Acknowledgements

Suggested Citation:

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Table of Contents

List of Tables and Figures .................................................................................................................4
Executive Summary ............................................................................................................................5
List of Acronyms ...............................................................................................................................6
Introduction ........................................................................................................................................7
Iowa Refugee Health Program .........................................................................................................8
Purpose .............................................................................................................................................8
Demographic and Arrival Data .......................................................................................................9
Arrivals ............................................................................................................................................10
Initial Refugee Health Assessment .................................................................................................11
Tuberculosis (TB) ..........................................................................................................................12
Class B TB .........................................................................................................................................13
Human Immunodeficiency Virus (HIV) .........................................................................................13
Hepatitis B Virus (HBV) .................................................................................................................14
Hepatitis C Virus (HCV) ................................................................................................................14
Syphilis ...............................................................................................................................................15
Intestinal Parasites ..........................................................................................................................15
Malaria ...............................................................................................................................................16
Lead ..................................................................................................................................................16
Major Diagnoses and Referrals ......................................................................................................17
Summary ..........................................................................................................................................17
## List of Tables and Figures

<table>
<thead>
<tr>
<th>List of Figures</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1 Statistical Yearbook, UNHCR, 2019</td>
<td>7</td>
</tr>
<tr>
<td>Figure 2 Iowa Primary Refugees by Fiscal Year, 2012-2018</td>
<td>9</td>
</tr>
<tr>
<td>Figure 3 Iowa Primary Refugees by Month, 2018</td>
<td>9</td>
</tr>
<tr>
<td>Figure 4 Iowa Primary Refugees by Age Group and Sex, 2018</td>
<td>9</td>
</tr>
<tr>
<td>Figure 5 Iowa Primary Refugee Youth, 2018</td>
<td>9</td>
</tr>
<tr>
<td>Figure 6 Iowa Primary Refugees by Sex, 2013-2018</td>
<td>10</td>
</tr>
<tr>
<td>Figure 7 Iowa Primary Refugees by Nationality, 2018</td>
<td>10</td>
</tr>
<tr>
<td>Figure 8 Iowa Primary Refugees by Country of Origin, 2018</td>
<td>10</td>
</tr>
<tr>
<td>Figure 9 Goals of the Initial Health Assessment</td>
<td>11</td>
</tr>
<tr>
<td>Figure 10 Iowa Refugee Health Assessment Completion, 2013-2018</td>
<td>11</td>
</tr>
<tr>
<td>Figure 11 Iowa Refugee Health Assessment Timeframe, 2018</td>
<td>11</td>
</tr>
<tr>
<td>Figure 12 Iowa Primary Refugees Arrivals by TB Diagnosis, 2015 - 2018</td>
<td>12</td>
</tr>
<tr>
<td>Figure 13 Class B Primary Refugee Arrivals by TB Diagnosis, 2015 – 2018</td>
<td>13</td>
</tr>
<tr>
<td>Figure 14 Iowa Primary Refugee HIV Screening Results, 2015-2018</td>
<td>13</td>
</tr>
<tr>
<td>Figure 15 Iowa Primary Refugee Hepatitis B (HBsAg+) Screening Results, 2015 – 2018</td>
<td>14</td>
</tr>
<tr>
<td>Figure 16 Iowa Primary Refugee Hepatitis C Screening Results, 2015 – 2018</td>
<td>14</td>
</tr>
<tr>
<td>Figure 17 Iowa Primary Refugee Syphilis Screening Results, 2015-2018</td>
<td>15</td>
</tr>
<tr>
<td>Figure 18 Iowa Primary Refugee Internal Parasite Screening Results, 2015-2018</td>
<td>15</td>
</tr>
<tr>
<td>Figure 19 Global Malaria Transmission</td>
<td>16</td>
</tr>
<tr>
<td>Figure 20 Iowa Primary Refugee Blood Lead Level Screening Results (Age 6 months through 16 years), 2015 - 2018</td>
<td>16</td>
</tr>
</tbody>
</table>
Executive Summary

The Iowa Refugee Health Program coordinates with local clinics, resettlement agencies, local public health agencies and community organizations to protect and improve the health and well-being of refugees. The primary goal of the program is to ensure each newly arriving refugee receives a comprehensive health assessment. During the initial refugee health assessment, clinicians identify and address the immediate health needs of refugees, evaluate for diseases of public health significance, treat acute and chronic conditions, establish primary care and make referrals to specialists when needed. Health assessment data guides the development of public health responses to emerging refugee health issues.

During calendar year 2018:

- 538 newly arriving refugees from nine different countries of origin resettled in nine Iowa counties.
  - Resettlement occurred in Polk, Linn, Black Hawk, Johnson, Woodbury, Wapello, Buena Vista, Crawford and Marshall counties.
  - 54.8% of arrivals were from the Democratic Republic of Congo, 23.8% from Burma, 13.8% from Eritrea, and 7.6% were from Bhutan, Burundi, Afghanistan, El Salvador and Ethiopia.

- 99.8% of new arriving refugees received initial health assessments (537 individuals).
  - 60.6% were screened within 30 days, 33.8% were screened within 31-60 days, and 5.4% were screened within 61-90 days.
  - Initial health assessments occurred at 10 Iowa clinics.

- Health Screening Results:
  - Tuberculosis: Of the 524 refugees screened for tuberculosis, none were diagnosed with active disease and 87 were diagnosed with latent tuberculosis infection (LTBI).
  - HIV: Of the 439 refugees screened for HIV, five tested positive.
  - Hepatitis B: Of the 506 refugees screened for Hepatitis B, 27 tested positive.
  - Hepatitis C: Of the 255 refugees screened for Hepatitis C, four tested positive.
  - Syphilis: Nine refugees tested positive for syphilis.
  - Intestinal Parasites: Of the 154 new arrivals with completed stool ova and parasite or serology tests, 72 tested positive for at least one parasite. The most common pathogenic parasites detected were *Giardia* (19 cases), *Schistosoma* (18 cases) and *Strongyloides* (5 cases). The most common non-pathogenic parasites detected was *Endolimax nana* (16 cases).
  - Malaria: Of the five refugees screened for malaria, three tested positive.
  - Lead: Of the 215 refugee youth screened for lead, 16 had elevated blood lead level (≥ 5μg/dl).

- Health concerns: The health concern reported most frequently by clinicians were dental problems (66), followed by vision loss (31), mental health concern (11) and hearing problem (5).
  - Referrals: The most common referrals were for primary care (326), dental care (237), vision/ophthalmology (38), obstetrics/gynecology (23), infectious disease (10), neurology (8), pediatrics (7), cardiology (6), mental health (5), physical therapy/occupational therapy (5), public health nursing (5) and gastroenterology (5).
### List of Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLL</td>
<td>Blood Lead Level</td>
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<tr>
<td>CDC</td>
<td>Centers for Disease Control and Prevention</td>
</tr>
<tr>
<td>CXR</td>
<td>Chest X-Ray</td>
</tr>
<tr>
<td>HBV</td>
<td>Hepatitis B Virus</td>
</tr>
<tr>
<td>HBsAg</td>
<td>Hepatitis B Surface Antigen</td>
</tr>
<tr>
<td>HCV</td>
<td>Hepatitis C Virus</td>
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<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
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<tr>
<td>IDPH</td>
<td>Iowa Department of Public Health</td>
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<tr>
<td>IGRA</td>
<td>Interferon-gamma release assay (Tuberculosis screening)</td>
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<td>LTBI</td>
<td>Latent Tuberculosis Infection</td>
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<td>ORR</td>
<td>Office of Refugee Resettlement</td>
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<tr>
<td>SIV</td>
<td>Special Immigrant Visa</td>
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<td>TB</td>
<td>Tuberculosis</td>
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<tr>
<td>TST</td>
<td>Tuberculin skin test</td>
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<tr>
<td>UNHCR</td>
<td>United Nations High Commissioner of Refugees</td>
</tr>
</tbody>
</table>
2018 Refugee Health

Introduction
A refugee is a person who has been forced to flee his or her home country because of fear of persecution or violence. The United Nations High Commissioner of Refugees (UNHCR) defines a refugee as a “person who, owing to well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality, and is unable to, or owing to such fear, is unwilling to avail himself of the protection of that country.”

According to the UNHCR, an estimated 70.8 million people are displaced globally due to conflict, persecution, generalized violence or human rights violations. Among those forcibly displaced are 25.9 million refugees who have fled to another country. At the end of 2018, the global number of refugees under UNHCR’s mandate was estimated to be 20.4 million, the highest level recorded in the past two decades. More than half of all refugees worldwide came from three countries: Syrian Arab Republic, Afghanistan and South Sudan (Figure 1).

Figure 1 Statistical Yearbook, UNHCR, 2019
Iowa Refugee Health Program

Prior to coming to the United States, refugees often have limited access to health care services, food supplies and sanitation, which can have implications for health including malnutrition, infectious diseases and chronic conditions. Refugees may have also experienced acute and chronic traumatic events which can affect their mental health and emotional well-being, and add additional barriers to successful resettlement.

The Iowa Refugee Health Program, located in the Iowa Department of Public Health (IDPH) Bureau of Immunization and Tuberculosis, collaborates with local clinics, resettlement agencies, and community and ethnic-based organizations throughout the state to protect and improve the health and well-being of refugees.

**Iowa Refugee Health Program responsibilities include:**
- Ensure a comprehensive initial health assessment is completed for each newly arriving refugee
- Communicate CDC refugee health assessment guidelines and updates to private health care providers and local public health agencies
- Compile, analyze and distribute health assessment data to private health care providers and local public health agencies

**Purpose**

The purpose of this report is to provide an informational resource for stakeholders, local partners, policy makers and the general public. The data in this report is compiled from information provided by UNHCR, the Office of Refugee Resettlement (ORR), the Centers for Disease Control and Prevention (CDC), the Iowa Department of Public Health (IDPH) and medical clinics throughout the State of Iowa. It includes demographic information and health assessment outcomes for primary refugees, including special immigrant visa (SIV) holders, arriving in Iowa during fiscal and calendar year 2018.
Demographic and Arrival Data

The United States resettled 22,491 refugees in federal fiscal year (FY) 2018 (October 1, 2017 - September 30, 2018), a decrease of 58% from the previous year. Executive Order 13780, titled *Protecting the Nation From Foreign Terrorist Entry To The United States*, lowered the U.S. refugee admissions ceiling from a proposed 110,000 to 45,000. As a result, the U.S. received a reduced number of refugees for resettlement. The Refugee Admissions Ceiling was lowered to 30,000 for FY2019. The state of Iowa accepted 583 refugees for resettlement in FY 2018, a decrease of 14.5% from the previous fiscal year. The number of primary refugee arrivals increased from 2011 until 2016, and decreased in 2017 and 2018 (Figure 2). In calendar year 2018, Iowa resettled 538 primary refugees, a 5.6% decrease from the previous year (570). Iowa’s arrival number includes individuals from Afghanistan entering the U.S. on special immigrant visas (SIVs). Iowa received the highest number of arrivals in March and October (Figure 3).

At the time of their arrival in Iowa, refugees ranged in age from 2 months to 83 years age. The majority of arrivals (86.9%) were under 40 years of age, and 51.3% were children and young adults age 19 and under (Figure 4). For refugee youth under the age of 18, 43% were aged 0-6, 30% were aged 7-12, and 26% were aged 13-18 years (Figure 5). Of the 2018 refugee arrivals, 48% were male (256) and 52% were female (282), which is consistent with previous years (Figure 6).
Arrivals
Refugees arrived in Iowa in 2018 from nine different nations, with the highest numbers arriving from the Democratic Republic of Congo and Burma (Figures 7 and 8). There were nine individuals entering on SIVs from Afghanistan. These individuals receive assistance with resettlement, and are eligible to receive the Office of Refugee Resettlement (ORR) benefits and services, similar to refugees. Resettlement occurred in nine counties, with Polk County resettling 342 individuals (63.6% of arrivals) and Linn County resettling 130 individuals (24.2% of arrivals).

Figure 7 Iowa Primary Refugees by Nationality, 2018

“Other” Includes El Salvador, Ethiopia, and Sudan

Figure 8 Iowa Primary Refugees by Country of Origin, 2018
Initial Refugee Health Assessment
The Federal Refugee Act of 1980 directs every state to offer a Refugee Health Assessment to each newly arriving refugee, but it is not mandatory. The state of Iowa strongly recommends all newly arriving refugees receive this initial health assessment. During the initial refugee health assessment, clinicians identify and address the immediate health needs of refugees, evaluate for diseases of public health significance, treat acute and chronic conditions, establish primary care and make appropriate referrals to specialists (Figure 9).

Iowa Refugee Health Assessment Guidelines for performing the Iowa Refugee Health Program’s Health Assessment are consistent with the CDC Guidelines for the Domestic Refugee Health Assessment. Health assessment data guides the development of public health responses to emerging refugee health issues. The Iowa Refugee Health Program communicates pertinent refugee health-related updates to local partners and is responsible for compiling, analyzing and communicating data obtained from health assessments.

For calendar year 2018, **99.6% of Iowa’s primary refugees received comprehensive initial health assessments** (Figure 10). Of Iowa’s 538 primary arrivals, one did not receive an initial health assessment. Refugees may not receive an initial health assessment if they move out of state or to an unknown destination, were unable to be located, or chose not to receive a screening. Of the health assessments received, 60.6% were initiated within 30 days, 33.8% were initiated within 31-60 days, and 5.4% were initiated within 61-90 days (Figure 11).

Refugees received initial health assessments at **10 clinics in Iowa:**
- Blank Children's Hospital Infectious Disease Clinic
- Broadlawns Primary Care Clinic
- Des Moines University Family Medicine Clinic
- Linn County Public Health
- Peoples Community Health Center
- Primary Health Care - Bery Engebretsen Clinic
- Primary Health Care - Marshalltown Medical Clinic
- River Hills Community Health Center
- Siouxland Community Health Center
- United Community Health Center
**Tuberculosis (TB)**

Tuberculosis (TB) remains a major health problem globally, in the U.S. and in Iowa, resulting in the death of 1.3 million people annually. Refugees receive a TB class status during their overseas medical examination prior to departure. Refugees diagnosed with active TB disease (Class A TB status) during the overseas medical exam are unable to enter the U.S. until they are treated and are no longer infectious. A Class B TB status requires additional follow-up upon arrival to the U.S.

**Clinician Tip: Screen all refugees for TB.**
- Review overseas records and evaluate for signs and symptoms of TB disease.
- Administer an IGRA (preferred) or TST (acceptable) unless there is a documented previous positive test.
- Obtain a chest x-ray (CXR) for refugees with Class B status, a positive IGRA/TST, or have signs or symptoms compatible with TB disease.
- Positive test results and normal CXR, offer LTBI medication and fax completed Patient Information Sheet to IDPH at 515-281-7504.
- Report cases of TB disease to IDPH at 515-281-7504.

**Domestic Initial Health Assessment**

The CDC recommends screening all refugees for TB upon arrival to the U.S. The interferon-gamma release assay (IGRA) is preferable to the tuberculin skin test (TST) for refugees due to a potential history of BCG vaccine. BCG vaccination may cause a false positive reaction to the TST, but does not affect IGRA results. IGRA results are to be used for individuals 2 years and older, and pregnancy is not a medical contraindication for IGRA or TST.

The IDPH TB Control Program works to eliminate TB disease by collaborating with clinicians and local public health agencies to minimize the spread of TB through promoting effective TB and latent TB infection (LTBI) diagnosis and treatment. Clinicians should offer those diagnosed with LTBI treatment to prevent TB disease in the future. Of the 524 primary refugees screened for TB in Iowa in 2018, 16.6% (87) were diagnosed with LTBI and none were diagnosed with active TB disease (Figure 12).

*Figure 12 Iowa Primary Refugees Arrivals by TB Diagnosis, 2015 - 2018*
Class B TB
In 2018, 42 primary refugees received a Class B TB designation (7.8% of arrivals). Eighteen Class B refugees were diagnosed with LTBI and none were diagnosed with active TB (Figure 13).

Human Immunodeficiency Virus (HIV)
According to the UNHCR, while conflict, displacement, food insecurity and poverty may leave refugees more susceptible to HIV, displaced populations do not always display higher rates of HIV infection. There are numerous complex factors affecting the risk of infection, including pre-conflict HIV rates among refugees in country of origin and exposure to sexual abuse and violence. Refugees are no longer routinely tested for HIV prior to departure to the U.S. and the virus was removed from the list of inadmissible conditions in January of 2010. Refugees are offered HIV testing after a positive diagnosis of syphilis or gonorrhea during the overseas medical examination. In 2017, the number of new HIV diagnoses in the US was 38,739. In Iowa in 2018, the number of new HIV diagnosis was 116. Of the 439 refugees screened for HIV in 2018, five (1.1%) tested positive for HIV (Figure 14).
Hepatitis B Virus (HBV)

Chronic HBV infection is a major cause of preventable morbidity and premature mortality. Most refugees resettling in the U.S. arrive from countries of intermediate and high HBV endemicity. High endemic regions include the prevalence of chronic HBV infection of ≥8% and a lifetime risk of acquiring HBV infection of >60%. In 2016, 48 states reported 3,218 cases of acute HBV and the overall incidence rate was 1.0 cases per 100,000 persons. Forty-three states reported 14,847 cases of chronic HBV. In 2017, Iowa reported 12 cases of acute HBV and 270 confirmed or probable cases of chronic HBV. Of the 506 primary refugees screened for the hepatitis B surface antigen (HBsAg) in Iowa in 2018, 27 tested positive (Figure 15).

Figure 15 Iowa Primary Refugee Hepatitis B (HBsAg+) Screening Results, 2015 – 2018

Hepatitis C Virus (HCV)

The CDC recommends screening refugees born between 1945 and 1965 and with identified risk factors for HCV, or residing in countries with moderate or high HCV prevalence. Risk factors including injection drug use, HIV infection, receipt of blood products or solid organs, known HCV exposure or household contact, traditional or unregulated tattoos, history of female genital mutilation/cutting and other factors. HCV screening is recommended for children with risk factors. The CDC estimates 3.4 to 6 million people living in the U.S. have chronic HCV, and 39,219 to 149,173 Iowans are living with HCV infection. Four of the 255 primary refugees screened for HCV in Iowa in 2018 tested positive (Figure 16).

Figure 16 Iowa Primary Refugee Hepatitis C Screening Results, 2015 – 2018

Clinician Tip: Screen all refugees. Vaccinate un/under-vaccinated children and adults from endemic countries or at an increased risk.

Clinician Tip: Screen refugees born between 1945 to 1965 or with risk factors.

Syphilis
Screening for syphilis is an essential component of the overseas medical examination and the initial health assessment. In 2017, 30,644 cases of primary and secondary syphilis were reported in the U.S., yielding a rate of 9.5 cases per 100,000 persons. In 2018 in Iowa, 283 cases of primary and secondary syphilis were reported at a rate of 9.0 per 100,000 persons. Nine of Iowa’s primary refugee arrivals tested positive for syphilis (Figure 17).

Figure 17 Iowa Primary Refugee Syphilis Screening Results, 2015-2018


Intestinal Parasites
Intestinal parasites are among the most common infections found in refugee populations. The majority of resettling populations receive presumptive treatment for parasitic infections prior to departure, making screening upon arrival unnecessary for many. Individuals with risk factors such as pregnancy, breastfeeding, young age or other medical contraindications may not receive presumptive treatment. Refugees from Loa loa endemic Sub-Saharan African countries do not receive presumptive ivermectin due to the possible risk of encephalopathy associate, and should be tested for strongyloidiasis. Of the 154 new arrivals with completed stool ova and parasite or serology tests, 72 were positive for at least one parasite (Figure 18). The most common pathogenic parasites detected were Giardia (19 cases), Schistosoma (18 cases) and Strongyloides (5 cases). The most common non-pathogenic parasites detected was Endolimax nana (16 cases). Refugees also tested positive for Entamoeba histolytica, Blastocystis hominis, Chilomastix mesnili, Entamoeba coli, Entamoeba hartmanni, Iodamoeba buetschli, Dientamoeba fragilis, Trichuris trichiura, Hymenolepis nana and norovirus.

Figure 18 Iowa Primary Refugee Internal Parasite Screening Results, 2015-2018

Clinician Tip: Perform serology and stool testing if the individual is symptomatic or did not receive presumptive treatment.

Clinician Tip: Screen individuals 15 years and older for syphilis and use clinical judgement to screen children.

Malaria
Malaria is a mosquito-borne disease resulting from an infection with a parasite. Refugees often come from areas in the world where malaria transmission occurs or occurs in some parts of the region (Figure 19). In 2018, five primary arrival refugees were screened for malaria and three tested positive for malaria.


Lead
According to the CDC, the prevalence of lead poisoning in newly arrived refugee children may be 14 times greater than that of the general U.S. population of comparable age. Malnutrition, anemia and micronutrient deficiencies heighten lead absorption and the harmful effects of lead toxicity. Potential lead exposures include lead-containing gasoline, industrial emissions, ammunition manufacturing and use, burning of fossil fuels and waste, and lead-containing traditional remedies, ceramics, food and utensils. The CDC recommends lead screening for all refugee children age 6 months to 16 years, and follow-up blood tests 3-6 months post-resettlement in children 6 months to 6 years of age regardless of blood lead level (BLL). A positive lead reading is 5 μg/dL or more, which is a change from 10 μg/dL effective in 2014. In Iowa during 2018, 215 refugee youth were screened for lead during the initial domestic health assessment and 16 (7.4%) had elevated BLL (Figure 20).


Clinician Tip: Screen individuals with symptoms or from Sub-Saharan Africa without pre-departure presumptive treatment.

Clinician Tip: Screen children age 6 months to 16 years for lead, and do follow-up tests 3-6 months post-resettlement in children 6 months to 6 years of age regardless of BLL.

For more information, contact the Iowa Lead Poisoning Prevention Program at 1-800-972-2026.
Major Diagnoses and Referrals
During the initial refugee health assessment, clinicians identify and address the immediate health needs of refugees, evaluate for diseases of public health significance, treat acute and chronic conditions, establish primary care and make referrals to specialists when needed. The health concern reported most frequently by clinicians in 2018 (other than those presented earlier in this report) were dental problems (66), followed by vision loss (31), mental health concern (11) and hearing problem (5). Additionally, thirteen women had confirmed pregnancies, two refugees tested positive for chlamydia, and one tested positive for gonorrhea.

The most common referrals made during the initial refugee health assessment were for primary care (326), dental care (237), vision/ophthalmology (38), obstetrics/gynecology (23), infectious disease (10), neurology (8), pediatrics (7), cardiology (6), mental health (5), physical therapy/occupational therapy (5), public health nursing (5) and gastroenterology (5). Other referrals for specialized care included orthopedics, hearing, hematology, WIC, emergency department, family planning, ear, nose, and throat (ENT) and other specialty clinics.

Summary
Iowa has a strong history of providing aid to vulnerable refugee populations. The state accepted 538 primary refugees for resettlement in 2018. Newly arriving refugees are among the most vulnerable populations in the state due to barriers such as language, cultural practices and lack of knowledge regarding basic U.S. health care. The Iowa Refugee Health Program strives to overcome these obstacles by ensuring clinicians have access to current screening and treatment guidelines, as well as health assessment data specific to newly arriving refugee populations.

The potential increase in high need medical cases requires even greater collaboration and communication between IDPH, medical professionals and community partners. The Iowa Refugee Health Program will continue to coordinate with medical clinics, resettlement agencies and stakeholders throughout the state to ensure all refugees are connected to quality and comprehensive health care. The health and wellness of refugees are vital to successful resettlement. The integration of refugees into the U.S. health care system is critical to making refugees truly at home in Iowa.