

Better Outcomes in Labour Difficulty

Research and design of innovative tools to reduce maternal and perinatal mortality and morbidity in low resource setting



INTRODUCTION

Purpose of BOLD

The BOLD project seeks to address weaknesses in the process of labour care and bridge the disconnect between the health systems and the communities in low resource settings. This project, funded by the Bill & Melinda Gates Foundation, seeks to achieve this goal through a two-pronged approach: (1) by developing a Simplified, Effective, Labour Monitoring-to-Action tool (SELMA) to assist healthcare providers to monitor labour and take decisive actions more efficiently; and (2) by developing innovative tools (“Passport to Safer Birth”), designed together with women, communities and healthcare providers, to promote access to respectful, quality care during childbirth.

PROJECT UPDATES

SELMA UPDATES

What is SELMA?

Labour complications are an important cause of mortality, morbidity and long-term disabilities for both mothers and babies. Given the current challenges with labour monitoring and decision-making during labour and childbirth, a Simplified, Effective, Labour Monitoring-to-Action (SELMA) tool will be developed. To do so, a prospective cohort study is being conducted in thirteen health facilities: nine in Nigeria and four in Uganda. Data from the cohort study will inform the development of prediction models to identify women at risk of adverse intrapartum outcomes throughout the course of labour. These prediction models will be used to assemble a decision-support tool that can identify the best course of action to avert poor labour outcomes.

Nigeria

Recruitment of participants continues as planned at all sites in Nigeria. We plan to stop recruitment at the end of October.

Uganda

Data collection for SELMA-Uganda is complete and the team is finishing data cleaning. The SELMA-Uganda team has put forth a great and rigorous effort during data collection – congratulations!

Brazil

In September, SELMA data collection reached more than 8,000 eligible women between Nigeria and Uganda. At the present moment we have a total of 13,304 women screened and 8,275 of those women being eligible for the study (5,153 from Uganda and 3,122 from Nigeria).

Right now, part of the Brazilian team is cleaning up the final database from Uganda and preparing to begin the preliminary analysis on this database.

The rest of the data management team is working closely with the Nigeria team in order to reduce inconsistencies and perform random cross checks.

PROJECT UPDATES

PASSPORT TO SAFER BIRTH UPDATES

What is the Passport for Safer Birth?

The Passport to Safer Birth will be an innovative set of services and tools, designed together with women, communities and healthcare providers, to promote access to and awareness of respectful, quality care during childbirth. The development of the Passport to Safer Birth will be an iterative process comprised of two activities: primary qualitative research and service design. These activities use innovative methods to explore and understand needs, expectations and preferences of women, communities and healthcare providers regarding childbirth experiences, and the provision of high quality labour monitoring and timely, safe and effective interventions during labour and childbirth.

Nigeria & Uganda

The BOLD Formative research team is working on analysis to identify the key themes on quality of care, labour monitoring and decision-making and healthcare providers' and women's needs and expectations during childbirth. These findings will be integrated with the findings from a forthcoming systematic review of intrapartum care guidelines, to identify key areas for discussion during the negotiated standards workshops in November 2015. The negotiated standards developed and agreed upon by healthcare providers, administrators and community members will then be integrated into the prototypes for the Passport to Safer Birth.

Service Design

The co-design activities and the following design week in Helsinki as well as continuing design have resulted in a selection of prototyped solutions to be tested and iterated in the next step. Key design goals, which should be achieved by the developed solutions and have been identified in the design research are a better and shared understanding of pregnancy and delivery among the couple, preparedness for decision and making and action with regards to onset of labour and delivery as well as an increased feeling of control and being cared for the time spent at the facility. Based on these three design goals, the co-design workshops were conducted and resulted in key principles to be taken into account for designing the solutions. These principles were among others: Emphasizing positive messages, focus on preparedness rather than the feeling of strength for delivery, and making the pregnancy tangible and real for the woman and her partner.

The teams developed then ideas for service solutions around three key solution domains: The Pregnancy Assistant, the

Expectation Manager and the Care Mediator.

The Pregnancy Assistant is envisioned as a type of calendar or journey system to accompany the couple throughout the pregnancy to improve and create a better communication between the future mother & father and to be prepared for delivery. The Expectation Manager is envisioned as a type of arrival card for the facility to increase the role of the support person accompanying the woman, creating better expectations towards care in order to generate more control during the birth process. The care mediator finally is envisioned as a wrist band for the woman and information guiding throughout the delivery process highlighting key information that is relevant for the midwife to know about the woman in order to foster the relationship between the woman and the midwife.

As a next step in the process, the design prototypes will be refined with the content from the negotiated standards of care workshops after which they will be tested in the BOLD communities and facilities in Uganda and Nigeria. The goal is to create ownership for these tools to be developed within the facilities and identify key mechanisms for service delivery and user engagement to ensure the tools are user centred, useful and contextually relevant. The design team awaits with great excitement the collaboration with woman and their partners, community health workers as well as facility staff in refining, finalizing and testing the design solutions.



BOLD design team from Uganda and Nigeria discussing a bed board prototype

BOLD NEWS

CO-Design Workshop Week in Helsinki

In August, the design team's local partners from Uganda and Nigeria visited Helsinki for a week of ideating and prototyping the Passport to Safer Birth solutions. The goal of the week was to create and build many ideas for solutions to be able to discuss, touch, test and get a feeling for the solutions to identify what works and what doesn't. The team used paper, carton and other low-fi prototyping material to build solutions quickly. The team was accompanied by a live sketching illustrator, a prototype builder and a midwife to create content and build the solutions on the fly. In discussions rounds and role plays, the solutions were iterated and refined.

Meet the BOLD team

Livia Ciabati

BOLD Data Manager and IT Specialist.



My name is Livia Ciabati and I am a Brazilian with BSc in Biomedical Informatics (graduated in 2012) and also a MSc (Community Health) candidate at the University of São Paulo, Brazil. Since November 2013, I have been working on BOLD as Data Manager and I.T. specialist. I am responsible for data management and data quality verification processes. I developed and audited a program that checks data patterns, analyzes all fields, finds problems and exports its files. All these data is sent to study teams in Nigeria and Uganda to help resolve inconsistencies. I am interested in the BOLD Project due to the fact I always thought that the use of computational tools could help people make their lives better and easier. In this project I am having the opportunity to do so. I have the chance to help future mothers to have a safer labour, reaching a large number of women that would not have their life touched in a different scenery, using computers and technology.

RECENT BOLD ACTIVITIES

- Publication of study protocols and commentary: 26 May 2015
- Prioritization of co-design ideas and prototypes: 29 September 2015
- Co-design workshop in Helsinki: 10-12 August 2015

UPCOMING BOLD ACTIVITIES

- Negotiated standards workshops, Nigeria: 26-30 October 2015
- Negotiated standards workshops, Uganda: 9-13 November 2015
- Passport to Safer Birth co-design and testing Uganda and Nigeria: dates to be confirmed

PUBLICATIONS

To read more about the BOLD project, please see the following study protocol publications:

- Oladapo OT, Souza JP, Bohren MA, et al (2015). WHO Better Outcomes in Labour Difficulty (BOLD) project: innovating to improve quality of care around the time of childbirth. *Reproductive Health*, 12:48. <http://www.reproductive-health-journal.com/content/12/1/48/abstract>
- Souza JP, Oladapo OT, Bohren MA, et al (2015). The development of a Simplified, Effective, Labour Monitoring-to-Action (SELMA) tool for Better Outcomes in Labour Difficulty (BOLD): study protocol. *Reproductive Health*, 12:49. <http://www.reproductive-health-journal.com/content/12/1/49/abstract>
- Bohren MA, Oladapo OT, Tunçalp Ö, et al (2015). Formative research and development of innovative tools for “Better Outcomes in Labour Difficulty” (BOLD): study protocol. *Reproductive Health*, 12:50. <http://www.reproductive-health-journal.com/content/12/1/50/abstract>

This newsletter is designed for all those involved or interested in the BOLD project. We hope that this publication will keep you up-to-date on current and upcoming activities, accomplishments by the team, and important project changes. The newsletter will be distributed bi-monthly, with the next issue scheduled for December 2015. We welcome submissions of project updates by any team member for inclusion in the newsletter. Please submit material by 25 November 2015 to Meghan Bohren (bohrenm@who.int) for the next newsletter.

Visit us on the web at www.boldinnovation.org
Thank you to all BOLD members for contributing content.

BOLD study sites:

- Maitama District Hospital, Abuja, Nigeria (Dr. Frank E. ALU, Coordinator)
- Asokoro District Hospital, Abuja, Nigeria (Dr. Amos A. ADEBAYO, Coordinator)
- Wuse II District Hospital, Abuja, Nigeria (Dr. Olubunmi Abraham ALABI, Coordinator)
- Mother and Child Hospital, Akure, Nigeria (Dr. Adesina AKINTAN, Coordinator)
- Mulago Hospital, Kampala, Uganda (Dr. Miriam Nakalembe, Coordinator)
- St. Francis Hospital Nsambya, Kampala, Uganda (Dr. Othiniel Musana, Coordinator)
- Mengo Hospital, Kampala, Uganda (Dr. Michael Bukonya, Coordinator)
- Lubaga Hospital, Kampala, Uganda (Dr. Salim Bataale, Coordinator)
- Gwarinpa General Hospital, Abuja (Dr. Halima Bello)
- Mother & Child Hospital, Ondo (Dr. Ola Okike)
- Nyanya General Hospital, Abuja (Dr. Wilfred Sanni)
- Karshi General Hospital, Abuja (Dr. Hadiza Idris)
- Kubwa General Hospital, Abuja (Dr. Lawal Oyeneyin)

Project partners

