

Kentucky Refugee Health Assessment Report

2017



University of Louisville, School of Medicine
Division of Infectious Diseases



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Executive Summary

In 2017, approximately 1700 refugees entered Kentucky as part of the federal U.S. Refugee Program. As part of this resettlement process, refugees arriving in the United States are eligible to receive a domestic Refugee Health Assessment (RHA). While no national requirements exist for the RHA, the Centers for Disease Control and Prevention (CDC) and the Office of Refugee Resettlement (ORR) provide guidelines for data elements that could be collected. This report is an analysis of the Arriving Refugee Informatics Surveillance and Epidemiology (ARIVE) database, an ongoing data collection tool for the standardized Refugee Health Assessment using the data elements suggested by CDC and ORR. A total of 2218 adult and pediatric refugees were provided an RHA from January through December 2017 in Louisville, Lexington, Bowling Green, Owensboro, and Covington – a very high number of refugee arrivals in October, November, and December 2016 resulted in a backlog of patients who received RHAs in 2017. The top health conditions identified as overweight/obese, followed by dental abnormalities, parasites, TB exposure, and decreased visual acuity.

This analysis shows that many of the top health conditions facing refugees after arriving in the U.S. are chronic conditions that require long-term management. While referrals are made for refugees, many are lost to follow-up once they assimilate due to many intersecting social determinants of health, such as language, transportation, lack of insurance, and lack of experiencing navigating the U.S. healthcare system. Upon review of these results, a systematic approach to solving the problem of long-term follow-up needs to be established for refugees in order to address and decrease the impact of chronic health conditions.

Introduction

Refugees arriving in the United States are eligible to receive a domestic Refugee Health Assessment (RHA) as part of the resettlement process. The purpose of the medical screening is to follow up with any condition identified in the overseas medical evaluation; identify individuals with communicable diseases of public health importance; identify health conditions that could affect the resettlement process, including employment; and to serve as an introduction to the US healthcare system, including establishing a primary care location. In Kentucky, RHAs are conducted at eight clinics - three in Louisville (Family Health Centers-Americana, Home of the Innocents Open Arms [pediatrics, only], and the University of Louisville 550 Clinic), one in Lexington (Bluegrass Community Healthcare Center), one in Bowling Green (ZipClinic), two in Owensboro (Green River District Health Department and Audubon Community Health), and Covington (HealthPoint Family Care).

Refugee health assessments include a review of overseas medical information, a complete medical and socio-ethnographic history, a physical exam, and laboratory screenings.

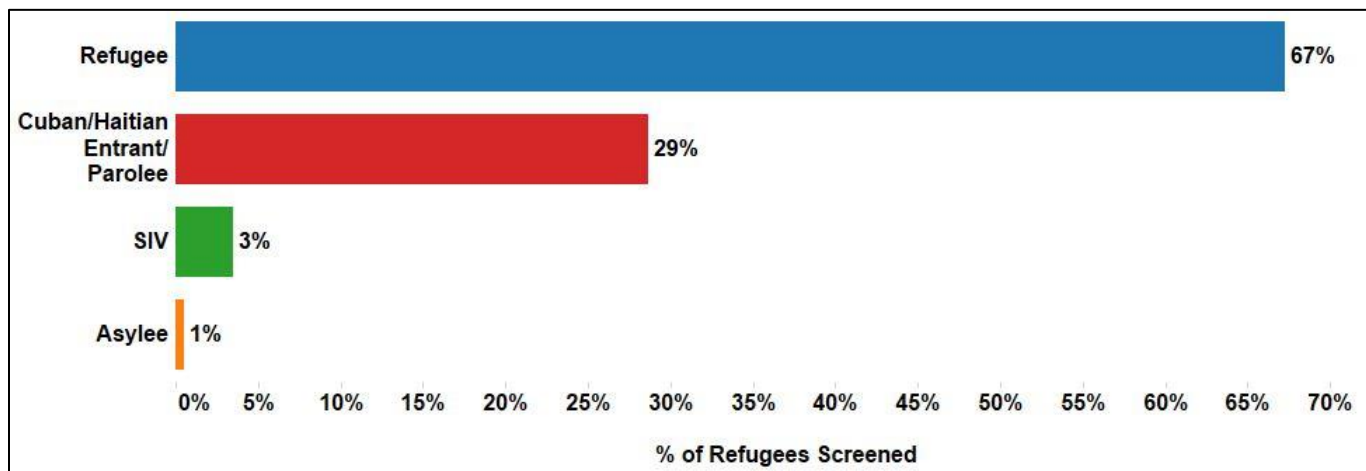
Refugees should receive a health screening within the first 90 days of arrival in the US. Approximately 50% of refugees who arrived in Kentucky in 2017 received an RHA within 90 days. Fourteen percent have not yet been screened. Many of those who were not screened were secondary migrants who received a health screening in another state. Secondary migrants are refugees who were originally resettled in another state, then moved to Kentucky.

Demographics

A total of **2217** patients were seen for a Refugee Health Assessment in Kentucky in 2017; **1352** were adults 18 and older and **865** were children. RHA clinics collect demographic information from each patient including marriage status, preferred language, age, country of nationality, and country of departure.

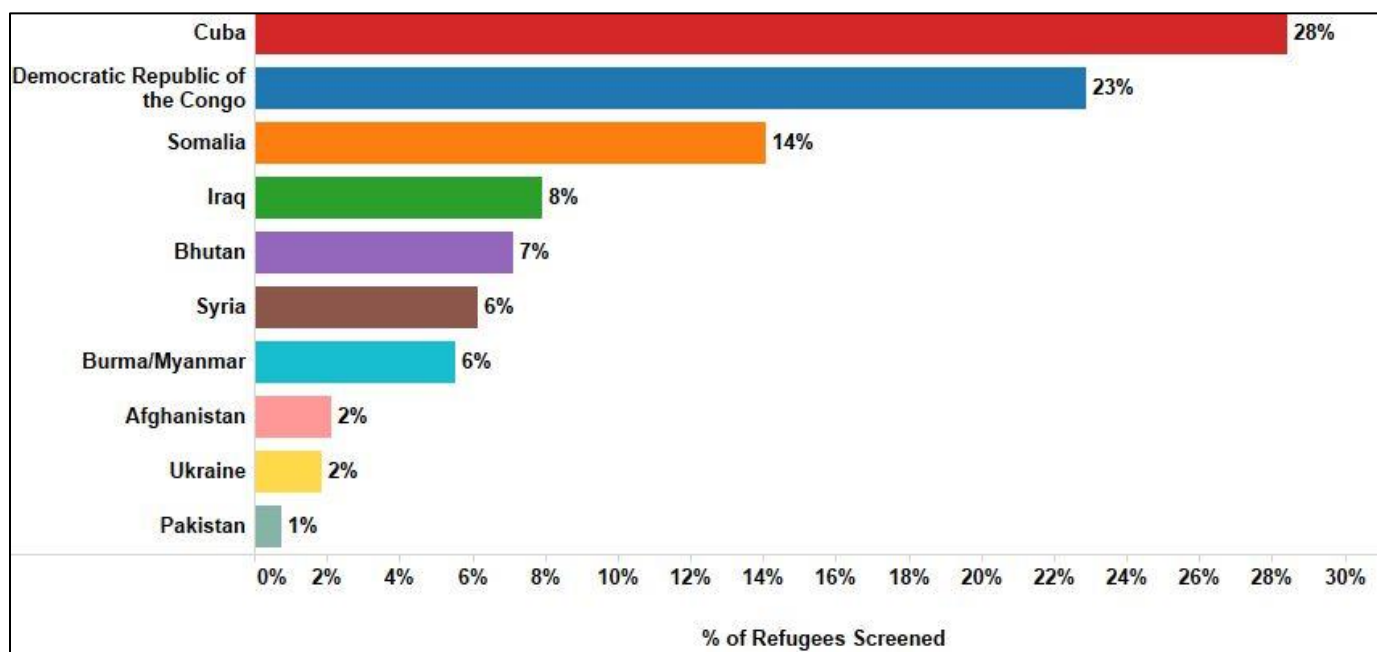
Immigration Status

Kentucky resettles refugees, Cuban/Haitian Entrants and Parolees, Asylees, Special Immigrant Visas (SIV) and Victims of Human Trafficking. Throughout this report, “refugee” is used to refer to all those resettled in Kentucky. The figure below depicts the percentage of refugees with the given immigration statuses who had a health screening in Kentucky in 2017.

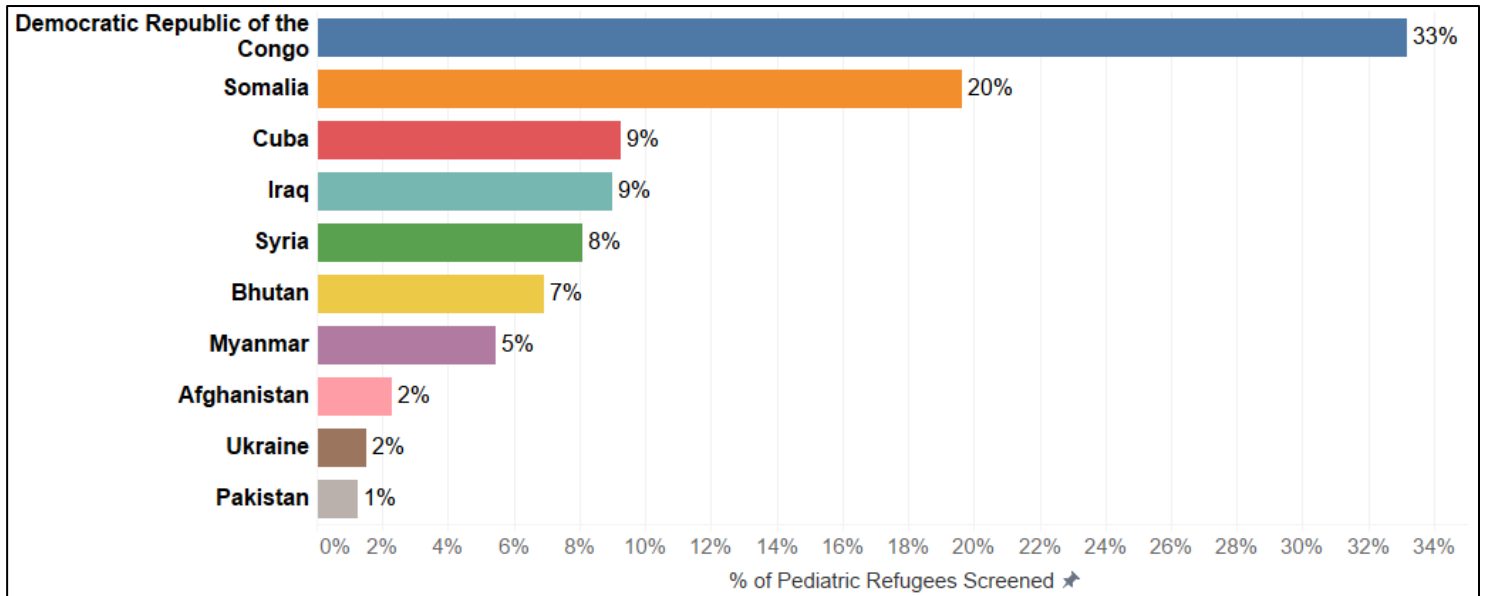


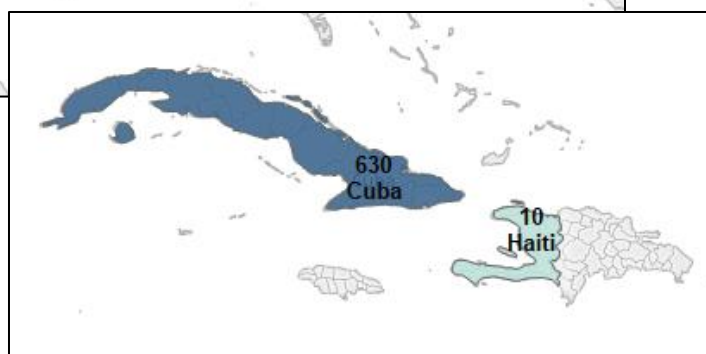
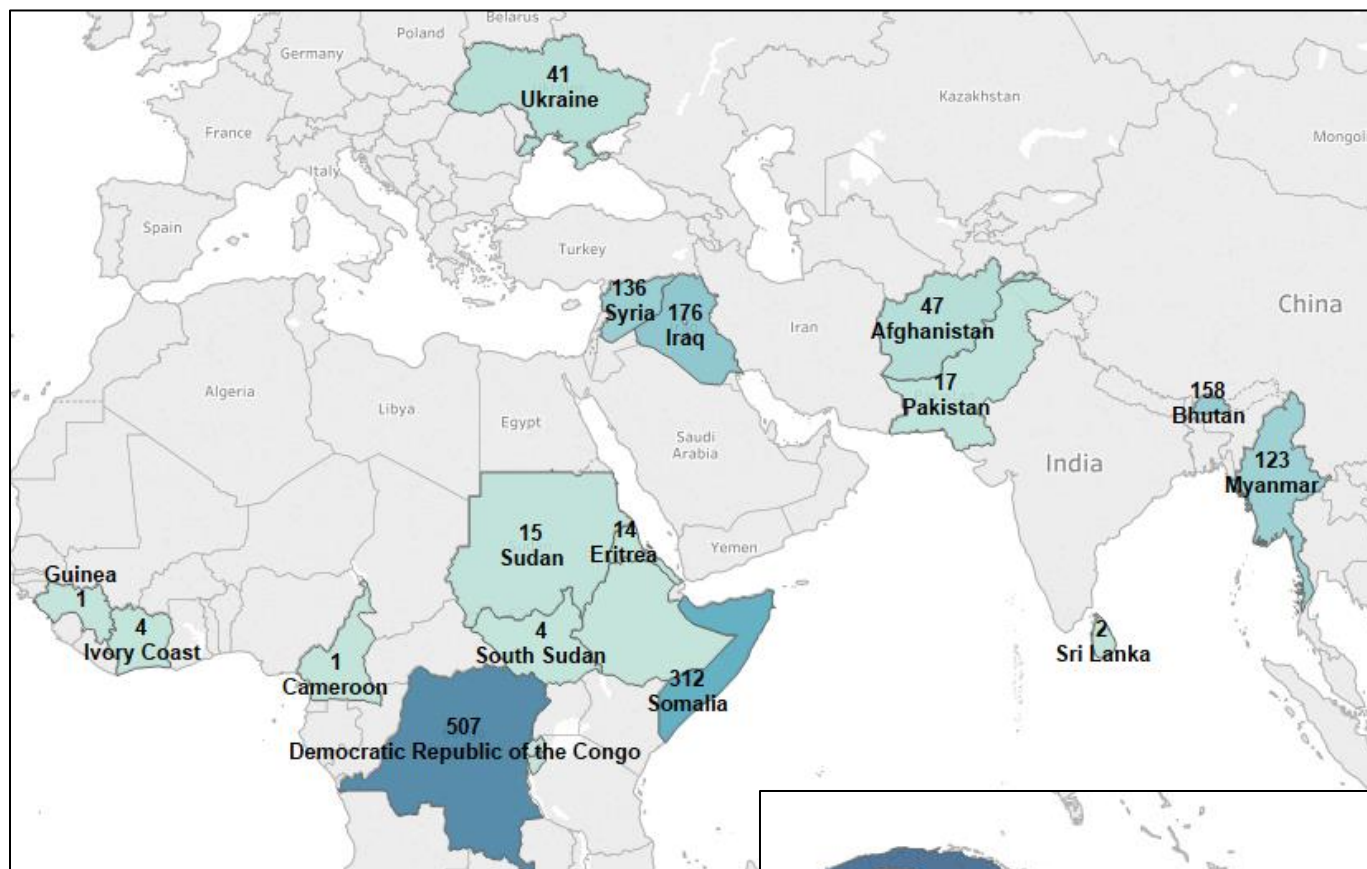
Country of Nationality

Refugees arrived in Kentucky from **23** different countries. Among refugees who had a health screening in Kentucky the most common countries of nationality were Cuba (28%), Democratic Republic of Congo (23%), Somalia (14%), Iraq (8%) and Bhutan (7%). The figure below depicts the percentages of refugees arriving in Kentucky who had a health screening by the top countries of nationality. The second figure depicts the top countries of nationalities of pediatric refugees who



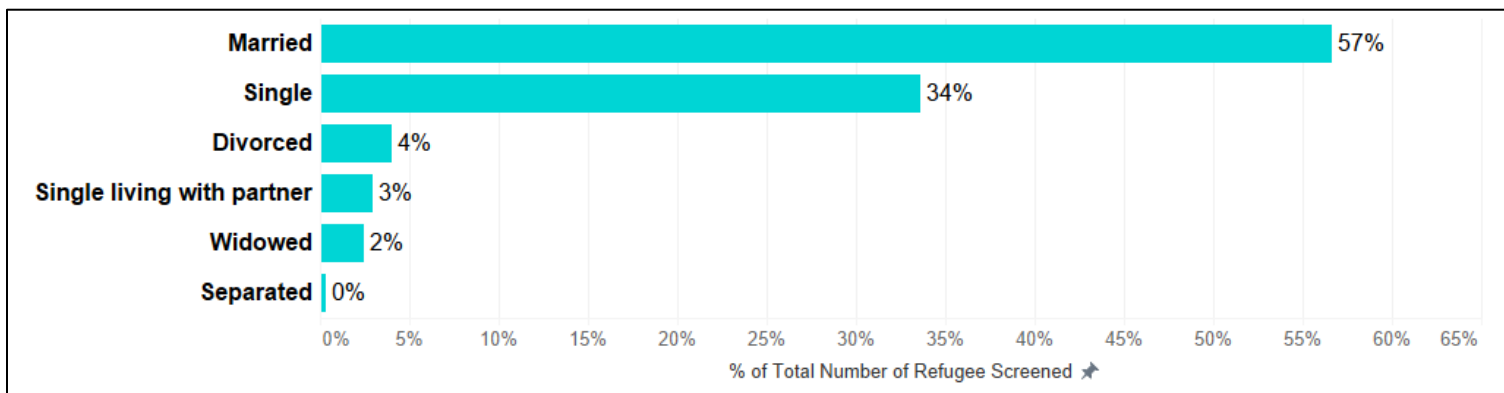
had a health screening in Kentucky. The third figure shows a map of the country of nationality and the number of refugees arriving to Kentucky from each of these locations.





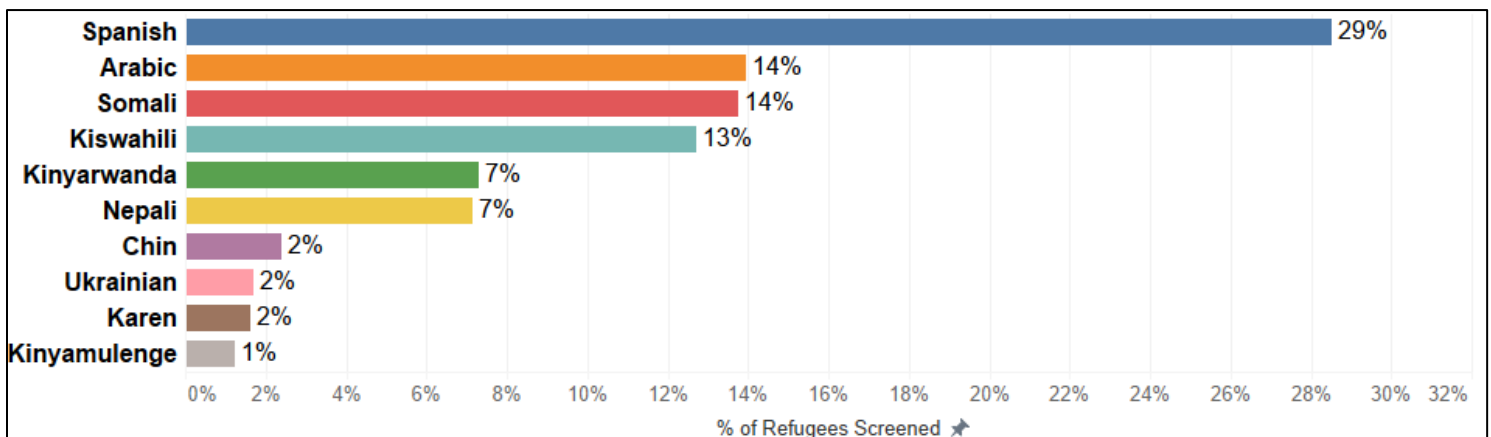
Marriage Status

The figure below depicts the marriage status of refugees 18 and older who had a health screening in Kentucky in 2017.



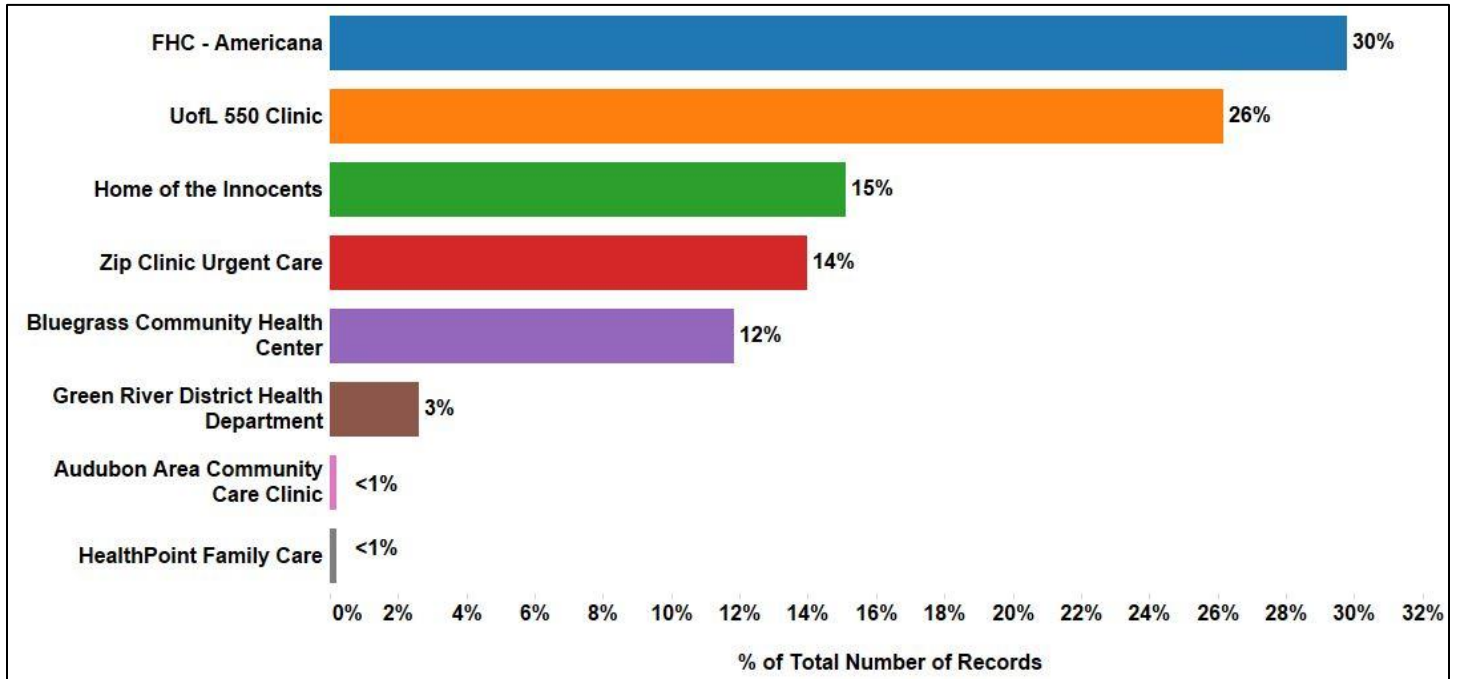
Language

RHA clinics utilize in-person interpreters and phone interpreters to communicate with refugees in a variety of languages. With approximately 45 different languages represented, in 2017 approximately 29% of refugees screened spoke Spanish, 14% Arabic, 14% Somali, and 13% Kiswahili. The figure below depicts the percentage of the top languages spoken by refugees who had a health screening in Kentucky in 2017.



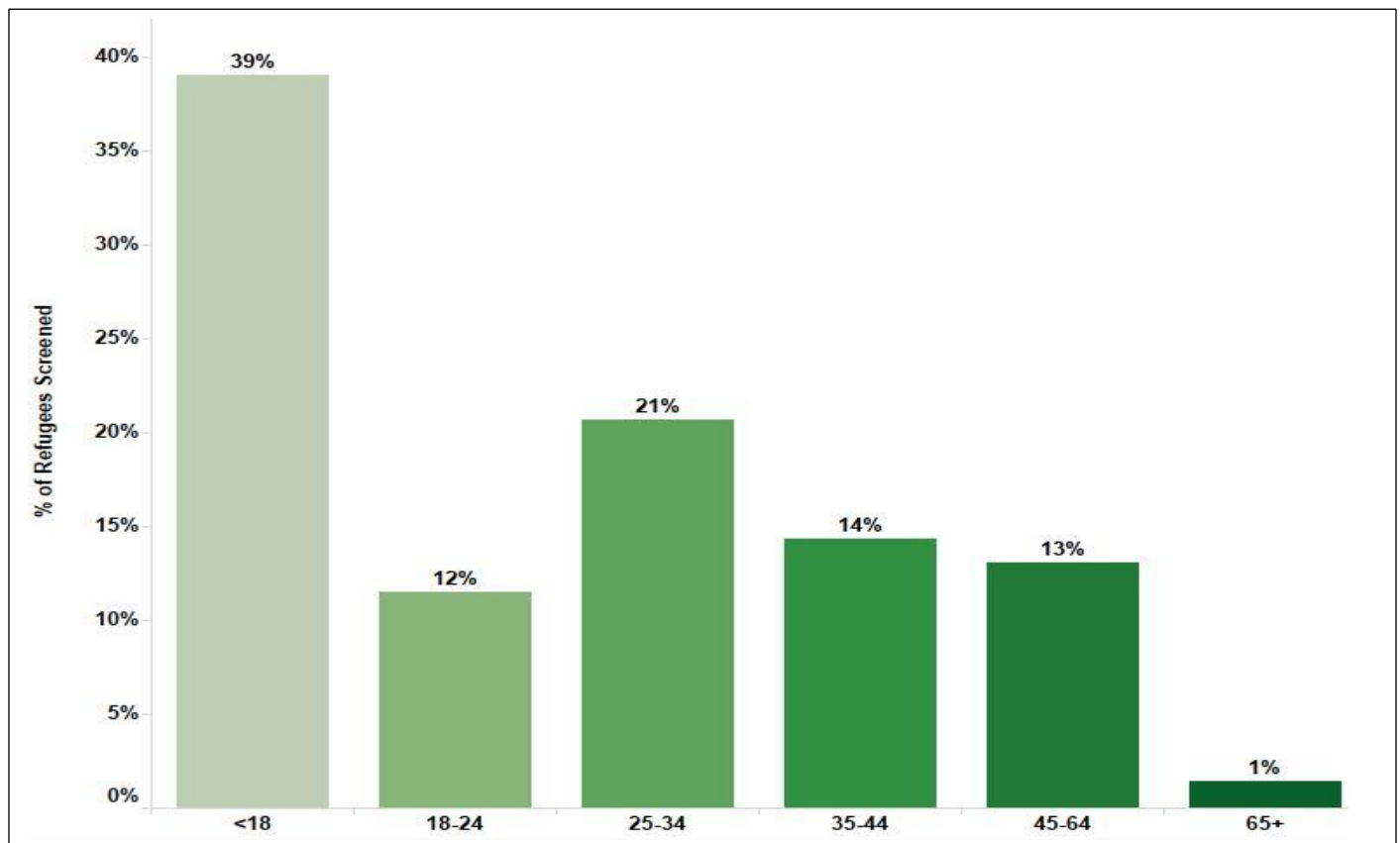
Health Clinics

Refugees receive a health screening at one of six clinics in Kentucky. The figure below depicts the percentage of refugees seen for a health screening at each clinic in Kentucky in 2017. (Home of the Innocents screens pediatric patients only.)



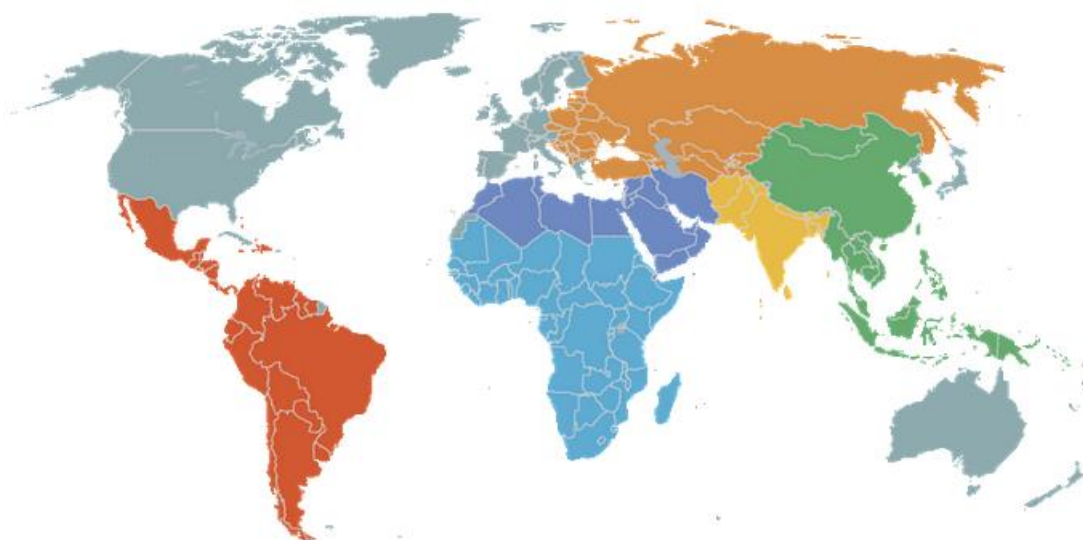
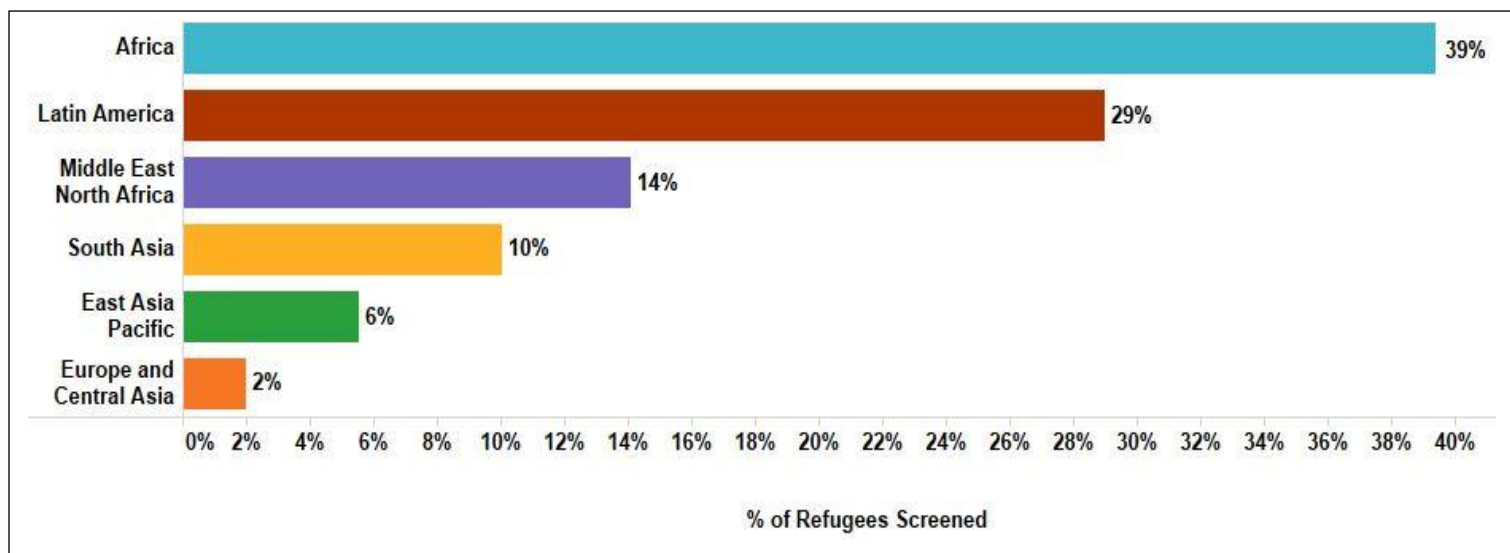
Age

The figure below depicts the age breakdown of refugees who had a health screening in Kentucky in 2017.



Region

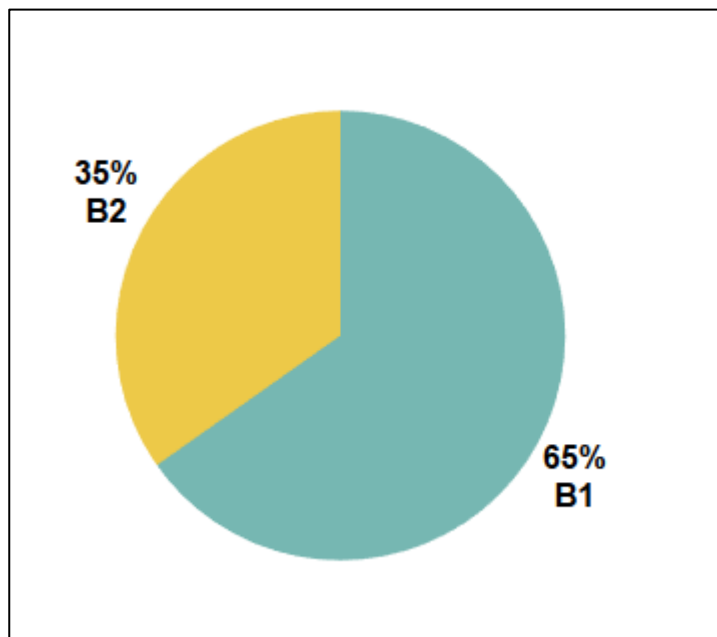
Refugees arrive in Kentucky from all over the world, with approximately 20 different countries of nationality represented arriving from over 35 countries. Thirty-nine percent of the refugees who had a health screening in Kentucky are from Africa, 29% from Latin America (mainly Cuba), 14% from the Middle East, 10% from South Asia, 7% from East Asia Pacific.



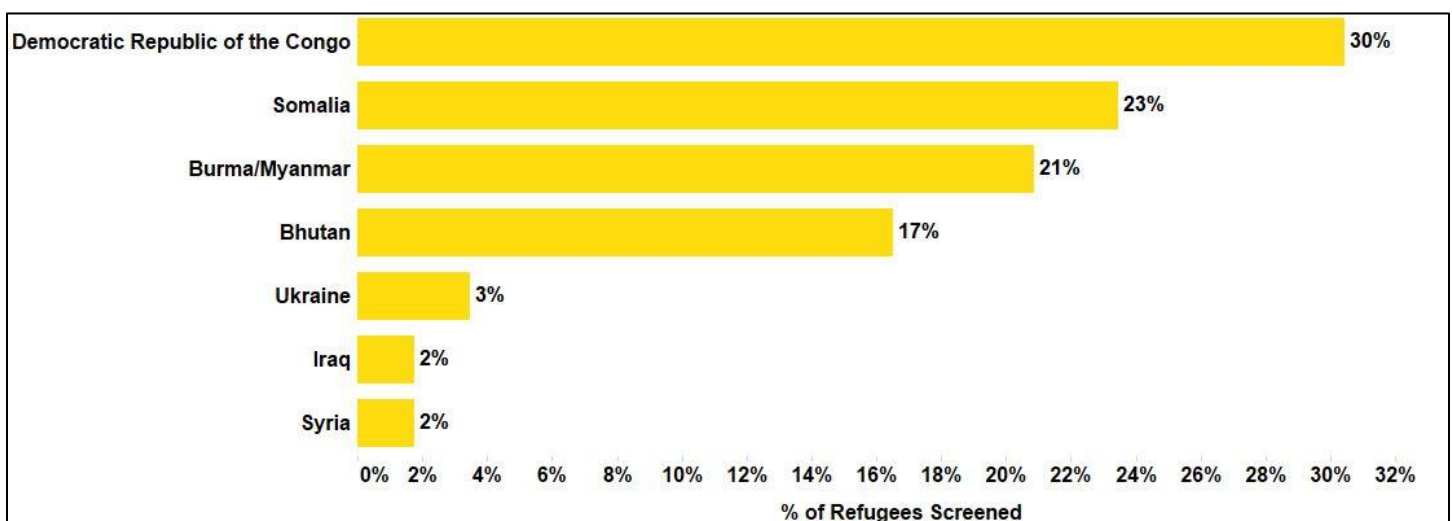
Source: <http://www.worldbank.org/en/about/annual-report/regions>

Overseas Medical Exam Review

Refugees undergo an overseas medical exam before arriving in the United States. Class A conditions may keep refugees from entering into the United States and include diseases of public health significance, mental health disorders associated with violent behavior, and drug addiction. In 2017, specific Class A conditions include active tuberculosis, untreated syphilis, untreated gonorrhea, and Hansen's disease (leprosy). Class B conditions are conditions that may interfere with the well-being of the refugee; the refugee should receive follow-up care soon after arrival in the United States and often treatment before departure. None of the patients seen in 2017 had a Class A condition; however, 6% of patients were diagnosed with a Class B TB condition. The figure below shows the percent of the type of Class B TB condition. A Class B TB B1 indicates an abnormal chest X-ray with evidence of TB, and/or the individual has a history of treatment for active TB disease. A Class B TB B2 status indicates the refugee was diagnosed with a latent TB infection. A Class B TB B3 status indicates a recent contact with an infectious TB case. No refugees classified B3 arrived or were screened in 2017.

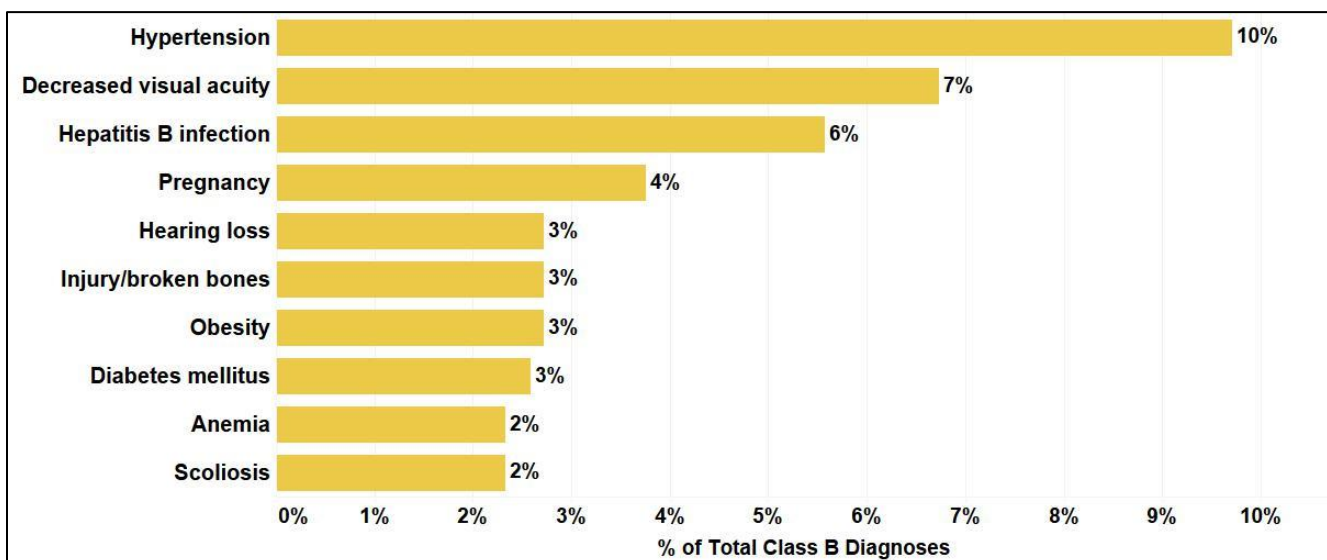
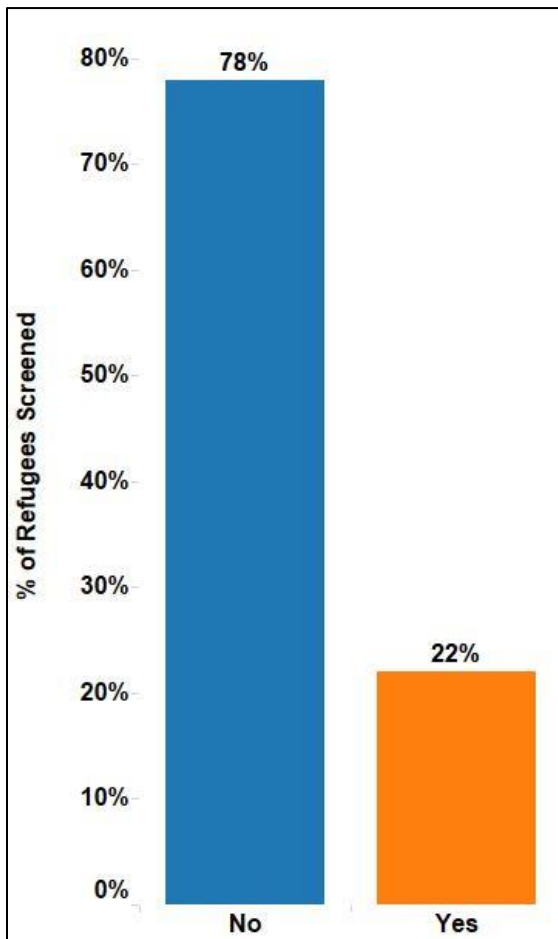


The figure below shows the percentage of refugees from each country diagnosed overseas with a Class B TB condition.



Class B Other Health Conditions

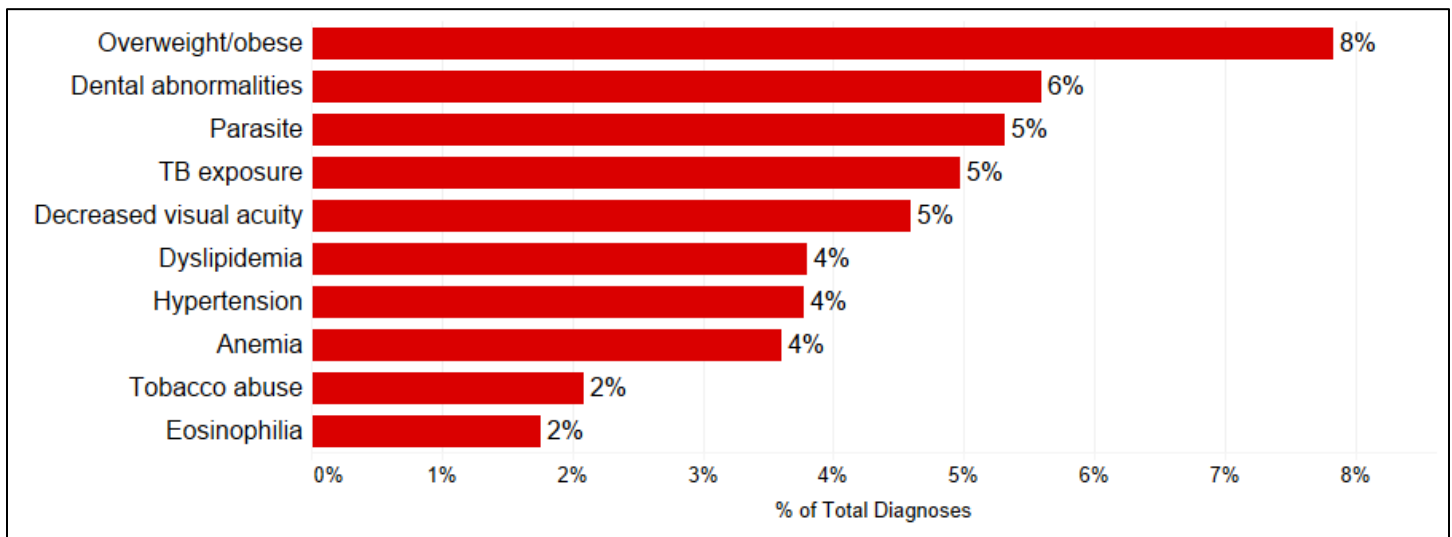
Overall, 17% of refugees who had a health screening overseas were diagnosed with a Class B Other Condition, as depicted in the figure below. The second figure below shows the top Class B Other Conditions reported from refugees who received a health screening in 2017.



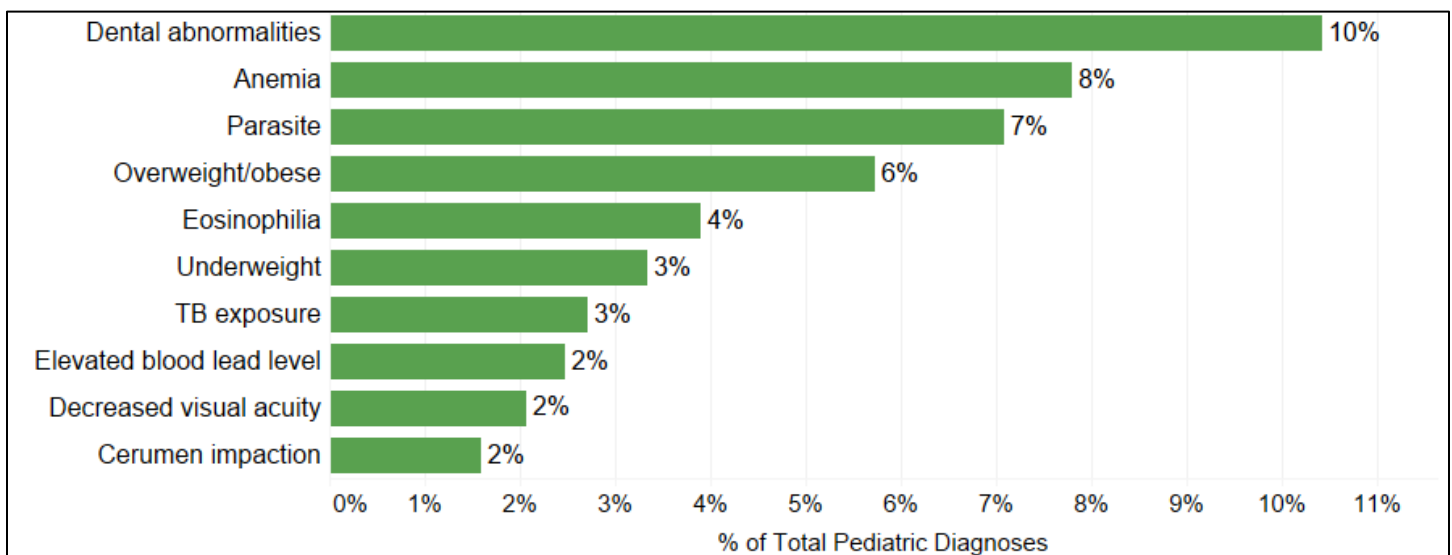
Health Profile of Refugees in Kentucky seen in 2017

Refugees receive a comprehensive medical screening as part of the Refugee Health Assessment. The RHA includes screening for parasites, body mass index, urinalysis, eosinophilia, total cholesterol, high density lipoprotein, varicella titer, tuberculosis, complete metabolic panel, vision, hearing, mental health, hepatitis B, and dental, as well as other health indicators. Laboratory tests are reviewed with the refugee and the physician can make diagnoses and refer for follow up treatment. The figures below depict the top diagnoses and the top referrals for refugees screened in 2017 in Kentucky. The top health concerns represent health issues diagnosed by a medical provider at the health screening.

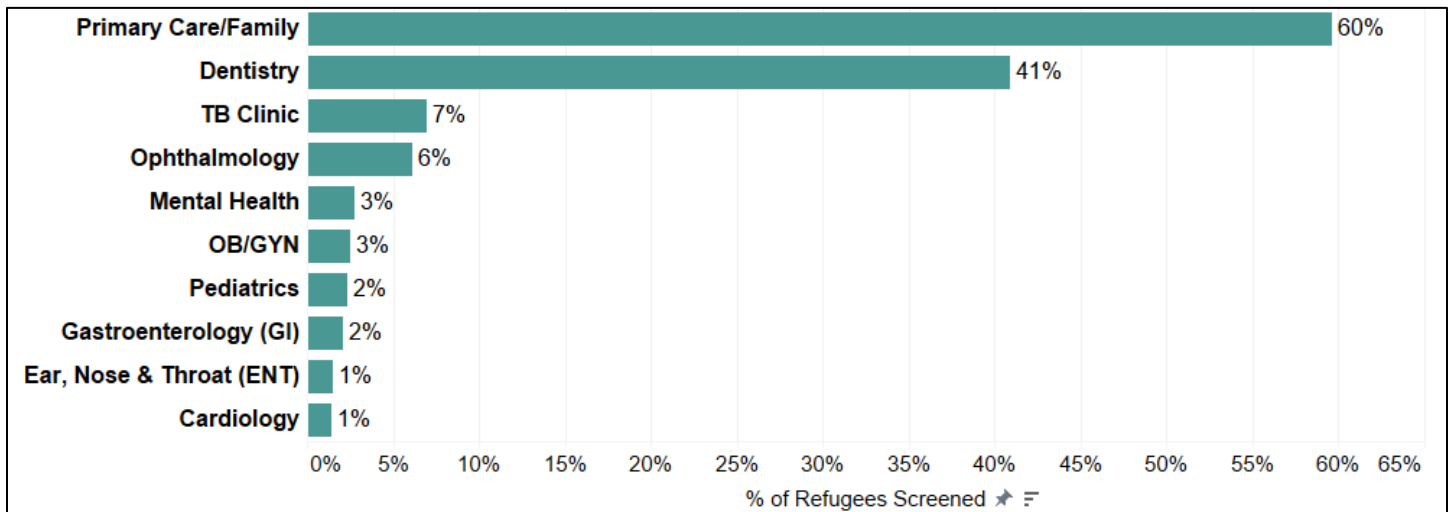
Top Diagnoses for All Refugees



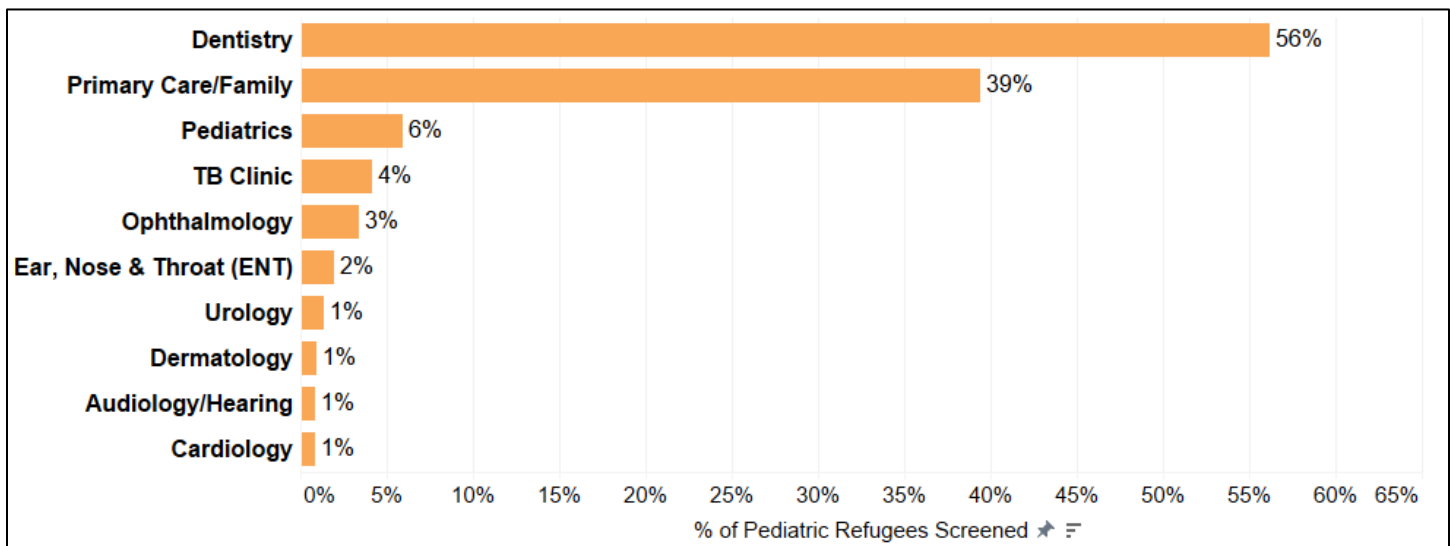
Top Diagnoses for Pediatric Refugees



Top Referrals



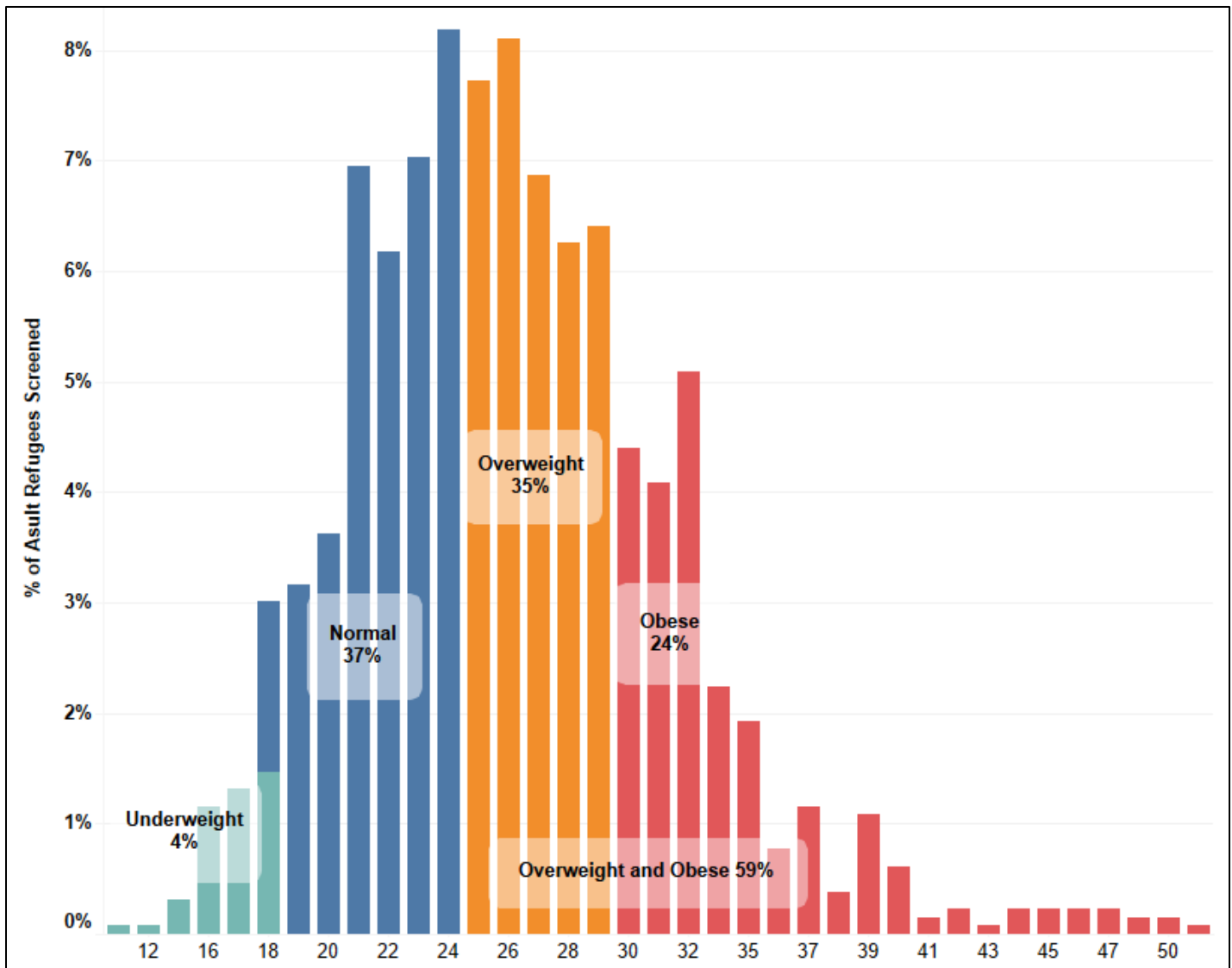
Top Referrals for Pediatric Refugees



Health Conditions of Refugees seen for a Health Screening in KY 2017*

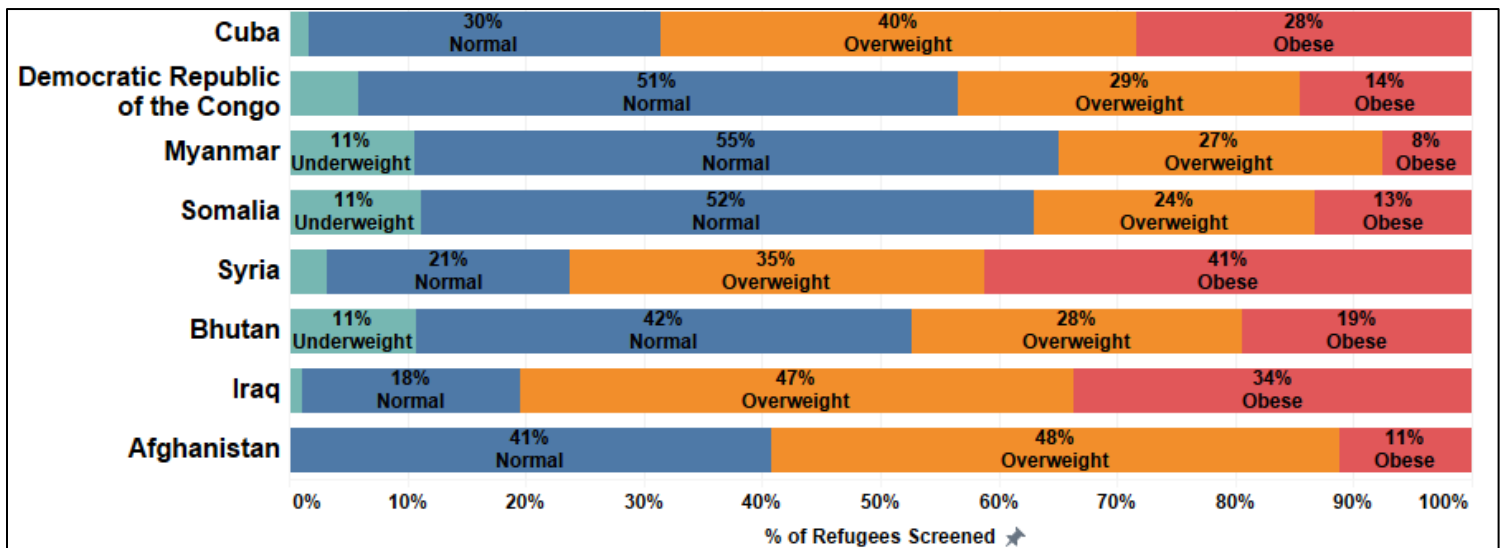
Body Mass Index (BMI)

Body Mass Index (BMI) is calculated based on height and weight and used to determine body fat percentage, which may indicate health problems. A BMI below 18.5 indicates underweight; 18.5 through 24.9 is considered normal weight; 25 through 29.9 overweight; and 30 and higher is defined as obese. Just under half of all newly-arriving refugees in 2017 were classified as overweight or obese. The figure below depicts the overall distribution of BMI for all refugees 18 years old and older.

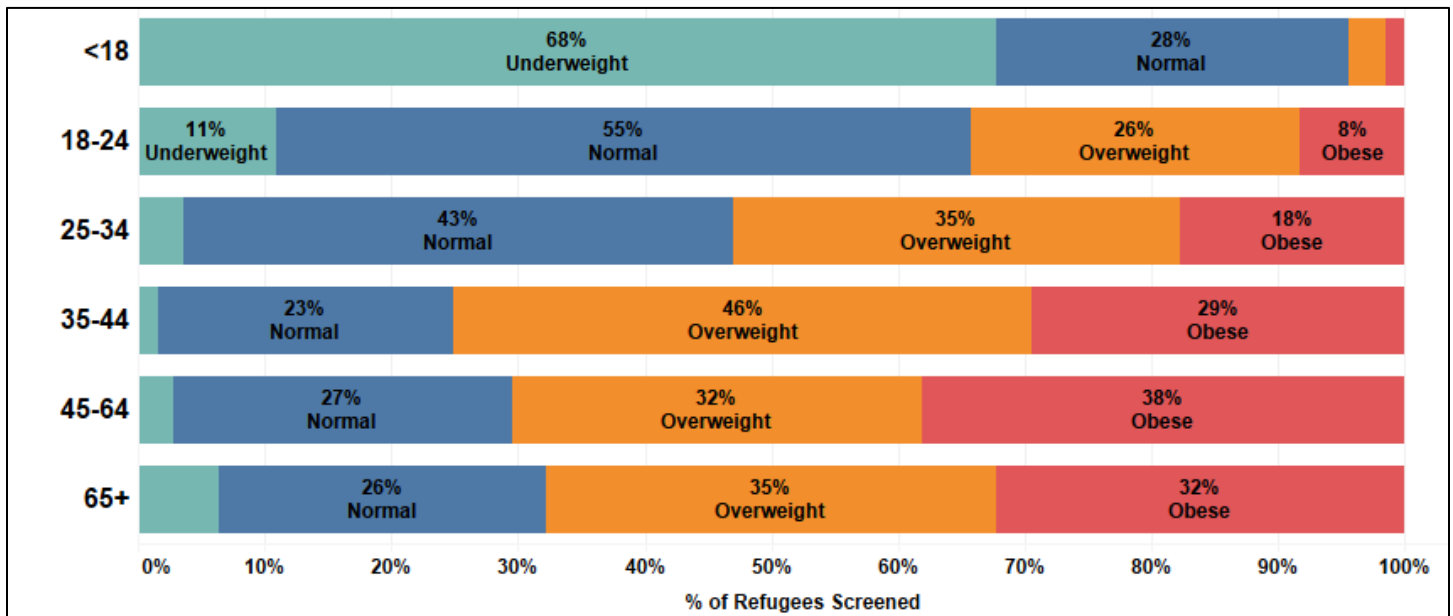


*Health conditions are health issues noted in the refugee health screening but not necessarily a diagnosed condition by a provider.

More than 65% of refugees aged 18 years and older from Cuba, Iraq and Syria are considered overweight or obese. A total of 11% of refugees from Somalia are considered underweight. Seventy-five percent of refugees ages 35-44 years are considered overweight or obese. More than 65% of children 2-17 years old are considered underweight. The first figure depicts the BMI category by nationality.



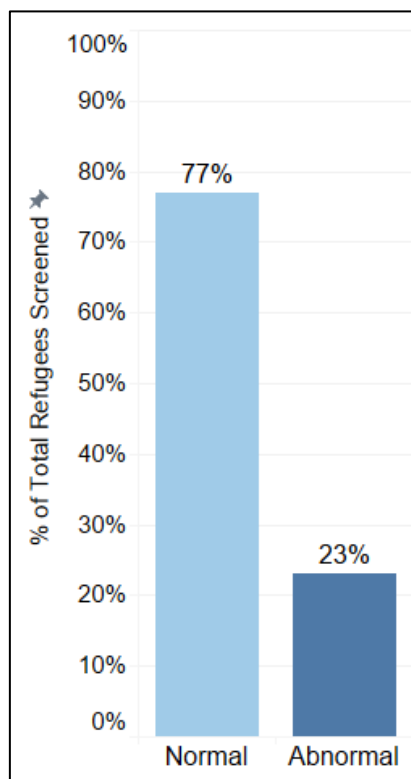
The second figure (below) shows BMI by age bracket.



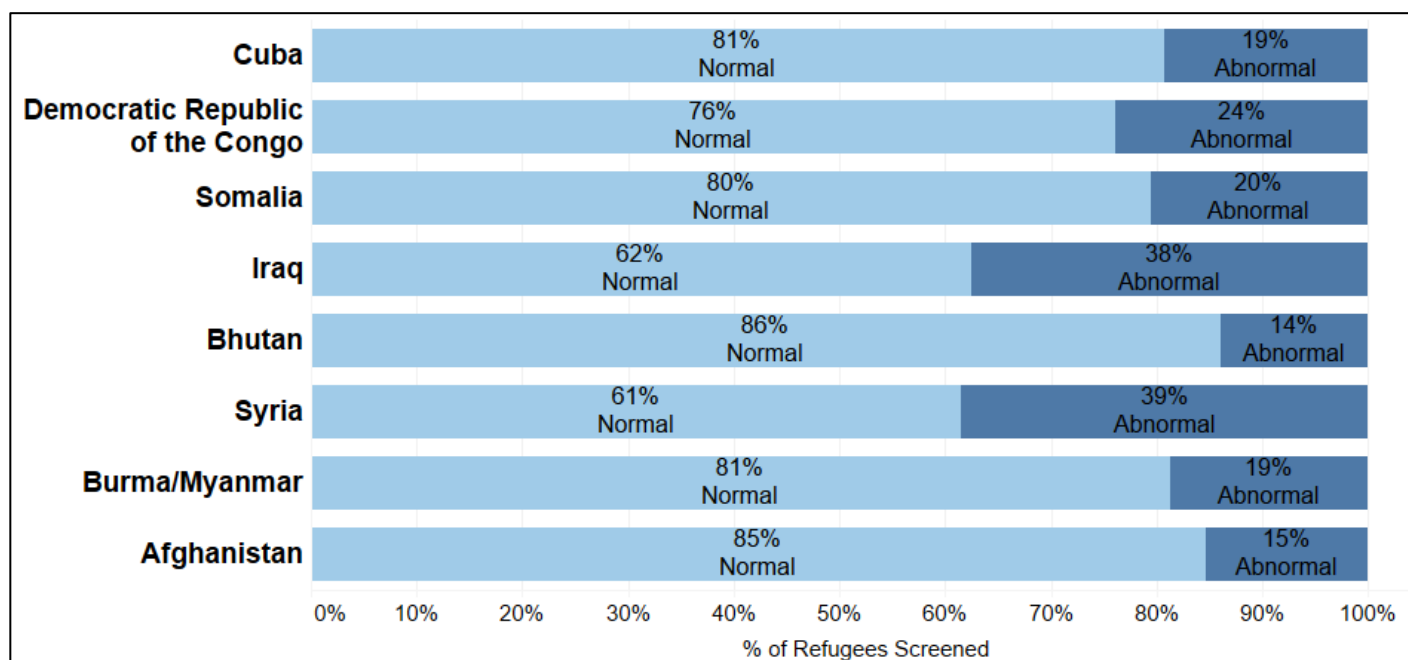
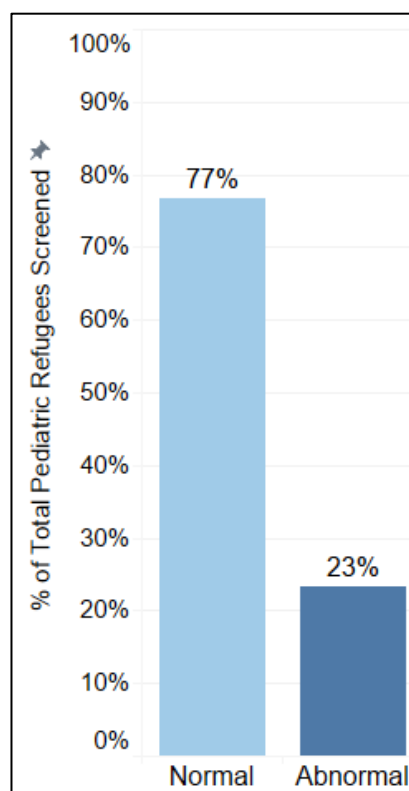
Urinalysis Result

A urinalysis is performed on all refugees able to provide a clean catch specimen and includes glucose, blood and protein screening. Urinalysis is used to assess for a variety of conditions including urinary tract infection, diabetes and kidney disease. A urinalysis is abnormal if any of the individual tests (e.g., glucose, protein, blood, leukocyte esterase, etc.) has an out-of-range value. Overall, 23% of patients had an abnormal urinalysis, as depicted in the first figure below (left). The second figure (right) depicts urinalysis results for pediatric patients. The third figure below (bottom) shows urinalysis results by nationality. Syria had the highest proportion of patients with an abnormal urinalysis (39%).

All Refugees

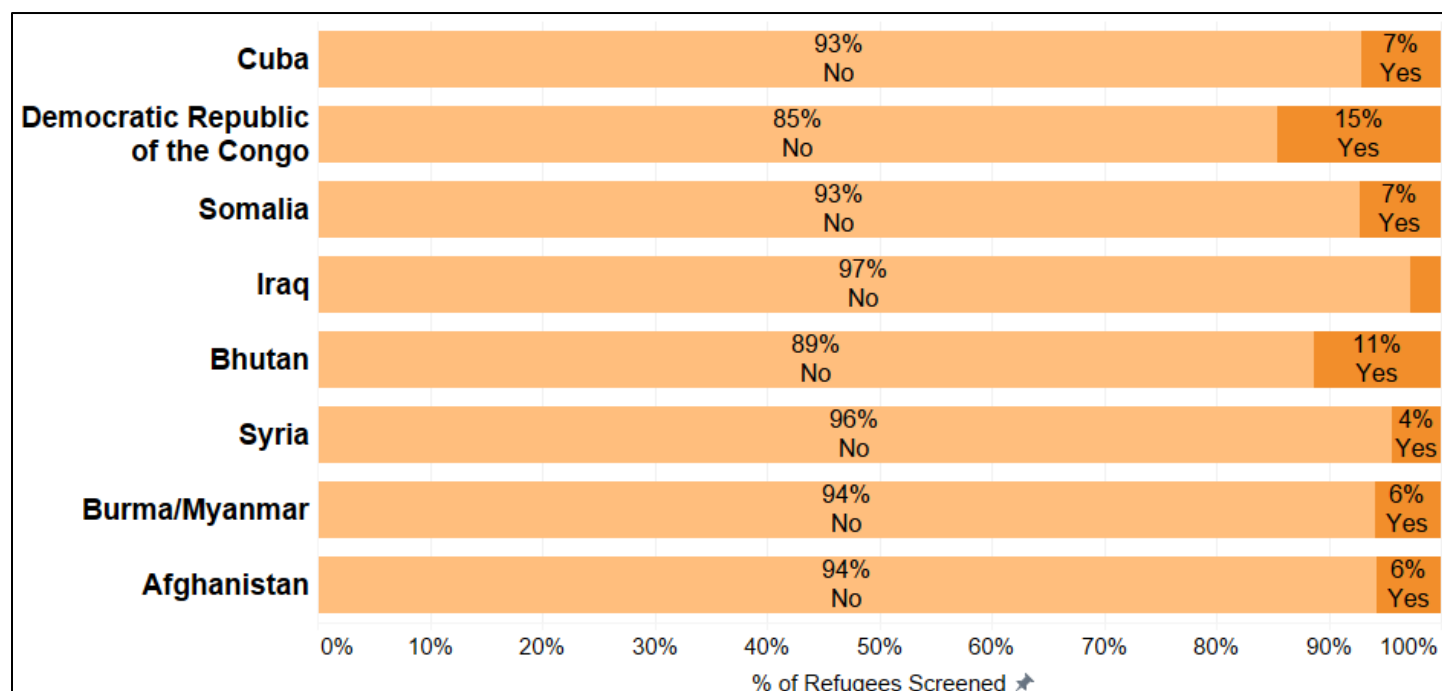
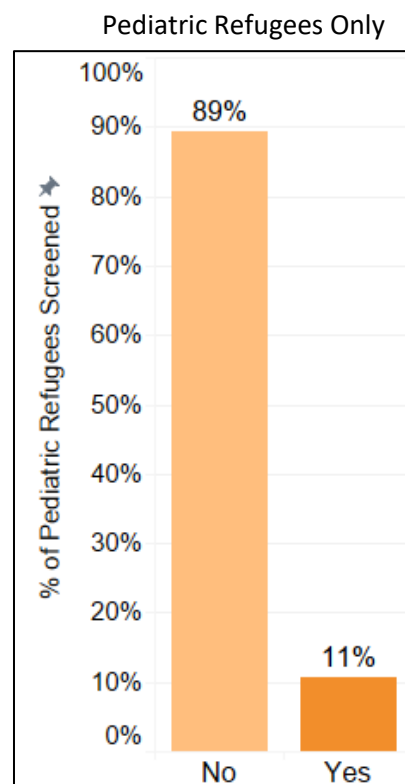
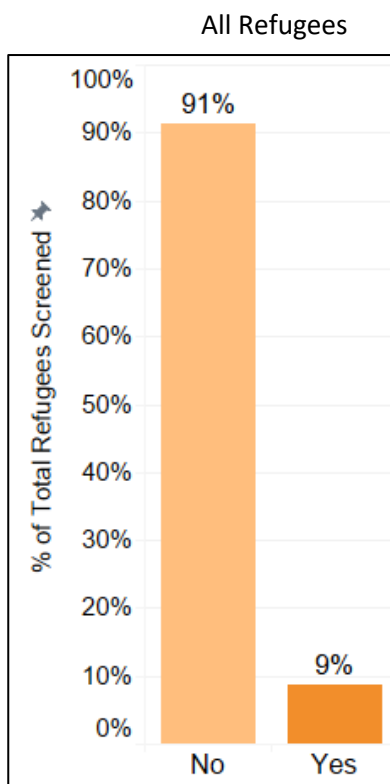


Pediatric Refugees Only



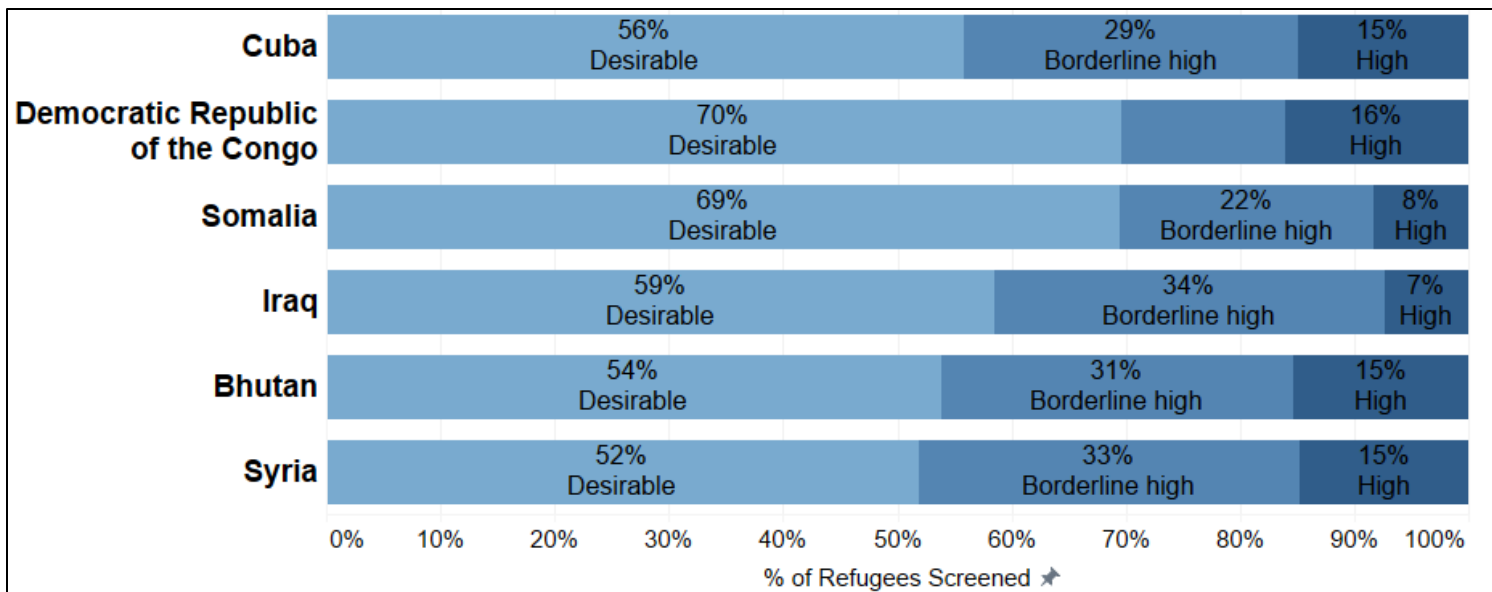
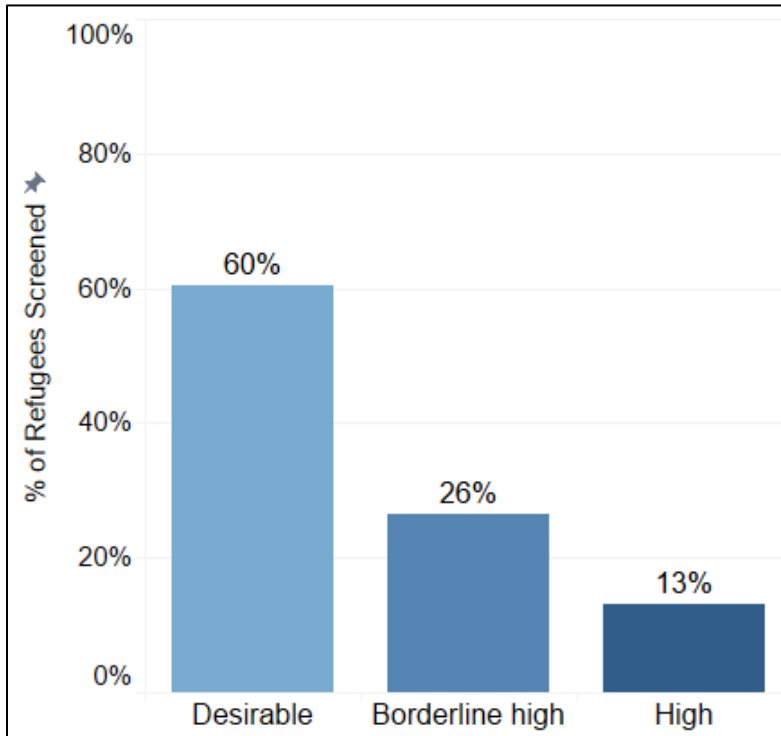
Eosinophilia

Refugees are screened for eosinophilia, an increase in the number of eosinophils in the blood, indicating the possible presence of a parasite. Overall, 9% of patients screened showed presence of eosinophilia, as depicted in the first figure below (left). The second figure (right) depicts eosinophilia presence among pediatric refugees. The third figure below (bottom) shows the percent of refugees who have eosinophilia by country of nationality. Democratic Republic of the Congo had the highest proportion of patients with eosinophilia (15%).



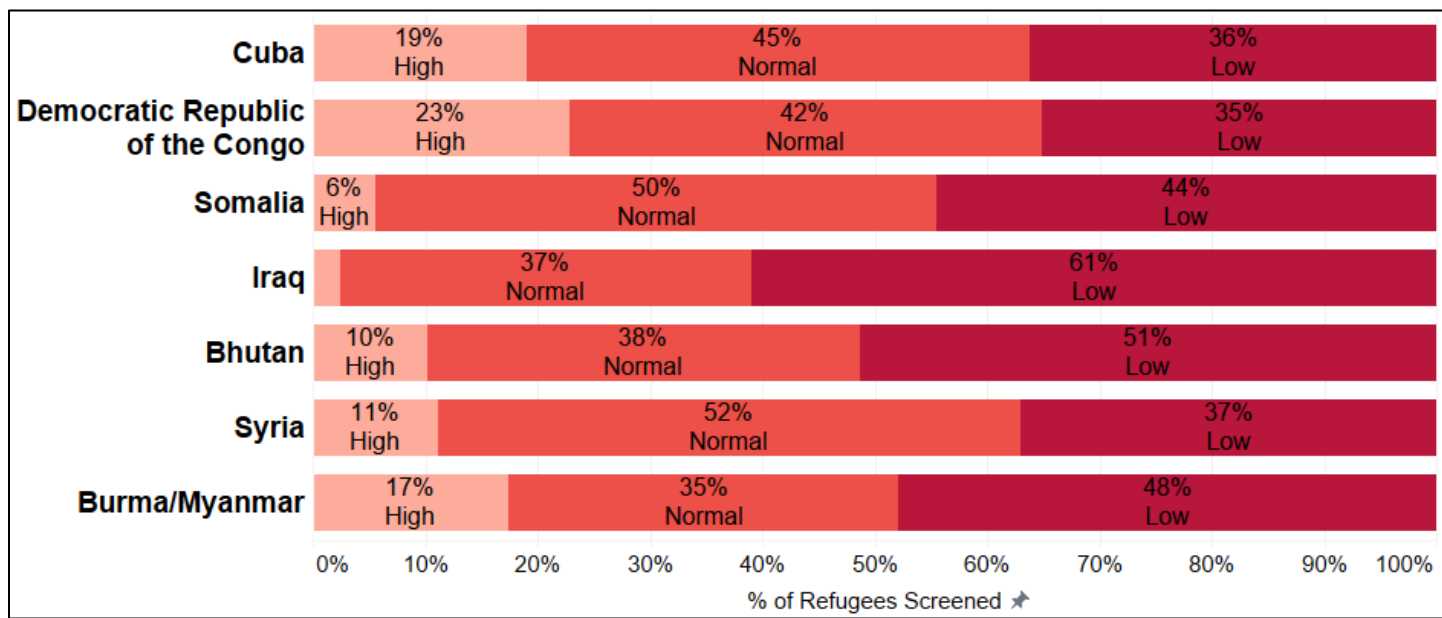
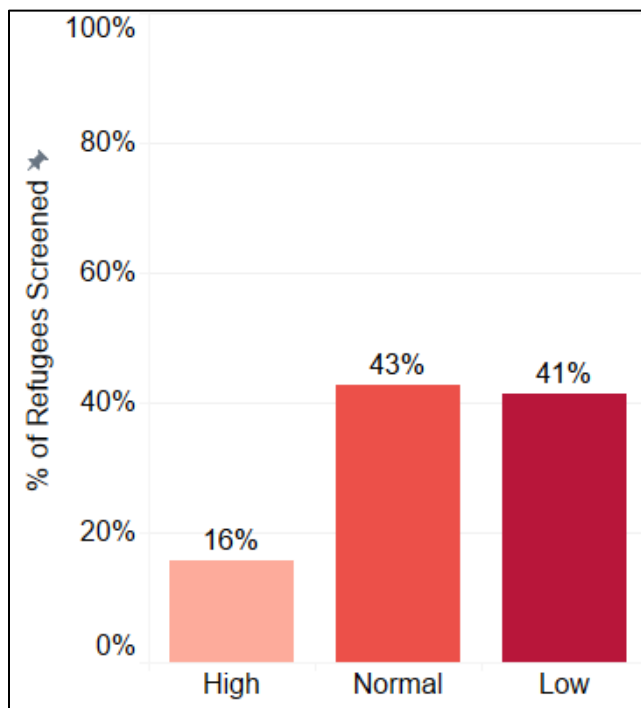
Total Cholesterol

Men aged 35 years and older and women 45 years and older receive a total cholesterol screening to screen for risk of heart disease and stroke. A cholesterol level of less than 200 mg/dL is considered desirable, 200 to 239 mg/dL borderline high and 240 mg/dL is defined as high. Overall, 13% of those tested had high cholesterol and 26% were considered borderline high, as depicted in the first figure below. The second figure below shows the cholesterol results by nationality. Democratic Republic of the Congo had the highest proportion of patients with high cholesterol (16%).



High Density Lipoprotein

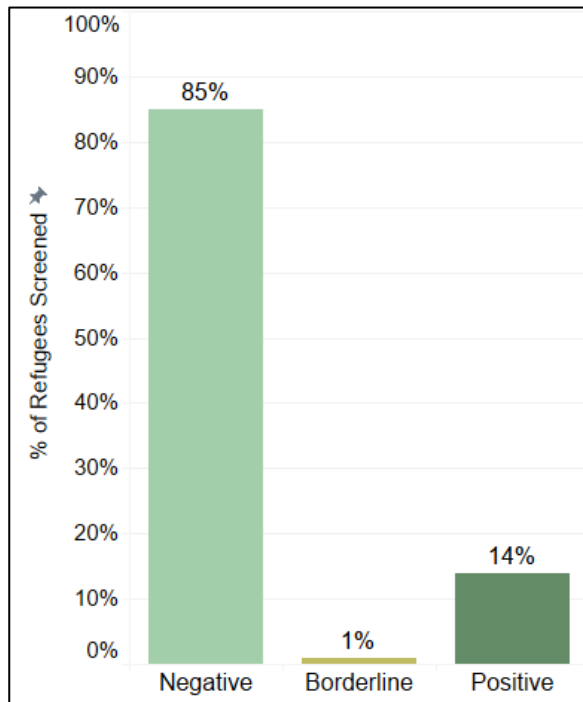
Men aged 35 years and older and women 45 years and older receive a high density lipoprotein (HDL) test. High HDL levels are protective against cardiovascular disease. HDL levels less than 40mg/dL for men and less than 50 for women are considered low and a risk for heart disease; 40 to 59 for men and 50 to 59 for women is normal; and 60 and above is defined as high. Overall, 41% of those tested had low HDL levels, as depicted in the first figure below. The second figure below depicts HDL results by country of nationality. Iraq had the highest proportion of refugees with low HDL levels (61%).



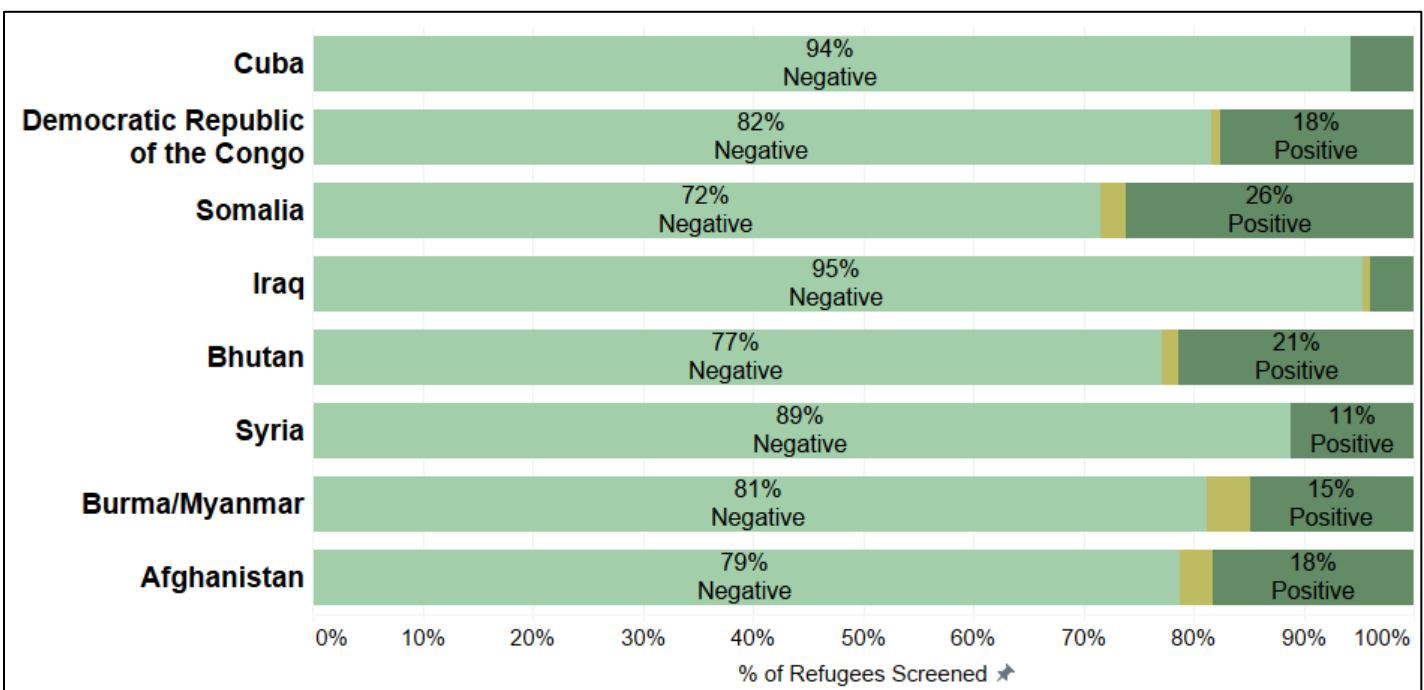
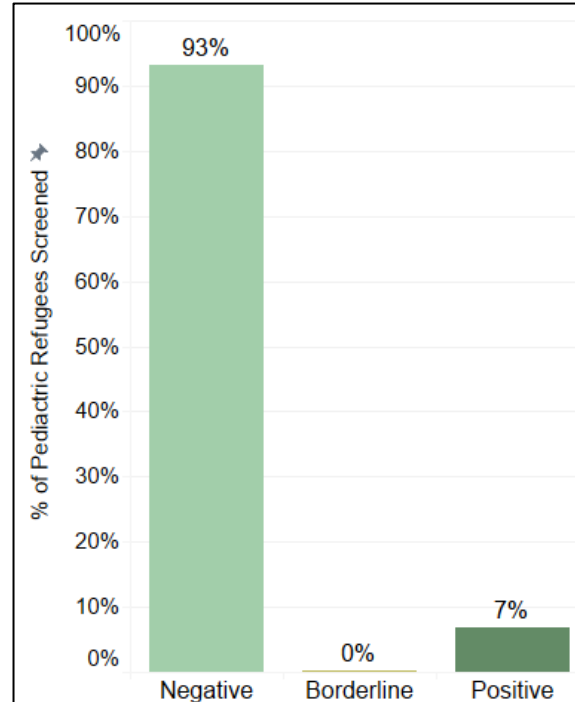
Tuberculosis Screening

Refugees receive a TB screening (T-SPOT.TB, QuantiFERON-TB Gold (QFT), tuberculin skin test (TST) if 4 years old or younger) to determine tuberculosis status. A positive screening indicates tuberculosis infection and patients are evaluated for active disease and referred to the Health Department for follow up care. Overall, 14% of refugees tested have a positive TB screening, as depicted in the first figure below (left). The second figure below (right) depicts TB results for pediatric patients with a positive result. The third figure below (bottom) shows TB screening results by nationality. A total of 26% of refugees from Somalia had a positive TB screening.

All Refugees



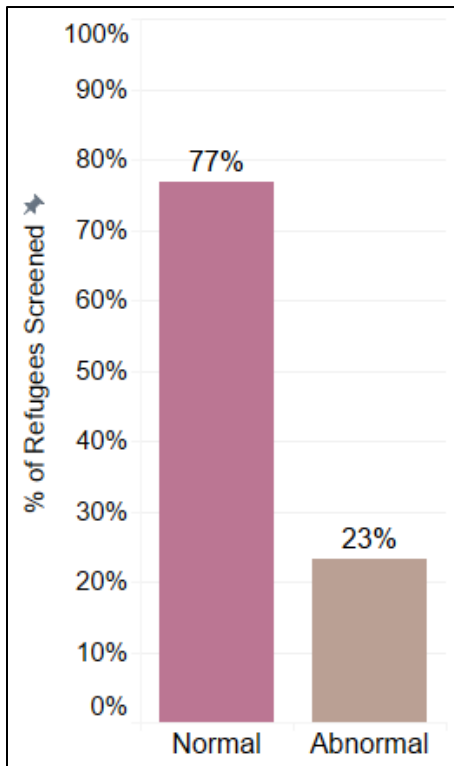
Pediatric Refugees Only



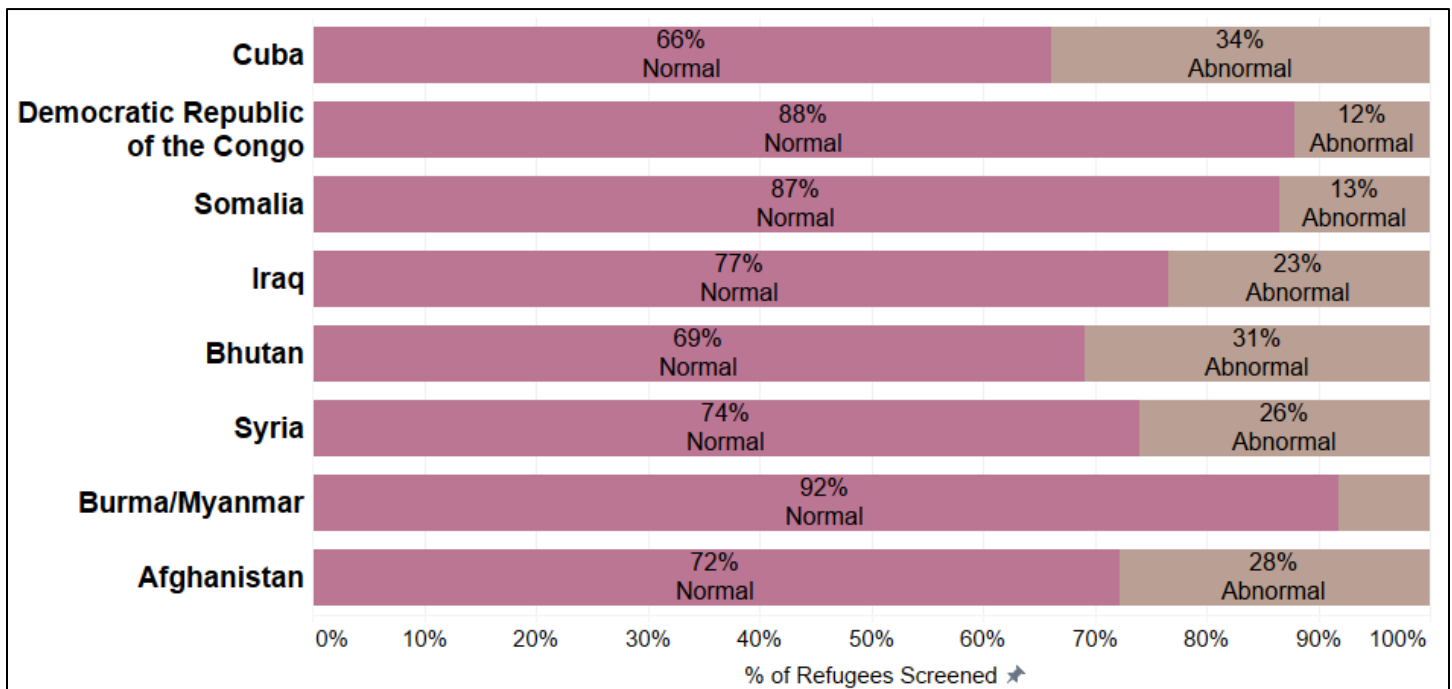
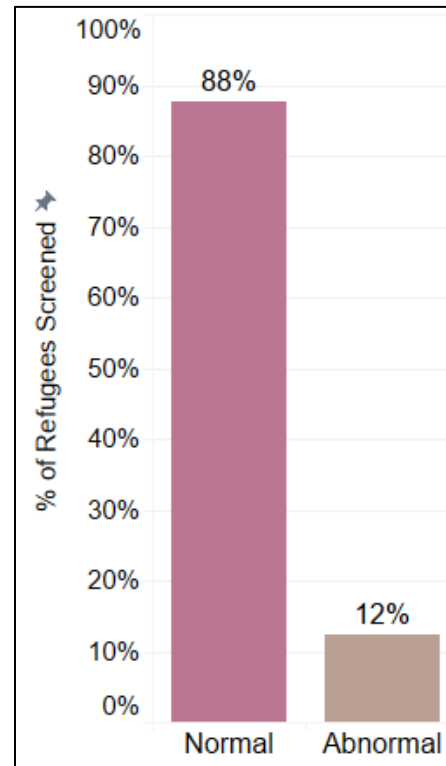
Vision

Refugees receive a vision screening as part of the RHA. Vision screening results of 20/20 or better (eg., 20/15) are considered normal, and all other results are considered abnormal. Overall, 23% of refugees screened had an abnormal vision exam, as depicted by the first figure below (left). The second figure below (right) depicts the percent of abnormal vision screenings in pediatric refugees. The third figure below (bottom) shows vision screening results by country of nationality. Refugees from Cuba had the highest proportion of abnormal vision results (34%). Refugees with an abnormal vision screening may be referred to an optometrist or ophthalmologist.

All Refugees

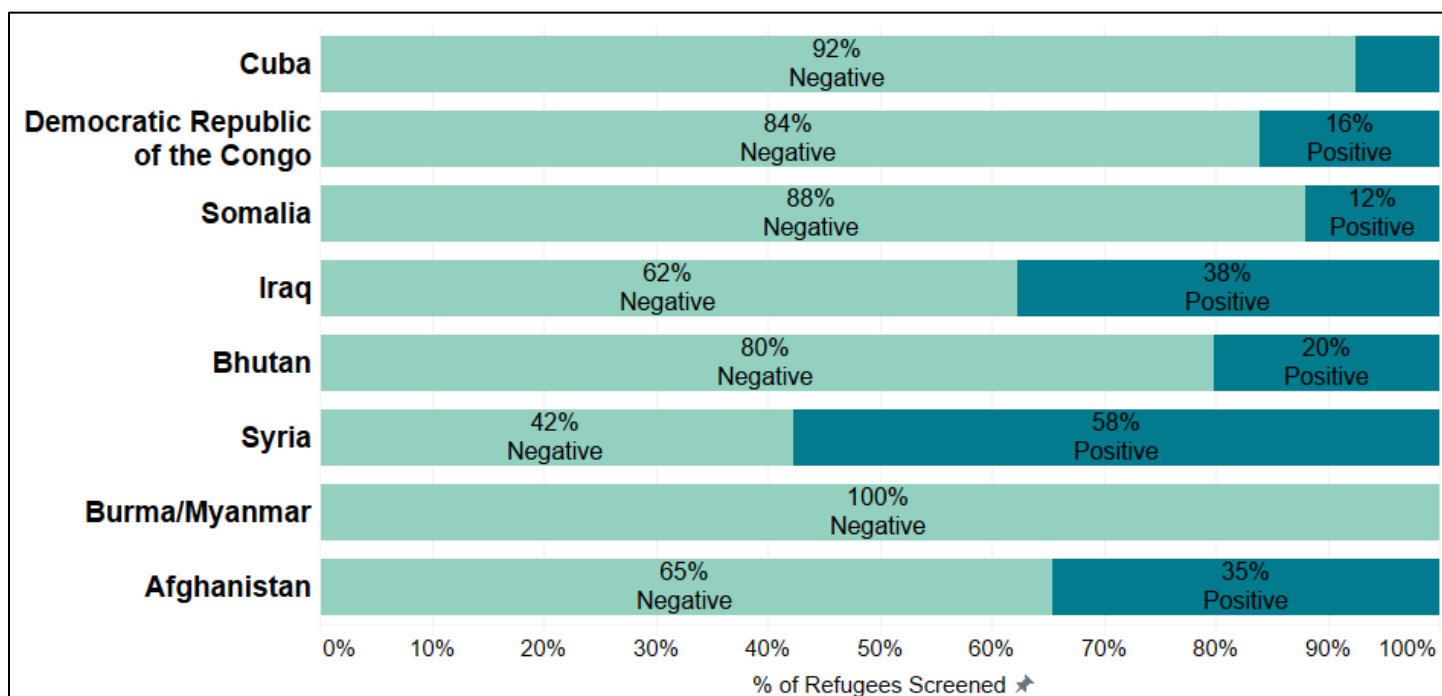
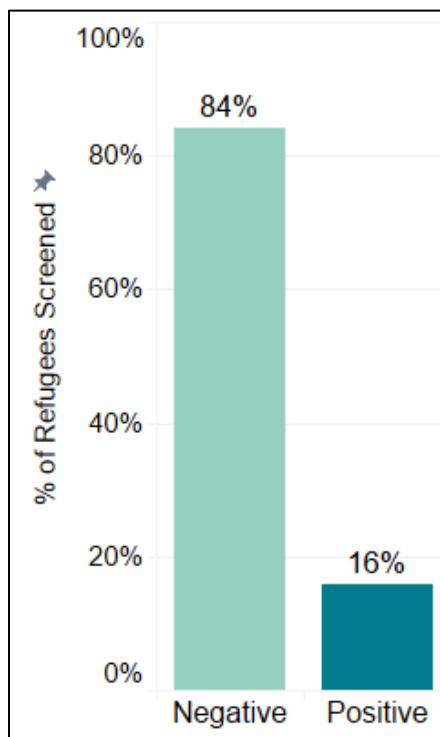


Pediatric Refugees Only



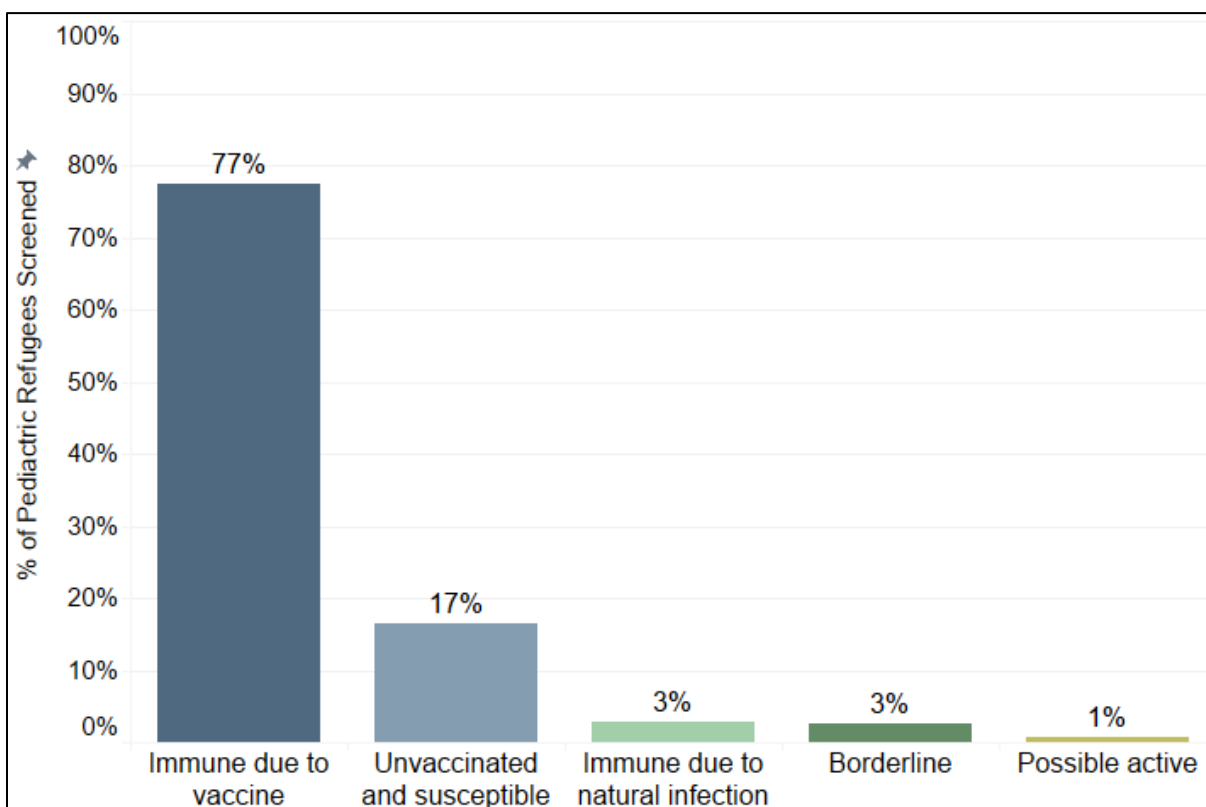
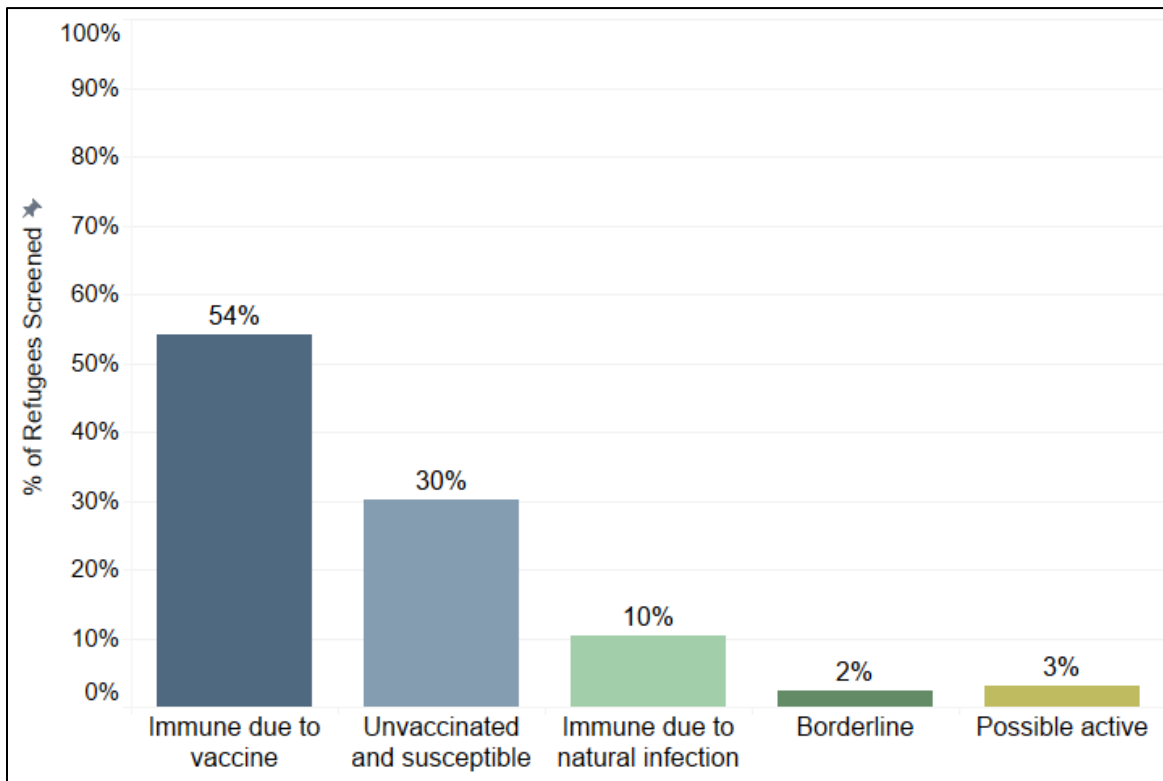
Mental Health Screening

The Refugee Health Screener-15 (RHS-15) is a screening instrument developed to detect emotional distress in newly arrived refugees. An RHS-15 is completed by refugees 14 years and older during the RHA visit. Overall, 16% of those screened had a positive RHS-15 score. Fifty-eight percent of refugees from Syria had a positive RHS-15. Refugees with a positive RHS-15 may be referred to the mental health coordinator. The first figure below shows the percent of refugees 14 years and older who had a positive mental health screening. The second figure below depicts the mental health screening results by country of nationality.



Hepatitis B

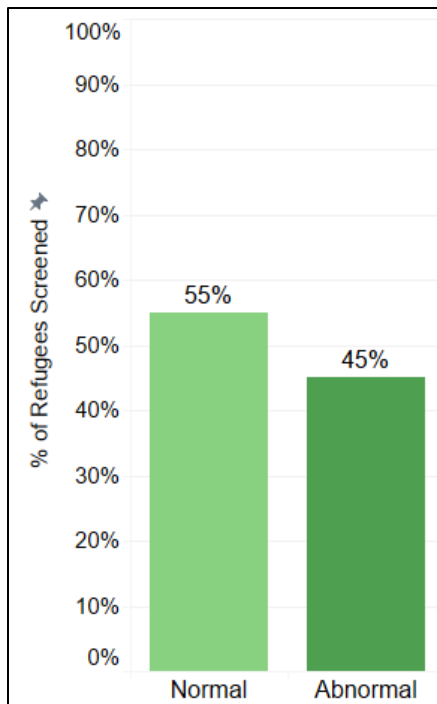
Refugees are screened for Hepatitis B as part of the RHA. Overall, 3% of refugees screened positive for possibly active Hepatitis B, as depicted in the figure below. The second figure below depicts Hepatitis B results for pediatric refugees. Patients who have active Hepatitis B may be referred to Infectious Diseases for evaluation and follow-up.



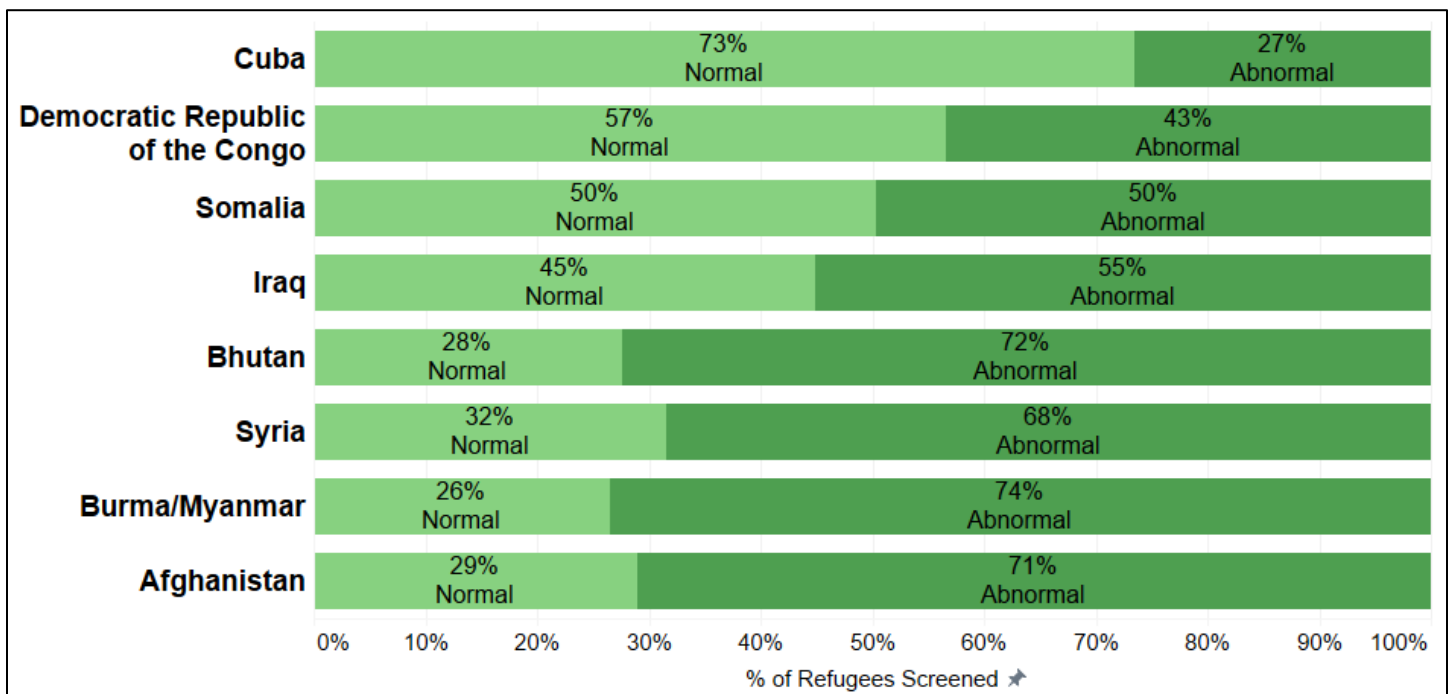
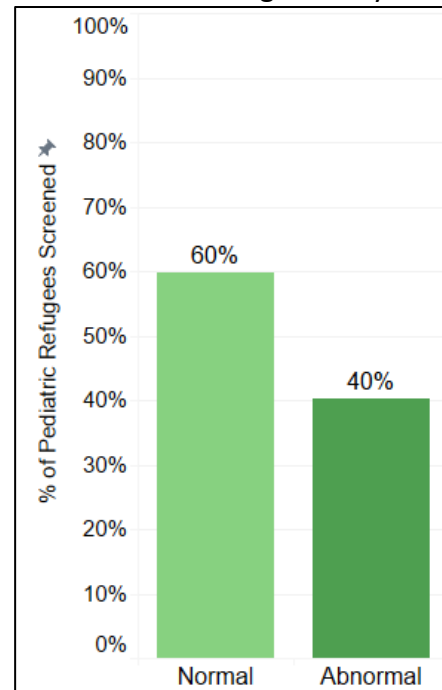
Dental

Refugees receive a gross assessment of dental health as part of the RHA. Dental exam results may be abnormal due to missing teeth or the presence of gum disease and/or dental caries. Overall, 45% of refugees screened had an abnormal dental screening, as depicted in the first figure below (left). The second below (right) depicts dental abnormalities in pediatric refugees. The third figure (bottom) shows patients with an abnormal dental result by country of nationality. Burma/Myanmar had the highest proportion of refugees with dental abnormalities (74%). Dental abnormalities are the most common diagnosis among refugees.

All Refugees

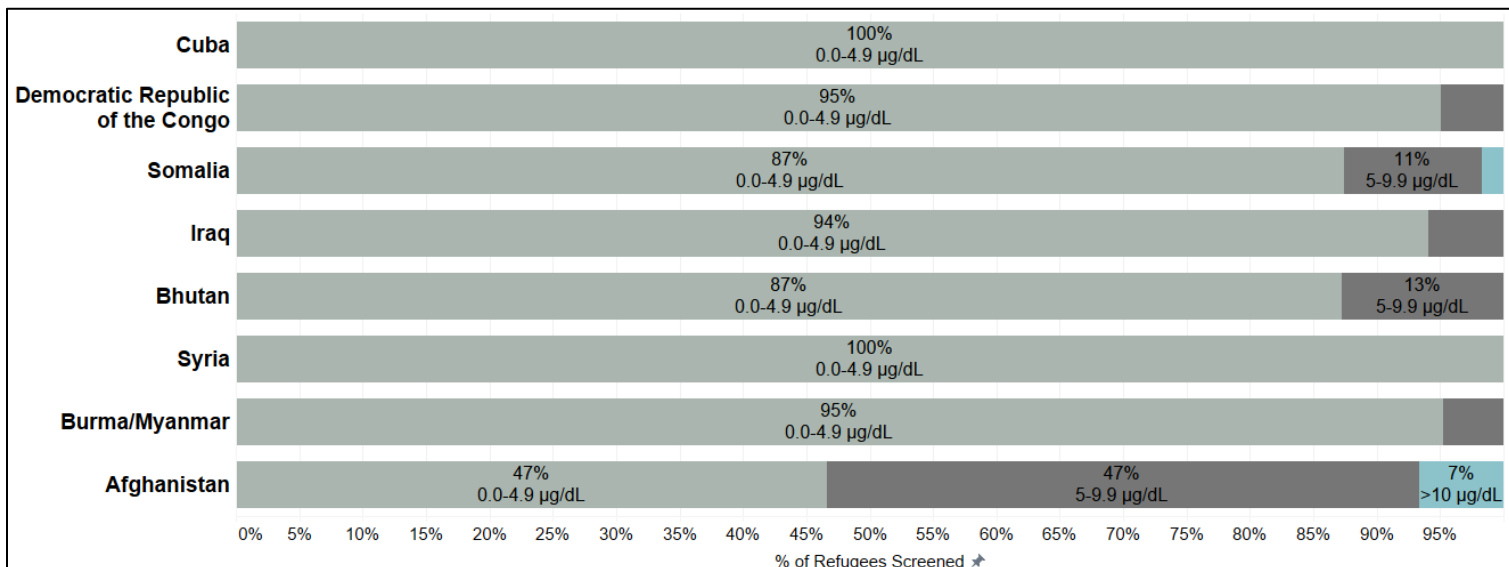
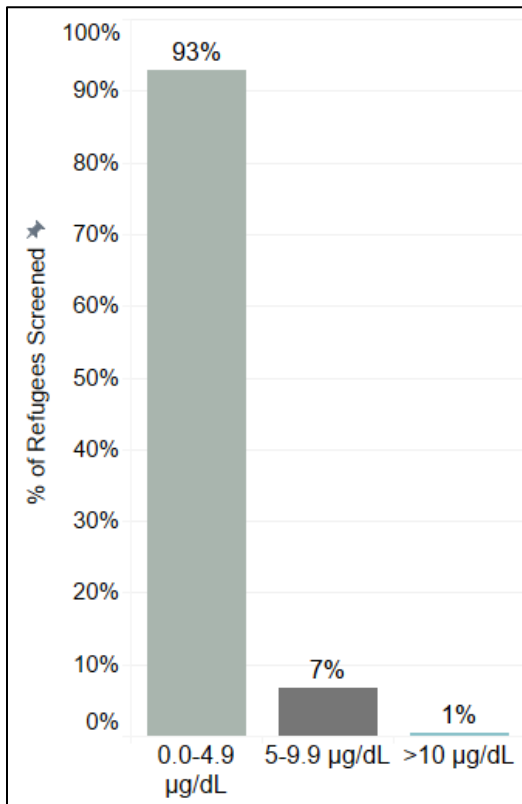


Pediatric Refugees Only



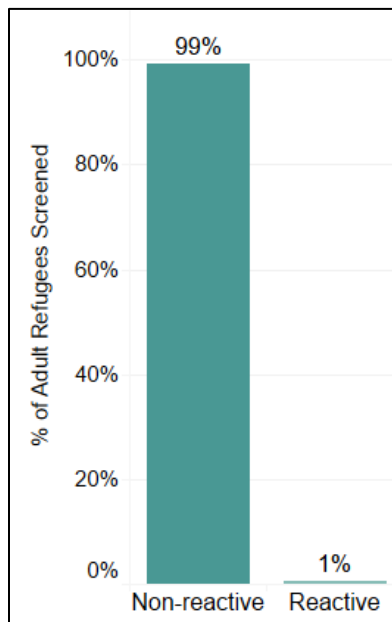
Blood Lead Levels

Pediatric refugees and pregnant women have a blood lead level screening as part of the RHA. Normal blood lead levels are between 0.0 and 4.9 µg/dL. Overall, 8% of refugees screened had elevated blood lead level, as depicted in the first figure below. The second figure (bottom) shows patients with elevated blood lead levels by country of nationality. Afghanistan had the highest proportion of refugees with elevated blood lead levels (54%).



HIV

All refugees are screened for HIV as part of the RHA. Overall, 1% of adult patients had a reactive HIV test and may be referred to an HIV clinic for follow up.

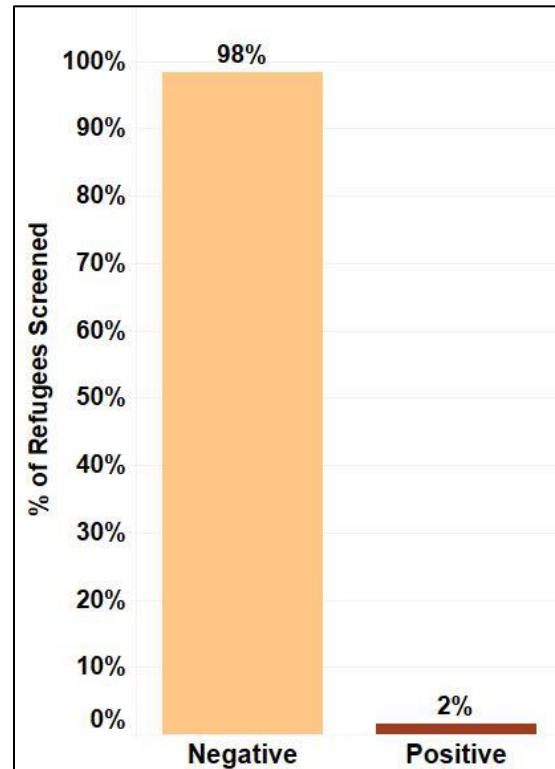
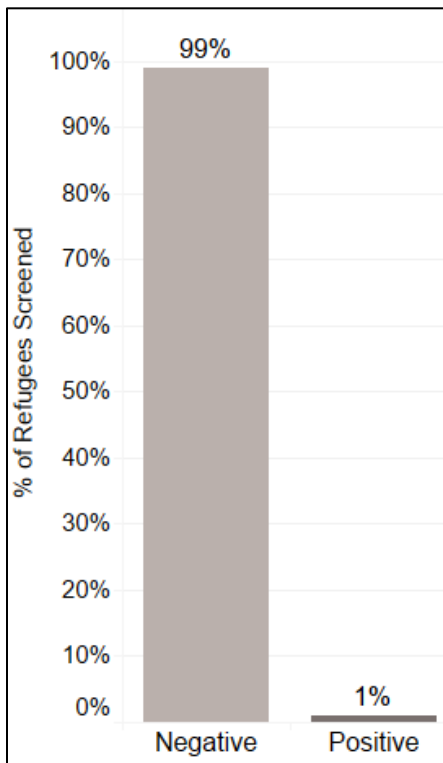


Syphilis

All refugees 15 years and older are tested for syphilis. Refugees who test positive for syphilis are treated or referred to the public health sexually transmitted infection clinic. Overall, 1% of refugees screened had a positive syphilis test.

Hepatitis C

Refugees are tested for Hepatitis C as part of the RHA if he or she is considered at risk for infection. At risk refugees include those with a tattoo, history of blood transfusion, injection drug use, or history of surgery. Overall, 2% of those screened tested



For more information, contact:

University of Louisville Global Health Center
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501 E. Broadway, Suite 140C
Louisville, KY 40202
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2222 West Market Street
Louisville, KY 40212
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