy, small cash incentives were given out at the first two blood drives. This was realigned by another phase of community engagement where the 'no cash incentive' policy was clearly explained, as a means to create a sustainable model. Despite concerns from the team that this would reduce the numbers of donors willing to donate, this did not materialise, demonstrating that the non-cash incentives were proving effective.

Sustainability

The approach to this pilot has been a pragmatic one; whilst aiming to become sustainable, there is clearly a level of oversight and supervision that will be needed going forward. In order to develop a strong group of donors, a fairly intensive process of engagement and training was undertaken as described, as a frontloaded investment for the longer term. The capacity of hub members to continue to recruit new donors and encourage repeat donors is the key to success for this project, and in order for a sustainable model to be in place, this would mean continuing to do so without the monthly stipend that this project initially offered. As planned, the final stipends were given in February 2023 prior to the final 2 donations. Despite this, numbers continued to be high, with the record number of donors, 83, attending the final drive in May 2023. Of these, 66% were second time donors and 34% first time, showing that the volunteer hub members were still successfully recruiting new donors as well as being able to mobilise existing donors; evidence of the perception of blood donation as a normal communal habit for these communities.

Value for money

Currently, aside from this initiative, voluntary blood donation at Koidu blood bank is funded by 2 NGOs with a joint amount of 27,000 Nle in total per month (correct in early 2023), funding 2 blood drives per month, resulting in an average of 120 units per month. This equates to 225 Nle (£10) per unit.

For the LNP blood drives, the activity can be costed as the set-up phase of CEI, the first 5 blood drives where hub teams were given motivational stipends, and the last 3 drives where the hub teams were given communications expenses and benefited from the food given to all the donors, but were not given stipends. Table 2 below shows that, with the time and financial investment of the first 2 phases, sustainability has been achieved, with units of blood for the last 3 drives costing only 131 Nle or £6, 60% of the current Cost.

Stage of project	Cost	Cost per drive	Cost per unit
Non-blood drive CEI & set-up expenses	127,99 (£5,818)		
Drives for months 3-7		30,712 Nle (£1,396)	389 Nle (£18)
Sustainable period (months 8-10)		10,604 Nle £482	131 Nle (£6)
Projected ongoing cost if funds available		9,436 Nle (£429)	118 Nle (£5.36)

Table 2: costs associated with different phases of the project cycle

Conclusion

Sierra Leone needs more voluntary blood donation to meet the demand and save lives. Current models are initiated and run by hospital blood bank staff who may not be familiar with all the communities they visit to sensitise and recruit donors, and have to spend time and energy raising awareness on each occasion, but not necessarily addressing the deeply held mindsets and myths. This model makes the process expensive and does not maximise on the intrinsic strengths of communities to want to solve their own problems and work in partnership.

Lifeline Nehemiah Projects' Gi4SaveLife community-based voluntary blood donation scheme turns this model on its head. It recognises that communities have the capacity to harness their human capital and solve their own problems. By a process of engagement leading to ownership of both the problems and their solutions, LNP works with communities and their leaders to be agents of change and development. Gi4SaveLife locates the solution within the community, and invites the blood bank into a dynamic and productive partnership.

With the provision of ongoing funding, LNP is poised to continue this scheme and expand to other areas where there is a functional blood bank willing to work together in this novel way.

Contact details

Lifeline Nehemiah Projects' Executive Director Prince Tommy Williams:
princewilliams@lifelinenehemiahprojects.org

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Suzanne Thomas; Venetia Goodhart: **Welbodi Partnership**

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Aiah Alex Gborie; Mohamed Kennie Ngeyowo; Mohamed Kamara; Alex Lamin Kallon: **Community Stakeholders**

Thank you to all the willing blood donors who are saving lives by their generosity.

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Appendix 1

Initial Community survey

Survey question	Yes (%)	No (%)
Is all blood tested to ensure it is free from any infection?	81	19
Do you believe there is a risk of spreading disease through blood donation?	44	56
Do you think you can catch infections by donating blood?	30	70
If a person is anaemic, needing blood, do you associate that with witchcraft?	14	86
Do you believe that donated blood can be used for witchcraft?	23	77
If you receive someone's blood, will it make you like them?	19	81
Do you believe blood can be manufactured?	17	83
Do you believe that receiving a blood donation could help to save a person's life?	91	9
When people need blood, do you believe they must be made to pay for it?	56	44
Do you believe it is legal in Sierra Leone for a person to be paid for giving blood?	45	55
Do you believe that donating blood can make you infertile?	22	78
Is there an age limit to donating blood?	71	29
Can pregnant women donate blood?	10	90
Can lactating mothers donate blood?	18	82
Can women donate blood when menstruating (monthly bleeding)?	17	83
Can smokers donate blood?	61	39
Can people with tattoos donate blood?	50	50
Have you ever bought blood for your family and/or relatives?	30	70
Have you ever donated blood as a volunteer to the blood bank?	20	80

It was important to understand the specific contextual factors around motivation towards blood donation and to identify barriers in these communities. A community survey, devised by the local team with an understanding of some of the common perceptions around blood donation, was conducted to understand this context, with 137 people (47% women, 53% men) completing the survey, done face to face with a member of the LNP team to overcome issues around illiteracy. Age range 16 years to 59 years). This informed the content of the Hub member training and the community engagement topics for discussion.

Appendix 2

Donor survey

Answer	%	Count
I get food at the blood drive	35%	29
I like being admired in my community	19%	16
I want to save lives	71%	60
I feel pressurised by the Lifeline team	17%	14
I know God is pleased with me	23%	19
It's a fun time with other people	8%	7
I like having my photo on Facebook	0%	0
If I need blood or my family member needs blood one day, we will get it	49%	41
I feel pressurised by my friends	1%	1
I get my blood checked for HIV and other diseases	48%	40
I enjoy being known as a blood donor	52%	44
Another reason. Please write below	20%	17

Other reasons given:

For my family and for myself (M34)
 For my woman and kids so that they will get when necessary (M34)
 To reduce my blood (F23)
 To help save life and for my family so we can buy again (M48)
 To help my fellow human beings (M61)
 To get good health (F30)
 I want to get good health, and for my family (M32)
 I don't want to buy blood again (M50)
 As a nurse, I do it for the pregnant women (F62)
 To have good health (F37)