Juba Teaching Hospital-Health eVillages Program Report #2

Date: May 2015 Prepared by: Cindy Stein Director of Global Programs

I. Demographic Information

1. City & Province:
Juba, Central Equatoria, South Sudan

2. Organization:
Health eVillages

3. Project Title:
eTools, Center of Excellence, and Maternal Mortality Review Project: Juba Teaching Hospital

4. Reporting Period:
3/20/15-4/20/15

5. Project Location (region & city/town/village):
Juba Teaching Hospital, Juba

6. Target Population:
Health workers and patients in Maternity, Pediatric, and Accident and Emergency Units

II. Project Information

7. Project Goal:

The intention of this program is threefold:
1) To familiarize staff at the only national referral and teaching hospital in South Sudan with digital reference, data collection, and decision support tools.
2) To get an accurate estimate of the scope and cost for building a Center of Excellence in Juba.
3) To get an accurate estimate of maternal morbidity and mortality in Juba Teaching Hospital, which presumably represents the most high risk obstetric cases in Central Equatoria. .

8. Project Objectives during this reporting period:

1. Ongoing support of all health workers in Respectful Health Care
2. Ongoing support of all target health workers in use of mobile tablets with Health eVillages suite
3. Improved Data Tracking in Maternal Mortality
4. Improved service delivery
5. Improved Patient Satisfaction

9. Summary of RMF/WCF-sponsored activities carried out during the reporting period under each project objective (note any changes from original plans):

1. Ongoing Data Tracking in Maternal Mortality
2. Qualitative interviews with health workers completed for month #2
3. Patient Satisfaction survey administered to month #2 sample
4. “Near Miss” research project was launched

10. Results and/or accomplishments achieved during this reporting period:

Improved Data Tracking in Maternal Mortality

The RMF research study on “Near Miss” in Pregnancy at JTH was started under the authorization of the Ministry of Health’s Ethics Committee. This will be the first of its kind in South Sudan and aims to address the lack of good data on how many women die in pregnancy and the real causes.

The research methodology is:

1) Maternity staff received formal training from RMF staff on how to properly collect data on the maternity and inpatient antepartum units
2) The head midwife was incentivized to make sure data collection happens properly each shift by checking log books before shift end
3) Midwives who correctly report and log maternity cases receive a small incentive per entry
4) RMF staff come every morning (7 days a week) to look at log book and identify any maternal deaths and facilitate proper reporting via the OB department chief, and any morbidity cases.
5) The morbidity cases are defined per international definitions of postpartum hemorrhage, obstructed labor, septic infection, and hypertension in pregnancy and thus defined as “Near Miss” events (women who experience the complications that typically cause deaths but have survived)
6) Women who have experienced one of those complications are not discharged until an RMF trained interviewer meets them and performs the structured interview using the “gate-to-gate” and “three delays” models
7) They will also complete a demographic and quantitative survey tool
8) Interviews are recorded and will be translated to English and transcribed
9) The RMF co-lead investigators will review all transcriptions and group responses into thematic categories and analyze using evidence-based qualitative research methods
10) The RMF co-lead investigators will perform statistical analysis on the demographic surveys to address variables
11) RMF trained interviewers will also interview a smaller sample of health workers who attended the “Near Miss” event and perform analysis in a similar fashion
12) Results will be reported to all stakeholders

Since the project began, we are already seeing a dramatic improvement in proper reporting of all births and morbidity and mortality specifically. Having the support of key people (Ministry of Health, head of the OB department, all of the OB/Gyns on staff, and the head midwife, has helped tremendously. 7 interviews have been completed thus far. Based on birth rate at JTH and algorithmic models predicting “Near Miss” among populations, we chose a sample size of approximately 45 interviews with the end goal being we “reach saturation”. This term, in qualitative research, means that no new information or categories are being learned in the interviews and so the sample has been sufficient. The understanding is that we may reach saturation before or after 45 cases, but it will likely be around that number based on many “Near-Miss” studies around the world.

The interviews have already revealed some cultural, economic, political, gender inequality, health infrastructure, and emotional reasons for Near Miss and maternal death.

Improved Service Delivery and Improved Patient Satisfaction

Patient Satisfaction (PSAT)
Samplings of 20 patients with different admissions diagnoses and from different wards were surveyed by the Master Trainers before discharge during month #2. Included in the sample were women in labor, repeat elective cesareans, hyperemesis gravidarum, fibroids, preterm labor, gastroenteritis, umbilical hernia, and septic infection patients. There were several consistent themes across all wards:

a) No access to free or subsidized medications and lab tests
b) Lack of cleanliness in units
c) Not enough staff for the volume of patients
d) Disrespect from health workers
e) Long wait times
f) Language barriers/communication issues

Of the 20 patients surveyed, only 4 of them said a health worker used a tablet for patient education or medical reference while they were being cared for, 2 of them said they did not recall, and 17 said a tablet was not used directly as part of their care, and 1 did not answer.

This leaves a definite gap showing we need to focus the next month on encouraging health workers to use the tablets not only for their own reference, but interactively with patients for education purposes.

15 said they would recommend Juba Teaching Hospital to friends and family. However, some of this may be due to lack of alternative medical services or cultural norms that would prevent them from admitting otherwise to the

interviewer.

11 patients said their medical diagnosis and plan of care was explained to them well, 5 said it was somewhat explained and 4 said it was not explained at all.

Health Worker Survey (HWS)

74% of health workers report using the tablet to aid their work at least 3-5 times days per week with 37% of them saying they use it every day. The remaining 26% report using it at least once or twice a week.

This leaves a gap for us to encourage increased use among participants. One reason that contributed to the slight decrease from the prior month is that one participant was admitted to the hospital (not JTH) for health issues and her device was not deployed to another user since she has since returned to work.

The most popular features used:

Omnio→ Disease/diagnostic tools: 100% of health workers have used this
Drug reference tools: 100% of health workers report having used this
Calculators: 26% of health workers report using this
Textbook reference: 26% health workers used this feature

Videos→ 100% of health workers used videos on the tablets in the past month

11. Impact this project has on the community (who is benefiting and how):

The primary beneficiaries of this program are the health workers at Juba Teaching Hospital and their patients. The direct impact has been that hundreds of patients have received better and more timely care as information needed to triage, diagnose, and properly treat them is more readily available. This is especially true for the nurses who often serve as the frontline for patient care as doctors are spread very thin. An indirect benefit is that the health workers have expressed and increase in self-efficacy, which significantly adds to the morale and job satisfaction necessary for worker retention. This is in direct alignment with RMF's value proposition of Respectful Health Care.

One new development we saw over the course of month 2 is that observations were made that the objective and evidence-based material available have actually served to improve staff relationships as well as service delivery. An example of this was highlighted by one of the participants who described that when a doctor and a nurse have differing opinions regarding patient diagnosis or management, the nurse used to always have to concede to the doctor. This left her 1) feeling bad 2) reinforcing the hierarchy 3) discouraging her form taking a stand or voicing her opinion in the future 4) sometimes led to worse patient outcomes. This was true even when the doctor was a new graduate intern and the nurse was experienced. With the tablets, the information used for decision-making is presented to health workers in a way that does not force cultural, gender, or hierarchical norms of interpersonal relationships to be included in the decision-making thereby ensuring it is non-threatening and the proper choice is made for the patient.

12. Some suggestions and feedback from health workers:

What is the best thing about having the eLibrary device available to you?

"It is fast and I can get information I need instantly. I never had that before because we did not even have books to look for things in."

"It is good to use to refresh your skills. I look up things I kind of already know just to check things sometimes also."

"This is so portable. I used to carry a notebook with all my notes from school around but it was not so easy and a few times I lost it even. The tablet fits in a lab coat pocket."

"Especially when the internet is working well, it is so fast to look things up. I think the patients are impressed."

Do you have any suggestions or observations to improve the program?

"I still wish there were resources in Arabic, especially the videos. There are good videos I can't show patients because

they are only in English."

"The charger is complicated because we need to have an adapter and sometimes people will borrow that for other things."

"There is not enough surgical information."

"You should train and give devices to all the hospital staff because it would make the care much better for all the patients."

"I wish the internet was faster. Sometimes it kicks you off."

"It can be hard to charge because sometimes there is no electricity. Is there a solar charger maybe?"

"It is so busy in the labor room. Too many patients. It takes too much time to use the device with the patient to explain things."

Real use success examples:

1. We had a neonate come in with a hiatal hernia. The device was used to calculate the medication dosage for such a small baby and also we took photos so we can present the case at the department meeting to help other doctors learn.
2. A midwife reported using the device with all of her antenatal patients to educate about nutrition in pregnancy and to explain family planning options, specifically to show the limited side effects of certain methods the patients can be concerned about.
3. Information on danger signs in pregnancy is explained through the video for patients who understand English.
4. The Bishop Score calculator was used to help guide the staff make a decision about whether to, and how to, best induce a patient with a medical condition in pregnancy.
5. A patient had a postpartum hemorrhage and the device was used to remind the provider the steps in managing this complication.
6. The drug dosage calculator was used on several occasions to help figure out correct dose for eclamptic patients

13. If applicable, please list the medical services provided:

- Antenatal Care, both outpatient and inpatient, high risk)
- Maternity, both normal and high-risk units as well as operating theater)
- Postpartum Care
- Pediatric Medical
- Pediatric Surgical
- Accident and Emergency

14. Priority areas to work on for next reporting period:

- Continued data collection Interview Phase of Maternal Near-Miss and Maternal Mortality Research Project
- Continued patient satisfaction report collection
- Continued monitoring and evaluation of tablet participant program
- Incorporate some of the health worker and patient suggestions into the program re: more training and implementing the RHC observational checklist
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15. Programmatic Photos

A Physician doing patient education with a Health eVillages tablet in the post-operative ward

Reviewing a care plan with the patient and mother on the pediatric ward

A JTH doctor helping a young mother on the pediatric ward with her neonate

Head midwife Joyce showing a video to an antepartum patient