SHORT REPORT

Capture it on video: Implementing a novel knowledge translation strategy as part of the Safe Motherhood Project, Jimma Zone, Ethiopia

DOI: 10.29063/ajrh2021/v25i3s.13

Nicole Bergen^{1*}, Abebe Mamo², Sudhakar Morankar², Nicholas Castel³, Manisha A. Kulkarni⁴, Ronald Labonté⁴

Faculty of Health Sciences, University of Ottawa, Ottawa, Canada¹; Department of Health, Behavior and Society, Institute of Health, Jimma University, Jimma, Ethiopia²; Independent filmmaker, Montreal, Canada³; School of Epidemiology and Public Health, University of Ottawa, Ottawa, Canada⁴

*For Correspondence: Email: nicolejbergen@gmail.com

Abstract

This short report addresses videography as a novel knowledge translation tool in maternal, newborn and child health (MNCH) research, detailing the experiences of the Safe Motherhood Research Project in Ethiopia. The Safe Motherhood Research Project (2015-2020) studied the implementation and scale up of MNCH interventions in rural communities of Jimma Zone, Ethiopia. In 2018, a videography component was integrated into the project, including three major activities: producing a video documentary; delivering capacity building workshops for university students and staff; and donating video equipment to the Jimma University Institute of Health. These activities have increased the exposure of the research project to a broader audience and enabled university students and staff to undertake new videography projects. Challenges, lessons learned, and future opportunities are detailed in the hopes that other research teams can adopt videography to increase the exposure and impact of their research. (*Afr J Reprod Health* 2021; 25[3s]: 135-141).

Keywords: Knowledge translation, videography, research dissemination, ethiopia, maternal and child health

Résumé

Ce court rapport aborde la vidéographie comme un nouvel outil d'application des connaissances dans la recherche sur la santé des mères et des enfants (SME), détaillant les expériences du Safe Motherhood Research Project en Éthiopie. Le projet de recherche (2015-2020) a étudié la mise en œuvre et l'intensification des interventions de SME dans les communautés rurales de la zone de Jimma, en Éthiopie. En 2018, un élément vidéographie a été intégré au projet, comprenant trois activités majeures : la production d'un documentaire vidéo; organiser des ateliers de renforcement des capacités pour les étudiants et le personnel universitaires ; et en faisant don d'équipement vidéo à institut de la santé à l'Université Jimma. Ces activités ont accru l'exposition du projet de recherche à un public plus large et ont permis aux étudiants et au personnel universitaire d'entreprendre de nouveaux projets de vidéographie. Les défis, les leçons apprises et les opportunités futures sont détaillés dans l'espoir que d'autres équipes de recherche puissent utiliser la vidéographie pour augmenter la visibilité et l'impact de leur recherche. (*Afr J Reprod Health 2021; 25[3s]: 135-141*).

Mots-clés: Application des connaissances, vidéographie, diffusion de la recherche, Éthiopie, santé des mères et des enfants

Introduction

Many research studies rely on scientific publications and academic conferences as the sole media to disseminate their findings; however, the complementary use of visual media for knowledge mobilization can make research findings accessible beyond academia thereby increasing the impact and uptake of research¹. Through videography, researchers can use multidisciplinary approaches

(drawing on techniques from the social sciences, arts and other disciplines) to engage with diverse audiences across the public and policy domains, with large geographical reach. This short report describes three novel videography capacity building and knowledge translation activities that were implemented as part of the Safe Motherhood Research Project in Ethiopia. The purpose of the short report is to share our experiences integrating videography into our research project, as well as

lessons learned. Through this article, we hope to inspire other maternal, newborn and child health (MNCH) researchers to use videography to increase the reach and impact of their research.

The safe motherhood research project

Maternal mortality rates in Ethiopia are improving yet remain among the highest in the world^{2,3}. As of 2017, the World Health Organization estimates a maternal mortality ratio of 401 deaths per 100,000 live births (around 14,000 deaths per year) – almost double the global average ratio of 211 deaths per 100,000 live births⁴. Over the past 15 years, the proportion of births attended in a health facility in Ethiopia has increased substantially, from 5% in 2005 to 48% in 2019, though there remains a large difference between the proportion of facility births in rural areas (43%) and urban areas (70%)⁵. Strengthening and expanding the use of maternal health services in rural areas are priorities of the Ethiopian Federal Ministry of Health⁶.

A host of complex and dynamic factors underlie decisions about health service use by pregnant women and health outcomes of women and children in rural Ethiopia^{7,8}. Since 2015, the Safe Motherhood Research Project has worked with rural communities in Jimma Zone, Ethiopia to support the implementation and scale-up of MNCH initiatives⁹. Namely, the Safe Motherhood Project studied two interventions: upgraded maternity waiting homes (residences next to health centres where women can stay in the final weeks of their pregnancy to access care) at eight Primary Health Care Units (PHCUs) and information, education and communication (IEC) participatory workshops with health workers and community leaders in 16 PHCU catchment areas.

The findings of this research provide insight into community-level barriers and facilitators to health service use, and evidence about strategies to increase the coverage of health services 10–12. For example, through close engagement with health workers, religious leaders, politicians, community mobilizers and community members at large, the Project has identified assets that promote healthy outcomes for mothers and children, including strong social supports, dedicated health workers, and a powerful ability to

mobilize as a community. At the same time, the Project has learned about challenges that communities face in pursuing safe motherhood, which stem from inadequate infrastructure, lack of resources, financial poverty, low levels of education and gender inequities. The research findings are relevant to policymakers, health workers, community members, development workers and researchers.

The Safe Motherhood Project is a five-year (2015-2020) intervention trial based in three rural districts of Jimma Zone. It was carried out as a collaboration between researchers at the University of Ottawa (Canada), Jimma University (Ethiopia), and Jimma Zonal Health Department (Ethiopia). This project is part of the Innovating for Maternal and Child Health in Africa (IMCHA) program, funded by Global Affairs Canada (GAC), the Canadian Institutes of Health Research (CIHR) and Canada's International Development Research Centre (IDRC)¹³.

Methods

This short report was developed collaboratively with inputs from the members of the Safe Motherhood Project research team who were involved in the videography activities and the videographer. As a short report, this article is a brief description of the experiences and reflections of the co-authors, based on their personal impressions.

Videography activities

The videography component of this research study was conceptualized during a research team meeting mid-way through the research project. The Canadian and Ethiopian researchers recognized the value of video as an innovative approach to showcase the context and rollout of the study interventions to diverse audiences. The Jimmabased members of the research team also identified an opportunity to build capacity among students and staff at Jimma University for videography as a approach to knowledge translation. acknowledging that this expertise was lacking at University. Thus, the videography component encompassed three major activities: producing a video documentary and video 'teaser';

delivering capacity building workshops at Jimma University; and donating video equipment to the Jimma University Institute of Health. The planning and delivery of these three activities were co-led by one of the Project researchers (Nicole Bergen) and a Canadian independent filmmaker (Nicholas Castel), who was hired to support this initiative.

The video outputs include a 20-minute documentary and two-minute video teaser^{14,15}. These videos tell the stories of pregnant women and their families, health workers and government officials. The documentary illustrates complexities surrounding pregnancy and childbirth in rural Ethiopia. It presents the strengths and challenges that rural communities face with regards to health service use, both within the health system and in the community more broadly. The video also highlights the interventions of the Safe Motherhood Research Project and includes interviews with the Project researchers. The content for the videos was developed by the research team in partnership with the filmmaker. Footage for the videos was captured during a two-week fieldwork period in March 2019, coinciding with scheduled research activities (that is, the collection of end line data and annual National Advisory Committee [NAC] meeting). In addition to a professional camcorder, aerial footage was also taken using a drone. The post-production editing and preparation of the video outputs took place over a 3-month period, followed by dissemination activities, which are ongoing as of 2021. These products have become part of the Safe Motherhood Project knowledge translation strategy (see Reach and impact section, below).

The capacity building workshops for Jimma University students and staff were delivered over two days in February 2019, prior to the two-week fieldwork period. An invitation to participate in the workshop was distributed to students and staff in the Jimma University Institute of Health, the Institute of Technology, and the Communications Program, as well as individuals in the Jimma University Press Office, and those involved in the Safe Motherhood Research Project. All students and staff who were interested in attending the workshops were enrolled. The workshops covered the basics of videography as well as practical training and were comprised of four modules. Module 1 addressed considerations during the pre-

production phase of planning a research documentary, such as creating a documentary treatment, charting a timeline, budgeting and applying for funding, assembling a crew and gear, and anticipating/mitigating possible issues. Module 2 pertained to the production phase of documentary making. Drawing on the prior experiences of the filmmaker, participants learned about a typical day in the field, the roles of the researchers and other crew members, and how to conduct interviews on video. Module 3 was an overview of postproduction activities (including editing, translation and music/sound), as well as dissemination and marketing considerations. In Module 4, participants were given a tutorial about how to use videography equipment, and gained hands-on experience using the equipment that was later donated to Jimma University.

The third videography activity, added to promote the sustainability of the initiative, involved purchasing and subsequently donating basic videography equipment to the forthcoming audiovisual program at the Institute of Health, Jimma University. The purchased equipment was selected with input from Jimma University partners about their needs and preferences. For example, Jimma University did not have an available laptop computer with the capacity to run video editing software. Many students and staff smartphones that can take video, and thus a smartphone stabilizer devise was purchased to facilitate improved video quality. Working within budgetary constraints, the donated equipment consisted of three different 'packages' that support diverse approaches to videography using a smartphone, a traditional camcorder, and a digital single-lens reflex (DSLR) camera. The equipment was presented to the Head of the Department of Health, Behavior and Society, and the Safe Motherhood Research Project Ethiopian Principal Investigator (both at the Institute of Health, Jimma University) during a donation ceremony at the completion of the fieldwork in March 2019.

Given that these capacity building and knowledge translation activities were not included in the research project budget, the team sought additional sources of external funding. To this end, a wide range of potential funding opportunities were pursued, including recurring knowledge

dissemination grants, university scholarships, corporate sponsorship, and local non-governmental organization support, as well as the Safe Motherhood Research Project funders. In some cases, we requested in-kind support to cover costs associated with equipment, accommodation, and dissemination/marketing. For each potential supporter, we prepared a targeted application to meet their requirements and appeal to their interests. Common elements to these applications included a budget (see Box 1) and documentary treatment that outlined the content of the documentary and key considerations at the planning stage of the project.

Reach and impact

The videography project received direct funding from two sources: the IMCHA initiative, and the University of Ottawa Alex Trebek Innovation and Challenge Fund. In-kind support was received from Jimma University, who provided accommodation for the researcher and filmmaker, transportation for fieldwork and facilities for the videography workshop. The Michaëlle Jean Centre for Global and Community Engagement Office at the University of Ottawa sponsored a videography launch event, providing the venue, refreshments and publicity. This funding and support were sufficient to carry out the videography projects as planned.

The capacity building workshops at Jimma University were attended by about 40 students and staff (predominantly male) across different departments. A participatory approach was used to engage the attendees, with a focus on group work that combined theoretical information and practical experience. Attendees who completed workshops were invited to join the fieldwork crew to support the making of the documentary – an opportunity that several attendees were keen to pursue. During fieldwork, these individuals assisted with tasks such as carrying and handling equipment, taking photographs, and managing crowds of onlookers. Feedback about the workshops was positive: the information and experiences were new to most of the attendees, and they appreciated the hands-on component of the workshops. Subsequently, a shortened version of the workshop was delivered to an audience of health researchers as a skill building session at the 2020 Health Systems Global conference.

The official launch of the video documentary occurred in October 2019 at the University of Ottawa. The event was attended by more than 80 people including researchers, staff from funding organizations, nongovernmental organization representatives, students and the general public. In addition to showing the video, it included a reception, guest speakers and panel discussion with Canadian and Ethiopian researchers and the filmmaker. This event helped the project to gain visibility, receive feedback about the project activities, and forge new connections between the research team and the wider community. To date, the videography outputs (teaser and documentary) have been screened on a variety of other occasions, including the Project's NAC meeting, research conferences, fundraising events, diaspora social events. and university seminars. **Further** dissemination of documentary within the communities in Jimma Zone is planned, including a screening at Jimma University, screening with health department offices and screenings within the rural communities.

The videography equipment that was donated to Jimma University continues to be used by researchers and staff in the Institute of Health. For example, the equipment has been used as part of another research project developing radio campaigns for vaccination in Jimma Zone. The camcorder is used regularly to capture footage during meetings, field research and other occasions. Faculty members and students have identified a need for additional practical training around video editing, a topic that was covered only briefly during the capacity building workshops.

Challenges and lessons learned

An initial challenge in planning the videography activities was arriving at a common vision, particularly for the length of the documentary, and its content focus and corresponding dissemination strategy. As a research team, we discussed the pros and cons of a longer, more in-depth documentary (suitable for dedicated audiences at screening events) versus a series of shorter, punchier video

Box 1. Creating a budget for a video documentary

Budgets for videography projects can be highly variable, depending on the scale and scope of the undertaking. There are a multitude of factors to take into consideration, such as the size of the crew and their level of experience, the size of the cast (and associated costs), the desired production quality, required and available equipment, travel requirements, timelines, etc. While it is useful to develop a preliminary budget during the planning stage of a project, budgets may fluctuate as the project progresses. A budget line allowing for 'contingency' costs may be helpful to accommodate unforeseen expenses.

For the videography component of the Safe Motherhood Project, we classified budget items according to the stage of production. The major categories of costs encountered at each stage are outlined below. Note that the filmmaker hired for this work brought his own technical equipment, and that we did not provide reimbursement for the cast or crew.

- Preproduction costs: insurance, permits, overhead and administration.
- Production costs: transportation, accommodation, hard drives and memory cards, special equipment, on-set costs (e.g. refreshments), guides, translators, appreciation gifts, incidentals
- Postproduction costs: editing, music, animation, translation and transcription, dissemination e
- dissemination events, marketing

• Other: equipment to donate to Jimma University

clips with clear policy messaging (suitable for dissemination to policymakers through online channels). In making this decision we considered the timing of the video production and the progress of the research project (which had not yet developed policy implication statements). We decided to create a 20-minute documentary and two-minute teaser, therefore satisfying aspects of both competing ideas. From the inception of the project, we established where the final video products would 'live' and kept the target audience and dissemination strategy as a guiding consideration as the project progressed.

During filming, the videography crew navigated challenges related to culture, language and geography. While many of these issues were similar to those we had faced during data collection activities for the research project 16,17, they were distinct in some ways. For example, the crew relied on the help of local guides to locate the homes of families who were identified as possible candidates to be filmed for the video (it was often not possible to contact these individuals in advance). The crew sometimes travelled for several hours by foot to reach these remote, rural communities. Strong partnerships within the community setting and between the filmmaker and research team members - as well as an ability to remain flexible and adaptable to changing circumstances - were instrumental in ensuring that the fieldwork was completed successfully. Crew members with knowledge of the local culture and customs helped to establish rapport and advise on appropriate gestures of appreciation for families who were featured.

Fortunately, all the families who we approached agreed to be filmed and agreed to sign a media release form. A media release form outlines general information about the video, and authorizes the producer to record, edit and broadcast the recording. Because the video was produced as a knowledge translation tool (as opposed to a source of data for the research), participants did not need to provide informed ethical consent. Likewise, the videography activities did not require approval from an institutional ethics review board. When asking individuals to sign a media release form, we provided details about the types of information we would ask them to share and described how we anticipated the footage would be used.

The videography fieldwork activities often attracted a crowd of bystanders interested in observing the action from the sidelines. To ensure that the activities could be conducted in an efficient manner and that the individuals telling their story had the space and privacy to speak openly, we developed strategies for keeping curious bystanders at a distance while filming. These strategies included members of the crew engaging with children and others by playing games, initiating conversations and demonstrating how to take photos/videos (thereby also creating b-roll for the video). The use of the drone attracted a great deal of interest and was another way for the videography crew to engage with the community.

Conclusion and future opportunities

Overall, the videography outputs have been valuable in generating interest in the research

project, providing audiences with a richer appreciation for the environment than still photos or text. The drone footage, in particular, was uniquely able to capture the topography of the area and illustrate the reality of major transportation and access barriers to health care in these settings. The capacity building workshops and equipment donation to Jimma University has helped to ensure the sustainability of the activities and will promote the further use of videography as a knowledge translation tool in forthcoming research projects. After having delivered these activities, and as the Safe Motherhood Research Project comes to completion, we have identified some areas for further consideration and improvement. With regards to capacity building, we see potential benefits in extending and refining the training workshops to include more hands on and postproduction work. Engaging earlier with the university students and staff, and perhaps the community more broadly, may promote a more collaborative planning process with a greater sense of community ownership over the video outputs. While we did consult with partners at Jimma University in selecting equipment for donation, more in-depth discussions explaining the merits of different options, ideally with the opportunity to try them out, would have helped to ensure that the most useful gear was purchased, that the items would be continued to be used beyond the immediate activities. Finally, follow up evaluations would be useful to assess the lasting impacts of the three activities, including: changes to knowledge translation practices at Jimma University; benefits the Canadian and Ethiopian university communities and the Safe Motherhood Research Project; and benefits to the rural communities featured in the documentary.

Contribution of authors

All authors contributed to the videography activities. NB conceptualized the manuscript in consultation with AM, MS, MAK and RL, and prepared the first draft. All authors reviewed the manuscript and provided comments and additional inputs to the 'reach and impact' and 'challenges and lessons learned' sections. All authors agree on the current version of the manuscript.

Acknowledgement

This work was carried out with the aid of a grant from the Innovating for Maternal and Child Health in Africa initiative - a partnership of Global Affairs Canada (GAC), the Canadian Institutes of Health Research (CIHR) and Canada's International Development Research Centre (IDRC). It was also supported by the Alex Trebek Innovation and Challenge Fund (Michaëlle Jean Centre for Global and Community Engagement, University of Ottawa) and Jimma University. The authors would like to acknowledge the many individuals who contributed to the videography activities, especially Jimma University students and staff, and the Safe Motherhood Project Research team.

Consent for publication

The authors have read and approve the publication of the manuscript in its current form.

Competing interests

The authors declare they have no conflict of interest.

References

- Keen S and Todres L. Strategies for disseminating qualitative research findings: three exemplars. Forum Qual Soc Res. 2007;8(3).
- The World Bank. World DataBank: Ethiopia [Internet]. 2018 [cited 2018 Aug 29]. Available from: https://data.worldbank.org/country/ethiopia
- Tessema GA, Laurence CO, Melaku YA, Misganaw A, Woldie SA, Hiruye A, Amare AT, Lakew Y, Zeleke BM and Deribew A. Trends and causes of maternal mortality in Ethiopia during 1990–2013: findings from the Global Burden of Diseases study 2013. BMC Public Health [Internet]. 2017 Dec [cited 2018 Aug 29];17(1). Available from: http://bmcpublichealth.biomedcentral.com/articles/1 0.1186/s12889-017-4071-8
- 4. World Health Organization. Maternal mortality ratio
 [Internet]. The Global Health Observatory. 2021
 [cited 2021 Mar 22]. Available from:
 https://www.who.int/data/gho/data/indicators/indicator-details/GHO/maternal-mortality-ratio-(per-100-000-live-births)
- Ethiopian Public Health Institute and ICF International.
 Ethiopia Mini Demographic and Health Survey 2019: key indicators. Rockville, MD, USA:

- Ethiopian Public Health Institute, Federal Ministry of Health, ICF; 2019.
- Ethiopia Federal Ministry of Health. Health Sector Transformation Plan 2015/15-2019/20. Addis Ababa: Ethiopia Federal Ministry of Health; 2015.
- Bergen N, Abebe L, Asfaw S, Kiros G, Kulkarni MA, Mamo A, Morankar S and Labonté R. Maternity waiting areas–serving all women? Barriers and enablers of an equity-oriented maternal health intervention in Jimma Zone, Ethiopia. Glob Public Health. 2019;1–15.
- 8. Jackson R, Tesfay FH, Gebrehiwot TG and Godefay H. Factors that hinder or enable maternal health strategies to reduce delays in rural and pastoralist areas in Ethiopia. Trop Med Int Health. 2017 Feb:22(2):148–60.
- Kurji J, Kulkarni MA, Abebe L, Abera M, Morankar S, Haji Bedru KH, Bulcha G, Bergen N, Kiros G, Asefa Y, Asfaw S, Mamo A, Endale E, Thavorn K, Labonté R, Taljaard M and Kulkarni MA. Effectiveness of upgraded maternity waiting homes and local leader training in improving institutional births among women in Jimma Zone, Ethiopia: study protocol for a cluster-randomized controlled trial. Trials. 2019;20:671.
- 10. Bergen N, Mamo A, Asfaw S, Abebe L, Kurji J, Kiros G, Abera M, Duguma GB, Bedru KH, Kulkarni MA, Labonté R and Morankar S. Perceptions and experiences related to health and health inequality among rural communities in Jimma Zone, Ethiopia: a rapid qualitative assessment. Int J Equity Health. 2018 Dec;17(1).

- 11. Mamo A, Morankar S, Asfaw S, Bergen N, Kulkarni MA, Abebe L, Labonté R, Birhanu Z and Abera M. How do community health actors explain their roles? Exploring the roles of community health actors in promoting maternal health services in rural Ethiopia. BMC Health Serv Res. 2019;19:724.
- Asfaw S, Morankar S, Abera M, Mamo A, Abebe L,
 Bergen N, Kulkarni MA and Labonté R. Talking
 health: trusted health messengers and effective ways
 of delivering health messages for rural mothers in
 Southwest Ethiopia. Arch Public Health.
 2019;77(1):8.
- International Development Research Centre. Innovating for Maternal and Child Health in Africa [Internet].
 2021 [cited 2021 Mar 28]. Available from: https://www.idrc.ca/en/initiative/innovating-maternal-and-child-health-africa
- Bergen N. Journeys in Motherhood [Internet]. Nicholas Castel Multimedia; 2019. Available from: https://vimeo.com/339593490/5c699caadc
- Bergen N. The Safe Motherhood Research Project Teaser [Internet]. Nicholas Castel Multimedia; 2019. Available from: https://vimeo.com/339593490
- Bergen N. Narrative depictions of working with language interpreters in cross-language qualitative research. Int J Qual Methods. 2018 Dec;17(1):160940691881230.
- Bergen N and Labonté R. "Everything is perfect, and we have no problems": detecting and limiting social desirability bias in qualitative research. Qual Health Res. 2019;30(5):783-92.