Portable Mobile Learning System

A Rural Training Solution for Health Workers
Critical Challenge

• Quality of care is often poor because of lack of trained, and skilled healthcare providers

• Shortage of skilled providers particularly acute in remote and rural areas
UNFPA launched a portable **Mobile Learning System (MLS)** in 2016 to train midwives and health workers in key skills to combat most prevalent causes of maternal and newborn mortality.

- Made possible by - Innovation Award in 2015 (SRHB, MIS, UNFPA Ethiopia and Tanzania)- as part of a generous grant by Govt of Denmark to UNFPA for innovative ideas and solutions to address SRH issues.
What is the Mobile Learning System (MLS)?

- **Technology Kit**: a palm sized WiFi battery-operated portable projector, portable speakers, and a solar-charger kit.
- Projector – built-in android tablet, speaker, USB, Micro SD card + SIM card ports
- Pre-loaded with various world-class **interactive multi-media training modules** on key midwifery life-saving skills and obstetric emergencies (PE/E, PPH, sepsis, PAC etc) that account for more than 90% of all maternal deaths.
- Modules on family planning, essential newborn care, and female genital mutilation are also included.
- Solar charger kit comes with a powerful battery that provides extra 8 hrs of life
What makes MLS so innovative?

- Simple, ease of use, mobile, cost effective
- Suitability for remote rural settings with challenges of infrastructure, electricity, poor internet connectivity and lack of trained tutors.
- MLS allows for any blank white wall in any setting (remote or urban) to become a classroom, so multi-media training solutions can be used.
- Solar charger kit - alternative to vagaries of electricity
- Pre-loaded world class training materials - make internet access unnecessary.
- Micro SD card/USB ports - additional data storage, presentations
- The built in android tablet makes it vertically and horizontally scalable - any kind of training can be seamlessly adapted. New courses & updates can be introduced through internet whenever available
- Sim card port
- Preloaded modules - rural health workers can get world class quality training, even without trained instructors.
- The MLS platform – can be used for any kind of trainings
Scope of MLS Pilot

• 22 health centres and midwifery training sites (mostly rural) of **Ethiopia** and **Tanzania** identified to pilot test MLS in collaboration with the Govts of Ethiopia and Tanzania & resp. midwifery associations.

• Ethiopia & Tanzania have exceptionally high rates of maternal mortality at 353 and 398 deaths per 100,000 live births respectively (WHO 2015 report).

• Basis of Selection - Strong Interest of Govt and COs

• Initial Target about 80 healthworkers
Pilot Project Launch - March 2016

Photo: UNFPA/Ethiopia; Launch picture in Ethiopia 16 March 2016
Ethiopia
• **Total 52 training sessions** (April and September 2016)
  – 30 sessions - midwifery e-learning modules
  – 22 other trainings on different topics - basic emergency obstetric care, antenatal care, acute watery diarrhea, food preparation, etc.

• **Total Beneficiaries – 1013**
  – 484 midwives and midwifery students, 283 other healthcare workers, and 246 non-healthcare workers
My favorite!
Tanzania
• Total of 64 training sessions conducted using the MLS between April and December 2016

• 2,024 beneficiaries of trainings (119, midwives, 589 other healthcare workers, and 266 non-healthcare workers).
Overall Impact!
Overall– In Ethiopia and Tanzania

- 116 pre, in-service and other trainings
- Over 3,000 Beneficiaries
  - 2525 Health-workers; 500 non-healthworkers
- Tanzania- Funding generated for >74,000 from J&J and DFATD for RMNCH project
- High level of Govt interest in MLS, engagement, importance of continuous innovation to improve, access and quality of care

Improvements in Quality of Care and Access!
Evaluation from Countries

• MLS - easy to handle, operate, understand, highly portable
• Cost effective and Inexpensive - suitable for developing countries
• Useful for flexible group sizes; can effectively teach up to 40 students
• Lasts up to 8 hours without the need to interrupt class due to electricity outage.
• Can be easily operated without complex ICT skills.
• Instrumental in improving the quality of education using a rich variety of teaching-learning methods.
• High-quality -- No breakage or mishandling was reported.
• Easily adapted to impart other trainings apart from those intended for midwives.
• Younger generation of midwives grasped operation of the projector

External Formative Evaluation – project rated among top 7 most promising innovations done by UNFPA worthy of scale up.
Challenges

• Remote sites without in-house ICT persons had challenges navigating through courses as they were not familiar with android technology.

• One kit per site proved limiting-- increased demand from sites for additional MLS kits.

• Delay in receiving reports and feedback from rural training sites contributed to communication challenges.

• Few training centers had difficulty operating the technology kit due to language barriers.
Sustainability/Scalability

• **Scalability comes from:**

• Usefulness + being appropriate for the intended low resource setting –MLS proved itself in all these areas

• Cost effective – total cost of kit under $600; a typical training of 40 healthworkers can cost 25-50K to cover travel/facilitation/accommodation expenses; bigger cost is of keeping the health workers away from their work place

• Engagement of partners and government and all relevant stakeholders from the start. National ownership is key

• Critical mass to demonstrate results – we chose 22 sites and the work continues in all
Looking ahead...

• This pilot has proven that MLS is an effective and low-cost solution for low resource areas
• Generated additional funding of 75K (J&J and DFATD) within 6 months- original award was 100K
• Interest from S Sudan, Nepal, Equitorial Guinea, Nepal, Mozambique
• Raise further awareness – more demonstrations
• Garner support from various stakeholders, Government and partners - ensure success, scale up
• Additional funding and resources
Thank You