strengthening in low resource settings. Investments in electronic medical record (EMR) systems offer promise for improved information for patient and public health program management. Strong data quality (DQ) is a precursor to strong data use. Routine DQ assessment (DQA) within EMR systems can be resource-intensive when using typical methods of audit and chart review. Automated database queries on the completeness, accuracy and timeliness of data offer an efficient alternative. This DQA focuses on Haiti's national EMR - iSanté - a system deployed in 119 health care facilities and containing longitudinal data for more than 400,000 patients.

Methods: This mixed-methods evaluation focused on data related to HIV care and treatment. We first used a qualitative Delphi process to identify DQ priorities among local HIV experts, followed by a quantitative DQA on these priority data elements. The quantitative DQA examined 13 indicators of completeness, accuracy and timeliness of data using retrospective data from HIV patients, collected during more than 3.5 million encounters from 2005− June 2013. We described levels of DQ for each indicator over time, and examined the consistency of within-site performance. Using generalized linear models (GLM) with logit link and binomial errors for each of the 13 DQ indicators, we examined associations between DQ results and site and system characteristics, such as facility type, urban vs. rural location, and number of iSanté system users.

Findings: Ninety-five sites using the iSanté data system were included in the evaluation. On average, completeness was high for demographic data but low for clinical data, accuracy of age data was low, and timeliness of data entry was low. For most indicators, DQ tended to improve over time, both overall and within specific sites. DQ was highly variable across sites, and sites which performed strongly in some indicators performed weakly in others. In adjusted analyses, site and system factors with generally favorable and statistically significant associations with DQ indicators were University hospital type, private sector governance, presence of more advanced IT infrastructure, greater site experience, greater maturity of the iSanté system, having more overall system users but fewer new users.

Interpretation: The heterogeneity in performance on various priority DQ indicators across sites indicates that excellent DQ is achievable in Haiti, but that many sites have much work to do to improve their DQ performance. A dynamic, interactive "data quality dashboard" within iSanté could bring transparency and motivate improvement. Further investment in the IT infrastructure supporting iSanté, including assuring stable power supply, and in on-going training for new users, is also warranted.

Abstract #: 02ITIS025

An analysis of drug stock-outs in rural Western Kenya and subsequent patient impact

M. Qiu[1], G. Dungca[2]; [1]Johns Hopkins University, Bloomberg School of Public Health, Baltimore, MD/US, [2]University of Toronto (former), Markham, ON/CA

Background: The objective of this study was to first understand root causes of drug stock-outs at primary community level clinics in Western Kenya, and second, to understand the impact on patient health and health-seeking behaviors as a result of stock-outs.

Methods: Data collection took place at 4 different rural dispensaries located in Western Province, Kenya. Data on the types of drugs most commonly out of stock, along with frequency of stock-outs was collected using existing dispensary records for the 3 prior fiscal quarters. Data for patients was collected from randomly selected patients visiting the selected dispensary on a given day. Participants: 20 adult patients of both genders were interviewed from each dispensary with the use of a pre-written questionnaire. Interviews were carried out with the assistance of a translator in either Swahili or Maragoli. Participants were excluded if they were younger than 18. Data regarding drug stock-outs was analyzed using Microsoft Excel to determine length of stock-out, frequency of stock-out, and types of drugs most frequently out of stock. For patient information, data was summarized and categorized to determine how often patients could recall experiencing a drug stock-out, what drug was out of stock, and whether patients sought alternative treatment. Data was analyzed using a t-distribution due to limited sample size. Informed consent was received from participants only if they agreed after an explanation of the study. Approval was given by the University of Toronto ethics board.

Findings: 13 out of 16 essential medicines were found to have been out of stock at least once during the 3 fiscal quarters analyzed. Prevalence of stock-outs ranged from 16% to 77%. Primary causes for drug stock-outs were found to include poor inventory management, delays in order submission, inaccurate order quantities, and unfulfilled orders. Regarding patient impact, it was found that while drug stock-outs do not heavily impact patient health-seeking behaviors, it affected the ability of patients to access treatment. In most cases, when dispensaries did not have the available drugs, patients were advised to go to a chemist to purchase the medication instead. Many patients went without treatment, or purchased a partial portion instead due to their financial situation.

Interpretation: Based on the results, it is clear that drug-stock outs continue to be a pervasive problem at the dispensary level in Western Kenya. This is of significant concern, as it creates financial barriers to healthcare for patients. Lack of treatment, or inappropriate treatment, may result in poor patient health outcomes, as well as future problems regarding drug resistance if patients do not receive full doses. Further analysis should be undertaken to determine this.

Abstract #: 02ITIS026

Mixed methods characterization of safety incidents involving children in family practice to inform improvement

P. Rees[1], A. Edwards[2], C. Powell[3], S. Panesar[4], B. Carter[2], H. Williams[2], P. Hibbert[5], D. Luff[6], G. Parry[7], A. Avery[8], A. Sheikh[4], L. Donaldson[9], A. Carson-Stevens[2]; [1]Institute of Primary Care and Public Health, Cardiff, UK, [2]Cochrane Institute of Primary Care and Public Health, Cardiff, UK, [3]Institute of Molecular & Experimental Medicine, Cardiff, UK, [4]Centre for Population Health Sciences, Edinburgh, UK, [5]Australian Institute of Health Innovation, Sydney, AU, [6]Boston Children's Hospital, Boston, MA/US, [7]Institute for Healthcare Improvement, Boston, MA/US, [8]Faculty of Medicine and Health Sciences, Nottingham, UK, [9]Department of Surgery and Cancer, Imperial College London, London, UK

Background: 26% of UK child deaths have identifiable failures in healthcare. Despite children accounting for 40% of family practice doctors' workload, little is known about the safety of care in the community setting. Incident report data can offer insights into the nature and underlying causes of unsafe care. This study aimed to characterize pediatric safety incidents in family practice reported to a national (England and Wales) reporting system.