MAY 2022

POLICY BRIEF

USING DIGITAL TOOLS TO STRENGTHEN PRE-SERVICE EDUCATION IN ETHIOPIA

Introduction

Ethiopia has made noticeable progress in maternal and reproductive health over the past decades. Still, challenges exist, and with a maternal mortality ratio of 401 in 100,000 live births (2017), Ethiopia remains among the 30 countries with the highest maternal mortality[1].

Ethiopia's most significant drivers of maternal mortality and morbidity are obstetric haemorrhage, hypertension during pregnancy, sepsis, unsafe abortion, and prolonged/obstructed labour. These could be averted through quality health services during pregnancy, skilled delivery at birth, and the provision of quality comprehensive emergency obstetric care by skilled providers. To address this challenge, the Government of Ethiopia invested in expanding health science education over the past decades and the number of teaching institutions providing midwifery training grew rapidly from 23 in 2009 to 49 in 2015/2016[2].

In 2021 there were 52 midwifery teaching institutions in Ethiopia. 75% of the institutions are Universities that offer midwifery in the degree programme (4 years), and nearly 25% offer diploma programmes (3 years). Increasing the number of teaching institutions remains insufficient if the quality of education is not adequate. Research into providers' knowledge and skills highlights that poor provider competency is a key barrier to improved quality of care.

1: Maternal mortality ratio (per 100 000 live births) (who.int)
2: National Human Resource for Health Strategy of Ethiopia (usaid.gov)

Summary of recommendations

Supporting Standardisation

The Ministry of Health and the Ministry of Education regularly update the midwifery curricula, ensuring their alignment with updated clinical guidelines and best practices. The Safe Delivery App Ethiopia version's content is aligned with the national guidelines. Integrating the Safe Delivery App into the midwifery curricula will ensure that all midwifery students have access to standardised information.

Strengthening skills teaching and self-directed learning

Clinical simulation drills are an essential step in building midwifery competencies. To close the gap in access to clinical skills practice, the universities lacking simulation equipment should be equipped with such. Maternity Foundation has developed a catalogue of simulation drills which can be added to a national catalogue providing access to standardised simulation exercises.

Collaboration, learning and research

The efforts required to enhance the quality of midwifery education in Ethiopia calls for broad engagement of stakeholders. The collective experience, research, insights and lessons learned of all stakeholders and a focus on research and learning as we advance are crucial to ensure that policies are fit for purpose.

An EmONC assessment conducted in Ethiopia in 2016 identified that gaps in knowledge and skill to respond to obstetric and neonatal health emergencies among midwives were a major contributing factor to maternal mortality[3]. Other studies have identified knowledge and skills gaps among graduating midwives and point to a need to improve the quality of midwifery education[4,5]. A recent study of clinical teaching practice conducted with 424 midwifery educators from 30 public education institutions offering midwifery degrees in Ethiopia found that less than half the educators had effective clinical teaching practices[6]. Among the reasons identified for the lack of effective clinical teaching practice were overcrowded clinical teaching sites and inadequate resources for clinical teaching.

The *National Human Resources for Health Strategic Plan for Ethiopia 2016-2025,* published by the Ministry of Health, describes how the rapid expansion of teaching institutions combined with insufficient capacity to conduct quality audits of all institutions and limited ability to implement reaccreditations of institutions has led to non-compliance and inadequate quality auditing.

Certification programmes and licensing can play an essential role in ensuring the competency of health graduates. For Technical and Vocational Education and Training (TVET) level training, the National Qualifying Examination is used for licensing and for midwifery, the Ministry of Health developed a National Licensing Examination. This exam was administered it to 10,000 graduates in 2015/16; since then, it has been a requirement that bachelor's degree students take the national certificate of competency (CoC) exam and achieve a passing score before graduating from university.

There is a need to further improve and standardise midwifery education across Ethiopia's 52 midwifery teaching institutions. The Ministry of Health and Higher Education's Relevant and Quality Agency (HERQA) lead these initiatives, but other organisations and associations may play an important role in supporting this work. Maternity Foundation has collaborated closely with the Ministry of Health over the past 10 years to provide in-service training to midwives and other skilled birth attendants. After learning about the gaps in pre-service midwifery education, Maternity Foundation explored ways to support quality improvement and standardisation initiatives.

The Safe Delivery App (the App), a digital health tool developed by Maternity Foundation, the University of Copenhagen, and the University of Southern Denmark is well placed to support the standardisation of teaching on the most common obstetric complications. The App's content is aligned with the national guidelines and is already in use by thousands of midwives across Ethiopia. Introducing the Safe Delivery App to students during their midwifery degree serves as both a learning aid and revision tool, either guided or self-directed during their degree . It also ensures that the midwives are familiar with the Safe Delivery App and can use it as a reference tool on the job when they progress into working life and as a tool for continued professional development through the self-directed MyLearning platform. The Safe Delivery App offers an alternative way to engage the student in the taught content for the instructors and professors, re-enforcing their teaching. This pilot project implemented in four universities explored the feasibility of introducing the Safe Delivery App to graduating class midwifery students.

Maternity Foundation's experience introducing the Safe Delivery App to pre-service students

Maternity Foundation first invited instructors from 19 midwifery teaching institutions to an introductory workshop in Addis Ababa in 2018. The objective of this workshop was to develop a framework for integrating the Safe Delivery App with the midwifery curriculum. More than 40 instructors participated in the 4-day workshop.

The workshop included an introduction to Maternity Foundation, a thorough introduction to the Safe Delivery App and all its features and functionalities, and support to install the App. Next, the participants were divided into groups to familiarise themselves with the App's content. Facilitators from Maternity Foundation were present to clarify doubts and provide guidance where needed. On the second day, an interactive presentation on integrating the App with teaching methods took place. The participants discussed how the App could be integrated into the national midwifery curricula in groups. The 2015 National Harmonized Bachelor of Science (BSC) curriculum was used for the degree program curriculum, whilst the 2016 TVET curriculum was used for the diploma program. The groups presented back to the large group, and a facilitated discussion ensured alignment across groups.

3:Healthcare workers' clinical knowledge on maternal and newborn care in Ethiopia: findings from 2016 national EmONC assessment | BMC Health Services Research | Full Text (biomedcentral.com)
4: How well does pre-service education prepare midwives for practice: competence assessment of midwifery students at the point of graduation in Ethiopia | BMC Medical Education | Full Text (biomedcentral.com)
5: Predictors of competency on delivery care service among final year undergraduate midwifery students in higher education institutions of Ethiopia, 2019: A cross sectional study - ScienceDirect
6: AMEP_A_300049 421..429 (dovepress.com)

On day 3, further discussions about the integration took place, and participants developed the final integration proposals for both the diploma and degree program. The participants also developed action plans to roll out the App in their institutions and integrate it into their teaching courses. Maternity Foundation conducted a survey to identify five institutions for the next project phase, including introduction sessions at the universities and further support to integrate the App into the relevant curricula.

In 2019 the instructors at the five selected institutions introduced the Safe Delivery App to 2nd, 3rd, and 4th year students. Maternity Foundation staff helped the students to download the App or install it using an APK file shared via Bluetooth. A detailed walk-through of the App and its features followed, and the students got started on MyLearning.

During the period following the App introductions, Maternity Foundation faced significant challenges in tracing how the App was integrated and used by the university instructors despite discussing and agreeing on reporting procedures before roll-out. The project relied too heavily on the motivation of the individual instructor, and Maternity Foundation found that it was necessary to explore other approaches.

The COVID-19 pandemic resulted in home-based teaching for most of 2020 and a significant part of 2021. In the 2nd half of 2021, Maternity Foundation reignited the pre-service engagements and partnerships with the university of Bahir Dar and Debrebirhan and established new partnerships with Metu and Wollega University. Maternity Foundation staff visited the universities to facilitate workshops to introduce the Safe Delivery App to instructors and discuss curricula integration, focusing on skills and demonstration sessions.

Subsequently, Maternity Foundation conducted introductory sessions with the 4th year graduating class students in the four universities. The graduating class students were selected because 4th-year students cover management of all obstetric emergencies in their final year, allowing full utilisation of the Safe Delivery App content. Before the App introduction, knowledge and skills assessments in selected clinical topics were conducted with all graduating class students; these assessments were repeated four months later.

The introductory session took 1-1.5 hours and included support to download the App via Google Play Store or APK distribution through Bluetooth, as well as a thorough App introduction. The students were encouraged to use the App during the remaining part of their studies and also use it as a reference tool during their clinical placement.

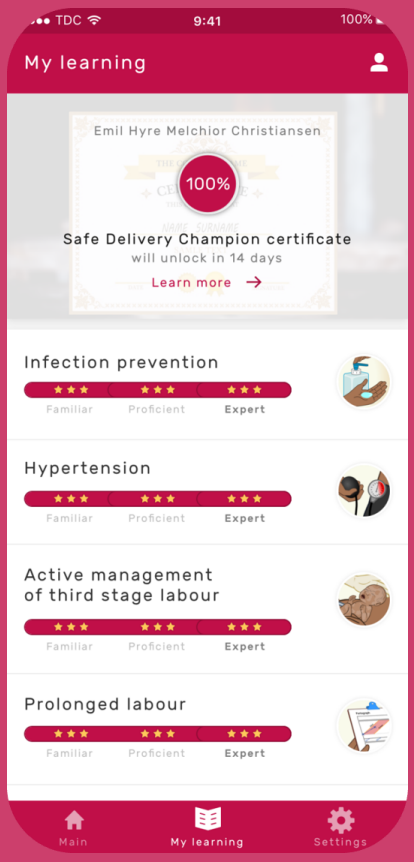
THE SAFE DELIVERY APP **MYLEARNING**

The Safe Delivery App (SDA) contains information on the latest WHO and national clinical guidelines on Basic Emergency Obstetrics and Newborn Care (BEmONC). The App includes animated clinical instruction films and reference materials.

MyLearning is a self-directed learning universe in the App where users can test their knowledge in the clinical content of the App. For each clinical content a three-staged test will take the learners through the levels familiar, proficient and expert. MyLearning is easy to integrate into the mentoring approach specific knowledge gaps can be addressed through targeted review and quizzing using the Safe Delivery App modules and MyLearning sections.

Safe Delivery Champion: Upon achieving expert level in all clinical modules the case-based certification exam is unlocked. If the learner achieves the passing grade, she/he will receive the Safe Delivery Champion certificate.

Accreditation and recognition: becoming a Safe Delivery Champion requires a substantial effort by the learner as the learner must pass the three levels in each module before the case-based certification exam is unlocked. The effort made by midwives to maintain critical clinical knowledge is recognized by midwifery associations and other accreditation institutes in some partner countries. For example, in Namibia, the Safe Delivery Champion certificate is shared with the midwifery association when a learner achieves the certification. The flexibility of the Safe Delivery App allows for custom certificate to be developed and shared with the relevant stakeholders upon completion. Maternity Foundation can also provide access to a tracking dashboard where users' progress towards certification can be monitored.



In Ethiopia Maternity Foundation is working with the Ethiopian Midwife Association to accredit Safe Delivery Champions with Continuous Professional Development points. Similar work is underway in India and is already established in Cambodia.

How did students engage with the App?

Tracking App usage allows for understanding of how the students have engaged with the App after the introductory training. When users sign up to use the Safe Delivery App and agree to the terms and conditions, they allow for usage tracking for analysis purposes. The data is completely anonymised and always analysed at the aggregated level.

By looking at the App users with geolocation enabled, Maternity Foundation can zoom in on 39 users in the areas of the four universities who have responded in their App profile that they are either students *or* working at the nursing college. The following section will explore the user patterns of these 39 users. The available information is limited to users who have been online and had geolocation enabled. The data is indicative of the students' usage but not complete.

The usage data points to a considerable variation in App usage. The least active user has only had two content sessions, and the most engaged user has had 261 sessions from October 2021 to February 2022. Table 1 suggests that students at Metu University have been most active on the Safe Delivery App, with an average of 45 usage sessions per student compared to almost 37 for the students at Bahir Dar University and 16 for the learners around Wollega University.

The App data indicates which modules and features in the App the students find most interesting. As Table 2 illustrates, the module Infection Prevention was accessed by 30 of the 39 users, followed by hypertension and post abortion care. Videos, either in the full version or chapters, are the most used feature followed by Action Cards (Table 3). We explore how many sessions have been spent in the different modules and calculate the average number of sessions per user in each module. A higher number of sessions suggest that the module is particularly interesting for the students. For example, active management of third stage of labour (AMTSL) has been visited 164 times by 24 different students (Table 2).

Another important feature of the Safe Delivery App is the MyLearning platform which consists of quizzes in each clinical module at three levels of difficulty: familiar, proficient, and expert. Upon completing the three levels in each clinical module, the Safe Delivery Champion Certificate test is unlocked. The Champion Certificate test is case-based and consists of 51 questions covering all the clinical topics in the App.

35 out of the 39 students have visited the MyLearning section of the Safe Delivery App, but only eight have attempted to complete a test in MyLearning across the different module tests presented in table 4.

Table 1: Average number of sessions by university of students

University	Average # of Sessions
Metu University	45.2
Bahir Dar University	36.9
Debrebirhan University	20.3
Wollega University	16.2
Grand Total	36.5

Table 2: Module usage

Name of Module	# Users who accessed module	# of sessions spent in module	Average # sessions pr user
Infection Prevention	30	90	3.0
Post Abortion Care	28	94	3.4
Hypertension	27	126	4.7
Post-Partum Haemorrhage	25	91	3.6
Active Management of Third Stage Labour	24	164	6.8
COVID-19	22	63	2.9
Manual Removal of Placenta	18	40	2.2
Newborn Management	16	40	2.5
Prolonged Labour	16	64	4.0
Female Genital Mutilation	15	29	1.9
Maternal Sepsis	15	31	2.1
Neonatal Resuscitation	14	53	3.8
Low Birth Weight	13	38	2.9
Normal Labour and Birth	6	38	6.3

Table 3: Number of Users and Sessions by Feature

Feature Usage in Modules	# Users	# Sessions
Video Full	29	261
Video Chapter	33	186
Action Cards	29	160
Practical Procedures	26	85
Drug list	15	65

Table 4: Number of users who have attempted test in MyLearning sections

Module test in MyLearning	Nr. Users who have attempted
Hypertension	6
Infection Prevention	6
Active Management of Third Stage Labour	5
Newborn Management	5
Post Abortion Care	5
Post-Partum Haemorrhage	6
COVID-19	4
Normal Labour and Birth	3
Prolonged Labour	4
Maternal Sepsis	3

How can using the App contribute to improving knowledge and skills?

Maternity Foundation staff conducted a series of assessments with the graduating class before introducing the Safe Delivery App to the students and re-assessed them four months later. The results from the baseline were presented to the instructors at the respective universities as part of the project. During the last period of year four, students in their final year are preparing for facility placement and revisit all the core content of the midwifery training prior to receiving their placement. Therefore, their knowledge and skills level was expected to be relatively high at baseline.

It was also expected that knowledge and skills would increase from the pre-assessment to the post-assessment as they review the curricula and get practical experience from the facility placement experience.

Instructors from each university were interviewed to explore possible reasons for any changes observed in the assessment results. This section presents the findings from the knowledge and skills assessments and the insights from the interviews with instructors.

A total of 131 graduating class students from the four universities participated in the pre-assessment. The post-assessment was conducted at three universities. The knowledge assessment incorporated 48 questions, including all the BEmONC signal functions, female genital mutilation, and questions about the students' knowledge and utilisation of the Safe Delivery App. Objective Structured Clinical Exam (OSCE) assessments were conducted covering active management of third stage labour, hypertension management, neonatal resuscitation, essential newborn care , post-partum haemorrhage, prolonged labour, vacuum extraction, and partograph.

Across the three universities, increased knowledge was observed from the pre– to the post-test (Figure 1). A small increase was observed at Bahir Dar, where the students achieved a score of 63% correct at the pre-assessment and 68% correct at the post-assessment. For Metu and Wollega Universities, a score of 42% was observed at pre-assessment and a higher increase from pre- to post-assessment.

Even higher increases were observed in skills across the three universities (Figure 2). Again, students at Metu and Wollega scored lower than Bahir Dar at the pre-assessment but higher than Bahir Dar at the post-assessment. Figure 3 below presents the detailed results for three of the seven skills assessed. Students at Bahir Dar scored above average in the pre-assessments of hypertension, contributing to the relatively high pre-assessment average. For other skills, such as neonatal resuscitation and post-partum haemorrhage, Bahir Dar students' skills were more similar to that of Metu and Wollega Universities at pre-assessment.

Figure 1: Average knowledge score pre- and post-assessment, all topics

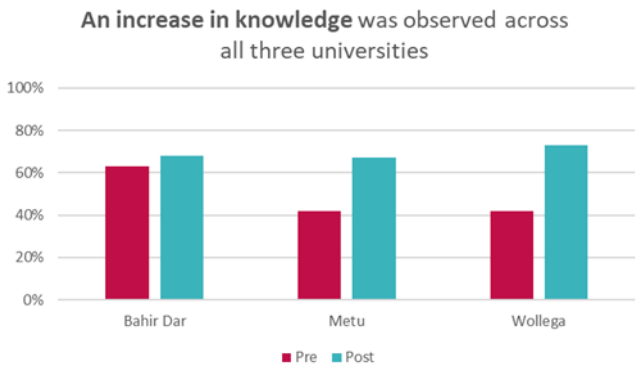
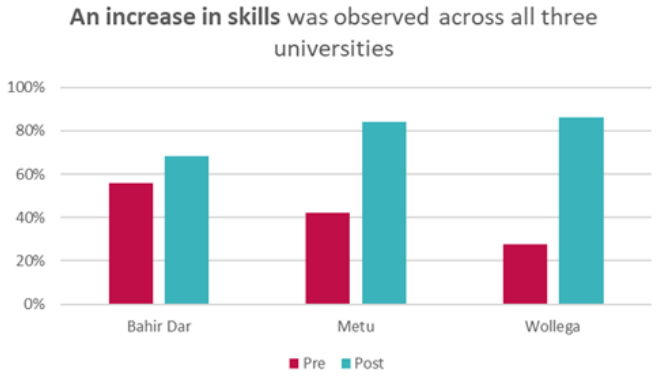


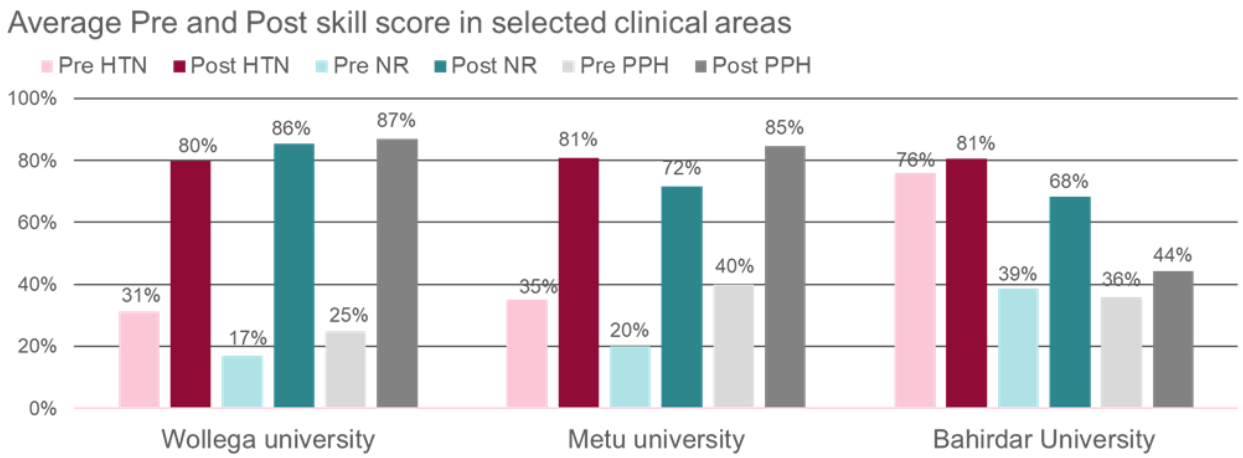
Figure 2: Average skills score pre- and post-assessment, all topics



The detailed results were shared with each of the participating universities.

The interviews help shed light on the underlying drivers of this change in knowledge and skills levels from pre- to post-assessment. To explain the improvement in knowledge and skills observed, the instructors point to the various teaching techniques deployed in the midwifery teaching and the clinical internship that the students conduct as part of their final year. They also mention that the Safe Delivery App is a helpful add-on to the materials provided during university because it is a tool that the students can bring with them into the internship and use to improve their knowledge and skills by using the clinical practice cards and watching videos.

Figure 3: Skills score pre- and post-assessment, hypertension (HTN), neonatal resuscitation (NR) and postpartum hemorrhage



"The students perceived the App as beneficial in the clinical setting only, like hospital/Health center, but the application is suitable anywhere whether they work at higher institutions or universities. After the introduction of SDA content and how they can use the SDA, the students were very motivated to use the safe delivery application even during the internship they were using the App by their own initiative."
IDI, University 2

The interviewee from one university explained that the low pre-assessment skills and knowledge results shocked the instructors and prompted a revision of how the students are taught and assessed at the university. The revision led to more practical teaching in the skills lab to boost the students' skills.

"….So, we made a radical change and as a result each instructor developed check list that resembles MF [Maternity Foundation] procedures for both knowledge and skill based on national BEmONC guidelines and conducted assessment before the third-year students went to internship. It was a really eye-opening experience for us, we did not even know that our students were below the standard. When we discussed with the students, they mentioned that they weren't using the skill lab as they need and there are procedures they don't even know, and we discussed that they lack life-saving procedures. So, for third year students we train them for a week in the skill lab in case they forgot or missed procedures then we conducted the assessment before they went to internship. Maternity [Foundation] 's involvement/pre-service project helped us to work on our weakness and improve the teaching-learning process." IDI, University 1

Another interviewee also explains that the evaluation conducted by Maternity Foundation and the low performance of the students resulted in reviewing and adjusting the teaching and learning process.

"After evaluating the teaching and learning process we improve the process based on the evaluation, for example when they went for clinical internship the instructors visit every other week but now the instructors stay there for the full time. But the SDA [The App] was effectively very helpful. I was taking feedback from the students, and they mentioned it [the SDA] helped them to evaluate themselves...the SDA was easy to use; it has knowledge and skill, but mainly focused on clinical part, so it was helpful. I compared the past two years' results, last year and this year's graduated students' COC result. Last year 52% passed, but this year 80% of our students passed the COC exam, so one of the reasons for improved result is the SDA."
IDI University 3

Clinical simulation exercises and repeated practice are essential to ensure skills acquisition among midwifery students. Clinical simulations mimic aspects of real-life situations requiring clinical care and offer students and practitioners an opportunity to practice skills and clinical decision-making in a safe environment[7]. Simulation exercises and practical drills have been gaining increased traction because of the learning advantages of the didactic approach.

The benefits of simulation exercises include improved practical skills compared to passive learning, improvements in knowledge and a higher ability to transfer skills to clinical situations. As explained by Lendahls & Oscarsson:
"Simulation- and skills training support the development of midwifery skills. It creates links between theory and practice, which facilitates students' learning ability. Training needs to include reflections and critical thinking to develop their learning. The lecturer has an important role in encouraging reflection time and creating a safe environment during the skills and simulation training."[8]

Furthermore, simulation exercises allow midwives to practise their communications skills, which is a critical component of Quality of Care identified in the WHO Quality Care Framework for maternal and newborn health[9]. JHPIEGO has identified a set of techniques that are likely to lead to better learning outcomes, including *"interactive, practice-heavy techniques, such as clinical simulation, case-based learning, hands-on practice with anatomic models, and immediate feedback on performance."* Repeated practice and workplace learning are also likely to be superior for skills acquisition[10]. Maternity Foundation has also developed a series of reflective training exercises that can be used to support the teaching of specific skills and behaviours. Additionally, a catalogue of objective structured clinical examinations covering all the BEmONC signal functions has been developed, tested, and repeatedly applied by Maternity Foundation staff in projects across Ethiopia. The training exercises, as well as OSCE assessments, support the development of critical midwifery skills.

7: Cook, D. A., Hatala, R., Brydges, R., Zendejas, B., Szostek, J. H., Wang, A. T., Erwin, P. J., & Hamstra, S. J. (2011). Technology-Enhanced Simulation for Health Professions Education: A Systematic Review and Meta-analysis. JAMA, 306(9), 978–988. https://doi.org/10.1001/jama.2011.1234,
8: Lendahls, L., & Oscarsson, M. G. (2017). Midwifery students' experiences of simulation- and skills training. Nurse Education Today, 50, 12–16. https://doi.org/10.1016/j.nedt.2016.12.005,
9: Tunçalp, Ö., Were, W. M., MacLennan, C., Oladapo, O. T., Gülmezoglu, A. M., Bahl, R., Daelmans, B., Mathai, M., Say, L., Kristensen, F., Temmerman, M., & Bustreo, F. (2015). Quality of care for pregnant women and newborns—The WHO vision. BJOG: An International Journal of Obstetrics & Gynaecology, 122(8), 1045–1049. https://doi.org/10.1111/1471-0528.13451,
10: https://hms.jhpiego.org/wp-content/uploads/2016/08/LDHF_briefer.pdf

The Safe Delivery App is regularly integrated into skills demonstration and practice. It allows learners to look up the critical steps of procedures before practising on the mannequins. The feedback was generally positive when we asked instructors whether they found it feasible to integrate the App into midwifery education. The App has been integrated in various ways: from detailed integration into every relevant module to a lighter integration into some modules or a general App introduction to the students with limited instructor-led introduction and usage.

The interviewees all agree that the App is an excellent complementary tool to the lectures and exercises conducted during class and caters to students' different learning preferences. As one instructor explains:

"A student might not catch all the points from the lecture, but the Safe Delivery App integrates different teaching methodologies in one. For example, one can find it easier to see the procedure video rather than reading notes and the other might prefer to read clinical procedure checklists, so the SDA incorporate different methodology in one, so it's very useful." IDI, University 1

However, it was pointed out that the use of the App varies from instructor to instructor, and generally, it would be beneficial to standardise the App curricula integration further. It was mentioned that a formal integration could also be challenging since the midwifery curriculum is regularly updated, and it would therefore require a revision of the integration every time.

"We integrated the SDA on the finalised 2016 module, and it was approved by academic committee, the integrated module is helpful for graduating class students and this year third year students. One challenge to mention here is the module keep changing, it was changed in 2018 and then in 2021 so we are working on integrating SDA to the revised module." IDI, University 2

Generally, interviewees recommended integrating the Safe Delivery App by content into the relevant modules from the 2nd year onwards. The relevance of the App during the last period of university and as a supportive tool in the transition from university to internships was highlighted:

"On fourth year they already finished all modules, so they will be in internship. By then they can use the App…. As you know there is no library at primary hospitals so the SDA will serve as a quick reference for them to manage cases. In my opinion if the SDA is integrated to each module, it will help them to be familiar with it and they can use the App to refer during the internship." IDI , University 1

Recommendations

Great advances have been made in midwifery education in Ethiopia over the past decade, but some challenges remain. The rapid growth in the number of teaching institutions paired with insufficient capacity to conduct quality assurance by the Higher Education's Relevant and Quality Agency has led to variations in education quality. Challenges identified include overcrowded clinical teaching sites and inadequate resources, such as mannikins for clinical simulation exercises and drills and variations in the implementation of the national curricula.

Supporting Standardisation

The Ministry of Health and the Ministry of Education regularly update the midwifery curricula, ensuring their alignment with updated clinical guidelines and best practices. The Safe Delivery App Ethiopia version's content is aligned with the national guidelines, and the launch of new content is approved by the Ministry of Health. Integrating the Safe Delivery App into the midwifery curricula will ensure that all midwifery students have access to standardised information delivered consistently, overcoming potential inconsistencies in teaching approaches across institutions.

Strengthening skills teaching and self-directed learning

Clinical simulation drills are an essential step in building midwifery competencies. To close the gap in access to clinical skills practice, the universities lacking simulation equipment should be equipped with such. Developing a catalogue of simulation exercises will help ensure consistency across teaching institutions and support instructors in leading clinical simulation activities. Maternity Foundation has developed a catalogue of simulation drills which can be added to a national catalogue. The Safe Delivery App can also be deployed by teachers as a supportive teaching methodology during skills practice, or used by the students for self-directed learning at their own pace.

Collaboration, learning and research

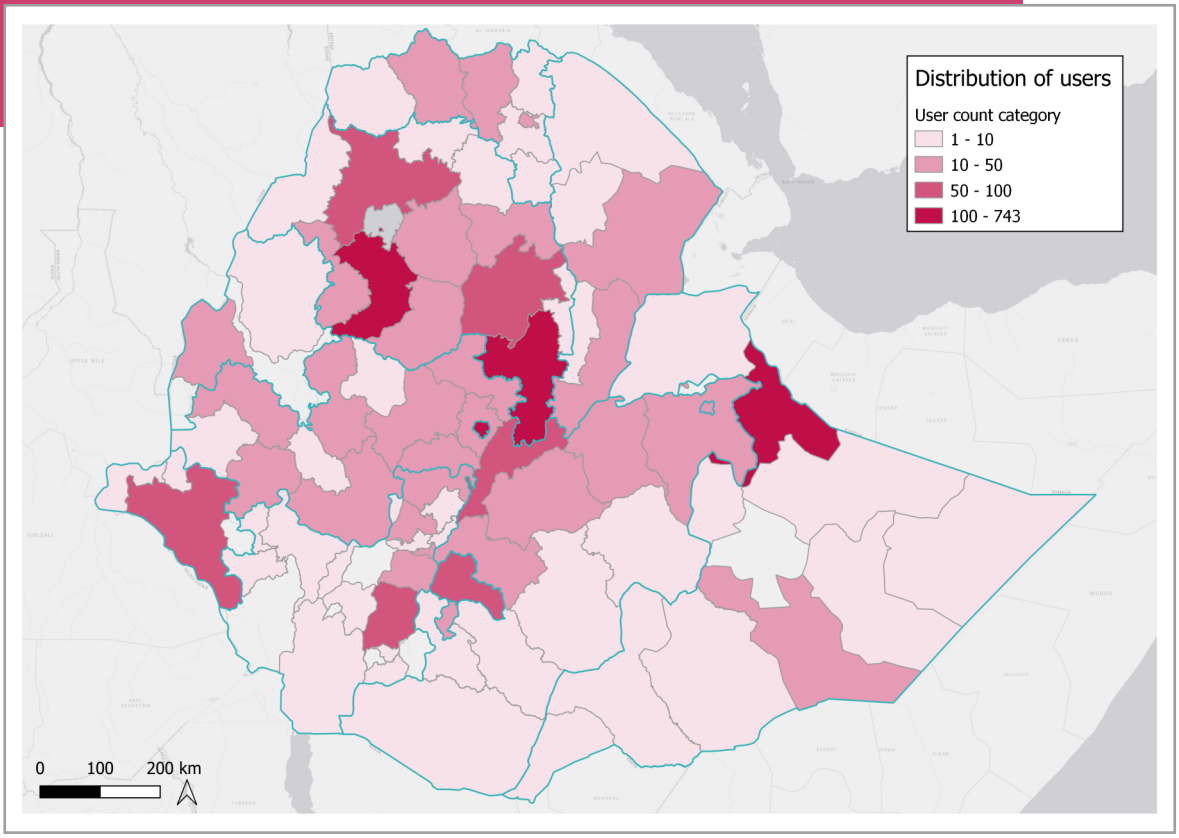
The efforts required to enhance the quality of midwifery education in Ethiopia calls for broad engagement of stakeholders from the Ministry of Health and the Ministry of Education, the midwifery teaching institutions, the Ethiopian Midwifery Association and other organisations with relevant expertise. The collective experience, research, insights and lessons learned of all stakeholders and a focus on research and learning as we advance are crucial to ensure that policies are fit for purpose. Maternity Foundation has a long history of conducting research on midwifery related issues in Ethiopia and will support future research where possible and contribute to a solid foundation for future initiatives.

7: Cook, D. A., Hatala, R., Brydges, R., Zendejas, B., Szostek, J. H., Wang, A. T., Erwin, P. J., & Hamstra, S. J. (2011). Technology-Enhanced Simulation for Health Professions Education: A Systematic Review and Meta-analysis. JAMA, 306(9), 978–988. https://doi.org/10.1001/jama.2011.1234
8: Lendahls, L., & Oscarsson, M. G. (2017). Midwifery students' experiences of simulation- and skills training. Nurse Education Today, 50, 12–16. https://doi.org/10.1016/j.nedt.2016.12.005

Safe Delivery App Usage in Ethiopia

The Safe Delivery App has been downloaded more than 4,000 times in Ethiopia and Maternity Foundation staff has distributed the SDA via APK files to more than 3,000 tablets and mobile phones.

Many users only use the SDA offline; around 4,600 have been online as of Oct 2021. Of these, some have enabled GPS tracking. The map below illustrates the distribution of online users who allowed GPS tracking 2019-Oct 2021.



The map illustrates users from 2019-Oct 15 2021 who have allowed the SDA to capture GPS coordinates.

CONTACT DETAILS

Hiwot Wubshet,

Country Director, Maternity Foundation Ethiopia

Gerji Emperial, Alfoz Plaza, 6th floor office no. 602 B

PO Box-8344, Addis Ababa, Ethiopia

Email: hwubshet@maternity.dk