Implementing an Electronic Health Record as an Objective Measure of Care Provider Accountability for a Resource-poor Rural Area in the Dominican Republic

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Post-experience Survey
A total of 13 medical volunteers (9 medical students and 4 nurses) were surveyed after the second STIMT to gain feedback regarding their experience using the EHR.

- Self-rated Spanish proficiency: fluent (54%), intermediate (15%), and basic (31%).
- Number of past STIMT experiences: >4 (38%), 3-4 (8%), 1-2 (46%), and none (38%).
- Past documentation experience (more than one selection was permitted, allowing the percentage total to exceed 100%): none (23%), paper records (54%), electronic records (62%).
- Ease of EHR data entry: very difficult (8%), difficult (31%), neutral (31%), easy (15%).
- Ease of previous record access: difficult (15%), neutral (31%), easy (31%), very easy (8%), and did not use (15%).

Participant essay responses centered on the need to address poor EMR efficiency during peak clinic flow. Solutions included providing iPad keyboards to all users, replacing text boxes with check boxes, incorporating ‘smart text’, and allowing the EHR to record data independent of network connectivity.

Conclusions

Pre-clinical medical and nursing students deployed a highly-portable EHR system at various resource-poor communities across the northern Dominican Republic. Future uses of the portable EHR include: longitudinal patient tracking, giving its capability to serve as an objective means for evaluating interventions; assessing healthcare needs; and providing continuity of patient care.

Data obtained from this trip will be used to generate new patient scenarios for pre-trip simulation training and determine the appropriate medications and supplies for the subsequent trip. The simulation component provides an environment to practice patient documentation with an EHR as well as clinical skills in a non-English language and distinct cultural context.

The data collected from this will also allow the efficiency of the medical record system to be enhanced, such as the creation of coded input for the more frequently encountered illnesses. Several problems and potential solutions were detailed in the post-experience assessment; especially, diminished efficiency during peak clinic flow. A reconfiguration of the software to function independent of network connectivity is one focus; perhaps, the creation of an ‘EHR app’. Additionally, the intake form will be re-created from a functionality-driven technology philosophy using focus groups composed of trip participants and IT professionals to optimize workflow efficiency. For future trips the amount of time required for system setup, user training time necessary for EHR utilization, and length of patient encounter will be recorded to establish baseline data.

Acknowledgements

The authors gratefully acknowledge the contribution of Luke Read and Colin Forward of Mixed Emerging Technology Integration Lab (METIL) for IT consultation, Michelle H. Kim for careful review of the project and providing post-trip survey data, the OpenMRS team for technical support, Cameron Kluth for network expertise, and the UCF COM FIRE committee for financial support.

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