



## ABSTRACT

**Background:** Each year, close to 3000 refugees are resettled in Kentucky with 2500 remaining in Louisville. Following their arrival, each refugee is provided with a domestic health screen then referred to primary and, as needed, specialty care. Language and cultural diversity and a lack of understanding of the US healthcare system represent barriers to sharing relevant health information by the refugee, especially as they select a variety of healthcare providers for their care. The objective of this study is to propose a novel approach that will enable access to refugee health information by healthcare providers.

**Methods:** As part of health information quality improvement activities, brainstorming sessions were organized to identify possible solutions to the sharing of health information currently housed in the Newly Arriving Refugee Surveillance System (NARSS) database. One feasible approach emerged from the discussion that defined the desired attributes of a “Refugee Electronic Health Record” (REHR).

**Results:** A flow chart was used to capture the information flow from NARSS database into the REHR and the points in the process requiring data quality and integrity review. The result is a template for the REHR that allows healthcare provider and refugee cloud-based access with an additional opportunity to incorporate new health information.

**Conclusion:** Development of an REHR is an important step in addressing continuity of care, reducing redundant testing, and real-time access to health information. Members of the UL Global Health Center are developing this prototype for testing among the Louisville area refugee population.

## INTRODUCTION

An important area of resettlement attention involves the provision of healthcare to the adults and children resettled into the US in support of work efforts and academic achievement. Refugees resettling in the US face a plethora of challenges that are part of building new lives in this new country including learning a new language, a new culture, and adjusting to changes that impact every facet of life. Some refugees arrive with medical conditions that add to the challenge of resettlement and represent an immediate obstacles to successful and early self-sufficiency. A review done by the US Committee for Refugees and Immigrants (USCRI, 2015) showed that need exists for post-arrival support for refugee health capable of addressing the full spectrum of health need built upon a comprehensive and holistic biopsychosocial and spiritual platform. The spectrum of illness present among refugees was summarized by the 2004 Immigration and Refugee Services of America report describing the health of incoming Somali refugees. Recognized health issues included sickle cell anemia, hypertension, diabetes, malnutrition, infectious diseases and mental health conditions. Addressing these health issues requires an approach that collects and documents health information while making it accessible to the refugee and their healthcare team.

The objective of this study is to present our approach to the sharing of refugee health information among healthcare providers and the refugee.

## METHODS

Based upon our experiences as providers of both the initial health examination of arriving refugees (domestic health screen) and provision of primary care for a growing number of refugees, we began a quality improvement process that involved evaluation of current activities, barriers to ideal care, and opportunities for improvement. Brainstorming sessions were organized to identify possible solutions to the barriers of sharing refugee health information. Considerations ranged from giving copies of the medical record to the refugees to hand carry to other appointments, to the development of an electronic medical record. Although a unified electronic medical record was identified as the optimal solution, it was not considered feasible. The best feasible approach was considered to electronically capture the primary health information present in our Newly Arriving Refugee Surveillance System (NARSS) database and update it regularly. This project was named the “Refugee Electronic Health Record” (REHR) initiative and results were captured in summaries of the brainstorming sessions.

## RESULTS

A first step involved identification of the data elements that CDC partners deemed important for the REHR. Using these elements, a template for the REHR was developed so it can automatically pull data from NARSS in real-time. In addition to the data collected from the initial refugee health screen, the REHR will allow care providers to incorporate new health information from follow-up healthcare interactions.

The proposed REHR will not be designed to connect with the broad spectrum of existing electronic health record systems. Instead, it will be designed to accept additional health information, provide viewing of existing health information, and downloading of that information in a read-only format. This will allow the health records of refugees to be mobile, be able to follow them regardless of their movement, and is independent of the electronic health information systems of the providers who will deliver their care. Members of our team will perform data quality, as well as computer programming and IT support for the REHR. The system will be made available to care providers via a secured HIPAA-compliant web-based portal developed specifically for this project.

A flow chart for the capturing refugee health information into the REHR is shown in Figure 1.

The interaction of NARSS and REHR, along with the data sharing and updating approach is depicted in Figure 2.

## RESULTS

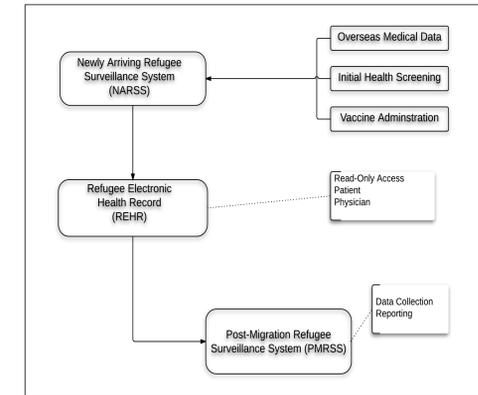


Figure 1. Flow Chart for Capturing of Refugee Health Information into REHR

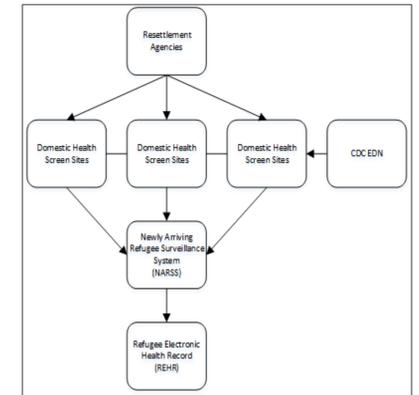


Figure 2. Interaction Between NARSS and REHR

## CONCLUSIONS

The development of a REHR is likely to resolve one of the primary challenges in refugee healthcare, data sharing. Members of the UofL Global Health Research Organization are developing the prototype of the REHR to be tested in the Louisville area. Providing culturally competent primary care to refugees is a challenge that the United States health care system is facing at an ever-increasing rate as the character of the US population changes to include a higher proportion of those who are foreign born. Medicaid provides healthcare coverage for more than 95% of refugees in the United States and as they seek primary or emergent care, there is a lack of ability to identify them as a refugee and follow them over time in order to address chronic health conditions. Access to health information including baseline labs, history, initial treatment, and health promotion plans could facilitate efficient and cost-effective care and care decisions. Effective primary care requires understanding the context of the refugee experience: addressing geographic, linguistic, economic and cultural barriers; and providing high-quality care through the efficient use of resources (Downs, Bernstein & Marchese).

This proposed technology would have the ability to identify and track refugees in at a local health care level, paving the way for improved patient care and a reduction of health care costs and disparities.

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