

Community participation to improve health services for children: a methodology for a community dialogue intervention in Uganda

Wilson Winstons Muhwezi^{1,2}, Elizabeth Allen Palchik², Dorcus Henriksson Kiwanuka³, Flavia Mpanga⁴, Moses Mukundane², Annet Nanungi², Denis Bataringaya², Patrick Ssesanga², Adelaine Aryaija-Karemani²

1. Makerere University College of Health Sciences, Psychiatry.
2. Advocates Coalition for Development and Environment (ACODE), Uganda.
3. KarolinskaInstitutet Department of Public Health Sciences.
4. UNICEF Uganda.

Abstract

Background: Like other developing countries, Uganda still struggles to meaningfully reduce child mortality. A strategy of giving information to communities to spark interest in improving child survival through inducing responsibility and social sanctioning in the health workforce was postulated. By focusing on diarrhea, pneumonia and malaria, a Community and District Empowerment for Scale up (CODES) undertaking used “community dialogues” to arm communities with health system performance information. This empowered them to monitor health service provision and demand for quality child-health services.

Methods: We describe a process of community dialoguing through use of citizen report cards, short-text-messages, media and post-dialogue monitoring. Each community dialogue assembled 70-100 members including health workers and community leaders. After each community dialogue, participants implemented activities outlined in generated community contracts. Radio messages promoted demand for child-health services and elicited support to implement accepted activities.

Conclusion: The perception that community dialoguing is “a lot of talk” that never advances meaningful action was debunked since participant-initiated actions were conceived and implemented. Potential for use of electronic communication in real-time feedback and stimulating discussion proved viable. Post-dialogue monitoring captured in community contracts facilitated process evaluation and added plausibility for observed effects. Capacitated organizations during post-dialogue monitoring guaranteed sustainability.

Keywords: Community dialogues, post-dialogue monitoring, sustainability, strategy, community, child survival.

DOI: <https://dx.doi.org/10.4314/ahs.v19i1.32>

Cite as: Muhwezi WW, Palchik EA, Kiwanuka DH, Mpanga F, Mukundane M, Nanungi A, et al. Community participation to improve health services for children: a methodology for a community dialogue intervention in Uganda. *Afri Health Sci.* 2019;19(1). 1574-1581. <https://dx.doi.org/10.4314/ahs.v19i1.32>

Introduction

Community-Based Health Care (CBHC) is described in many ways but in this article, it was conceived as a strategy to operationalize and ensure effective community par-

ticipation in primary health care (PHC)^{1,2}. Ideally, CBHC epitomizes basic tenets of simplicity, affordability and relevance. It encompasses activities that community members engage in for purposes of changing their knowledge, attitudes, beliefs, skills and behaviors concerning their health^{1,3}. There is paucity of published literature on CBHC interventions from Low Income Countries (LIC) yet this strategy was endorsed by the World Health Organization (WHO) in 1978 because of its appropriateness in managing a myriad of physical, cultural and socio-economic factors that impact on health^{4,6}.

Community-based interventions which are a part of CBHC have potential to improve child health. While con-

Corresponding author:

Wilson Winstons Muhwezi,
Advocates Coalition for Development
and Environment
Plot 96, Kanjokya Street, Kamwokya
P. O. Box 29836 Kampala, UGANDA
Email: winstons.muhwezi@gmail.com

siderable strides have been made in reducing child mortality in sub-Saharan Africa (SSA), the under-five mortality due to preventable and treatable diseases remains high. Research continues to show that efforts to scale-up child survival interventions in LIC continue to be plagued by weak policy frameworks, failure to prioritize prevention interventions, shortage of essential commodities to treat and prevent common illnesses and absence of community-based health promotion^{4,7-9}.

Similar to other LIC, Uganda still struggles to reduce child mortality. Although Uganda is among the LIC that nearly achieved the MDG targets of under-five mortality and infant mortality set for 2015; the under-five mortality of about 73 per 1,000 live births remained high^{10,11}. There is no room for complacency and addressing many of the challenges in Uganda's health sector must be stepped-up. Uganda's public health especially for the rural poor remains inadequate, funding levels for the health sector remain low and there is still weak health facility management, especially at lower level health centres¹².

Already, a randomized controlled study of 50 rural communities had suggested that a relatively simple community-based intervention involving distribution of information about health facility performance and facilitation of Community Dialogues (CDs) contributed to a substantial increase in use of public health services by approximately 20 % and a reduction in child mortality to an average of 33 %¹³. Arguments for providing end-users of health-care with up-to-date information about the performance of health service providers as a cornerstone to any effective participatory demand-side intervention designed to improve service delivery have been made¹⁴. Although this trial showed that standard community-driven development had no impact, it demonstrated that the same process-based intervention in a scenario where the community was informed about functionality of public health resulted in long-term improvements in health outcomes¹⁴. Providing end-users with information about the performance of health workers at their duty-stations is believed to induce social sanctioning against those who evade their duties, which in turn triggers shame, when one tries to avoid it resulting into improved performance^{13,14}. Ultimately, improved performance, especially in health facility management, organization and customer service could

be what contributes to the improvement in health outcomes^{13,14}.

In a situation where the health sector is riddled with problems that could be alleviated with stronger management and organization, arguments in favor of interventions that focus on improving the performance of public health employees in Uganda exist. Health worker absenteeism is known to be a problem and so is abusive behavior and taking bribes¹⁵. The consequence of this is diminished enthusiasm in would-be health service users¹⁵⁻¹⁷. The hypotheses by Bjorkman and Svensson raises questions about the role of social sanctioning in community-driven health promotion, and scenarios under which the impact of sanctioning can be sustained beyond the initial intervention itself^{13,14}. Such questions inspired a multi-year, multi-actor research project titled 'Community and District Empowerment for Scale-up' (CODES), which was to improve the uptake of health services to tackle diarrhea, pneumonia, and malaria—common childhood diseases driving child mortality in Uganda^{18,19}.

The CODES project, described elsewhere^{18,19} was a five-year (2012-2016) cluster randomized controlled trial in five proof of concept districts and later on, eight intervention districts and eight control districts that combined management, diagnostic, and evaluation tools to build capacities of district managers to implement context-specific solutions, and increase community involvement in on-going assessments of quality and access barriers, and the mobilization of communities to improve community practices and care-seeking behaviors. The trial focused on health systems strengthening and community empowerment to improve effective coverage and quality of child survival interventions¹⁹. This article describes the Community Dialogue (CD) strategy that was used to empower communities during the CODES project.

Methods

The setting

The CD strategy was implemented in 13 districts of Masaka, Mukono, Buikwe, Bukomansimbi, Wakiso, Buhweju, Buvuma, Luuka, Bugiri, Apac, Masindi, Arua and Maracha. The focus of CODES project was at the district level where implementation and decision making ordinarily takes place in Uganda's decentralized system²⁰.

Criteria for selected districts were: high absolute numbers of under-five deaths, geographical location, date of establishing the districts¹⁹ and being in 'hard-to-reach' areas²¹.

Participating locales

In each participating district, ACODE first met the District Health Management Team (DHMT) to select locales to host CDs. The locales had to be parishes²² chosen by DHMTs based on having relatively poor child health indicators, distant from public health facilities and domicile to populations with health worker challenges. The CDs targeted village clusters in a parish to enable localization of discussions²². Participants included caretakers of children under-five years, Village Health Teams (VHTs), community leaders, and health workers at adjacent health facilities; district political and technical leaders. Venues for CDs like school buildings, places of worship and recreational centers had to be neutral. The criterion for choice of venue was accessibility to community residents. CDs for health workers took place at health facilities

Community mobilization

ACODE carried out community mobilization to encourage people's participation²³⁻²⁵. Roll-out of CODES demand-side activities was preceded by a national meeting of participating districts leaders; followed by district-specific sensitization meetings to highlight expected responsibilities. Once accepted, District Health Officers (DHOs) convened DHMTs, technical and political leaders, and health facility managers to plan and discuss strategies as well as communities to target. For each CD, approximately 100 participants would be mobilized from an average of five villages per parish. The turn up at each CD venue averaged 85% of mobilized participants. Mobilization was conducted jointly by ACODE, DHMT (mostly the District Health Educators [DHEs]), staff from partner district-based Civil Society Organization (CSO), community leaders and VHTs. By the end of the project, ACODE had hosted up to 151 CDs in 13 CODES project districts.

CD facilitators _selection and training

In each district, three to four facilitators seconded by district-based CSOs and recommended by the DHMT were trained for six days in the CD strategy. In keeping with strengthening the capacity of like-minded CSOs already

engaged in health-related activities, each district had eight facilitators. CD facilitators including DHEs were trained to capture information and avail it for processing and analysis using Atlas.ti. Since the facilitators were community-based; information in their possession entered into the DHMT thereby becoming an invaluable resource in transmitting community concerns to district leaders and transmitting feedback.

Community dialogue activities

Citizen report cards (CRCs): These were powerful tools through which data on health services collected at baseline was returned to end-users to guide discussions in CDs. Originally pioneered in Bangalore India; CRCs used data on health services collected at baseline to provide end-service service users with evidence of their dilemma and utilization rates²⁶⁻²⁸. CRCs developed in CODES had over 30 indicators captured on a four-page document. They were pre-tested on CODES 'target population to ensure design and presentation clarity. They contained synthesized qualitative and quantitative data from focus group discussions, household surveys, health facility assessments, and community health worker surveys. By contrast, Bjorkman and Svensson used CRCs with data specific to a single health facility and assumed that providing such data beyond the health facility lead to increase in scalability of the intervention¹³.

Community dialogues (CDs): These were forums that drew participants across the community to exchange ideas in face-to-face moderated sessions, share personal stories and experiences, express perspectives, clarify viewpoints, and develop solutions to health problems. They were informed by a postulate that prejudice and conflict gets reduced through intergroup contact²⁹. Participants in CDs held strategic conversations and shared perspectives. To avoid degenerating into purposeless conversations, each CD had one or more facilitators³⁰. A characteristic of CDs was joint problem identification and analysis leading to a preferred future^{31,32}. Each CD was participatory and empowering since it enabled community members to analyze, share and use information. Unlike debates, CDs emphasized listening to deepen understanding, development of common goals and participants expressed their views on courses of action²⁴.

Each CD lasted two days and involved health service

users and providers. Day one had a plenary session to discuss child health in the district as summarized on the CRC. Each CD had breakout sessions of: (i) caretakers of children under-five years, (ii) community leaders, (iii) health workers and (iv) VHT members. Day two was an “*interface plenary meeting*” where participants in break-out sessions came together to resolve and make actions plans. Leaders responded to participants’ concerns in interface meetings. The final CD activity was the development of community contracts detailing action steps to improve child health.

Post-CD activities

Monitoring and follow-up: District-based facilitators were tasked to work with the DHE to undertake post-dialogue monitoring in different mobilized communities that hosted CDs. They monitored implementation of action plans and paid special attention to things that participants committed to do. The oversight role of the DHE in post-dialogue monitoring ensured that the DHMT got direct feedback from the community about quality of care at health facilities.

The media: Consistent with innovation in Uganda’s Ministry of Health, CODES used Short Message Service (SMS) and radio. Health facilities in districts gave data on disease outbreaks and drug stock-outs using SMS, helping to gauge action plan implementation³³. Two SMS platforms used were m-Trac 8200, an anonymous toll-free texting hotline for people to report on the health service delivery in communities by sending compliments or complaints, and U-report, a bulk SMS platform about health issues used by dialogue participants. Similar to other developing societies, radio was the most trusted source of child survival information used^{34,35}. ACODE contracted popular radio stations covering project districts to air public health service uptake. The radio messages were on; prevention and treatment of childhood diseases, patients’ rights and responsibilities, completion of scheduled immunization and male involvement in seeking healthcare for children under 5 years. All the radio message scripts aired went through a rigorous process of development.

Ethical approval

Ethical clearance for this work was given by Uganda National Council for Science and Technology (UNCST-SS 2548). Leadership of all districts implementing the project gave their approval and a steering committee with

representation from key partners was in place to do monitoring.

Selected findings

Improved health seeking behavior in caretakers of children under-five was palpable in the intervention districts. Detailed findings have been published elsewhere³⁶. Where CDs took place, there was heightened awareness about health issues. Findings from post-dialogue monitoring showed improvement in healthcare as seen in the quotations:

“... we have been overwhelmed by the number of patients turning up at health facilities ... compared to before ... people had lost trust in the facility because of lack of information about the availability of services offered and poor working relationship with health workers ... community dialogues helped to address these issues?”
(Health worker, Maracha district).

CDs popularized health rights (Patients Charter)³³ in communities. The outcome was reports of improved quality of healthcare at facilities as illustrated in the case below:

“... when the nurses get to know that you come from a community that hosted dialogues, they attend to you very fast, carefully and with courtesy because they know that we know our health rights” (community member, in Buvuma district).

CDs promoted participatory planning, particularly for child survival at the community level. Community members, leaders and VHTs sat together in CDs to create joint action plans that specified commitments by different participants as shown below:

“... We thank ACODE for introducing this joint planning approach in our community... since the dialogue was held, stakeholders conduct joint mobilization for community meetings, community members attend and we plan together for health and other developmental issues in our community” (Local council leader, Buhweju district).

CDs also enhanced collective action for child survival. This resulted in establishment of community-initiated health outposts as a response to long distances caretakers had to travel to access health facilities as illustrated below: *“After the dialogue, our local council chairman donated his commercial house to act as a health post. His offer was accepted and now, we have an operational health outpost here in Kimi Island under the supervision of Koome HC-III. We get periodically visited by health workers ... we are negotiating with sub-county officials to post here a regular health worker...”* (Community leader, Kimi Island, Mukono district)

CDs lead to prompt responses by leaders in districts to emerging critical issues. A number of districts saw creation of new immunization and antenatal out-posts as a way of bringing health services closer to the people and equipping the mal-functional health facilities as illustrated below;

“... I don't know how much I can thank ACODE for the work they did for us ... I had struggled for long with this facility to have it resume receiving medical supplies from National Medical Stores ... since the time the community dialogue was held in this community, community members and I jointly expressed our concern in the presence of district leaders. ... after the dialogue, the matter was handled. ... as I talk now, we receive medical supplies ... I even have no space to keep them ... the community is happy about this development” (Acting In-charge, Health Centre II in Bugiri district).

Discussion

The CODES project focused on health systems and community empowerment with the aim of improving coverage and quality of child survival interventions^{18,19,37}. CODES corrected a common misperception of community dialoguing as being nothing other than “a lot of talk” that never advance meaningful action³⁵. In Community Dialogues, participants identified goals and collaboratively worked towards achieving them³⁴. Dialogue participants talked about goals, action steps and strategies and this energized rather than drained them³⁵. In ACODE CDs, communication kept flowing and actions steps were put in place as exemplified by the formation of CODES committees to drive the agreed upon action plans³⁸.

Innovations like use of CRCs were powerful in eliciting feedback from health service users. Such innovations have been used by other CSOs to dialogue with service providers for purposes of improving delivery³⁹. The CODES project combined tools designed to systematize priority setting, allocation of resources and problem solving with CDs based on CRCs and U-Reports to engage and empower communities in monitoring health service provision and to demand for quality services^{19,37}.

The CRCs were used to address critical health service themes like; access, responsiveness, quality and reliability, problems encountered by healthcare users; disclosure of health service quality standards and norms, and costs (in-

cluding hidden ones like bribes) incurred in using health services, some of which appear in other research⁴⁰. Suffice to say that CRCs in as used in this intervention provided a unique way of assessing satisfaction with health services targeting children under five years.

Although use of technology showed promise in supporting public health, past research cautions about their utility^{41,42}. In CODES demand-side component, technology use mobilized masses, captured real time data and stimulated discussion about accountability of duty bearers. Lesson learnt was that use of technology justifies the huge potential for m-health although there are risks that need to be monitored and minimized⁴¹⁻⁴³.

Suffice to say that there were several issues that became clearer as implementation of CODES run its course. What's perhaps true is that while there are reasons why some dialogue participants got more engaged in post-dialogue activities than others, dynamics that could lead health workers to alter their mode of operation and administration at their units in the post-dialogue phase may not be adequately explained by CODES alone. On health workers satisfying their clients at health facilities for instance, one wonders whether it is due to pressure from committed facility managers or fear of social sanctioning by communities^{13,14}. The model proposed by Bjorkman and Svensson for scalability using local administrative areas rather than individual health facility catchment area data was adapted and modified^{13,14}. The learning and evaluation components of the study will demonstrate whether this intervention is feasible and effective.

Implementation limitations

Though many people were reached by ACODE-CODES radio messages, logistical limitations did not allow CDs to be rolled-out in each and every parish in interventions districts. In spite of this limitation, the demand-side component was robust enough to galvanize community members to demand for effective health service delivery and accountability duty-bearers.

Conclusion

By working closely with the district teams, use of local evidence in CRCs, creative use of the radio medium and SMS technology, the CODES demand-side component

learnt to create the necessary networks critical for sustaining momentum in demand creation for child survival health services. Monitoring the reach, attendance, and activity levels of CDs participants as well as community contracts helps to facilitate process evaluation, adding contextual information and establishing a plausibility argument for observed effects, or lack thereof. To our knowledge, the described approach is among pioneer innovations to include participatory interventions both at facility and community level. It is plausible that this innovation is feasible, effective and scalable with potential to improve accountability in similar settings, for purposes of improving quality and coverage of child-care. Community members could relate to data in CRCs. To ensure sustainability of gains from the CD model, implementation with like-minded district-based CSOs was helpful. VHTs, health facility workers and DHMT members were adequately engaged in CDs.

Acknowledgements

The views expressed are not necessarily those of Bill & Melinda Gates Foundation or of UNICEF. The CODES project team at ACODE wishes to acknowledge the community dialogue participants and community dialogue facilitators. Special recognition also go to Peterson Stefan Swarting, Therese Diaz, Robert Byabashaija, Fredrick Mutebi-Golooba, Godber Tumushabe, Arthur Bainomugisha and Anthony Mbonye for support in conceptualizing the demand-side component the CODES project and revising the manuscript.

Conflict of interest

None.

References

1. Mburu F, Boerma JT. Community-based health care 10 years post Alma Ata. *Social Science & Medicine*. 1989;28(10):1005-6. PubMed.
2. World Health Organization. Declaration of Alma-Ata, 1978 World Health Organization; 1978.
3. Bee P, Bower P, Byford S, Churchill R, Calam R, Stallard P, et al. The clinical effectiveness, cost-effectiveness and acceptability of community-based interventions aimed at improving or maintaining quality of life in children of parents with serious mental illness: a systematic review. Southampton (UK); . Available from: NIHR Journals Library (Health Technology Assessment, No

188) <https://www.ncbi.nlm.nih.gov/books/NBK261590/> 2014.

4. Bhutta ZA, Darmstadt GL, Hasan BS, Haws RA. Community-based interventions for improving perinatal and neonatal health outcomes in developing countries: a review of the evidence. *Pediatrics*. 2005;115(2 Suppl):519-617. PubMed.
5. Lister-Sharp D, Chapman S, Stewart-Brown S, Sowden A. Health promoting schools and health promotion in schools: two systematic reviews. . In: Database of Abstracts of Reviews of Effects (DARE): Quality-assessed Reviews [Internet] York (UK): Centre for Reviews and Dissemination (UK); 1995- Available from: <https://www.ncbi.nlm.nih.gov/books/NBK67984/>.1999.
6. World Health Organization. What is the evidence on school health promotion in improving health or preventing disease and, specifically, what is the effectiveness of the health promoting schools approach? Copenhagen: WHO Regional Office for Europe; 2006.
7. Corsi DJ, Subramanian S. Association between coverage of maternal and child health interventions, and under-5 mortality: a repeated cross-sectional analysis of 35 sub-Saharan African countries. *Global Health Action*. 2014;7.
8. United Nations International Children's Emergency Fund. The state of the world's children 2012: children in an urban world: UNICEF; 2012.
9. Travis P, Bennett S, Haines A, Pang T, Bhutta Z, Hyder AA, et al. Overcoming health-systems constraints to achieve the Millennium Development Goals. *Lancet*. 2004;364(9437):900-6.
10. Republic of Uganda. Millennium Development Goals Report for Uganda 2015: Results, Reflections and the Way Forward Kampala: https://ug.usembassy.gov/wp-content/uploads/sites/42/2016/07/UGANDA-MDG_2015-FINAL-REPORT.pdf; 2015 [Available from: <http://health.go.ug/docs/HSQIFS.pdf>.
11. United Nations International Children's Emergency Fund. The State of the World's Children: A fair chance for every child. https://www.unicef.org/publications/files/UNICEF_SOWC_2016.pdf. (Access Date: 21st July 2018); 2016.
12. Colenbrander S, Birungi C, Mbonye AK. Consensus and contention in the priority setting process: examining the health sector in Uganda. *Health Policy and Planning*. 2014;czu030.
13. Björkman M, Svensson J. Power to the people: Ev-

- idence from a randomized experiment on community-based monitoring in Uganda. *Quarterly Journal of Economics*. 2009;124.
14. Bjorkman Nyqvist M, de Walque D, Svensson J. Information is Power: Experimental Evidence on the Long-Run Impact of Community Based Monitoring. 2014.
 15. Lutwama GW, Roos JH, Dolamo BL. Assessing the implementation of performance management of health care workers in Uganda. *BMC Health Services Research*. 2013;13(1):355.
 16. Nakyanzi JK, Kitutu FE, Oria H, Kamba PF. Expiry of medicines in supply outlets in Uganda. *Bulletin of the World Health Organization*. 2010;88(2):154-8.
 17. Uganda AG. Value for money audit report on the management of health programmes in the health sector Ministry of Health. Kampala: Government of Uganda; 2006.
 18. Katahoire AR, Henriksson DK, Ssegujja E, Waiswa P, Ayebare F, Bagenda D, et al. Improving child survival through a district management strengthening and community empowerment intervention: early implementation experiences from Uganda. *BMC Public Health*. 2015;15(1):797. PubMed.
 19. Waiswa P, O'Connell T, Bagenda D, Mullachery P, Mpanga F, Henriksson DK, et al. Community and District Empowerment for Scale-up (CODES): a complex district-level management intervention to improve child survival in Uganda: study protocol for a randomized controlled trial. *Trials*. 2016;17(1):135 PubMed.
 20. Uganda Go. Local Government Act 1997 Kampala: Government of Uganda; 1997.
 21. Uganda MoH. Annual Health Sector Performance Report Financial Year 2014/2015. Kampala: Ministry of Health; 2015.
 22. Kavuma RM. Explainer: Local government structures in Uganda: *The Guardian*; 2009 [Available from: <https://www.theguardian.com/katine/2009/dec/14/local-government-explainer>].
 23. Howard-Grabman L, Snetro G. How to mobilize communities for health and social change. 2003.
 24. Khumalo-Sakutukwa G, Morin SF, Fritz K, Charlebois ED, van Rooyen H, Chingono A, et al. Project Accept (HPTN 043): a community-based intervention to reduce HIV incidence in populations at risk for HIV in sub-Saharan Africa and Thailand. *Journal of Acquired Immune Deficiency Syndromes* (1999). 2008;49(4):422.
 25. Tedrow VA, Zelaya CE, Kennedy CE, Morin SF, Khumalo-Sakutukwa G, Sweat MD, et al. No "magic bullet": exploring community mobilization strategies used in a multi-site community based randomized controlled trial: Project Accept (HPTN 043). *AIDS and Behavior*. 2012;16(5):1217-26. PubMed
 26. Paul S. Making voice work: the report card on Bangalore's public services: World Bank Publications; 1998.
 27. Paul S. Benchmarking Urban Services: The Second Report Card from Bangalore: Public Affairs Centre; 2000.
 28. Ravindra A. An assessment of the impact of Bangalore citizen report cards on the performance of public agencies. Evaluation Capacity Development Working Paper. 2004;12.
 29. Allport GW. The nature of prejudice: Basic books; 1979.
 30. Aridi JO, Chapman SA, Wagah MA, Negin J. A comparative study of an NGO-sponsored CHW programme versus a ministry of health sponsored CHW programme in rural Kenya: a process evaluation. *Human Resources For Health*. 2014;12(1):64.
 31. Commission Lilongwe NA. Guidelines for conducting community dialogue. Lilongwe: Government of Malawi; 2007.
 32. Kaburu EW, Kaburi LW, Okero DC. Factors Influencing the Functionality of Community-Based Health Information Systems in Embakasi Sub-County, Nairobi County, Kenya.
 33. Health DoQAMo. Patients' Charter Kampala: Ministry of Health; 2009.
 34. Judd J, Frankish CJ, Moulton G. Setting standards in the evaluation of community-based health promotion programmes—a unifying approach. *Health Promotion International*. 2001;16(4):367-80.
 35. Wheatley A, Christman ST, Nicolas G. Walking the talk: reflections from a community-focused dialogue series. *Journal for Social Action in Counseling and Psychology*. 2012;4(1):1-17.
 36. Allen EP, Muhwezi WW, Kiwanuka-Henrickson D, Mbonye AK. Health facility management and access: a qualitative analysis of challenges to seeking healthcare for children under five in Uganda. *Health policy and planning*. 2017;32(7):934-42.
 37. Odaga J, Henriksson DK, Nkolo C, Tibeihaho H, Musabe R, Katusiime M, et al. Empowering districts to target priorities for improving child health service in

- Uganda using change management and rapid assessment methods. *Global Health Action*. 2016;9:30983.
38. Services DoHaH. Principles of community engagement Second Edition. USA: NIH Publication 2011. Report No.: No. 11-7782.
39. Institute ADBaADB. Improving Local Governance and Service Delivery: Citizen Report Card Learning Tool Kit. Philippines: Asian Development Bank 2007.
40. Waglé S, Singh J, Shah P. Citizen Report Card Surveys: A Note on the Concept and Methodology. The World Bank; 2004.
41. Déglise C, Suggs LS, Odermatt P. Short message service (SMS) applications for disease prevention in developing countries. *Journal of Medical Internet Research*. 2012;14(1):e3.