

**SOCIAL
INNOVATION
IN HEALTH
INITIATIVE**



MY PREGNANCY HANDBOOK

CONTINENT

Africa

COUNTRY

Uganda

HEALTH FOCUS

Maternal and Child Health, Pregnancy

AREAS OF INTEREST

Maternal Health, Health Education

HEALTH SYSTEM FOCUS

Information, Health Promotion

MY PREGNANCY HANDBOOK

The handbook provides authentic, user-friendly, and trusted health information and education concerning pregnancy to mothers and the general public.

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ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal care
COVID	Coronavirus Disease
FAIMER	Foundation for Advancement of International Medicine Education and Research
HIV	Human immunodeficiency virus
ICF	International Classification of Functioning, Disability and Health
MOH	Ministry of Health
TUFH	The Network Towards Unity for Health
UBOS	Uganda Bureau of Statistics
UNDP	United Nations Development Programme
WHO	World Health Organization

1. INNOVATION PROFILE AT A GLANCE

Organisation details

Project name	My Pregnancy Handbook
Founding year	2018
Founder name	Lubega Martin
Founder nationality	Ugandan
Organizations involved	Makerere University College of Health Sciences, Department of Nursing; Uganda Bookshop
Organisational structure	For Profit
Size	5

Innovation value

Main value proposition	My Pregnancy Handbook provides authentic, user-friendly, and trusted health information and education concerning pregnancy to mothers and the general public through use of print media, technology, and various social media platforms.
Beneficiaries	Pregnant mothers, nurses/midwives, and the general public
Key components	A simple, reader-friendly pregnancy information booklet

Operational Details

Main income streams	Product sales
Cost per person served/book	UGX 25,000

Scale and Transferability

Scope of operations	Uganda
Local Engagement	Department of Nursing Makerere University College of Health Sciences; Uganda Bookshop; Clinics
Scalability	To scale the handbook, the project team plans to <ul style="list-style-type: none">• Partner with the ministry of health• Translate the book into major local languages in Uganda
Sustainability	Partnering with the Uganda Bookshop to produce and sell books and designing short video clips to disseminate the information in the books.

2. CHALLENGES

Over the previous decades, there has been a significant reduction in maternal mortality from 506 per 100,000 live births in 1995 to 360 per 100,000 live births in 2013 in Uganda (UNDP, 2015; WHO, 2014). Despite this progress, Uganda failed to achieve the Millennium Development Goal (MDG) target of 131 maternal deaths per 100,000 live births by 2015 (UNDP, 2015). Currently it is estimated that about 336 maternal deaths per 100,000 live births occur in Uganda, which is still high (UBOS and ICF, 2018). Haemorrhage, hypertension, sepsis, uterine rupture and abortion are the common causes of maternal death in Uganda (MOH, 2019, 2014).

Antenatal care (ANC) plays an important role in improving maternal and child health outcomes (Villar et al., 2001). It enables monitoring and detection of complications during pregnancy, labour, and child birth and provides mothers with an opportunity to receive appropriate information on nutrition and on danger signs during pregnancy. Mothers also access health services such as prevention and presumptive treatment of malaria in pregnancy, HIV/AIDS and STDs screening and treatment, and immunisation services (WHO, 2016). The Uganda Ministry of Health (MOH) currently recommends four ANC visits, with the first one taking place in the first trimester, the second visit occurring between weeks 20 and 28 of pregnancy, the third visit between weeks 28 and 36, and the fourth visit occurring after week 36 (MOH, 2016).

The coverage of antenatal care is high in Uganda, with around 97% of women receiving at least a single ANC visit from a skilled health provider (UBOS and ICF, 2018). However, challenges still exist in ensuring that women attend all the recommended four ANC visits. Although the proportion of women receiving the recommended four ANC visits or more

increased from 42% in 2000 to 60% in 2016, this is still low (UBOS and ICF, 2018). Studies also show that women report late for ANC and the majority receive their first ANC visit in the second trimester (Atekyereza and Mubiru, 2014; Turyasiima et al., 2014). Reporting late for ANC deprives women of a chance to receive necessary information regarding their pregnancy as around 93% of those attending ANC clinics report to have not received any information on the danger signs of pregnancy (Conrad et al., 2012). Also, according to Kabakyenga et al. (2011), almost half of the women were not aware of any danger signs during pregnancy. Women reporting late for the first ANC indicated they were neither informed on when to start ANC nor about its importance (Kisuule et al., 2013). This shows a gap in provision of health education to mothers.

Several factors are responsible for limited provision of health education to women during antenatal care visits. A study conducted in 15 health facilities in Eastern Uganda indicated a staffing gap of more than 40% (Tetui et al., 2012), which explains the limited duration of less than 15 minutes that health workers allocate for ANC visits. It should be noted that the information given to women during ANC visits determines their ability to identify danger signs during pregnancy and respond appropriately (Carroli et al., 2001).

This case study demonstrates how a health education handbook is providing reliable, simplified, and trusted information about pregnancy to mothers and the general public.

3. INNOVATION IN INTERVENTION

Martin Lubega, a nurse by profession developed a health education book about pregnancy (named *My Pregnancy Handbook*) while in his third year as a nursing student at the Department of Nursing, Makerere University College of Health Sciences. He envisioned the pregnancy handbook project to be a leading source of authentic, user-friendly, and trusted health information and education book on pregnancy to pregnant mothers and the general public.

“...as a nursing student doing my rotations at Kawempe national referral hospital where we go for our midwifery rotations, I realised mothers were not getting the basic information they deserved to get per WHO guidelines. So I thought it would be important if we designed a health education tool to provide health education concerning pregnancy to all women and the general public so that they can read”. (Martin Lubega, author of *My Pregnancy Handbook*).

During midwifery rotation at the national referral hospital in Kampala, Uganda, Martin realised that not only did nurses and midwives give insufficient health education to pregnant mothers, but also less time was allocated for health education sessions during antenatal care classes. Due to limited human resources (nurses and midwives) in Ugandan health facilities as well as a large number of mothers attending ANC clinics, there is limited time for these health workers to provide health education. The pregnancy handbook serves as an additional source of information concerning pregnancy for mothers.

3.1 THE CONTENT OF THE BOOK IS ADEQUATE FOR THE GENERAL PUBLIC

“So far no one has ever brought such a book here which can help our mothers to at least know about their pregnancy”.(Midwife, Mulago Specialized Women’s and Neonatal Hospital)

It should be noted that patient handbooks are not common in Uganda and this pregnancy handbook is the first health educational handbook about pregnancy for lay people to be published in the country. Health facilities do not have any printed health education materials given to pregnant mothers.

My Pregnancy Handbook is a 48-page, A4 portable short handbook that has been prepared to deliver authentic and basic health information concerning pregnancy to pregnant women, midwives and the general population. The book covers: preconception care as a key step to pregnancy preparedness, pregnancy and antenatal care, danger signs in pregnancy, and labour preparation. The information is adequate for mothers to learn about their pregnancy. The book is well structured to suit the demands of midwives preparing ANC classes and it is sometimes used as a teaching tool for these classes.

“When I read through it, I found it was really a detailed one which covered all the minor illnesses in pregnancy plus all the disorders during pregnancy. The mothers are happy as I have already told you before that the content which is there, is enough for me as a midwife and for the clients.” (Midwife, Mulago Specialized Women’s and Neonatal Hospital)

With a lot of myths and misconceptions about pregnancy, this book was written to provide mothers with correct information. It clearly explains what needs to be done when certain events occur to mothers during pregnancy and what some of these events mean.

“It does prepare you or gives you information in terms of when this one happens, what does it mean or what do you have to do about it or how

to deal with this? And I think we attended so much to dispel myths and misconceptions because those are the things that actually end up causing issues because people are surrounded by so much information and some of it is actually not the right information. So this was an attempt to provide information that is correct.” (Patron of *My Pregnancy Handbook*, Department of Nursing, Makerere University College of Health Sciences)

On another note, although the book provides pregnant women with adequate information concerning pregnancy, it does not discourage mothers from attending ANC services. Instead it prepares mothers with questions or queries to ask their providers during ANC.

“It gives the information and then if you need more, it will prepare you for the questions you are going to ask your provider.” (Patron of *My Pregnancy Handbook*, Department of Nursing, Makerere University College of Health Sciences)

The book was reviewed by several stakeholders who approved its content before entering into the market. Lecturers at Makerere University Department of Nursing reviewed this book from its inception up to the final product. As a result, the book includes all the World Health Organization (WHO) recommendations on ANC and Uganda Ministry of Health (MOH) guidelines on ANC. The technical working group of MOH and midwives from different health facilities in the country reviewed and approved the book to be adequate for general maternal health education.

“...he (Dr. Mugahi, MOH official) didn't request me to add anything. He wrote that the knowledge is sufficient, it is in line with what he expects from antenatal teaching. So personally based on reviewers who reviewed this book, and the way the book was written, the guidelines that I used as I was writing I believe the book covers everything.” (Martin Lubega, author of *My Pregnancy Handbook*)

3.2 SIMPLE AND READER-FRIENDLY

“It is well packaged, it is not bulky and the English he used is just the normal English. There are no medical terms which can make the patient get confused. All the words he used, any person understands them”. (Midwife, Mulago Specialized Women's and Neonatal Hospital)

The book was written in non-medical and simple English so that the content is well understood by the users. According to recent national statistics, about 74% and 67% of Ugandan men and women, respectively, are literate (UBOS, 2018) and therefore this book could be beneficial to most pregnant mothers. It's portable so it can be carried in every woman's simple hand bag and read at the comfort of their workplace, homes, or leisure parks. It was designed like a magazine making it attractive to users;

“And then the way we designed the book, we didn't make it so academic. When you look at it, it looks like a magazine though I believe we can even make it better.” (Martin Lubega, author of *My Pregnancy Handbook*)

4. IMPLEMENTATION

4.1 INNOVATION IN IMPLEMENTATION

Social media has been proven as one of the effective ways of promoting and disseminating health education and promotion information on maternal and child health (Dekker et al., 2016). The team behind the handbook utilises existing social media platforms such as WhatsApp and Facebook to market the book. The marketing agents of the project also move to different clinics which offer maternal health services in marketing the book. Three clinics in Uganda adopted the book and included it in their ANC packages.

“I am moving to facilities that offer women's health services and bringing the idea to them and if they can include this package of the book

in their packages that they offer for the pregnant women.” (Marketing agent, *My Pregnancy Handbook*).

Institutional partnerships

Uganda Bookshop was established in 1927 and is the oldest bookshop in Uganda. Its principal business is the sale of trademarked books ranging from general knowledge books on a variety of subjects, children's books, Bibles, educational books, maps, and magazines. The bookshop supports local authors and publishers and has a wide selection of books written by Ugandans. In 2019, Martin Lubega partnered with Uganda Bookshop to sell and distribute copies of *My Pregnancy Handbook* in all their outlets in the country.

The Department of Nursing under Makerere University College of Health Sciences aims at improving the health of the people of Uganda and beyond and promoting health equity by providing quality education, research, and health services. The department has supported the pregnancy handbook project by creating a platform where the project is presented to different stakeholders through conferences. The team has further partnered with various clinics and hospitals around Kampala where the book is used as the core instructional material for their antenatal classes.

4.2 BUSINESS MODEL

The pregnancy handbook project adopted a for-profit business model which involves selling books for income generation. All the project activities such as printing and marketing of the books are fully funded by income generated from sales. Each copy of *My Pregnancy Handbook* is sold at UGX 25,000 (USD 9).

5. OUTPUTS AND OUTCOMES

5.1 IMPACT ON HEALTH DELIVERY

To the mothers and general public

The book has covered a big gap that has for long existed in patient health education especially in the area of antenatal care which is very crucial towards safe motherhood. With over 300 copies in circulation since the project inception, mothers can ably access authentic health information concerning pregnancy at the comfort of their homes. This has helped many to make correct decisions on what to do and what not to do during pregnancy. The project has also emphasised the importance of mothers attending antenatal care and seeking advice from medical professionals.

“And you know during pregnancy you are not allowed to take just any medication. So the book is clear that it should not stop you from seeing your medical doctor but also it does not prescribe other things”. (Beneficiary)

During the COVID-19 lockdown, the project conducted an online antenatal care campaign dubbed “*Antenatal Ku Sunday*” which was aimed at delivering authentic health information and education to mothers during the COVID-19 pandemic. This attracted support from various individuals and organisations like SEED Global Health, Nursing Now - Uganda, and the Rotary. The campaign reached over 120 mothers and spouses in the month of November and December 2020 using zoom conferencing. Today, the team conducts physical small group sessions which encourage mothers and their spouses to read the book in groups, make sense of the content, and share real life experiences, thus fostering better understanding of the content and its implication in pregnancy.

To the midwives and midwifery students

The handbook has been adopted by three clinics—Life Link Medical Centre (Kampala City), Neogenesis Fertility Centre (Kampala City), and Good Hope Medical Services (Gulu District). Midwives are also using the handbook as an antenatal class guide since it contains almost all that is needed to guide the midwife-mother interaction. The book is also being utilised by nursing and midwifery students of the Makerere University College of Health Sciences during their rotations in health facilities.

5.2 ORGANISATIONAL MILESTONES

The pregnancy handbook project was acknowledged for its work;

- In 2019, the project was recognised as the students' project of the year by the Department of Nursing, Makerere University College of Health Sciences.
- On 28th April 2019, the author was granted a free full page in the New Vision newspaper, which is the most widely read national newspaper to write on the state of safe motherhood in Uganda. The same article was featured in the Africa Health journal: April 2019 issue.
- The project was recognised among the best students' project for health 2020 by Foundation for Advancement of International Medicine Education and Research (FAIMER) and The Network towards Unity for Health (TUFH). This came along with an award of USD 250, mentorship, and attendance at the TUFH Annual Conference 2020.
- The project was recognised among the top three innovations in the innovation for health category of the Heroes in Health Awards organised by the Ministry of Health in November 2020.

5.2 COMMUNITY AND BENEFICIARY EXPERIENCES

More than 300 copies of *My Pregnancy Handbook* were distributed in Kampala and neighbouring districts. The beneficiaries include pregnant women, midwives, and couples. The book has been able to benefit pregnant mothers in different ways.

The book does not prescribe, but it encourages pregnant mothers to seek medical attention in case of any complications.

“And you know during pregnancy you are not allowed to take just any medication. So the book is clear that it should not stop you from seeing your medical doctor but also it does not prescribe other things. It is a book that guides but not the book that treats.” (Beneficiary)

Inclusiveness, Effectiveness, and Affordability of *My Pregnancy Handbook*

1. Inclusiveness

My Pregnancy Handbook has expanded access to vital maternal health information to groups that were previously underserved. More than 300 copies have already been distributed in Kampala and neighbouring districts, reaching pregnant women, their partners, midwives, and even nursing and midwifery students. By simplifying technical information into plain, non-medical English, the handbook accommodates readers with varying literacy levels and helps to reduce inequities in health education. Plans to translate the book into local languages such as Luganda, Ateso, Acholi, Swahili, and Runyankole-Rukiga further demonstrate commitment to equity by ensuring that rural and non-English-speaking populations are not left behind. Its use in clinics and small group sessions also enhances inclusiveness by integrating

men and spouses in maternal health discussions, expanding the number of indirect beneficiaries.

2. Effectiveness

While the handbook itself does not generate quantifiable clinical outcomes such as reductions in maternal mortality, it has demonstrated effectiveness in filling a persistent gap in health education during antenatal care (ANC). Testimonials from midwives and beneficiaries highlight improved awareness of pregnancy danger signs, better preparation for ANC visits, and dispelling of myths and misconceptions. Midwives in three clinics report using it as a teaching aid, which strengthens provider-client interaction and standardises health messaging. Furthermore, the online campaign “Antenatal Ku Sunday” during COVID-19 showed adaptability and extended reach, engaging over 120 mothers and spouses virtually. However, the absence of systematic data collection on health outcomes such as changes in ANC attendance or complication recognition limits rigorous measurement of its overall effectiveness.

3. Affordability

The handbook is priced at 25,000 Ugandan Shillings (approximately USD 9), making it relatively affordable compared to the costs of repeated clinic visits or hospital admissions for preventable complications. The for-profit business model ensures that sales generate revenue for reprinting and marketing, contributing to sustainability without reliance on donor funding. At the same time, partnerships with the Uganda Bookshop and health facilities increase accessibility by reducing distribution costs. Future collaboration with the Ministry of Health could further improve affordability by enabling subsidised or free distribution in public facilities, particularly for low-income mothers.

6. SUSTAINABILITY AND SCALE UP

This pregnancy handbook project arose from an evident gap in health education given to pregnant mothers during ANC visits, as a result of limited staffing, overwhelming numbers of mothers turning up for the ANC visits, and lack of health education materials on pregnancy in Ugandan health facilities. Also, from the population or mother’s side, there was a need for health education services. Therefore the pregnancy handbook came in as a tool to provide simple and authentic health education for women. The fact that the book is highly needed and demanded contributes to its sustainability. Partnerships with different stakeholders have been envisioned to sustain the project. The partnership which was made with Uganda Bookshop guarantees continuity of the distribution and sale of the handbook.

The project team has plans for scaling up the project at the national level. This is deemed to be successful in the following ways:

6.1 PARTNERING WITH THE MINISTRY OF HEALTH TO ADOPT THE HANDBOOK

As reported by the author, Martin Lubega, more partnerships are needed especially with the Uganda Ministry of Health (MOH) to ensure sustainability and scalability of the project. When the MOH adopts the book, it will ensure that they are distributed in all its health facilities in the country, thereby benefiting more people.

“If it is adopted by the ministry, actually I don’t have to come here [hospital] but it would be the ministry to bring the books here”. (Martin Lubega, author of *My Pregnancy Handbook*)

6.2 TRANSLATING THE BOOK INTO LOCAL LANGUAGES

There is a need for the book to be translated into at least 5 major local languages in Uganda if it is to be scaled up nationally. These languages include Luganda, Ateso, Acholi, Swahili, and Runyankole-Rukiga. The project team has already identified people to translate the book, but the financial constraints are still limiting this activity.

6.3 TRANSLATING THE BOOK INTO VIDEO CLIPS

In an effort to reach a wider population, the team has taken an innovative move to design and develop short video clips of health workers disseminating the book content, chapter after chapter. These clips can then be shared on YouTube and various social media platforms. This approach shall even ease access to health education information, and clients shall be able to access it at no cost and at their own comfort and convenience any time, any day as long as they are on the Internet. Over time, this shall reduce the innovator input, yet the utilisation of the information shall increase and reach a wider population, including those that cannot purchase the books.

7. KEY LESSONS

7.1 IMPLEMENTATION LESSONS

Getting started

The pregnancy handbook project started in 2018. The idea of developing a health educational book on pregnancy arose during the nursing student's midwifery rotations at Kawempe National Referral Hospital. The large number of pregnant mothers at the public hospital coupled with limited midwives and other health services which mothers are supposed to utilise during ANC made it difficult for midwives to have enough time to provide

a whole package of health education on pregnancy to mothers.

"There is no time because there are so many patients and she has to do medical examinations, she has to do what we call health education. All of that and you can't do it for every patient one on one." (Martin Lubega, author of *My Pregnancy Handbook*)

While writing the handbook, the author made sure that WHO and MOH guidelines on ANC were incorporated. The handbook was also reviewed by lecturers at the Department of Nursing at Makerere University to ensure that all relevant information on pregnancy was included. This ensured that mothers and the general public get information on pregnancy from a credible source.

Maintaining efforts

The project was able to recruit agents to market the handbooks in health facilities and communities. As a result, it was made available to mothers and the general public for use. To ensure that more clients are reached, marketing is done through social media platforms such as Facebook and WhatsApp.

The existence of the evident health education gap has propelled this project forward. There is no information and health communication materials on pregnancy given to mothers during ANC visits. The handbook therefore came in to bridge this gap and supplement the traditional ANC visits. The book was designed as a magazine with simple English/non-medical language making it reader-friendly for pregnant mothers and the general public.

Overcoming challenges

The pregnancy handbook project, just like other projects, faced several challenges. One of the major challenges was that the handbook was not adopted by the MOH. This meant that the handbook was not allowed to be sold in public health facilities. To overcome this challenge, the handbook was reviewed and consequently approved by the MOH as

containing relevant information on pregnancy. Additionally, the project team held discussions with public hospitals about marketing the handbook. As a result, midwives in these public health facilities give mothers flyers with information about the outlets where the handbooks are sold. Other challenges faced by the project team included limited funding to support printing of more copies and translating the book into major local languages in Uganda.

Personal lessons

Lubega is a passionate nursing professional with an interest in improving and providing reliable and trusted information concerning pregnancy to mothers and the general population. It required time to widely read, collate, and simplify information on preconception care, danger signs in pregnancy, and labour preparation in a non-medical language. Collaborations with the Department of Nursing, Makerere University was important in improving the quality and content of the handbook. Dedication exhibited by the handbook's project team, responsible for design and marketing, has also contributed to its success.

7.2 KEY INSIGHTS FOR POLICYMAKERS AND IMPLEMENTERS

Enhance maternal education

The success of the pregnancy handbook underscores the importance of providing accessible, non-medical health information to pregnant women. Hence policymakers should promote similar educational resources to fill knowledge gaps and improve maternal health outcomes.

Support collaborative partnerships

Engagement with local stakeholders, such as district health teams, health facilities, and educational institutions, is vital for the

distribution and acceptance of *My Pregnancy Handbook*, and other health education materials. It is therefore very important for policymakers to foster partnerships that enhance awareness and accessibility of maternal health resources.

Health materials should be culturally adapted to broaden their reach

To maximise impact, *My Pregnancy Handbook* was developed and tailored to the local needs of the Ugandan population. This is key and all the health materials should be tailored and adapted to respective cultural contexts. Hence, policymakers should support initiatives to create diverse formats, such as videos and community sessions, for the different materials, which can engage the different local populations effectively.

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