

Life-Saving Lullabies: The conception, development and adaptation of a cultural heritage tool for good

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ABSTRACT

On 9 May 2019, President Edgar Lungu of Zambia declared maternal and prenatal deaths a Public Health emergency with 10-15 women per week losing their lives due to preventable causes. The objective of the Life-Saving Lullabies project is to define and develop a zero-cost, innovation service strategy that is responsive to current maternal child health needs (MCH). The study is supported by St John Zambia (SJZ) and their volunteers who provide MCH services on behalf of the Ministry of Health. Until now, the potential for extending the functional purpose of lullaby lyrics as a methodological tool for delivering essential knowledge has been overlooked. The rationale for using song has evidence to support it. Studies show that singing lullabies promotes mother/ baby attachment (Creighton et al., 2013) and reduces prenatal stress and anxiety (Carolan, 2012). This study explores the potential of song as a culture heritage tool for imparting critical MCH knowledge and skills. Central to this, is our human-centred design approach (Design Council, 2005) that foregrounds the everyday experiences of young women. The research demonstrates the value of cultural heritage tools in enabling non-professionals as an untapped resource. A total of 31 MCH songs have been created.

Keywords: Frugal Innovation, Lullaby, Maternal Child Health, Service Design, St John Zambia.

INTRODUCTION

Life-Saving Lullabies (LSL) is an award-winning project funded by a UKRI /Arts and Humanities Research Council-funded GCRF Urgency Grant (AH/T011947/1), a community-situated intervention, which benefits young pregnant women, young mothers, and babies, and supports the attainment of the United Nations Sustainable Development Goals (SDG) in Zambia. These specifically, are SDGs 3.1 and 3.2 (to reduce the global maternal mortality ratio to less than 70 per 100,000 live births; ending preventable deaths of new-borns and children under 5 years of age); SDG 5.1.b (to enhance the use of enabling technologies to promote the empowerment of women) and SDG 13.2 (to integrate climate change measures into policies, strategies, and planning). The situated research uniquely prioritises sustainability, legacy and local autonomy, and, for us, incorporates approaches to decolonity that focus on the generation of knowledge from the ground up through culturally appropriate activities in partnership with local people (Keikelame and Swartz, 2019).

Across the world, caregivers have sung traditional folk lullabies to their babies for over four millennia with many transcending the generations as oral tradition (McDowell, 1977). Ethnomusicological studies of lullabies texts have found that lullabies are imbued with both covert and overt orientated objectives. Our rationale for using song has evidence to support it. Studies have shown that singing lullabies during pregnancy and after birth promotes mother and baby attachment (Creighton et al, 2013), reduces prenatal stress anxiety and pain in both (Carolan, 2012), and enables mothers to calm their newborn to sleep and to breastfeed for longer (Montemurro, 1996). Importantly, Masoga (2016) suggests that indigenous music is a carrier of indigenous knowledge such as survival skills and healthy living. Our foreground research speculated possible intervention strategies with St John Volunteers and is explained in greater detail in Reid and Swann (2019). This case study explains the process of conception, development and adaptation of the Life-Saving Lullabies project, and our ethnographic, creative and pilot work with Safe Motherhood Action Group (SMAG) volunteers from Chunga (urban, Lusaka province) and Kayosha (rural, Lusaka province).

1. RESEARCH CONTEXT

The research is situated in the metropolitan capital city of Zambia and Lusaka province, and framed by the following demographic trends (Central Statistics Office of Zambia, 2015 and 2017, GBD compare 2019 and the World Population Review, 2020):

- Zambia experiences one birth every 50 seconds; one death every 5 minutes.
- Only 25% of pregnant mothers attend the minimum number of antenatal visits (4) during their pregnancy.
- Maternal associated causes were the fourth leading cause of death in Zambian women of childbearing age.
- 17% of adolescent girls are married (15-19 years), of which 29% are already mothers or pregnant with their first child.
- An early start to marriage/ childbearing greatly also reduces education and employment opportunities as they women are unlikely to return to school.

1.1 St John Zambia, Mana na Mwana (mother and baby) programming

Established in 1877, The Order of St John is a global organisation with a network of 250,000 volunteers who provide charitable work in 30 countries. St John Zambia has been supporting the government of Zambia, through a relationship with the Ministry of Health, in providing MCH care in both rural and urban health centres. The Governance Board of SJZ includes a representative from the Ministry of Health. More specifically, they have experience of recruiting, training, and developing volunteers through their Safer Motherhood Action Groups (SMAG), an initiative aimed at working with mothers and communities on the importance of safe motherhood. Introduced in 2014; the Mana na Mwana (MnM) programming was implemented by SJZ with the support of St John International. The primary aim of MnM was to support the reduction of preventable infant and maternal morbidity and mortality through activities in community outreach and clinical health services settings. We were introduced to SJZ national co-ordinator through an academic colleague working in Lusaka who suggested St John Zambia as a potential partner.

1.2 Situated frugal innovation

Illich (1973) *Tools of Conviviality* reminds us of the power, influence, and manipulative nature of Institutional healthcare organisations at the expense of the individual.

The exclusion of mothers, aunts, and other non-professionals from the care of their pregnant, abnormal, hurt, sick, or dying relatives and friends resulted in new demands for medical services at a much faster rate than the medical establishment could deliver. As the value of services rose, it became almost impossible for people to care. (p.8)

Here, there are noteworthy parallels to consider such as the normative practices of the Global North that are parachuted into the Global South that extend colonial practice (Watson & Reid, 2022). Cohen, Küpçü and Khanna (2009) contest that this colonial legacy is amplified by the humanitarian aid sector where initiatives funded by Institutions such as the United Nations, the World Health Organisation and US Aid are often mandated agendas that expire once the project funding ceases. Additionally, these unsustainable initiatives exert psychological power on local communities through their use of propaganda branding which reinforces concepts of dependence due to weak and ineffective local governance, “none of the new colonists is anxious to perform so well that it works itself out of a job. They need weak states as much as weak states need them.” (Cohen, Küpçü and Khanna p. 77). In this context, the strategic and decolonised approach of *Life-Saving Lullabies* supports Illich’s belief of inversion; where local SMAG teams are empowered by the means of a culturally appropriate tool that promotes autonomous working and freedom from patriarchal control. Governments and healthcare providers worldwide are recognising the transformative role that creativity, design and innovation can play in shaping health service delivery, patient safety and fuelling cultural, societal, and economic change. However, in Zambia, the value of an arts/ design-based approach is often overlooked, and this may be attributed to the invisibility of the creative professionals in everyday life. The Labour Force Survey Report (2017) reported that only 3252 people (0.1% of the total work force in Zambia) are employed within the creative industries. Design has evolved beyond traditional concerns for aesthetic and technical performance into new social contexts, where creative tools and participatory methods are employed to co-create interventions that influence behaviour change (Grant & Fox, 1992; Manzini, 2008). The value of a human-centred design approach cannot be underestimated in this context. Capturing insights from differing stakeholder perspectives at a formative stage enables the identification of the social, political, and economic barriers that often inhibit the implementation and scalability of many interventions. This consensual method supports the realisation of a satisfice solution (Simons, 1956) that satisfy sufficiently, the minimum standards of healthcare service delivery defined by the United Nations Committee on Economic, Social and Cultural Rights (2008): availability, affordability, acceptability, and appropriateness. These criteria underline the essential principles of frugal innovation. In a global context, frugal thinking has grown in prominence within social innovation programmes leading to many creative solutions. However, investment and unit cost remain a critical barrier even for the simplest of solutions in low, middle-income countries (LMIC) - such as printing health information leaflets. Interestingly, Howitt et al. (2012) argues all healthcare providers are experiencing the identical challenges regardless of their geographical location: an exponential demand for services, rising costs and insufficient trained professionals; all exacerbated by the global coronavirus pandemic. In this context, the imaginative healthcare solutions conceived in resourced-stressed environments in the Global South may have transferable knowledge exchange benefits for healthcare providers in the Global North. Case

study reviews (World Health Organisation’s vaccine vial monitor project and UNICEF Innovation’s school furniture project for Africa) helped the team to appreciate the socio-political and economic barriers that can suppress the traction and implementation of new interventions. A reverse-engineering lens informed our strategic thinking to prioritise project legacy, scalability, and sustainability from the outset (Figure 1).

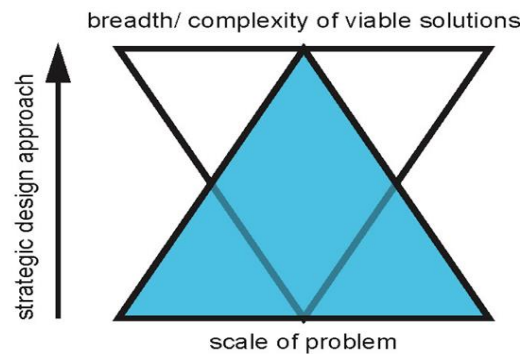


Figure 1. Strategic approach for global challenge innovation.

2.METHODOLOGY

Arts, culture and heritage research is often overlooked by international communities and this project highlights the potential for utilising cultural heritage tools to address global and public health concerns. Our priority was to work with SJZ to develop a zero-cost intervention that could in the future be implemented across the eight geographically and demographically different sites where they support the delivery of MCH services. In recognition of the prevailing public health emergency and the UN SDGs, the main aims of the research were:

- Define, develop and deliver a 'zero-cost', art-based, service innovation strategy, that is responsive to current and unanticipated maternal health needs in Zambia.
- Enhance the capacity and voice of vulnerable adolescent mothers to participate in interventions and decisions that impact on their health and well-being but also on their consciousness as young women.

If our interest was in only meeting our own needs as researchers, our approach risked misusing power in appropriating the experiences of young pregnant women and mothers living in precarity. Precarity combines economic instability - poverty and very low incomes are common vulnerabilities for pregnant young women and mothers - and increasing caring responsibility for women (Ross, 2016). Mothers undertake several “shifts” of work: birth and mothering, domestic work and administration, emotional management, and working flexibly and responsively to the labour market. The flexibility and insecurity of work, particularly for young women in rural areas of Zambia, means that women’s paid labour is more impermanent, low paid and insecure (Standing, 1999). Many women migrate internally for many reasons, including to seek domestic jobs in urban areas, because her husband is moving (International Office for Migration, 2019) and migration often creates unmet health needs (Almonte and Lynch, 2019). Women’s lives are precarious when her movements are controlled and her health and sense of well-being are undermined, thus subjecting her body, mind and possessions to violence and harm, and racial and other discriminatory tropes are put to work. It isn’t just women’s paid labour that is of concern, but every aspect of life socially and culturally (Gutiérrez-Rodríguez, 2014).

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Consequently, there is a need to move beyond research in this field that utilises and reinforces normative expectations of young mothers and women to care 'for', thus avoiding approaches that objectify within the domain of women only as caregivers and involving intimate acts of looking after another (Tronto, 1993). It also requires us to explore and reveal the social relations of knowledges of care, the understanding that women take up as an extension of their everyday knowledge of the daily realities of their lives (Smith, 2005). We acknowledged, therefore, that caregivers also have needs and that care involves justice (Tronto, 2010). Democratic approaches to care (Tronto, 2013) require open opportunities for discussion through more equal access to power.

Our interdisciplinary research team from the arts, humanities, social sciences, and MCH practice, developed a more democratic approach to working with young women and mothers by utilising human-centred design and focusing on design for social justice (Leydens, Lucena and Nieuwsma, 2014), so the experiences and needs of the young women, rather than the standpoint of clinicians, defined the response to the emergency. Our adaptation of the design for social justice model posited by Leydens, Lucena, and Nieuwsma involved a number of aspects of this approach:

- Listening to all, for example, in employing a local woman as a researcher to undertake ethnographic work and embedding her with SJZ.
- Opportunities for partnership and empowerment with the young women, including through workshops in local spaces and places and utilising creative methods, for example drawing and singing suggested by the women.
- Identifying and understanding the structural conditions that give rise to needs. It was important that the LSL project was embedded within existing, locally known and culturally accepted provision and we worked in partnership with SJZ's MnM programming and their SMAG volunteers - local women who assist at other local women at antenatal clinics - who fill crucial gaps in MCH education at these sites.
- Increasing opportunities for experiences to be shared and voices to be heard in culturally familiar and acceptable ways, and for the women to be involved in the iterative design process so that they led discovery, defining the problem, designing the solution, delivering the intervention, and reflecting and refining based on that experience.
- Utilising available resources. We developed opportunities with the women to learn from each other and to develop understanding of their existing knowledge and skills, and the potential of this to move young women from precarity to better health outcomes.
- Reducing imposed risks and harms is intrinsic to the LSL project. It arises by working with the young women and SMAG volunteers in partnership and empowering them by giving voice to their experiences, knowledge, and skills so that the interventions developed account for local circumstances, practices, and are culturally acceptable.

It is important to acknowledge that this approach was developed iteratively, through our own reflexive work in avoiding the power of colonial practices, as we learned alongside the women and considered our relation with the knowledge being taken up by the women in designing a new intervention.

3. DEVELOPMENT

A fieldwork trip in June 2019 provided an opportunity for the research team to challenge the tropes and concepts arising through our work and position in the Global North, to listen to local women, and observe first-hand the contextual challenges faced by SMAG volunteers and MCH Teams. To deepen our contextual understanding, a one-day creative workshop was held at St John Zambia's headquarters with SMAG volunteers from Matero and Chunga. The primary objectives of the workshop were:

- Capture their 'day-in-the-life' experiences through drawing.
- Explore their receptivity to a Finnish maternity package (Babybox). At the time commercial interests and clinicians were promoting this as a solution to maternal and infant mortality).
- Explore the functionality of a traditional object, the chitenge, in everyday Zambian culture and practice.
- Speculate the adaption of a chitenge as a carrier for communicating health messages.
- Identify the critical health messages to reduce maternal and neonatal deaths.

Through this exploratory workshop, we identified 22 practical uses of a traditional chitenge. This simple piece of waxed cotton (108cm x 175cm) and is frequently by Zambians as a baby's blanket, a baby carrier, a tablecloth and even packaging gifts. Participants validated our initial thoughts of extending the functionality of the chitenge by producing an example that was already used by teams in healthcare practice (Figure 2).



Figure 2 A traditional Zambian chitenge communicating health messages

While culturally the chitenge was a seamless fit, its weakness was its unit cost (<\$10) that challenged the long-term sustainability of the service intervention. The recognition of this critical issue during the workshop demanded improvised thinking. In connecting the dots (Jobs, 2005, as cited in Stanford, 2005), The principle investigator drew upon his experience at the World Health Organisation's First UK Symposium for African Partnerships for Patient Safety APPS) event in Manchester in 2013. The aim of the APPS symposium was to bring together partners, technical experts and global health actors to share knowledge, experiences and best practices. The Symposium provided a forum for sharing experiences of s NHS Trusts

who had linked up with healthcare providers in Africa to support the local strengthening clinical safety systems. One presentation discussed the transposition of the WHO surgical checklist used by hospitals worldwide, into a new context. Here the presenter anecdotally described the challenge of implementing this paper-based system into a Malawi hospital. With access to paper in short supply, the Malawian surgical team creatively resolved this dilemma by singing out the checklist. This recollection mirrored precisely the challenge faced by local MCH teams; and where the production of antenatal leaflets is financially prohibitive. This posed an interesting question. Could this novel approach be replicated to communicate critical maternal health messages to mothers? To test the feasibility of this concept- we improvised and asked participants to recall a traditional song or lullaby that was sung to them as a child. One participant recounted a song sung by mothers while working in the field. It concluded with a 'shush, shush, shush' to placate a crying baby who is seeking their mother. This speculative probe became the pivotal moment for the research team that gave rise to the concept of using song as a zero-cost culture heritage tool. The workshop concluded with a final task. Working in two groups, participants were asked to prioritise the fundamental health and wellbeing messages for expectant mothers using their local insight (Table 1).

Table 1. Health and wellbeing message priorities

Group 1	Group 2
Early ANC booking- the way to go for a safer pregnancy and delivery	Early ANC in first trimester
Six days/ six visits post natal visits	Take all the medication at the appropriate time
BCG & OPVO at birth	My husband, my partner
Focus on breastfeeding from zero to six months	Good nutrition
Growth monitoring active/ Immunizations/ Cervical screening	Healthy mother, healthy baby
Vitamin A supplement/ Take Mebendazole	I delivered at a health facility, do you?
Family planning is free and manageable	No women should die while giving birth
It's my right to health services	Abstinence [thumbs up] or use condoms
Good nutrition for a healthier baby	Education is an equaliser
Male involvement for better support	My tomorrow is better than my today
The future of my child lies in maternal child health services	

The surfacing of these health messages identified an unexpected need. Critically, the need for songs to support the emotional and wellbeing of adolescent mothers, as well as basic maternal health messages.

3.1 Site visits

As part of a second fieldwork trip in October 2019, we visited the SMAG teams based at Chunga (urban) and Kayosha (rural) Health Posts. At both sites, we witnessed first-hand the challenging work environment of midwives and volunteers and where creative thinking and improvisational skills come to the fore to overcome daily resource challenges to deliver safe maternity care: limited clinical equipment, natural lighting (non-functioning light bulbs), and where midwives cared for expectant mothers giving birth during the night using the torch feature on their mobile phone (Kayosha), and the absence of showering facilities (Kayosha). At both sites, critical health information was communicated to mothers and partners using

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handmade posters (Figure 3). Our findings reaffirmed strategically; a zero-cost intervention would be only viable solution.

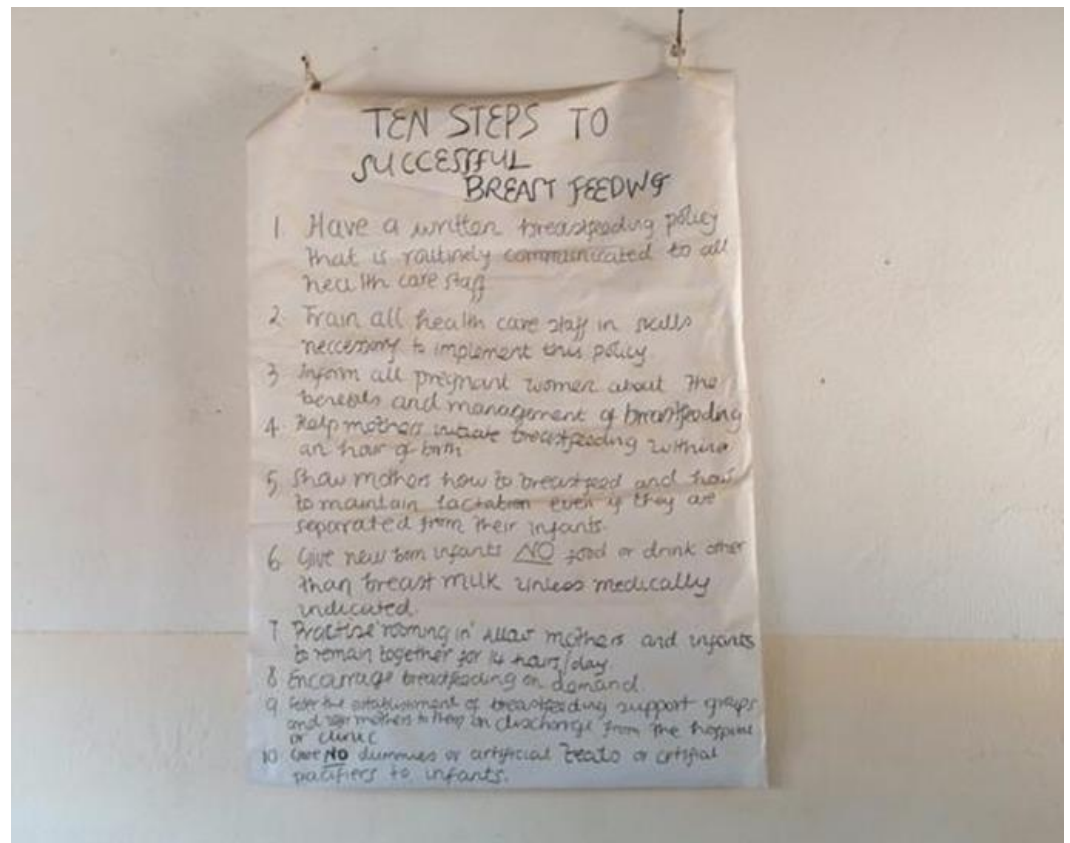


Figure 3 Poster communicating breastfeeding advice (Kayosha)

3.2 Semi-structured interviews

At the time of writing, we had conducted 19 interviews with mothers and SMAG volunteers from Kayosha and Chunga (17 mothers and 2 SMAG volunteers). Semi-structured interviews explored subjects of: familial context and support, disclosing their pregnancy, engagement with antenatal services and the practice of singing. Interview transcripts were systematically reviewed and thematically coded to identify personal expressions of social strain, pragmatism, positivity, and incidence of singing. Analysis of the data revealed that 70% of young mothers had sung a familiar, religious, or made-up song to their child, however they had never heard a traditional lullaby sung by an elder. However, all mothers agreed that receiving health information through songs/lullabies was a good idea because it would be fun and interesting to sing. Volunteers also remarked that most women who attend clinic do not notice the health messages on the walls unless directed. They felt that the best way to provide health information to women is not by using textual materials, but by using visuals and demonstrations “as people do not forget what they have seen.” In Kayosha, when asked about lullabies, most mothers were not aware of the importance of talking or singing to the unborn child- they thought that is was something that was done after the baby was born, the volunteers said that they did not talk about the health benefits of singing with pregnant women or mothers. However, they were aware of certain lullabies that different tribes sung. They added that they did sing a greeting song to the mothers arriving to clinic in the morning and during health talks. They also recounted that groups of waiting mothers would sing gospel songs while queuing for their appointment. The volunteers agreed that women enjoyed singing and using songs to create health messages would be effective tool as people do not

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easily forget a song, “it sticks in their mind.” Our analysis also captured the practice of pregnancy masking, disclosure of a pregnancy by proxy, contemplation of termination and the social stigma attached to being an unmarried, pregnant mother living at home and the subsequent ridicule by their local community. Our findings validated the need for targeted songs to provide emotional support as well aspirational messages for adolescent mothers. New song interventions that could also provide physiological support for the loss of a baby and explain the positive benefits of singing to new mothers and their unborn child. These identified priorities provided a foundational platform for a series composition workshops with SMAG teams and mothers (Table 2).

Table 2 Song/ audience prioritization

Child-focused	Mother/ Parents focused
Awareness of the danger signs in pregnancy	
Clinic attendance for a safer pregnancy and delivery	
Importance of breast feeding/ good nutrition	Family planning
Lullaby about the health and wellbeing benefits of singing lullabies	
	Bereavement support for the loss of a child

To build upon the findings surfaced by our creative workshop and ethnographic work, it was vital to test the local acceptance of our speculative approach with SMAG volunteers. A small, improvised focus group with Kayosha volunteers deepened the discussion of lullabies. While the volunteers were unfamiliar with the health benefits of singing for both baby and mother, when its value was explained, it was instantly recognised with one volunteer succinctly encapsulating the essence of the research, “music as medicine.” To test the creative capabilities of this team, we instigated an impromptu task to create a new song. While hesitant at first, with a little direction and encouragement, the volunteers composed a lyric that simply described the clinic’s activities on each day of the week. The process to create improvised song took the team no more than five minutes to create, but importantly demonstrated the creative potential and collaborative skills of the team (Table 3).

Table 3 Improvised song composed by SMAG volunteers (Kayosha)

Kayosha Health Post services
Monday; family planning Tuesday; 9 to 5 Wednesday; early booking Thursday; we visit Friday; back to clinic Saturday, off! Sunday, church

Charged with the same task, the SMAG volunteers based at the Chunga self-organised produced a highly polished song outcome with additional development time: a song that communicated the danger signs in pregnancy. Performed as the group, the song also integrated a spoken section to amplify the key messages. A notable impact from this experience was confidence building. The creative process demonstrated that collectively they had creative capacity to conceive and develop an educative song that responded to an identified need. At 04.48 minutes, the outcome highlighted the need for shorter songs that could be performed confidently by an individual where conducting outreach work.

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4. ADAPTATION

The arrival of the global Covid 19 pandemic in March 2020 necessitated the UK team to adapt its approach at a critical juncture as all international travel was prohibited. To overcome this operational challenge, the team conducted a risk assessment with a collective decision to delay our composition workshops. In October 2020, the research resumed locally with the adherence of Covid safe protocols, testing and practices. With distance support provided by the UK team, SJZ team expertly lead our two composition workshops and the planning of our pilot. The objective of our composition workshops was to:

- Introduce the aims and objectives of the LSL project.
- Introduce to workshop participants (young mothers and SMAG volunteers) the wider health and well-being benefits of singing.
- Equip SMAG volunteers with the skills and confidence to co-create songs that respond to the health needs of their communities.
- Understand how LSL could be integrated into the everyday MCH practice at clinics.
- Provide preparatory work for a two-centre pilot in Chunga and Kayosha to evaluate the potential and acceptance of LSL.

Impressively, a total of 31 songs were composed by mothers and SMAG volunteers with post-workshop support. The songs selected for the pilot was the responsibility of each SMAG team drawing upon their expert knowledge of their respective communities. While thematically the songs were grounded by a common concern, lyrical interpretation enabled teams to nuance the articulation of the health messaging to reflect their local needs, audiences and communities, and importantly, the identity of the team (Table 4).

Table 4 Rationalised/ selected song pool for the pilots

Priorities	Target Audience	Chunga Pilot	Kayosha Pilot
Danger signs in pregnancy	Pregnant women and their partners	X	
Family planning	Mother	X	X
Breastfeeding	Mothers	X	X
Male involvement	Male partners	X	
Importance of lullabies	Pregnant women and their partners	X	X
Comforting song	Pregnant women and their partners		X
Services offered by clinics	Pregnant women and their partners		X
Early ANC booking	Pregnant women and their partners		X
Rejoicing a safe birth	Mother and their partners	X	

Our planned pilots (four to six weeks) were sequentially delivered, so experiential learning could be applied to refine our approach and operational planning. Summatively, the activities of SMAG teams delivered in a clinical setting and in the community extended the reach of the LSL project to an additional 164 volunteers and 334 young mothers. The project films (commissioned and produced by Ufulu Studios) located in the Appendix contain three songs

used by SMAG teams in the pilot as well the oral testimonies of young mothers, SMAG volunteers and SJZ project co-ordinators.

The uniqueness of approach and intervention resonated internationally. In November 2022, we present our project outcomes as part of the 26th United Nations Climate Change Conference of Parties (COP 26) in Glasgow, Scotland (November 2021) to spotlight arts, culture, and heritage as methods for tackling gender and diversity in climate resilience and adaptation.

5. CONCLUSIONS

With the support of SJZ and a local researcher an end of term evaluation (ETE) of the LSL project was conducted to the intervention's relevance, efficiency, effectiveness, sustainability, and impact. Data was collected from 73 participants through field visits, semi-structured interviews, focus groups, and document analysis: involving - 31 women, 2 community representatives, 30 volunteers, 6 health facility staff, and 4 SJZ programme coordinators.

Our ETE findings identified participants acknowledged the benefits to their health and well-being. Young mothers (aged 15-25) believed their learning had transformed their relationships with their child, partner, and health services. The young women, and fathers, continue to sing to their children and the practice is shared between home, clinic, and community. At our pilot sites, song has become a culturally acceptable maternal and child health intervention promoting the role and status of SMAG volunteers to care for women and families in need of care. SJZ has reported an increased the engagement of young mothers and, importantly fathers with local antenatal services. It seems important to longitudinally track the use of song within MCH care, families, and as a culturally acceptable intervention. Economic impact is difficult to measure in the immediate or short term. However, the project did demonstrate the potential of a zero-cost service intervention. For service providers in resource-stressed setting this enables limited financial resources to be prioritised elsewhere. If integrated as a component of MCH service delivery, a cost-benefit analysis study would be beneficial to support scaling into new geographic territories. Our contribution to the gender, inclusivity and equality agenda included working with volunteers and young mothers, to give voice to them, in co-designing a novel intervention drawing on their intimate understanding of their needs and context. From the outset, our work focused on working with women, with mothers reporting increased partner involvement during pregnancy and following the birth of the child. This is significant, as a strategic objective of the Ministry of Health and SJZ is to increase father involvement in maternal and child health. The volunteers are crucial to this intervention and there is evidence of enhanced recognition of their individual and group skills, and esteem from clinicians and the local community. A positive outcome of Covid 19 was the decolonisation and decarbonisation of our study design. With restrictions on travel in place, the UK team adopted an intimacy with proximity approach which led to a positive recalibration of project leadership- supported by distance coaching. Another notable success as was the move to an online symposium event which released project funding to create impactful films for both dissemination/training purposes.

To mirror Calvino (1988) eloquent introduction to his literary memo on lightness, our strategic approach was one of subtraction. Our situated approach informed the conception of a novel service intervention that was democratised through its grassroots ownership. Lullabies as a cultural heritage tool has fallen from public consciousness. However, our



collaborative research speculates its value and potential as a zero-cost, net-zero intervention to help sustain future MCH programming in Zambia, adjacent sub-Saharan countries, and interestingly in the Global North.

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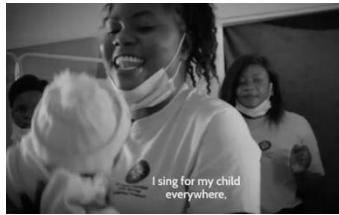
APPENDIX

Film screenshot	Title and content	Link
	Life-Saving Lullabies- An overview of the LSL project, pilot and outcomes.	URL; https://www.youtube.com/watch?v=lqJKXpTbWbM&t=18s
	A lullaby for lullabies- a film that showcases a song that communicates the health and wellbeing benefits of singing. A song conceived, composed and performed by SMAG volunteers based at Chunga.	URLs: https://www.admresearcharchive.co.uk/ref-21-archive-1/life-saving-lullabies
	Family planning song- a film that showcases a song that communicates the importance of family planning to young mothers. A song conceived, composed and performed by SMAG volunteers based at Kayosha.	

Swann, D.; Reid, J.; Doyle, B.. (2023). Life-Saving Lullabies: The conception, development and adaptation of a cultural heritage tool for good. *Strategic Design Research Journal*. Volume 15, number 02, April–June 2022. 218-231. DOI: 10.4013/sdrj.2022.152.10.



Seleka Seleka song (Rejoice)- a film that showcases a song that is sung to celebrate a safe birth at a clinic. A song conceived, composed and performed by SMAG volunteers based at Chunga.



Mwana Wanga ine (My child)- a greeting song performed by SMAG volunteers and mothers.



Peggy's story- oral testimony of a SMAG volunteer.



Angela's story- oral testimony of a project participant.



Esther's story- oral testimony of a SMAG volunteer.
