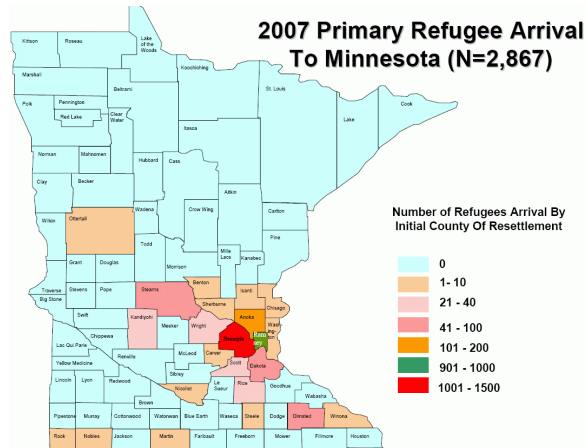




# Refugee Health County Reports 2007

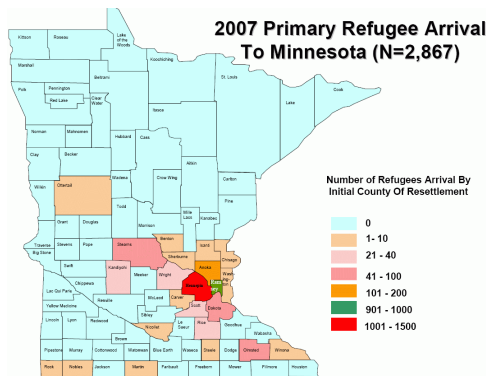


- |                  |                |
|------------------|----------------|
| <b>Anoka</b>     | <b>Ramsey</b>  |
| <b>Dakota</b>    | <b>Rice</b>    |
| <b>Hennepin</b>  | <b>Scott</b>   |
| <b>Kandiyohi</b> | <b>Stearns</b> |
| <b>Olmsted</b>   | <b>Wright</b>  |

Welcome to the second edition of the Refugee Health County Report. This volume is a compilation of the individualized reports of those counties that received at least 15 new primary refugee arrivals to their county during the past year. In 2007, ten counties met this criterion: Anoka, Dakota, Hennepin, Kandiyohi, Olmsted, Ramsey, Rice, Scott, Stearns, and Wright. The reports provide a snapshot of the demographics and the health needs of newly arrived primary refugees to a particular county.

Each report is broken down into three sections: health screening indicators; significant findings and trends regarding demographics, screening rates and flat fee reimbursement; and health status data summary. Statewide demographics and health status data are included in the reports as a means of comparison for the counties.

Any questions regarding this report may be directed to the Minnesota Department of Health, Refugee Health Program, 651-201-5414.



# Anoka County

## 2007

### Refugee Health Report

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Welcome to the second edition of the Refugee Health County Report. An individualized report is compiled for those counties that have received at least 15 new primary refugee arrivals to their county during the past year. In 2007, ten counties met this criterion: Anoka, Dakota, Hennepin, Kandiyohi, Olmsted, Ramsey, Rice, Scott, Stearns, and Wright. This year, statewide demographics and health status data are included in the reports as another means of comparison for counties.

In 2007, there was a significant drop in the number of primary refugee arrivals to our state. There were 2,867 new primary refugee arrivals to Minnesota compared with 5,356 in 2006. This slowing trend reflects policy changes at the national level rather than any decrease in the need for resettlement of the growing numbers of refugees worldwide. At the local level, your expertise and commitment to ensure the complete and timely initial refugee health screening exam for this population continues to play a crucial role in promoting the health and well-being of some of the newest arrivals to Minnesota as well as protecting the health of the community at large.

We encourage counties to use this report as a tool to measure the effectiveness of the health screening services offered to newly arrived refugees in your county. The objectives used to measure these goals are consistent with the objectives set forth by the Minnesota Department of Health’s Refugee Health Program (RHP)

to measure our program’s overall quality. This county specific data can also be used to support planning and development of appropriate public health responses to both immediate and emerging health issues in your region.

For refugees who arrived between January 1, 2007 and December 31, 2007, counties and/or private providers submitted the domestic screening results once the refugees completed their exams. All data included in this report were recorded on the Refugee Health Assessment Form (“pink” form) or the Outcome Form for each person. In addition, in 2007, two of our largest counties, Ramsey and Hennepin, began submitting these data electronically using a new web-based application developed by the MDH RHP called Electronic System for Health Assessment of Refugees, better known as eSHARE. eSHARE is specifically designed to collect results from the domestic health screenings and conduct surveillance activities. Any county interested in learning more about this system can go to our website or contact the RHP.

In early 2009, we will review the protocols for the refugee health screening exam based on revised recommendations from the Centers for Disease Control and Prevention (CDC). Look for updates throughout Winter/Spring 2008-09.

Again, let us know how we might tailor or improve this report to better support your work!

# Health Screening Indicators

The indicators on the following page are measurable objectives that correlate with the Minnesota refugee health assessment for newly arrived refugees. The highlighted yellow columns on the right of the chart are specific to your county, indicating how effectively these objectives were met. Together with *Significant Findings and Trends* on page 6 and *Health Status* data summary on pages 8 to 11, this 2007 report is a snapshot of the demographics and health needs of newly arrived primary refugees.

**Objective 1.** *Within 90 days of arrival, 90% of newly arrived refugees who are eligible\* will have received a health assessment.*

**Objective 2.** *Ensure immunizations will be initiated or continued according to the recommended MDH child and adult immunization schedules on 90% of persons provided a health screening.*

**Objective 3.** *Ensure evaluation for 95% of refugees arriving with infectious TB disease, non-communicable for travel purposes (Class A) or non-infectious TB disease (Class B1).*

**Objective 4.** *Within 90 days of arrival, 75% of persons in need of therapy for latent TB infection (LTBI) will have been placed on such therapy.*

**Objective 5.** *On an ongoing basis, 40% of persons placed on therapy for latent tuberculosis infection (LTBI) will have completed therapy.*

**Objective 6.** *On an ongoing basis, 90% of persons provided a health screening will receive a hepatitis B surface antigen (HBsAg) test.*

**Objective 7.** *Ensure 90% of persons provided a health screening will get tested for parasitic infections (parasitosis).*

**Objective 8.** *Ensure 90% of all children less than 6 years of age who receive a health screening will be screened for lead poisoning.*

**Objective 9.** *Ensure 100% of all newly arrived HIV+ refugees will be screened within 30 days of arrival and referred to a HIV specialty clinic or provider.*

**\*Ineligible** if: moved out of state, moved to unknown destination, unable to locate due to invalid contact information, never arrived to county, or died before screening.

# Health Screening Indicators

Anoka County, 2007

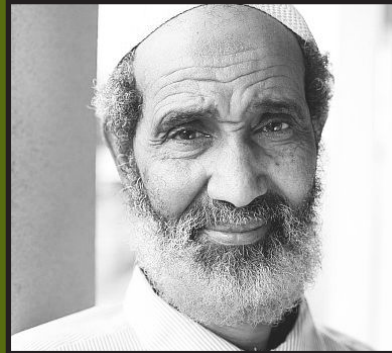
All results are based on domestically completed screenings

Performance Goal	Objective	Measure	Data	Year 2007	
Health Screening Rate				No.	%
Increase percentage of newly arrived refugees* who receive a health assessment within 90 days of their arrival	Percentage of persons who received at least the first visit of their health assessment within 90 days of their arrival	$\frac{\text{\# of newly arrived refugees to county X who received at least the first visit of their health assessment within 90 days of arrival}}{\text{\# of newly arrived refugees to county X who were eligible for a screening}}$	Objective	90%	
			County	132/(155-5)	88%
			State	2697/(2867-127)	98%
Immunizations					
Increase percentage of newly arrived refugees who have immunization series initiated or continued according to recommended MDH child/adult immunization schedules	Percentage of persons who have immunization series initiated or continued according to the recommended MDH child/adult immunization schedules	$\frac{\text{\# of newly arrived refugees to county X with immunization series initiated or continued}}{\text{\# of newly arrived refugees* to county X who received a screening}}$	Objective	90%	
			County	102/132***	77%
			State	2398/2697	89%
TB					
<i>Follow-up of Refugees with TB Class Conditions</i> Increase percentage of newly arrived refugees designated as TB Class A or B1 who are appropriately evaluated	Percentage of newly arrived refugees designated as TB Class A or B1 who are appropriately evaluated	$\frac{\text{\# of newly arrived refugees to county X designated as TB Class A or B1 and who are appropriately evaluated}}{\text{\# of newly arrived eligible refugees to county X designated as TB Class A or B1}}$	Objective	95%	
			County	11/11	100%
			State	253/(266-7)	98%
<i>LTBI Therapy</i> Increase percentage of newly arrived refugees in need of therapy for latent tuberculosis infection (LTBI) who have been placed on such therapy within 90 days of arrival	Percentage of persons in need of therapy for LTBI who are placed on such therapy within 90 days of arrival	$\frac{\text{\# of newly arrived refugees to county X in need of LTBI therapy and placed on such therapy within 90 days of arrival}}{\text{\# of newly arrived refugees to county X in need of LTBI therapy}}$	Objective	75%	
			County	26/47	55%
			State	1010/1156	87%
Increase the percentage of newly arrived refugees who have been placed on therapy for LTBI and have completed therapy	Percentage of persons who are placed on therapy for LTBI and have completed therapy	$\frac{\text{\# of newly arrived refugees to county X in need of LTBI therapy and who have been placed on and completed LTBI therapy}}{\text{\# of newly arrived refugees to county X placed on LTBI therapy}}$	Objective	40%	
			County	50/77**	65%
			State	885/1661**	53%
Hepatitis B					
Increase percentage of newly arrived refugees who have received a hepatitis B surface antigen (HBsAg) test	Percentage of persons who receive a hepatitis B surface antigen (HBsAg) test	$\frac{\text{\# of newly arrived refugees to county X who received HBsAg test}}{\text{\# of newly arrived refugees to county X who received a screening}}$	Objective	90%	
			County	124/132	94%
			State	2656/2697	98%
Intestinal Parasites					
Increase percentage of newly arrived refugees who are tested for parasitic infections (parasitosis)	Percentage of persons who are tested for parasitic infections (O &P)	$\frac{\text{\# of newly arrived refugees to county X tested for parasitic infections (O&P)}}{\text{\# of newly arrived refugees to county X who received a screening}}$	Objective	90%	
			County	98/132	74%
			State	2526/2697	94%
Lead Poisoning					
Increase percentage of newly arrived refugees < 6 years old who are screened for lead poisoning	Percentage of newly arrived refugees < 6 years old who are screened for lead poisoning	$\frac{\text{\# of newly arrived refugees to county X who are < 6 years old and screened for lead poisoning}}{\text{\# of newly arrived refugees <6 years old to county X who received a screening}}$	Objective	90%	
			County	4/8	50%
			State	205/225	91%
HIV+					
Increase percentage of newly arrived HIV+ refugees who are screened within 30 days of arrival and referred to a HIV specialty clinic or provider	Percentage of newly arrived HIV+ refugees who are screened within 30 days of arrival and referred to a HIV specialty clinic or provider	$\frac{\text{\# of newly arrived HIV+ refugees to county X screened within 30 days of arrival and referred to specialty clinic or provider}}{\text{\# of newly arrived HIV+ refugees to county X who received a screening}}$	Objective	100%	
			County	2/2	100%
			State	9/10	90%

\* Newly arrived refugees refers to all newly arrived refugees eligible for refugee health screening in Minnesota

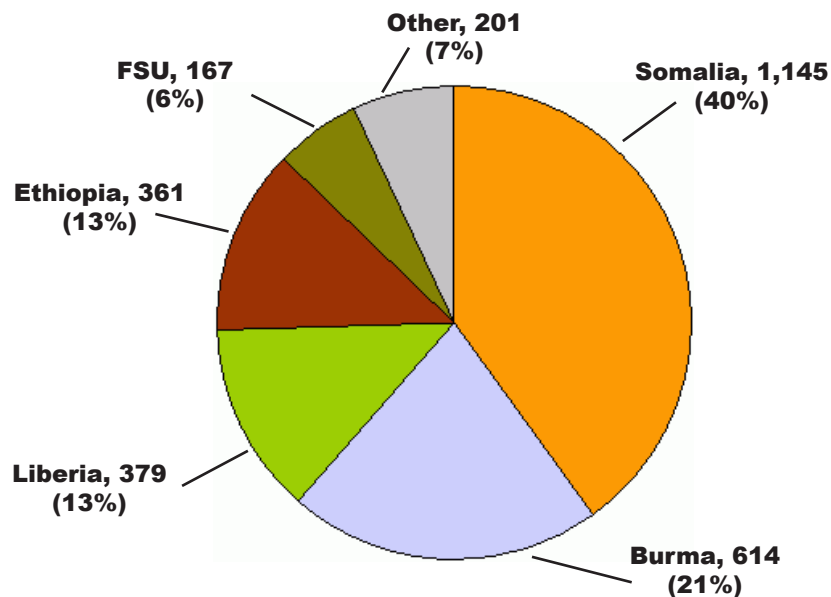
\*\* Based on 2006 data which reflects the most recent completion date for 9-month treatment protocol

\*\*\*An additional 14 were immune for MMR (serologies); including those, 116 of 132 (88%) of those screened were evaluated for vaccination series



# Significant Findings and Trends: Minnesota

## Number of Primary Arrivals\* to Minnesota 01/01/2007 - 12/31/2007



**N=2,867**

FSU includes Belarus, Kazakhstan, Latvia, Moldova, Russia, Ukraine.

“Other” includes Afghanistan, Cameroon, Chad, China (including Tibet), DR Congo, Cuba, Eritrea, France, Indonesia, Ivory Coast, Kenya, Laos (Hmong), Nigeria, Sierra Leone, Sudan, Uganda, and Vietnam.

\**Primary arrival* is a refugee who is residing in the state listed as the initial point of destination with the USCIS. Refugees are free to move from state to state, but sponsors, VOLAGs, and state health departments are designed to serve only newly arrived primary refugees to the state.

## Demographics

During the period of 01/01/2007 - 12/31/2007, Minnesota was notified of 2,867 primary refugee arrivals. The regional breakdown is as follows: sub-Saharan Africa, 69%; South/Southeast/East Asia, 25%; Europe/Eastern Europe, 6%; Latin America, <1%. From a country perspective, the largest arrival groups during this period were Somali and Karen from Burma.

In general, refugee arrivals to Minnesota are a young population; 1,223 (43%) were 15-24 years of age and 793 (28%) were less than 15 years of age in 2007. Regarding gender, 1,450 (51%) of newly arrived refugees to the state were male.

## Screening Rate and Outcome for Those Not Screened

Of the 2,867 new primary refugee arrivals 2,740 (96%) were eligible for a health screening and 2,697 (98%) were screened. This compares to 4,893 primary arrivals eligible for a screening in 2006 and a screening rate of 96%.

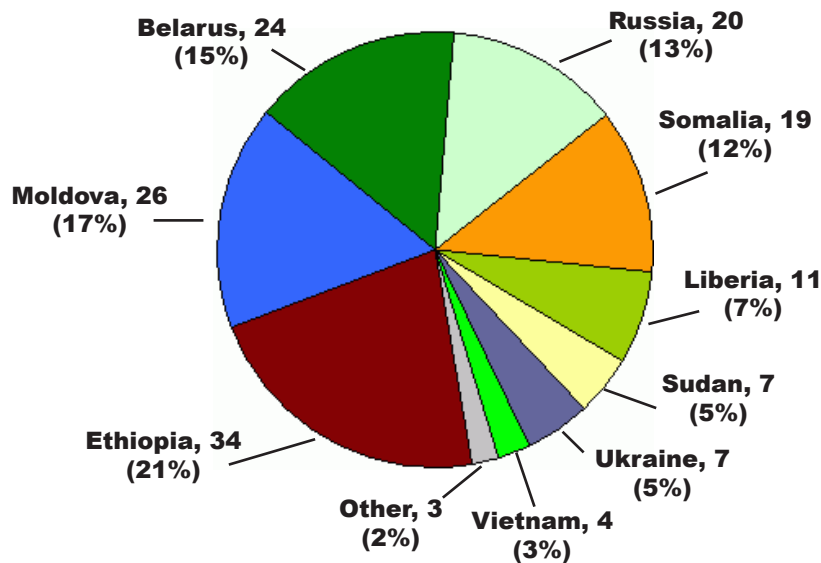
There were 170 refugees who were not screened and had a known outcome. Forty-three were eligible for the screening and did not receive one. Of these, 17 were failed attempts to schedule, eight were screened elsewhere with no available results, eight refused screening, eight persons missed his/her appointment and two moved to another county. The remaining 124 were ineligible for screening because they moved out of state or to an unknown destination, and three never arrived to the state.

## Flat Fee Reimbursement

During this same time period 164 refugees qualified for flat fee reimbursement. One hundred and fifty-two were full payment and 12 were partial payment.

# Significant Findings and Trends

**Number of Primary Arrivals\* to Anoka County  
01/01/2007-12/31/2007**



**N=155**

“Other” includes Cameroon and Togo.

\**Primary arrival* is a refugee who is residing in the state listed as the initial point of destination with the USCIS. Refugees are free to move from state to state, but sponsors, VOLAGs, and state health departments are designed to serve only newly arrived primary refugees to the state.

## Demographics

During the period of 01/01/2007 - 12/31/2007, Anoka County was notified of 155 primary refugee arrivals. This is 5% of the 2,867 total primary refugee arrivals to Minnesota. The regional breakdown is as follows: sub-Saharan Africa, 47%; Eastern Europe, 50%; Southeast Asia, 3%. From a country perspective, the largest arrival groups during this period were Ethiopian and Moldovan. Anoka had the majority (77) of refugees from Eastern Europe; this is 46% of 166 Eastern European arrivals to the state.

In general, refugee arrivals to Minnesota are a young population; 1,223 (43%) were 15-24 years of age and 793 (28%) were less than 15 years of age in 2007. A similarly young age distribution can be seen among the new primary arrivals in Anoka County; 41 (26%) were 15-24 years of age and 48 (31%) were less than 15 years old. Regarding gender, 89 (57%) of newly arrived refugees to the county were male; the state average was 1,450 (51%).

## Screening Rate and Outcome for Those Not Screened

Of the 155 new primary refugee arrivals, 150 (97%) were eligible for a health screening and 132 (88%) were screened. This compares to 220 primary arrivals eligible for a screening in 2006 and a similar screening rate of 88%.

Thirty-six (27%) of these arrivals were screened at Hennepin County PHC because of the inter-county agreement; there were eight families with at least one person with Class B1 TB designation (a total of 36 family members).

There were 23 refugees who were not screened and had a known outcome. Eighteen were eligible for the screening and did not receive one. Of these, six were failed attempts to schedule, five were screened elsewhere with no available results, three refused screening, two persons missed his/her appointment and two moved to another county. The remaining five were ineligible for screening because they moved out of state or to an unknown destination.

## Flat Fee Reimbursement

During this same time period ten refugees qualified for the flat fee reimbursement in Anoka County. All were full payment reimbursements.

# Health Status of New Refugees to Anoka County

**Tuberculosis (TB)**  
**Hepatitis B**  
**Parasitic Infection**  
**Malaria**  
**Sexually Transmitted  
Infections (STI)**  
**Lead**



## Tuberculosis

Of the 155 new primary refugee arrivals to Anoka County, 11 (7%) arrived with a Class B1 TB status. **State:** 266/2,687 (9%)

Of the 123 new primary refugee arrivals tested for tuberculosis in Anoka, 47 (38%) tested positive for latent tuberculosis infection or suspect /active TB disease. **State:** 1,177/2,649 (44%)

More than 80% of active TB cases in Minnesota occur among persons born outside the United States. During the past decade, the percentage of foreign-born persons among TB cases reported in Minnesota increased from 71% in 1997, peaked at 87% in 2005, and has slightly decreased to 85% in 2007.

- *The data strongly suggest that clinicians should not rely solely on medical examinations performed overseas to identify cases of TB disease among foreign-born persons. During the period of 2003-2007, only 14% of the foreign-born TB case-patients who initially arrived in the U.S. as refugees or other*

immigrants and who were diagnosed with TB within one year of their arrival, were known to have been identified as being at high risk for active TB disease on the overseas medical evaluation.

- More than half (52%) of foreign-born TB case-patients reported during 2003-2007 in Minnesota had been in the U.S. for three or more years prior to being diagnosed with TB disease. *These data suggest that at least half of foreign-born TB cases reported in Minnesota may be preventable by focusing on thorough domestic screening, evaluation, and treatment of latent TB infection among recently arrived refugees, immigrants, and other foreign-born persons.*
- Drug-resistant TB and extrapulmonary TB disease are more common among foreign-born persons; extrapulmonary disease may be more difficult to diagnose. Common extrapulmonary sites of disease reported in Minnesota include lymphatic, pleural, bone/joint and peritoneal.

## Resources

MDH:

[www.health.state.mn.us/refugee/guide/4tb.html](http://www.health.state.mn.us/refugee/guide/4tb.html)

[www.health.state.mn.us/divs/idepc/diseases/tb/stats.html](http://www.health.state.mn.us/divs/idepc/diseases/tb/stats.html)

CDC:

[www.cdc.gov/tb](http://www.cdc.gov/tb)



## Hepatitis B

Of the 124 new primary refugee arrivals tested for hepatitis B in Anoka County, six (5%) tested positive for hepatitis B surface antigen (HBsAg). **State:** 206/2,656 (8%)

All newly arrived refugees, adults and children, should be screened for HBsAg, anti-HBs, and anti-HBc to determine their hepatitis B status. HBV infection is highly endemic in all of Africa, Southeast, East, and Northern Asia, and in most of the Pacific Islands. CDC's new recommendations include testing all individuals born in Asia and Africa and other geographic regions with 2 percent or higher prevalence of chronic HBV in-

fections, as well as additional at-risk populations. Worldwide, most infections occur through mother-to-child transmission, child-to-child in household contacts, or reuse of unsterilized needles and syringes. While the newly arrived refugee is no longer experiencing an endemic environment in the U.S., refugee communities tend to congregate and may continue to passively act as a host environment for those who are infected with

HBV. Being in close contact in the household and within the community increases the risk of infection and makes it especially important to screen all household contacts and vaccinate all those who are susceptible.

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/5hepb.html](http://www.health.state.mn.us/refugee/guide/5hepb.html)

CDC:

[www.cdc.gov/ncidod/diseases/hepatitis/b/faqb.html](http://www.cdc.gov/ncidod/diseases/hepatitis/b/faqb.html)

## Parasitic Infection

Of the 98 new primary refugee arrivals tested for intestinal parasites in Anoka County, 10 (10%) tested positive for at least one pathogenic intestinal parasite. **State:** 384/2,526 (15%)

*Giardia lamblia* (6\*), *Hymenolepis nana* (2\*), *Ascaris* (1\*), *Hookworm* (1\*), *Schistosoma* (1\*), *Trichuris* (1\*)

\*number of cases identified (2 persons were co-infected with 2 agents)

Screening for both *symptomatic* and *asymptomatic parasitosis* among refugees remains a high priority since at least one third of the world's population may be infected with intestinal parasites and all immigrant groups are affected to some degree by intestinal parasites.<sup>1</sup> Potentially harmful outcomes underscore the importance of distinguishing between pathogenic and non-pathogenic parasites and treating the former appropriately.

Current overseas protocol includes pre-departure albendazole therapy within three days prior to departure to the U.S. for Southeast Asian and sub-Saharan refugees (excluding special groups, such as pregnant women and small infants). Albendazole is an antihelminthic treatment and has been documented to dramatically decrease the prevalence of *Ascaris* and *Trichuris* in newly arrived refugees. At this time, documentation of pre-departure therapy is NOT included in the

overseas records that MDH/RHP receives and forwards to local public health. It is sent directly with the refugee. When making appointments, request all medical papers be brought to clinic. Some clinics have reported finding the treatment documentation in the jacket of the x-ray films.

Certain pathogenic parasitic infections can persist for many years if left untreated and have been associated with both chronic illnesses and life threatening infections. This can range from malnutrition, iron-deficiency anemia, malabsorption syndrome, mental and physical growth retardation to life-threatening liver abscess or hyperinfection.<sup>2</sup>

*Strongyloides stercoralis* (roundworm), which is found in almost all refugee groups, and *Schis-*

*tosomiasis spp* (fluke), predominantly seen in sub-Saharan refugees, are two parasitic infections of particular concern. Pre-departure albendazole therapy is not adequate treatment for either of these. Most refugees with strongyloidiasis are asymptomatic. If left unchecked, it can persist for years, and under certain conditions can lead to a severe hyper-infection. Schistosomiasis is often asymptomatic initially; however for people who are not treated and /or are repeatedly infected for many years, infection can cause damage to the liver, intestines, lungs, and bladder.

New overseas treatment recommendations include expanded presumptive treatment to address these concerns. The new CDC guidelines for domestic screening indicate the implementation of these overseas guidelines may vary depending on funding and population. Therefore it is imperative for domestic screening guidelines to take into consideration the refugee's point of departure for the U.S. and whether the refugee received pre-departure presumptive therapy<sup>3</sup>

<sup>1,2</sup>Garg, P., Perry, S., Dorn, M., Hardcastle, L., Parsonnet, J. 2005. Risk of intestinal helminth and protozoan

infection in a refugee population. *Am. J. Trop. Med. Hyg.*, 73(2):386-391.

<sup>3</sup> Centers for Disease Control and Prevention. Retrieved September 2008 from [www.cdc.gov/ncidod/dpd/parasites/schistosomiasis/factsht\\_schistosomiasis.htm#symptoms](http://www.cdc.gov/ncidod/dpd/parasites/schistosomiasis/factsht_schistosomiasis.htm#symptoms)

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/7parasites.html](http://www.health.state.mn.us/refugee/guide/7parasites.html)

CDC:

[www.cdc.gov/ncidod/dpd/parasites](http://www.cdc.gov/ncidod/dpd/parasites)

[www.cdc.gov/ncidod/dq/refugee/rh\\_guide/index.htm](http://www.cdc.gov/ncidod/dq/refugee/rh_guide/index.htm)

## Malaria

Of the 132 new primary refugee arrivals in Anoka County who were screened, none were tested for malaria. **State:** 1/34 (3%)

Clinicians should have a high index of suspicion of malaria, particularly for refugees from tropical and subtropical areas who have fever of unknown origin or other characteristic symptoms. In particular, sub-Saharan Africans are considered to be from a highly endemic area where asymptomatic malaria infection is common and the predominant species found in this part of the world, *Plasmodium falciparum*, can cause severe, potentially fatal malaria.<sup>1</sup>

Currently CDC is recommending presumptive pre-departure anti-malarial DOT administered overseas for sub-Saharan refugees, completed at least two days prior to departure (excluding special populations of pregnant or lactating women and children under 5 kg). At this time, MDH/RHP

does NOT receive documentation of pre-departure therapy in the overseas records. Instead, it is sent directly with the refugee in the sealed IOM bag. When making appointments, clinics should request all medical papers be brought to clinic. Some clinics have reported finding documentation in the jacket of the x-ray films.

When status of pre-departure therapy is unknown, the following fact should be taken into account as to whether or not to test:

- Neither single malaria thick-and-thin blood film nor rapid malaria test (RDT) are adequate for detecting asymptomatic or sub-clinical malaria found in sub-Saharan populations.

- Consider consulting with a tropical disease expert for options, including post-arrival presumptive and directed treatment for sub-Saharan refugees. MDH Refugee Health Program can help facilitate the consult.
- **Regardless of post-arrival testing, newly arrived refugees from known endemic regions should be closely monitored for signs or symptoms of malaria, particularly during the initial three months after arrival.**

<sup>1</sup> Centers for Disease Control and Prevention. Retrieved September 2008 from [www.cdc.gov/malaria/biology/parasites/index.htm](http://www.cdc.gov/malaria/biology/parasites/index.htm)

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/8malaria.html](http://www.health.state.mn.us/refugee/guide/8malaria.html)

CDC:

[www.cdc.gov/malaria/index.htm](http://www.cdc.gov/malaria/index.htm)

## Lead

Of the four new primary refugee arrivals under 6 years old who were tested for lead poisoning in Anoka County, none tested positive for elevated blood lead level. **State:** 8/205 (4%)

There is no *safe* level of lead for children (BLL $\geq$ 10 is the cut-off), and the effects of lead depend on the dose. Refugee children are particularly at risk for lead poisoning given their exposure to toxic atmospheric emissions found in many parts of the world. Several factors increase the potential for lead exposure in developing countries including poor nutrition, eating utensils,

home remedies, environmental pollution, absent or lax environmental regulations, hot climates that imply a prolonged stay in the outdoor environment, airy housing construction, and concentration of populations around traffic arteries. These children continue to be at risk in the U.S. if living in sub-standard housing conditions.

Additionally clinicians should be aware that home remedies which might contain lead, may continue to be acquired from overseas and used in the states.

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/9lead.html](http://www.health.state.mn.us/refugee/guide/9lead.html)

CDC:

[www.cdc.gov/nceh/lead](http://www.cdc.gov/nceh/lead)

## Sexually Transmitted Infections

Of the 111 new primary refugee arrivals tested for syphilis in Anoka County, three (3%) tested positive for syphilis. Of the 155 new primary arrivals to Anoka County, two (2%) tested positive for HIV overseas. Of the 34 new primary arrivals tested for chlamydia and/or gonorrhea, none tested positive. **State:** *syphilis*, 19/2,030 (1%); *HIV(overseas)*, 11/2,867 (<1%); *chlamydia*, 0/164 (0%); *gonorrhea* 0/154 (0%)

**Syphilis** screening is considered standard for the domestic health exam. Evidence of discordant results between overseas syphilis screening results and domestic results highlights the importance of including this exam in the domestic exam.

All refugees aged 15 years and older are tested for **HIV** overseas. At this time, domestic screening does not call for re-testing for HIV. It is recommended that all family members of an HIV+ person get tested, regardless of age.

Technology for urine screening for both *Chlamydia trachomatis* and *Neisseria gonorrhoeae* is available and is considered equally, if not more sensitive, than traditional cultures. This non-invasive testing is preferred for the refugee population.

In general, the quality of lab facilities overseas varies and providers should keep this in mind when determining whether or not to screen for STI's.

### Resources

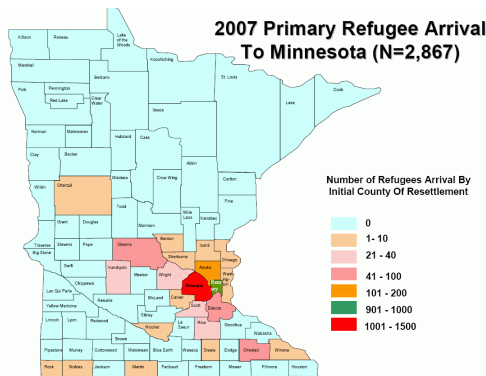
MDH:

[www.health.state.mn.us/refugee/guide/6stds.html](http://www.health.state.mn.us/refugee/guide/6stds.html)

CDC:

[www.cdc.gov/std](http://www.cdc.gov/std)

[www.cdc.gov/hiv](http://www.cdc.gov/hiv)



# Dakota County

## 2007

### Refugee Health Report

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<b>STIs</b>	

Welcome to the second edition of the Refugee Health County Report. An individualized report is compiled for those counties that have received at least 15 new primary refugee arrivals to their county during the past year. In 2007, ten counties met this criterion: Anoka, Dakota, Hennepin, Kandiyohi, Olmsted, Ramsey, Rice, Scott, Stearns, and Wright. This year, statewide demographics and health status data are included in the reports as another means of comparison for counties.

In 2007, there was a significant drop in the number of primary refugee arrivals to our state. There were 2,867 new primary refugee arrivals to Minnesota compared with 5,356 in 2006. This slowing trend reflects policy changes at the national level rather than any decrease in the need for resettlement of the growing numbers of refugees worldwide. At the local level, your expertise and commitment to ensure the complete and timely initial refugee health screening exam for this population continues to play a crucial role in promoting the health and well-being of some of the newest arrivals to Minnesota as well as protecting the health of the community at large.

We encourage counties to use this report as a tool to measure the effectiveness of the health screening services offered to newly arrived refugees in your county. The objectives used to measure these goals are consistent with the objectives set forth by the Minnesota Department of Health’s Refugee Health Program (RHP)

to measure our program’s overall quality. This county specific data can also be used to support planning and development of appropriate public health responses to both immediate and emerging health issues in your region.

For refugees who arrived between January 1, 2007 and December 31, 2007, counties and/or private providers submitted the domestic screening results once the refugees completed their exams. All data included in this report were recorded on the Refugee Health Assessment Form (“pink” form) or the Outcome Form for each person. In addition, in 2007, two of our largest counties, Ramsey and Hennepin, began submitting these data electronically using a new web-based application developed by the MDH RHP called Electronic System for Health Assessment of Refugees, better known as eSHARE. eSHARE is specifically designed to collect results from the domestic health screenings and conduct surveillance activities. Any county interested in learning more about this system can go to our website or contact the RHP.

In early 2009, we will review the protocols for the refugee health screening exam based on revised recommendations from the Centers for Disease Control and Prevention (CDC). Look for updates throughout Winter/Spring 2008-09.

Again, let us know how we might tailor or improve this report to better support your work!

# Health Screening Indicators

The indicators on the following page are measurable objectives that correlate with the Minnesota refugee health assessment for newly arrived refugees. The highlighted yellow columns on the right of the chart are specific to your county, indicating how effectively these objectives were met. Together with *Significant Findings and Trends* on page 6 and *Health Status* data summary on pages 8 to 11, this 2007 report is a snapshot of the demographics and health needs of newly arrived primary refugees.

**Objective 1.** *Within 90 days of arrival, 90% of newly arrived refugees will have received a health assessment.*

**Objective 2.** *Ensure immunizations will be initiated or continued according to the recommended MDH child and adult immunization schedules on 90% of persons provided a health screening.*

**Objective 3.** *Ensure evaluation for 95% of refugees arriving with infectious TB disease, non-communicable for travel purposes (Class A) or non-infectious TB disease (Class B1).*

**Objective 4.** *Within 90 days of arrival, 75% of persons in need of therapy for latent TB infection (LTBI) will have been placed on such therapy.*

**Objective 5.** *On an ongoing basis, 40% of persons placed on therapy for latent tuberculosis infection (LTBI) will have completed therapy.*

**Objective 6.** *On an ongoing basis, 90% of persons provided a health screening will receive a hepatitis B surface antigen (HBsAg) test.*

**Objective 7.** *Ensure 90% of persons provided a health screening will get tested for parasitic infections (parasitosis).*

**Objective 8.** *Ensure 90% of all children less than 6 years of age who receive a health screening will be screened for lead poisoning.*

**Objective 9.** *Ensure 100% of all newly arrived HIV+ refugees will be screened within 30 days of arrival and referred to a HIV specialty clinic or provider.*

**\*Ineligible** if: moved out of state, moved to unknown destination, unable to locate due to invalid contact information, never arrived to county, or died before screening.

# Health Screening Indicators

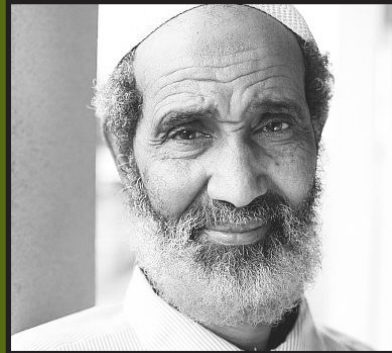
Dakota County, 2007

All results are based on domestically completed screenings

Performance Goal	Objective	Measure	Data	Year 2007	
				No.	%
<b>Health Screening Rate</b>					
Increase percentage of newly arrived refugees* who receive a health assessment within 90 days of their arrival	Percentage of persons who received at least the first visit of their health assessment within 90 days of their arrival	$\frac{\text{\# of newly arrived refugees to county X who received at least the first visit of their health assessment within 90 days of arrival}}{\text{\# of newly arrived refugees to county X who were eligible for a screening}}$	Objective	90%	
			County	81/(92-7)	95%
			State	2697/(2867-127)	98%
<b>Immunizations</b>					
Increase percentage of newly arrived refugees who have immunization series initiated or continued according to recommended MDH child/adult immunization schedules	Percentage of persons who have immunization series initiated or continued according to the recommended MDH child/adult immunization schedules	$\frac{\text{\# of newly arrived refugees to county X with immunization series initiated or continued}}{\text{\# of newly arrived refugees* to county X who received a screening}}$	Objective	90%	
			County	71/81	88%
			State	2398/2697	89%
<b>TB</b>					
<i>Follow-up of Refugees with TB Class Conditions</i> Increase percentage of newly arrived refugees designated as TB Class A or B1 who are appropriately evaluated	Percentage of newly arrived refugees designated as TB Class A or B1 who are appropriately evaluated	$\frac{\text{\# of newly arrived refugees to county X designated as TB Class A or B1 and who are appropriately evaluated}}{\text{\# of newly arrived eligible refugees to county X designated as TB Class A or B1}}$	Objective	95%	
			County	15/(16-1)	100%
			State	253/(266-7)	98%
<i>LTBI Therapy</i> Increase percentage of newly arrived refugees in need of therapy for latent tuberculosis infection (LTBI) who have been placed on such therapy within 90 days of arrival	Percentage of persons in need of therapy for LTBI who are placed on such therapy within 90 days of arrival	$\frac{\text{\# of newly arrived refugees to county X in need of LTBI therapy and placed on such therapy within 90 days of arrival}}{\text{\# of newly arrived refugees to county X in need of LTBI therapy}}$	Objective	75%	
			County	23/34	68%
			State	1010/1156	87%
Increase the percentage of newly arrived refugees who have been placed on therapy for LTBI and have completed therapy	Percentage of persons who are placed on therapy for LTBI and have completed therapy	$\frac{\text{\# of newly arrived refugees to county X in need of LTBI therapy and who have been placed on and completed LTBI therapy}}{\text{\# of newly arrived refugees to county X placed on LTBI therapy}}$	Objective	40%	
			County	16/69**	23%
			State	885/1667**	53%
<b>Hepatitis B</b>					
Increase percentage of newly arrived refugees who have received a hepatitis B surface antigen (HBsAg) test	Percentage of persons who receive a hepatitis B surface antigen (HBsAg) test	$\frac{\text{\# of newly arrived refugees to county X who received HBsAg test}}{\text{\# of newly arrived refugees to county X who received a screening}}$	Objective	90%	
			County	80/81	99%
			State	2656/2697	98%
<b>Intestinal Parasites</b>					
Increase percentage of newly arrived refugees who are tested for parasitic infections (parasitosis)	Percentage of persons who are tested for parasitic infections (O &P)	$\frac{\text{\# of newly arrived refugees to county X tested for parasitic infections (O&P)}}{\text{\# of newly arrived refugees to county X who received a screening}}$	Objective	90%	
			County	70/81	86%
			State	2526/2697	94%
<b>Lead Poisoning</b>					
Increase percentage of newly arrived refugees < 6 years old who are screened for lead poisoning	Percentage of newly arrived refugees < 6 years old who are screened for lead poisoning	$\frac{\text{\# of newly arrived refugees to county X who are < 6 years old and screened for lead poisoning}}{\text{\# of newly arrived refugees <6 years old to county X who received a screening}}$	Objective	90%	
			County	4/7	57%
			State	205/225	91%
<b>HIV+</b>					
Increase percentage of newly arrived HIV+ refugees who are screened within 30 days of arrival and referred to a HIV specialty clinic or provider	Percentage of newly arrived HIV+ refugees who are screened within 30 days of arrival and referred to a HIV specialty clinic or provider	$\frac{\text{\# of newly arrived HIV+ refugees to county X screened within 30 days of arrival and referred to specialty clinic or provider}}{\text{\# of newly arrived HIV+ refugees to county X who received a screening}}$	Objective	100%	
			County	0/0	NA
			State	9/10	90%

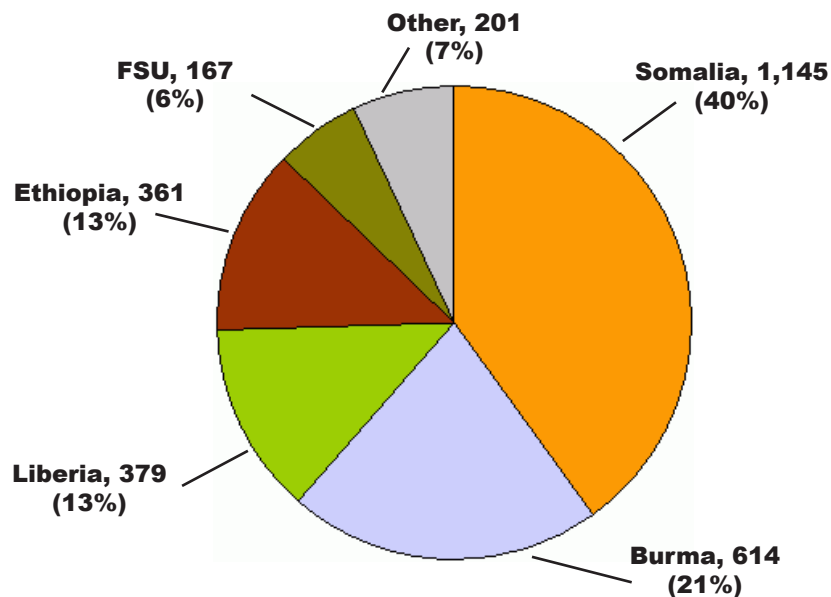
\* *Newly arrived refugees* refers to all newly arrived refugees **eligible** for refugee health screening in Minnesota

\*\* Based on 2006 data which reflects the most recent completion date for 9-month treatment protocol



# Significant Findings and Trends: Minnesota

## Number of Primary Arrivals\* to Minnesota 01/01/2007 - 12/31/2007



**N=2,867**

FSU includes Belarus, Kazakhstan, Latvia, Moldova, Russia, Ukraine.

“Other” includes Afghanistan, Cameroon, Chad, China (including Tibet), DR Congo, Cuba, Eritrea, France, Indonesia, Ivory Coast, Kenya, Laos (Hmong), Nigeria, Sierra Leone, Sudan, Uganda, and Vietnam.

\**Primary arrival* is a refugee who is residing in the state listed as the initial point of destination with the USCIS. Refugees are free to move from state to state, but sponsors, VOLAGs, and state health departments are designed to serve only newly arrived primary refugees to the state.

## Demographics

During the period of 01/01/2007 - 12/31/2007, Minnesota was notified of 2,867 primary refugee arrivals. The regional breakdown is as follows: sub-Saharan Africa, 69%; South/Southeast/East Asia, 25%; Europe/Eastern Europe, 6%; Latin America, <1%. From a country perspective, the largest arrival groups during this period were Somali and Karen from Burma.

In general, refugee arrivals to Minnesota are a young population; 1,223 (43%) were 15-24 years of age and 793 (28%) were less than 15 years of age in 2007. Regarding gender, 1,450 (51%) of newly arrived refugees to the state were male.

## Screening Rate and Outcome for Those Not Screened

Of the 2,867 new primary refugee arrivals 2,740 (96%) were eligible for a health screening and 2,697 (98%) were screened. This compares to 4,893 primary arrivals eligible for a screening in 2006 and a screening rate of 96%.

There were 170 refugees who were not screened and had a known outcome. Forty-three were eligible for the screening and did not receive one. Of these, 17 were failed attempts to schedule, eight were screened elsewhere with no available results, eight refused screening, eight persons missed his/her appointment and two moved to another county. The remaining 124 were ineligible for screening because they moved out of state or to an unknown destination, and three never arrived to the state.

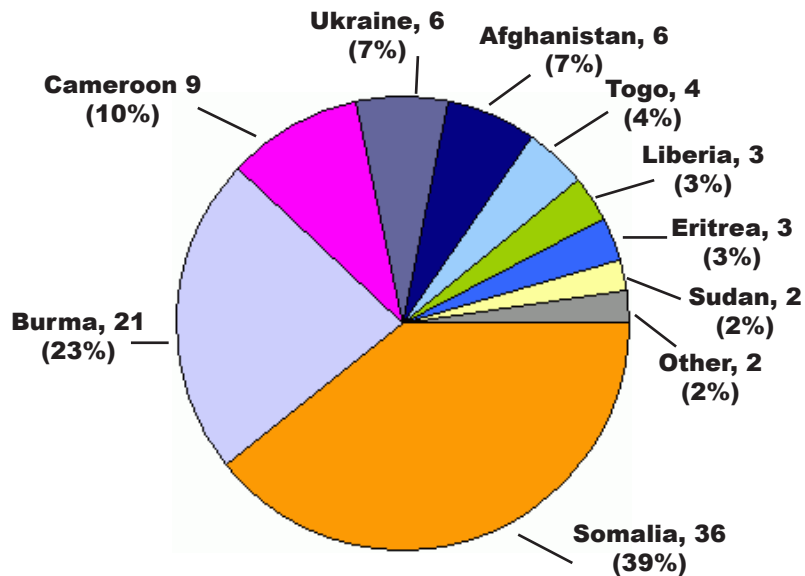
## Flat Fee Reimbursement

During this same time period 164 refugees qualified for flat fee reimbursement. One hundred and fifty-two were full payment and 12 were partial payment.



# Significant Findings and Trends

**Number of Primary Arrivals\* to Dakota County  
01/01/2007 - 12/31/2007**



**N=92**

“Other” includes China and Ethiopia.

\**Primary arrival* is a refugee who is residing in the state listed as the initial point of destination with the USCIS. Refugees are free to move from state to state, but sponsors, VOLAGs, and state health departments are designed to serve only newly arrived primary refugees to the state.

## Demographics

During the period of 01/01/2007 - 12/31/2007, Dakota County was notified of 92 primary refugee arrivals. This is 3% of the 2,867 total primary refugee arrivals to Minnesota. The regional breakdown is as follows: sub-Saharan Africa, 63%; South/ Southeast/ East Asia 30%; and Eastern Europe, 7%. From a country perspective, the majority of the refugees came from Somalia, representing 3% of 1,145 primary Somali refugees to the state. Overall Dakota received a more diverse population from sub-Saharan Africa than in 2006, with a marked decrease in the proportion from Somalia (80% in 2006).

In general, refugee arrivals to Minnesota are a young population; 1,223 (43%) were 15-24 years of age and 793 (28%) were less than 15 years of age in 2007. In Dakota County, 28 (30%) were 15-24 years of age and 29 (31%) were less than 15 years old. Regarding gender, 47 (51%) refugees were female; the state average was 1,417 (49%).

## Screening Rate and Outcome for Those Not Screened

Of the 92 new primary refugee arrivals, 85 (92%) were eligible for a health screening and 81 (95%) were screened. This compares to 215 primary arrivals eligible for a screening in 2006 and a 97% screening rate.

In 2007, Dakota had 15 asylees eligible for the health screening exam. The screening rate for primary refugee arrivals was 100% (70/70) whereas the screening rate for the 15 asylees was 73% (11/15). The overall screening rate for eligible asylees was 95%. Asylees, as a group, can be a more difficult population to locate and offer the health screening. There are not the same notification processes in place as for primary refugees and asylees may have been here for several years. Related to these factors, there can be more issues regarding ineligibility for health coverage, timeliness for flat fee and need for health screening depending on length of time in the U.S.

There were 11 refugees who were not screened and had a known outcome. Four asylees who were eligible for the health exam refused screening. The remaining seven were ineligible for screening because they all moved out of state.

## Flat Fee Reimbursement

During this same time period seven refugees qualified for flat fee reimbursement. All were full payment reimbursements.

# Health Status of New Refugees to Dakota County

**Tuberculosis (TB)**  
**Hepatitis B**  
**Parasitic Infection**  
**Malaria**  
**Sexually Transmitted  
Infections (STI)**  
**Lead**



## Tuberculosis

Of the 92 new primary refugee arrivals to Dakota County, 16 (17%) arrived with a Class B1 TB status. **State:** 266/2,687 (9%)

Of the 77 new primary refugee arrivals tested for tuberculosis in Dakota County, 34 (45%) tested positive for latent tuberculosis infection or suspect /active TB disease. **State:** 1,177/2,649 (44%)

More than 80% of active TB cases in Minnesota occur among persons born outside the United States. During the past decade, the percentage of foreign-born persons among TB cases reported in Minnesota increased from 71% in 1997, peaked at 87% in 2005, and has slightly decreased to 85% in 2007.

- *The data strongly suggest that clinicians should not rely solely on medical examinations performed overseas to identify cases of TB disease among foreign-born persons.* During the period of 2003-2007, only 14% of the foreign-born TB case-patients who initially arrived in the U.S. as refugees or other immigrants and who were diagnosed with TB

within one year of their arrival, were known to have been identified as being at high risk for active TB disease on the overseas medical evaluation.

- More than half (52%) of foreign-born TB case-patients reported during 2003-2007 in Minnesota had been in the U.S. for three or more years prior to being diagnosed with TB disease. *These data suggest that at least half of foreign-born TB cases reported in Minnesota may be preventable by focusing on thorough domestic screening, evaluation, and treatment of latent TB infection among recently arrived refugees, immigrants, and other foreign-born persons.*
- Drug-resistant TB and extrapulmonary TB disease are more common among foreign-born persons; extrapulmonary disease may be more difficult to diagnose. Common extrapulmonary sites of disease reported in Minnesota include include lymphatic, pleural, bone/joint and peritoneal.

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/4tb.html](http://www.health.state.mn.us/refugee/guide/4tb.html)

[www.health.state.mn.us/divs/idepc/diseases/tb/stats.html](http://www.health.state.mn.us/divs/idepc/diseases/tb/stats.html)

CDC:

[www.cdc.gov/tb](http://www.cdc.gov/tb)

## Hepatitis B

Of the 80 new primary refugee arrivals tested for hepatitis B in Dakota County, eight (10%) tested positive for hepatitis B surface antigen (HBsAg). **State:** 206/2,656 (8%)

All newly arrived refugees, adults and children, should be screened for HBsAg, anti-HBs, and anti-HBc to determine their hepatitis B status. HBV infection is highly endemic in all of Africa, Southeast, East, and Northern Asia, and in most of the Pacific Islands. CDC's new recommendations include testing all individuals born in Asia and Africa and other geographic regions with 2 percent or higher prevalence of chronic HBV in-

fections, as well as additional at-risk populations. Worldwide, most infections occur through mother-to-child transmission, child-to-child in household contacts, or reuse of unsterilized needles and syringes. While the newly arrived refugee is no longer experiencing an endemic environment in the U.S., refugee communities tend to congregate and may continue to passively act as a host environment for those who are infected with

HBV. Being in close contact in the household and within the community increases the risk of infection and makes it especially important to screen all household contacts and vaccinate all those who are susceptible.

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/5hepb.html](http://www.health.state.mn.us/refugee/guide/5hepb.html)

CDC:

[www.cdc.gov/ncidod/diseases/hepatitis/b/faqb.html](http://www.cdc.gov/ncidod/diseases/hepatitis/b/faqb.html)

## Parasitic Infection

Of the 70 new primary refugee arrivals tested for intestinal parasites in Dakota County, 10 (14%) tested positive for at least one pathogenic intestinal parasite. **State:** 384/2,526 (15%)

*Giardia lamblia* (5\*), *Dientamoeba fragilis* (2\*), *Entamoeba histolytica* (2\*), *Pinworm* (1\*)

\*number of cases identified

Screening for both *symptomatic* and *asymptomatic parasitosis* among refugees remains a high priority since at least one third of the world's population may be infected with intestinal parasites and all immigrant groups are affected to some degree by intestinal parasites.<sup>1</sup> Potentially harmful outcomes underscore the importance of distinguishing between pathogenic and non-pathogenic parasites and treating the former appropriately.

Current overseas protocol includes pre-departure albendazole therapy within three days prior to departure to the U.S. for Southeast Asian and sub-Saharan refugees (excluding special groups, such as pregnant women and small infants). Albendazole is an antihelminthic treatment and has been documented to dramatically decrease the prevalence of *Ascaris* and *Trichuris* in newly arrived refugees. At this time, documentation of pre-departure therapy is NOT included in the

overseas records that MDH/RHP receives and forwards to local public health. It is sent directly with the refugee. When making appointments, request all medical papers be brought to clinic. Some clinics have reported finding the treatment documentation in the jacket of the x-ray films.

Certain pathogenic parasitic infections can persist for many years if left untreated and have been associated with both chronic illnesses and life threatening infections. This can range from malnutrition, iron-deficiency anemia, malabsorption syndrome, mental and physical growth retardation to life-threatening liver abscess or hyperinfection.<sup>2</sup>

*Strongyloides stercoralis* (roundworm), which is found in almost all refugee groups, and *Schis-*

*tosomiasis spp* (fluke), predominantly seen in sub-Saharan refugees, are two parasitic infections of particular concern. Pre-departure albendazole therapy is not adequate treatment for either of these. Most refugees with strongyloidiasis are asymptomatic. If left unchecked, it can persist for years, and under certain conditions can lead to a severe hyper-infection. Schistosomiasis is often asymptomatic initially; however for people who are not treated and /or are repeatedly infected for many years, infection can cause damage to the liver, intestines, lungs, and bladder.

## Malaria

Of the two new primary refugee arrivals tested for malaria in Dakota County, none tested positive for malaria. **State:** 1/34 (3%)

Clinicians should have a high index of suspicion of malaria, particularly for refugees from tropical and subtropical areas who have fever of unknown origin or other characteristic symptoms. In particular, sub-Saharan Africans are considered to be from a highly endemic area where asymptomatic malaria infection is common and the predominant species found in this part of the world, *Plasmodium falciparum*, can cause severe, potentially fatal malaria.<sup>1</sup>

Currently CDC is recommending presumptive pre-departure anti-malarial DOT administered overseas for sub-Saharan refugees, completed at least two days prior to departure (excluding special populations of pregnant or lactating women and children under 5 kg). At this time, MDH/RHP

New overseas treatment recommendations include expanded presumptive treatment to address these concerns. The new CDC guidelines for domestic screening indicate the implementation of these overseas guidelines may vary depending on funding and population. Therefore it is imperative for domestic screening guidelines to take into consideration the refugee's point of departure for the U.S. and whether the refugee received pre-departure presumptive therapy<sup>3</sup>

<sup>1,2</sup>Garg, P., Perry, S., Dorn, M., Hardcastle, L., Parsonnet, J. 2005. Risk of intestinal helminth and protozoan

does NOT receive documentation of pre-departure therapy in the overseas records. Instead, it is sent directly with the refugee in the sealed IOM bag. When making appointments, clinics should request all medical papers be brought to clinic. Some clinics have reported finding documentation in the jacket of the x-ray films.

When status of pre-departure therapy is unknown, the following fact should be taken into account as to whether or not to test:

- Neither single malaria thick-and-thin blood film nor rapid malaria test (RDT) are adequate for detecting asymptomatic or sub-clinical malaria found in sub-Saharan populations.

infection in a refugee population. *Am. J. Trop. Med. Hyg.*, 73(2):386-391.

<sup>3</sup> Centers for Disease Control and Prevention. Retrieved September 2008 from [www.cdc.gov/ncidod/dpd/parasites/schistosomiasis/factsht\\_schistosomiasis.htm#symptoms](http://www.cdc.gov/ncidod/dpd/parasites/schistosomiasis/factsht_schistosomiasis.htm#symptoms)

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/7parasites.html](http://www.health.state.mn.us/refugee/guide/7parasites.html)

CDC:

[www.cdc.gov/ncidod/dpd/parasites](http://www.cdc.gov/ncidod/dpd/parasites)

[www.cdc.gov.ncidod/dq/refugee/rh\\_guide.index.htm](http://www.cdc.gov.ncidod/dq/refugee/rh_guide.index.htm)

- Consider consulting with a tropical disease expert for options, including post-arrival presumptive and directed treatment for sub-Saharan refugees. MDH Refugee Health Program can help facilitate the consult.
- **Regardless of post-arrival testing, newly arrived refugees from known endemic regions should be closely monitored for signs or symptoms of malaria, particularly during the initial three months after arrival.**

<sup>1</sup> Centers for Disease Control and Prevention. Retrieved September 2008 from [www.cdc.gov/malaria/biology/parasites/index.htm](http://www.cdc.gov/malaria/biology/parasites/index.htm)

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/8malaria.html](http://www.health.state.mn.us/refugee/guide/8malaria.html)

CDC:

[www.cdc.gov/malaria/index.htm](http://www.cdc.gov/malaria/index.htm)

## Lead

Of the four new primary refugee arrivals under 6 years old who were tested for lead poisoning in Dakota County, none tested positive for elevated blood lead level. **State:** 8/205 (4%)

There is no *safe* level of lead for children (BLL $\geq$ 10 is the cut-off), and the effects of lead depend on the dose. Refugee children are particularly at risk for lead poisoning given their exposure to toxic atmospheric emissions found in many parts of the world. Several factors increase the potential for lead exposure in developing countries including poor nutrition, eating utensils,

home remedies, environmental pollution, absent or lax environmental regulations, hot climates that imply a prolonged stay in the outdoor environment, airy housing construction, and concentration of populations around traffic arteries. These children continue to be at risk in the U.S. if living in sub-standard housing conditions. Additionally clinicians should be aware that home

remedies which might contain lead, may continue to be acquired from overseas and used in the states.

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/9lead.html](http://www.health.state.mn.us/refugee/guide/9lead.html)

CDC:

[www.cdc.gov/nceh/lead](http://www.cdc.gov/nceh/lead)

## Sexually Transmitted Infections

Of the 66 new primary refugee arrivals tested for syphilis in Dakota County, none tested positive. Of the 92 new primary refugee arrivals to Dakota, none tested positive for HIV overseas. Of the new primary arrivals tested for chlamydia (30) and/or gonorrhea (29), none tested positive. **State:** *syphilis*, 19/2,030 (1%); *HIV(overseas)*, 11/2,867 (<1%); *chlamydia*, 0/164 (0%); *gonorrhea* 0/154 (0%)

**Syphilis** screening is considered standard for the domestic health exam. Evidence of discordant results between overseas syphilis screening results and domestic results highlights the importance of including this exam in the domestic exam.

All refugees aged 15 years and older are tested for **HIV** overseas. At this time, domestic screening does not call for re-testing for HIV. It is recommended that all family members of an HIV+ person get tested, regardless of age.

Technology for urine screening for both *Chlamydia trachomatis* and *Neisseria gonorrhoeae* is available and is considered equally, if not more sensitive, than traditional cultures. This non-invasive testing is preferred for the refugee population.

In general, the quality of lab facilities overseas varies and providers should keep this in mind when determining whether or not to screen for STI's.

### Resources

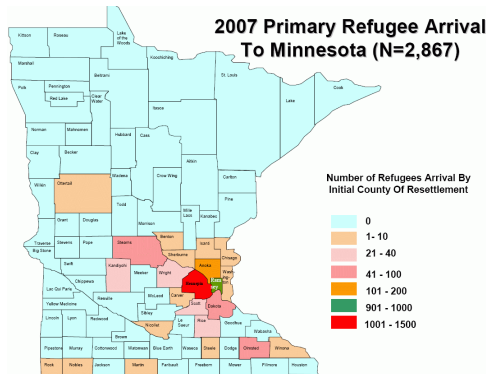
MDH:

[www.health.state.mn.us/refugee/guide/6stds.html](http://www.health.state.mn.us/refugee/guide/6stds.html)

CDC:

[www.cdc.gov/std](http://www.cdc.gov/std)

[www.cdc.gov/hiv](http://www.cdc.gov/hiv)



# Hennepin County

## 2007

### Refugee Health Report

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- STIs**

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**Objective 6.** *On an ongoing basis, 90% of persons provided a health screening will receive a hepatitis B surface antigen (HBsAg) test.*

**Objective 7.** *Ensure 90% of persons provided a health screening will get tested for parasitic infections (parasitosis).*

**Objective 8.** *Ensure 90% of all children less than 6 years of age who receive a health screening will be screened for lead poisoning.*

**Objective 9.** *Ensure 100% of all newly arrived HIV+ refugees will be screened within 30 days of arrival and referred to a HIV specialty clinic or provider.*

**\*Ineligible** if: moved out of state, moved to unknown destination, unable to locate due to invalid contact information, never arrived to county, or died before screening.

# Health Screening Indicators

All results are based on domestically completed screenings

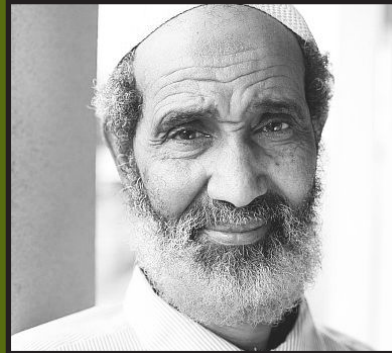
# Hennepin County, 2007

Performance Goal	Objective	Measure	Data	Year 2007	
				No.	%
<b>Health Screening Rate</b>					
Increase percentage of newly arrived refugees* who receive a health assessment within 90 days of their arrival	Percentage of persons who received at least the first visit of their health assessment within 90 days of their arrival	$\frac{\text{\# of newly arrived refugees to county X who received at least the first visit of their health assessment within 90 days of arrival}}{\text{\# of newly arrived refugees to county X who were eligible for a screening}}$	Objective	90%	
			County	1295/(1386-75)	99%
			State	2697/(2867-127)	98%
<b>Immunizations</b>					
Increase percentage of newly arrived refugees who have immunization series initiated or continued according to recommended MDH child/adult immunization schedules	Percentage of persons who have immunization series initiated or continued according to the recommended MDH child/adult immunization schedules	$\frac{\text{\# of newly arrived refugees to county X with immunization series initiated or continued}}{\text{\# of newly arrived refugees* to county X who received a screening}}$	Objective	90%	
			County	1160/1295	90%
			State	2398/2697	89%
<b>TB</b>					
<i>Follow-up of Refugees with TB Class Conditions</i> Increase percentage of newly arrived refugees designated as TB Class A or B1 who are appropriately evaluated	Percentage of newly arrived refugees designated as TB Class A or B1 who are appropriately evaluated	$\frac{\text{\# of newly arrived refugees to county X designated as TB Class A or B1 and who are appropriately evaluated}}{\text{\# of newly arrived eligible refugees to county X designated as TB Class A or B1}}$	Objective	95%	
			County	87/(95-4)	96%
			State	253/(266-7)	98%
<i>LTBI Therapy</i> Increase percentage of newly arrived refugees in need of therapy for latent tuberculosis infection (LTBI) who have been placed on such therapy within 90 days of arrival	Percentage of persons in need of therapy for LTBI who are placed on such therapy within 90 days of arrival	$\frac{\text{\# of newly arrived refugees to county X in need of LTBI therapy and placed on such therapy within 90 days of arrival}}{\text{\# of newly arrived refugees to county X in need of LTBI therapy}}$	Objective	75%	
			County	558/627	89%
			State	1010/1156	87%
Increase the percentage of newly arrived refugees who have been placed on therapy for LTBI and have completed therapy	Percentage of persons who are placed on therapy for LTBI and have completed therapy	$\frac{\text{\# of newly arrived refugees to county X in need of LTBI therapy and who have been placed on and completed LTBI therapy}}{\text{\# of newly arrived refugees to county X placed on LTBI therapy}}$	Objective	40%	
			County	455/981**	46%
			State	885/1661**	53%
<b>Hepatitis B</b>					
Increase percentage of newly arrived refugees who have received a hepatitis B surface antigen (HBsAg) test	Percentage of persons who receive a hepatitis B surface antigen (HBsAg) test	$\frac{\text{\# of newly arrived refugees to county X who received HBsAg test}}{\text{\# of newly arrived refugees to county X who received a screening}}$	Objective	90%	
			County	1278/1295	99%
			State	2656/2697	98%
<b>Intestinal Parasites</b>					
Increase percentage of newly arrived refugees who are tested for parasitic infections (parasitosis)	Percentage of persons who are tested for parasitic infections (O & P and/or serology)	$\frac{\text{\# of newly arrived refugees to county X tested for parasitic infections}}{\text{\# of newly arrived refugees to county X who received a screening}}$	Objective	90%	
			County	1250/1295	97%
			State	2526/2697	94%
<b>Lead Poisoning</b>					
Increase percentage of newly arrived refugees < 6 years old who are screened for lead poisoning	Percentage of newly arrived refugees < 6 years old who are screened for lead poisoning	$\frac{\text{\# of newly arrived refugees to county X who are < 6 years old and screened for lead poisoning}}{\text{\# of newly arrived refugees < 6 years old to county X who received a screening}}$	Objective	90%	
			County	70/72	97%
			State	205/225	91%
<b>HIV+</b>					
Increase percentage of newly arrived HIV+ refugees who are screened within 30 days of arrival and referred to a HIV specialty clinic or provider	Percentage of newly arrived HIV+ refugees who are screened within 30 days of arrival and referred to a HIV specialty clinic or provider	$\frac{\text{\# of newly arrived HIV+ refugees to county X screened within 30 days of arrival and referred to specialty clinic or provider}}{\text{\# of newly arrived HIV+ refugees to county X who received a screening}}$	Objective	100%	
			County	7/7	100%
			State	9/10	90%

\* *Newly arrived refugees* refers to all newly arrived refugees **eligible** for refugee health screening in Minnesota

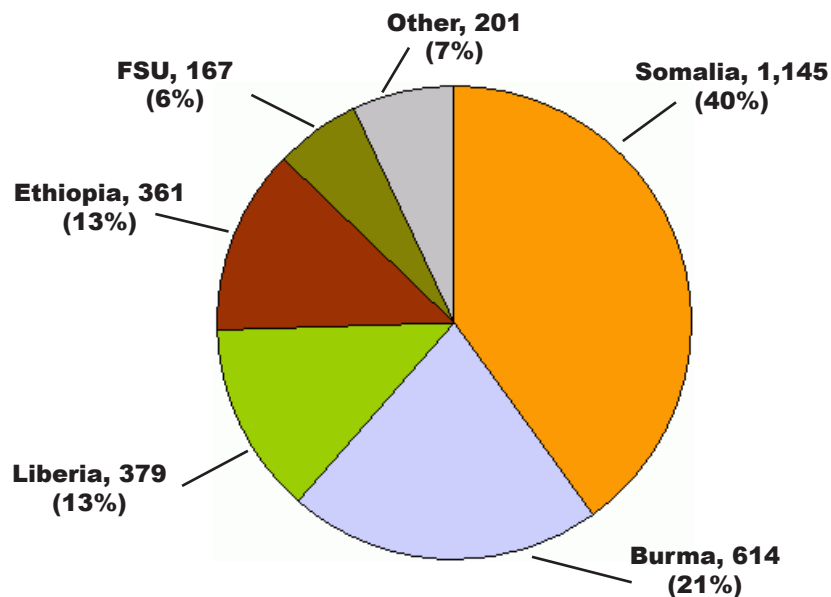
\*\* Based on 2006 data which reflects the most recent completion date for 9-month treatment protocol





# Significant Findings and Trends: Minnesota

## Number of Primary Arrivals\* to Minnesota 01/01/2007 - 12/31/2007



**N=2,867**

FSU includes Belarus, Kazakhstan, Latvia, Moldova, Russia, Ukraine.

“Other” includes Afghanistan, Cameroon, Chad, China (including Tibet), DR Congo, Cuba, Eritrea, France, Indonesia, Ivory Coast, Kenya, Laos (Hmong), Nigeria, Sierra Leone, Sudan, Uganda, and Vietnam.

\**Primary arrival* is a refugee who is residing in the state listed as the initial point of destination with the USCIS. Refugees are free to move from state to state, but sponsors, VOLAGs, and state health departments are designed to serve only newly arrived primary refugees to the state.

## Demographics

During the period of 01/01/2007 - 12/31/2007, Minnesota was notified of 2,867 primary refugee arrivals. The regional breakdown is as follows: sub-Saharan Africa, 69%; South/Southeast/East Asia, 25%; Europe/Eastern Europe, 6%; Latin America, <1%. From a country perspective, the largest arrival groups during this period were Somali and Karen from Burma.

In general, refugee arrivals to Minnesota are a young population; 1,223 (43%) were 15-24 years of age and 793 (28%) were less than 15 years of age in 2007. Regarding gender, 1,450 (51%) of newly arrived refugees to the state were male.

## Screening Rate and Outcome for Those Not Screened

Of the 2,867 new primary refugee arrivals 2,740 (96%) were eligible for a health screening and 2,697 (98%) were screened. This compares to 4,893 primary arrivals eligible for a screening in 2006 and a screening rate of 96%.

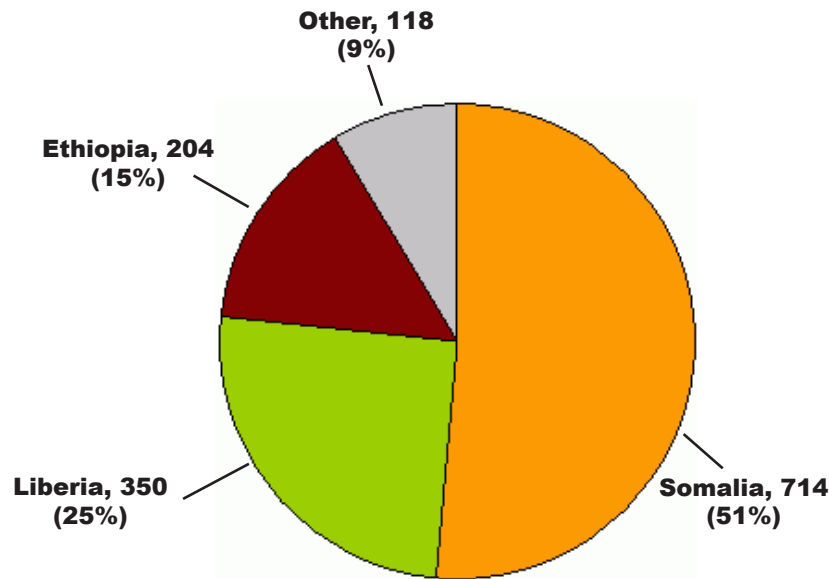
There were 170 refugees who were not screened and had a known outcome. Forty-three were eligible for the screening and did not receive one. Of these, 17 were failed attempts to schedule, eight were screened elsewhere with no available results, eight refused screening, eight persons missed his/her appointment and two moved to another county. The remaining 124 were ineligible for screening because they moved out of state or to an unknown destination, and three never arrived to the state.

## Flat Fee Reimbursement

During this same time period 164 refugees qualified for flat fee reimbursement. One hundred and fifty-two were full payment and 12 were partial payment.

# Significant Findings and Trends

## Number of Primary Arrivals\* to Hennepin 01/01/2007 - 12/31/2007



**N=1,386**

“Other” includes Belarus, Cameroon, Chad, Columbia, Congo, Cuba, Eritrea, France, Indonesia, Kenya, Loas/Hmong, Moldova, Russia, Tibet, Togo, Uganda, Ukraine, and Vietnam.

\***Primary arrival** is a refugee who is residing in the state listed as the initial point of destination with the USCIS. Refugees are free to move from state to state, but sponsors, VOLAGs, and state health departments are designed to serve only newly arrived primary refugees to the state.

## Demographics

During the period of 01/01/2007 - 12/31/2007, Hennepin County was notified of 1,386 primary refugee arrivals. This is 48% of the 2,867 total primary refugee arrivals to Minnesota. The regional breakdown is as follows: sub-Saharan Africa, 94%; Eastern Europe, 4 %: South/Southeast/East Asia, <1%; Latin America, <1; Europe, <1%.

From a country perspective, the largest arrival groups during this period were Somali, Liberian and Ethiopian. Somalis alone comprised more than half of all refugees to Hennepin; this was 62% of 1,145 primary Somali refugees to the state. Though still the predominant arrival group, this is a marked decrease in the proportion of arrivals from Somalia compared to 2006 (71%). The county continues to screen refugees from almost every group resettled in Minnesota with the most notable exception being the Karen from Burma.

In general, refugee arrivals to Minnesota are a young population; 1,223 (43%) were 15-24 years of age and 793 (28%) were less than 15 years of age in 2007. In Hennepin, 694 (50%) of the new primary arrivals were 15-24 years of age and 343 (25%) were less than 15 years old. Regarding gender, 702 (51%) of newly arrived refugees to the county were male; the state average was 1,450 (51%).

## Screening Rate and Outcome for Those Not Screened

Of the 1,386 new primary refugee arrivals, 1,311 (95%) were eligible for a health screening and 1,295 (99%) were screened. This compares to 2,733 primary arrivals eligible for a screening in 2006 and a 98% screening rate.

There were 91 refugees who were not screened and had a known outcome. Sixteen were eligible for the screening and did not receive one. Of these, ten were failed attempts to schedule, four persons missed his/her appointment, one was screened elsewhere (screened at a private clinic and results not returned), and one refused screening. The remaining 75 were ineligible for screening because they moved out of state or to an unknown destination or never arrived to the county.

## Flat Fee Reimbursement

During this same time period 108 refugees qualified for the flat fee reimbursement in Hennepin County. One hundred were full and eight were partial payment reimbursements.

# Health Status of New Refugees to Hennepin County

**Tuberculosis (TB)**  
**Hepatitis B**  
**Parasitic Infection**  
**Malaria**  
**Sexually Transmitted  
Infections (STI)**  
**Lead**



## Tuberculosis

Of the 1,386 new primary refugee arrivals to Hennepin County, 95 (7%) arrived with a B1 TB status. One additional person arrived with Class A TB designation, although this refugee was misclassified as Class B1 TB. **State:** 266/2,687 (9%)

Of the 1,276 new primary refugee arrivals tested for tuberculosis in Hennepin, 638 (50%) tested positive for latent tuberculosis infection or suspect /active TB disease. **State:** 1,177/2,649 (44%)

More than 80% of active TB cases in Minnesota occur among persons born outside the United States. During the past decade, the percentage of foreign-born persons among TB cases reported in Minnesota increased from 71% in 1997, peaked at 87% in 2005, and has slightly decreased to 85% in 2007.

- *The data strongly suggest that clinicians should not rely solely on medical examinations performed overseas to identify cases of TB disease among foreign-born persons.* During the period of 2003-2007, only 14% of the foreign-born TB case-patients who initially arrived in the U.S. as refugees or other immigrants and who were diagnosed with TB

within one year of their arrival, were known to have been identified as being at high risk for active TB disease on the overseas medical evaluation.

- More than half (52%) of foreign-born TB case-patients reported during 2003-2007 in Minnesota had been in the U.S. for three or more years prior to being diagnosed with TB disease. *These data suggest that at least half of foreign-born TB cases reported in Minnesota may be preventable by focusing on thorough domestic screening, evaluation, and treatment of latent TB infection among recently arrived refugees, immigrants, and other foreign-born persons.*
- Drug-resistant TB and extrapulmonary TB disease are more common among foreign-born persons; extrapulmonary disease may be more difficult to diagnose. Common extrapulmonary sites of disease reported in Minnesota include lymphatic, pleural, bone/joint and peritoneal.

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/4tb.html](http://www.health.state.mn.us/refugee/guide/4tb.html)

[www.health.state.mn.us/divs/idepc/diseases/tb/stats.html](http://www.health.state.mn.us/divs/idepc/diseases/tb/stats.html)

CDC:

[www.cdc.gov/tb](http://www.cdc.gov/tb)

## Hepatitis B

Of the 1,278 new primary refugee arrivals tested for hepatitis B in Hennepin County, 96 (8%) tested positive for hepatitis B surface antigen (HBsAg). **State:** 206/2,656 (8%)

All newly arrived refugees, adults and children, should be screened for HBsAg, anti-HBs, and anti-HBc to determine their hepatitis B status. HBV infection is highly endemic in all of Africa, Southeast, East, and Northern Asia, and in most of the Pacific Islands. CDC's new recommendations include testing all individuals born in Asia and Africa and other geographic regions with 2 percent or higher prevalence of chronic HBV in-

fections, as well as additional at-risk populations. Worldwide, most infections occur through mother-to-child transmission, child-to-child in household contacts, or reuse of unsterilized needles and syringes. While the newly arrived refugee is no longer experiencing an endemic environment in the U.S., refugee communities tend to congregate and may continue to passively act as a host environment for those who are infected with

HBV. Being in close contact in the household and within the community increases the risk of infection and makes it especially important to screen all household contacts and vaccinate all those who are susceptible.

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/5hepb.html](http://www.health.state.mn.us/refugee/guide/5hepb.html)

CDC:

[www.cdc.gov/ncidod/diseases/hepatitis/b/faqb.html](http://www.cdc.gov/ncidod/diseases/hepatitis/b/faqb.html)

## Parasitic Infection

Of the 1,250 new primary refugee arrivals tested for intestinal parasites in Hennepin County, 205 (16%) tested positive for at least one pathogenic intestinal parasite. **State:** 384/2,526 (15%)

*Giardia lamblia* (70\*), *Trichuris* (59\*), *Schistosoma* (41\*), *Entamoeba histolytica* (19\*), *Hymenolepis nana* (19\*), *Ascaris* (5\*), *Strongyloides* (2\*), *Dientamoeba fragilis* (1\*), *Fasciola hepatica* (1\*), *Hookworm* (1\*)

\*number of cases identified (several individuals were co-infected with multiple parasites)

Screening for both *symptomatic* and *asymptomatic parasitosis* among refugees remains a high priority since at least one third of the world's population may be infected with intestinal parasites and all immigrant groups are affected to some degree by intestinal parasites.<sup>1</sup> Potentially harmful outcomes underscore the importance of distinguishing between pathogenic and non-pathogenic parasites and treating the former appropriately.

Current overseas protocol includes pre-departure albendazole therapy within three days prior to departure to the U.S. for Southeast Asian and sub-Saharan refugees (excluding special groups, such as pregnant women and small infants). Albendazole is an antihelminthic treatment and has been documented to dramatically decrease the prevalence of *Ascaris* and *Trichuris* in newly arrived refugees. At this time, documentation of pre-departure therapy is NOT included in the

overseas records that MDH/RHP receives and forwards to local public health. It is sent directly with the refugee. When making appointments, request all medical papers be brought to clinic. Some clinics have reported finding the treatment documentation in the jacket of the x-ray films.

Certain pathogenic parasitic infections can persist for many years if left untreated and have been associated with both chronic illnesses and life threatening infections. This can range from malnutrition, iron-deficiency anemia, malabsorption syndrome, mental and physical growth retardation to life-threatening liver abscess or hyperinfection.<sup>2</sup>

*Strongyloides stercoralis* (roundworm), which is found in almost all refugee groups, and *Schistosomiasis spp* (flake), predominantly seen in

sub-Saharan refugees, are two parasitic infections of particular concern. Pre-departure albendazole therapy is not adequate treatment for either of these. Most refugees with strongyloidiasis are asymptomatic. If left unchecked, it can persist for years, and under certain conditions can lead to a severe hyper-infection. Schistosomiasis is often asymptomatic initially; however for people who are not treated and /or are repeatedly infected for many years, infection can cause damage to the liver, intestines, lungs, and bladder.

New overseas treatment recommendations in-

clude expanded presumptive treatment to address these concerns. The new CDC guidelines for domestic screening indicate the implementation of these overseas guidelines may vary depending on funding and population. Therefore it is imperative for domestic screening guidelines to take into consideration the refugee's point of departure for the U.S. and whether the refugee received pre-departure presumptive therapy.<sup>3</sup>

<sup>1,2</sup>Garg, P., Perry, S., Dorn, M., Hardcastle, L., Parsonnet, J. 2005. Risk of intestinal helminth and protozoan

infection in a refugee population. *Am. J. Trop. Med. Hyg.*, 73(2):386-391.

<sup>3</sup> Centers for Disease Control and Prevention. Retrieved September 2008 from [www.cdc.gov/ncidod/dpd/parasites/schistosomiasis/factsht\\_schistosomiasis.htm#symptoms](http://www.cdc.gov/ncidod/dpd/parasites/schistosomiasis/factsht_schistosomiasis.htm#symptoms)

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/7parasites.html](http://www.health.state.mn.us/refugee/guide/7parasites.html)

CDC:

[www.cdc.gov/ncidod/dpd/parasites](http://www.cdc.gov/ncidod/dpd/parasites)

[www.cdc.gov/ncidod/dq/refugee/rh\\_guide.index.htm](http://www.cdc.gov/ncidod/dq/refugee/rh_guide.index.htm)

## Malaria

Of the 15 new primary refugee arrivals tested for malaria in Hennepin County, one (7%) tested positive for malaria. **State:** 1/34 (3%)

Clinicians should have a high index of suspicion of malaria, particularly for refugees from tropical and subtropical areas who have fever of unknown origin or other characteristic symptoms. In particular, sub-Saharan Africans are considered to be from a highly endemic area where asymptomatic malaria infection is common and the predominant species found in this part of the world, *Plasmodium falciparum*, can cause severe, potentially fatal malaria.<sup>1</sup>

Currently CDC is recommending presumptive pre-departure anti-malarial DOT administered overseas for sub-Saharan refugees, completed at least two days prior to departure (excluding special populations of pregnant or lactating women and children under 5 kg). At this time, MDH/RHP

does NOT receive documentation of pre-departure therapy in the overseas records. Instead, it is sent directly with the refugee in the sealed IOM bag. When making appointments, clinics should request all medical papers be brought to clinic. Some clinics have reported finding documentation in the jacket of the x-ray films.

When status of pre-departure therapy is unknown, the following fact should be taken into account as to whether or not to test:

- Neither single malaria thick-and-thin blood film nor rapid malaria test (RDT) are adequate for detecting asymptomatic or sub-clinical malaria found in sub-Saharan populations.

- Consider consulting with a tropical disease expert for options, including post-arrival presumptive and directed treatment for sub-Saharan refugees. MDH Refugee Health Program can help facilitate the consult.
- **Regardless of post-arrival testing, newly arrived refugees from known endemic regions should be closely monitored for signs or symptoms of malaria, particularly during the initial three months after arrival.**

<sup>1</sup> Centers for Disease Control and Prevention. Retrieved September 2008 from [www.cdc.gov/malaria/biology/parasites/index.htm](http://www.cdc.gov/malaria/biology/parasites/index.htm)

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/8malaria.html](http://www.health.state.mn.us/refugee/guide/8malaria.html)

CDC:

[www.cdc.gov/malaria/index.htm](http://www.cdc.gov/malaria/index.htm)

## Lead

Of the 70 new primary refugee arrivals under 6 years old who were tested for lead poisoning in Hennepin County, two children (3%) tested positive for increased blood lead level.

**State:** 8/205 (4%)

There is no *safe* level of lead for children (BLL $\geq$ 10 is the cut-off), and the effects of lead depend on the dose. Refugee children are particularly at risk for lead poisoning given their exposure to toxic atmospheric emissions found in many parts of the world. Several factors increase the potential for lead exposure in developing

countries including poor nutrition, eating utensils, home remedies, environmental pollution, absent or lax environmental regulations, hot climates that imply a prolonged stay in the outdoor environment, airy housing construction, and concentration of populations around traffic arteries. These children continue to be at risk in the U.S.

if living in sub-standard housing conditions. Additionally clinicians should be aware that home remedies which might contain lead, may continue to be acquired from overseas and used in the states.

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/9lead.html](http://www.health.state.mn.us/refugee/guide/9lead.html)

CDC:

[www.cdc.gov/nceh/lead](http://www.cdc.gov/nceh/lead)

## Sexually Transmitted Infections

Of the 1,067 new primary refugee arrivals tested for syphilis in Hennepin County, 11 (1%) tested positive for syphilis. Of the 1,386 new primary refugee arrivals to Hennepin, seven (<1%) tested positive for HIV overseas. Seven (64%) of the 11 HIV positive refugees who arrived in Minnesota under the special medical waiver resettled in Hennepin County. Of the primary arrivals tested for chlamydia (24) and/or gonorrhea (22), none tested positive.

**State:** *syphilis*, 19/2,030 (1%); *HIV(overseas)*, 11/2,867 (<1%); *chlamydia*, 0/164 (0%); *gonorrhea* 0/154 (0%)

**Syphilis** screening is considered standard for the domestic health exam. Evidence of discordant results between overseas syphilis screening results and domestic results highlights the importance of including this exam in the domestic exam.

All refugees aged 15 years and older are tested for **HIV** overseas. At this time, domestic screening does not call for re-testing for HIV. It is recommended that all family members of an HIV+ person get tested, regardless of age.

Technology for urine screening for both *Chlamydia trachomatis* and *Neisseria gonorrhoeae* is available and is considered equally, if not more sensitive, than traditional cultures. This non-invasive testing is preferred for the refugee population.

In general, the quality of lab facilities overseas varies and providers should keep this in mind when determining whether or not to screen for STI's.

### Resources

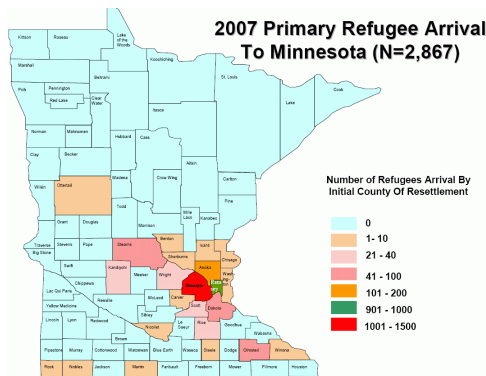
MDH:

[www.health.state.mn.us/refugee/guide/6stds.html](http://www.health.state.mn.us/refugee/guide/6stds.html)

CDC:

[www.cdc.gov/std](http://www.cdc.gov/std)

[www.cdc.gov/hiv](http://www.cdc.gov/hiv)



# Kandiyohi County

## 2007

### Refugee Health Report

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Welcome to the second edition of the Refugee Health County Report. An individualized report is compiled for those counties that have received at least 15 new primary refugee arrivals to their county during the past year. In 2007, ten counties met this criterion: Anoka, Dakota, Hennepin, Kandiyohi, Olmsted, Ramsey, Rice, Scott, Stearns, and Wright. This year, statewide demographics and health status data are included in the reports as another means of comparison for counties.

In 2007, there was a significant drop in the number of primary refugee arrivals to our state. There were 2,867 new primary refugee arrivals to Minnesota compared with 5,356 in 2006. This slowing trend reflects policy changes at the national level rather than any decrease in the need for resettlement of the growing numbers of refugees worldwide. At the local level, your expertise and commitment to ensure the complete and timely initial refugee health screening exam for this population continues to play a crucial role in promoting the health and well-being of some of the newest arrivals to Minnesota as well as protecting the health of the community at large.

We encourage counties to use this report as a tool to measure the effectiveness of the health screening services offered to newly arrived refugees in your county. The objectives used to measure these goals are consistent with the objectives set forth by the Minnesota Department of Health’s Refugee Health Program (RHP)

to measure our program’s overall quality. This county specific data can also be used to support planning and development of appropriate public health responses to both immediate and emerging health issues in your region.

For refugees who arrived between January 1, 2007 and December 31, 2007, counties and/or private providers submitted the domestic screening results once the refugees completed their exams. All data included in this report were recorded on the Refugee Health Assessment Form (“pink” form) or the Outcome Form for each person. In addition, in 2007, two of our largest counties, Ramsey and Hennepin, began submitting these data electronically using a new web-based application developed by the MDH RHP called Electronic System for Health Assessment of Refugees, better known as eSHARE. eSHARE is specifically designed to collect results from the domestic health screenings and conduct surveillance activities. Any county interested in learning more about this system can go to our website or contact the RHP.

In early 2009, we will review the protocols for the refugee health screening exam based on revised recommendations from the Centers for Disease Control and Prevention (CDC). Look for updates throughout Winter/Spring 2008-09.

Again, let us know how we might tailor or improve this report to better support your work!



# Health Screening Indicators

The indicators on the following page are measurable objectives that correlate with the Minnesota refugee health assessment for newly arrived refugees. The highlighted yellow columns on the right of the chart are specific to your county, indicating how effectively these objectives were met. Together with *Significant Findings and Trends* on page 6 and *Health Status* data summary on pages 8 to 11, this 2007 report is a snapshot of the demographics and health needs of newly arrived primary refugees.

**Objective 1.** *Within 90 days of arrival, 90% of newly arrived refugees who are eligible\* will have received a health assessment.*

**Objective 2.** *Ensure immunizations will be initiated or continued according to the recommended MDH child and adult immunization schedules on 90% of persons provided a health screening.*

**Objective 3.** *Ensure evaluation for 95% of refugees arriving with infectious TB disease, non-communicable for travel purposes (Class A) or non-infectious TB disease (Class B1).*

**Objective 4.** *Within 90 days of arrival, 75% of persons in need of therapy for latent TB infection (LTBI) will have been placed on such therapy.*

**Objective 5.** *On an ongoing basis, 40% of persons placed on therapy for latent tuberculosis infection (LTBI) will have completed therapy.*

**Objective 6.** *On an ongoing basis, 90% of persons provided a health screening will receive a hepatitis B surface antigen (HBsAg) test.*

**Objective 7.** *Ensure 90% of persons provided a health screening will get tested for parasitic infections (parasitosis).*

**Objective 8.** *Ensure 90% of all children less than 6 years of age who receive a health screening will be screened for lead poisoning.*

**Objective 9.** *Ensure 100% of all newly arrived HIV+ refugees will be screened within 30 days of arrival and referred to a HIV specialty clinic or provider.*

**\*Ineligible** if: moved out of state, moved to unknown destination, unable to locate due to invalid contact information, never arrived to county, or died before screening.

# Health Screening Indicators

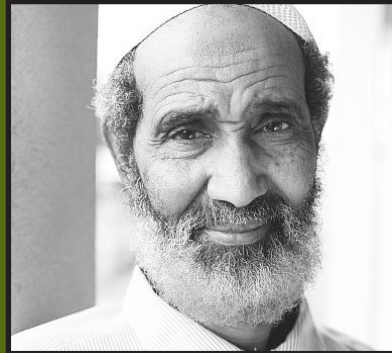
# Kandiyohi County, 2007

All results are based on domestically completed screenings

Performance Goal	Objective	Measure	Data	Year 2007	
				No.	%
<b>Health Screening Rate</b>					
Increase percentage of newly arrived refugees* who receive a health assessment within 90 days of their arrival	Percentage of persons who received at least the first visit of their health assessment within 90 days of their arrival	$\frac{\text{\# of newly arrived refugees to county X who received at least the first visit of their health assessment within 90 days of arrival}}{\text{\# of newly arrived refugees to county X who were eligible for a screening}}$	Objective	90%	
			County	29/(29-0)	100%
			State	2697/(2867-127)	98%
<b>Immunizations</b>					
Increase percentage of newly arrived refugees who have immunization series initiated or continued according to recommended MDH child/adult immunization schedules	Percentage of persons who have immunization series initiated or continued according to the recommended MDH child/adult immunization schedules	$\frac{\text{\# of newly arrived refugees to county X with immunization series initiated or continued}}{\text{\# of newly arrived refugees* to county X who received a screening}}$	Objective	90%	
			County	27/29	93%
			State	2398/2697	89%
<b>TB</b>					
<i>Follow-up of Refugees with TB Class Conditions</i> Increase percentage of newly arrived refugees designated as TB Class A or B1 who are appropriately evaluated	Percentage of newly arrived refugees designated as TB Class A or B1 who are appropriately evaluated	$\frac{\text{\# of newly arrived refugees to county X designated as TB Class A or B1 and who are appropriately evaluated}}{\text{\# of newly arrived eligible refugees to county X designated as TB Class A or B1}}$	Objective	95%	
			County	2/2	100%
			State	253/(266-7)	98%
<i>LTBI Therapy</i> Increase percentage of newly arrived refugees in need of therapy for latent tuberculosis infection (LTBI) who have been placed on such therapy within 90 days of arrival	Percentage of persons in need of therapy for LTBI who are placed on such therapy within 90 days of arrival	$\frac{\text{\# of newly arrived refugees to county X in need of LTBI therapy and placed on such therapy within 90 days of arrival}}{\text{\# of newly arrived refugees to county X in need of LTBI therapy}}$	Objective	75%	
			County	13/16	81%
			State	1010/1156	87%
Increase the percentage of newly arrived refugees who have been placed on therapy for LTBI and have completed therapy	Percentage of persons who are placed on therapy for LTBI and have completed therapy	$\frac{\text{\# of newly arrived refugees to county X in need of LTBI therapy and who have been placed on and completed LTBI therapy}}{\text{\# of newly arrived refugees to county X placed on LTBI therapy}}$	Objective	40%	
			County	9/17**	53%
			State	885/1661**	53%
<b>Hepatitis B</b>					
Increase percentage of newly arrived refugees who have received a hepatitis B surface antigen (HBsAg) test	Percentage of persons who receive a hepatitis B surface antigen (HBsAg) test	$\frac{\text{\# of newly arrived refugees to county X who received HBsAg test}}{\text{\# of newly arrived refugees to county X who received a screening}}$	Objective	90%	
			County	24/29	83%
			State	2656/2697	98%
<b>Intestinal Parasites</b>					
Increase percentage of newly arrived refugees who are tested for parasitic infections (parasitosis)	Percentage of persons who are tested for parasitic infections (O & P)	$\frac{\text{\# of newly arrived refugees to county X tested for parasitic infections (O&P)}}{\text{\# of newly arrived refugees to county X who received a screening}}$	Objective	90%	
			County	20/29	69%
			State	2526/2697	94%
<b>Lead Poisoning</b>					
Increase percentage of newly arrived refugees < 6 years old who are screened for lead poisoning	Percentage of newly arrived refugees < 6 years old who are screened for lead poisoning	$\frac{\text{\# of newly arrived refugees to county X who are < 6 years old and screened for lead poisoning}}{\text{\# of newly arrived refugees <6 years old to county X who received a screening}}$	Objective	90%	
			County	2/2	100%
			State	205/225	91%
<b>HIV+</b>					
Increase percentage of newly arrived HIV+ refugees who are screened within 30 days of arrival and referred to a HIV specialty clinic or provider	Percentage of newly arrived HIV+ refugees who are screened within 30 days of arrival and referred to a HIV specialty clinic or provider	$\frac{\text{\# of newly arrived HIV+ refugees to county X screened within 30 days of arrival and referred to specialty clinic or provider}}{\text{\# of newly arrived HIV+ refugees to county X who received a screening}}$	Objective	100%	
			County	0/0	NA
			State	9/10	90%

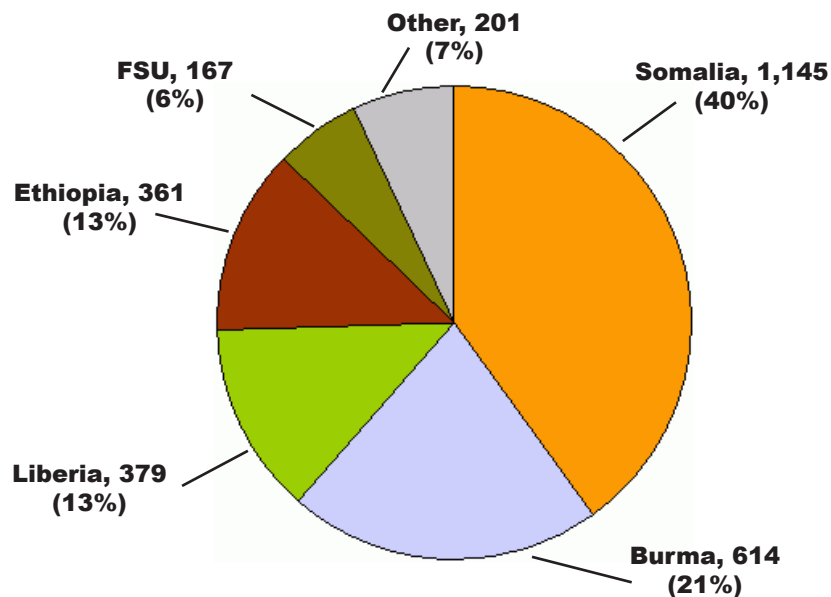
\* *Newly arrived refugees* refers to all newly arrived refugees **eligible** for refugee health screening in Minnesota

\*\* Based on 2006 data which reflects the most recent completion date for 9-month treatment protocol



# Significant Findings and Trends: Minnesota

## Number of Primary Arrivals\* to Minnesota 01/01/2007 - 12/31/2007



**N=2,867**

FSU includes Belarus, Kazakhstan, Latvia, Moldova, Russia, Ukraine.

“Other” includes Afghanistan, Cameroon, Chad, China (including Tibet), DR Congo, Cuba, Eritrea, France, Indonesia, Ivory Coast, Kenya, Laos (Hmong), Nigeria, Sierra Leone, Sudan, Uganda, and Vietnam.

\**Primary arrival* is a refugee who is residing in the state listed as the initial point of destination with the USCIS. Refugees are free to move from state to state, but sponsors, VOLAGs, and state health departments are designed to serve only newly arrived primary refugees to the state.

## Demographics

During the period of 01/01/2007 - 12/31/2007, Minnesota was notified of 2,867 primary refugee arrivals. The regional breakdown is as follows: sub-Saharan Africa, 69%; South/Southeast/East Asia, 25%; Europe/Eastern Europe, 6%; Latin America, <1%. From a country perspective, the largest arrival groups during this period were Somali and Karen from Burma.

In general, refugee arrivals to Minnesota are a young population; 1,223 (43%) were 15-24 years of age and 793 (28%) were less than 15 years of age in 2007. Regarding gender, 1,450 (51%) of newly arrived refugees to the state were male.

## Screening Rate and Outcome for Those Not Screened

Of the 2,867 new primary refugee arrivals 2,740 (96%) were eligible for a health screening and 2,697 (98%) were screened. This compares to 4,893 primary arrivals eligible for a screening in 2006 and a screening rate of 96%.

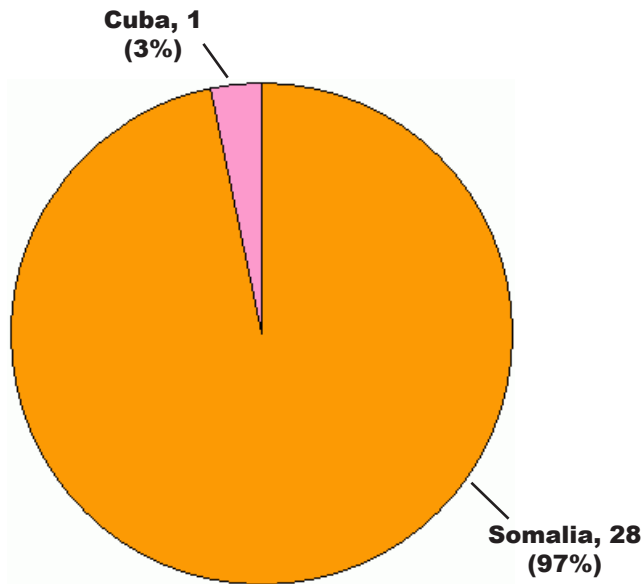
There were 170 refugees who were not screened and had a known outcome. Forty-three were eligible for the screening and did not receive one. Of these, 17 were failed attempts to schedule, eight were screened elsewhere with no available results, eight refused screening, eight persons missed his/her appointment and two moved to another county. The remaining 124 were ineligible for screening because they moved out of state or to an unknown destination, and three never arrived to the state.

## Flat Fee Reimbursement

During this same time period 164 refugees qualified for flat fee reimbursement. One hundred and fifty-two were full payment and 12 were partial payment.

# Significant Findings and Trends

## Number of Primary Arrivals\* to Kandiyohi 01/01/2007 - 12/31/2007



**N=29**

**\*Primary arrival** is a refugee who is residing in the state listed as the initial point of destination with the USCIS. Refugees are free to move from state to state, but sponsors, VOLAGs, and state health departments are designed to serve only newly arrived primary refugees to the state.

## Demographics

During the period of 01/01/2007 - 12/31/2007, Kandiyohi County was notified of 29 primary refugee arrivals. This is 1% of the 2,867 total primary refugee arrivals to Minnesota. The largest arrival group was Somali. This comprised 2% of 1,145 primary Somali refugees to the state in 2007. This is a similar population and distribution as in 2006.

In general, refugee arrivals to Minnesota are a young population; 1,223 (43%) were 15-24 years of age and 793 (28%) were less than 15 years of age in 2007. In Kandiyohi County 15 (52%) of the new primary arrivals were 15-24 years of age and 8 (28%) were less than 15 years old. Regarding gender, 17 (59%) refugees were male; the state average was 1,450 (51%).

## Screening Rate and Outcome for Those Not Screened

Of the 29 new primary refugee arrivals, 100% were eligible for a health screening and 29 (100%) were screened. This compares to 55 primary arrivals eligible for screening in 2006 and an 87% screening rate.

## Flat Fee Reimbursement

During this same time period all refugees qualified for MA and there were no requests for flat fee reimbursement from Kandiyohi County.

# Health Status of New Refugees to Kandiyohi County

**Tuberculosis (TB)**  
**Hepatitis B**  
**Parasitic Infection**  
**Malaria**  
**Sexually Transmitted  
Infections (STI)**  
**Lead**



## Tuberculosis

Of the 29 new primary refugee arrivals to Kandiyohi County, two (7%) arrived with a Class B1 TB status. **State:** 266/2,687 (9%)

Of the 29 new primary refugee arrivals tested for tuberculosis in Kandiyohi County, 16 (55%) tested positive for latent tuberculosis infection or suspect /active TB disease. **State:** 1,177/2,649 (44%)

More than 80% of active TB cases in Minnesota occur among persons born outside the United States. During the past decade, the percentage of foreign-born persons among TB cases reported in Minnesota increased from 71% in 1997, peaked at 87% in 2005, and has slightly decreased to 85% in 2007.

- *The data strongly suggest that clinicians should not rely solely on medical examinations performed overseas to identify cases of TB disease among foreign-born persons.* During the period of 2003-2007, only 14% of the foreign-born TB case-patients who initially arrived in the U.S. as refugees or other immigrants and who were diagnosed with TB

within one year of their arrival, were known to have been identified as being at high risk for active TB disease on the overseas medical evaluation.

- More than half (52%) of foreign-born TB case-patients reported during 2003-2007 in Minnesota had been in the U.S. for three or more years prior to being diagnosed with TB disease. *These data suggest that at least half of foreign-born TB cases reported in Minnesota may be preventable by focusing on thorough domestic screening, evaluation, and treatment of latent TB infection among recently arrived refugees, immigrants, and other foreign-born persons.*
- Drug-resistant TB and extrapulmonary TB disease are more common among foreign-born persons; extrapulmonary disease may be more difficult to diagnose. Common extrapulmonary sites of disease reported in Minnesota include lymphatic, pleural, bone/joint and peritoneal.

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/4tb.html](http://www.health.state.mn.us/refugee/guide/4tb.html)

[www.health.state.mn.us/divs/idepc/diseases/tb/stats.html](http://www.health.state.mn.us/divs/idepc/diseases/tb/stats.html)

CDC:

[www.cdc.gov/tb](http://www.cdc.gov/tb)

## Hepatitis B

Of the 24 new primary refugee arrivals tested for hepatitis B in Kandiyohi County, three (13%) tested positive for hepatitis B surface antigen (HBsAg). **State:** 206/2,656 (8%)

All newly arrived refugees, adults and children, should be screened for HBsAg, anti-HBs, and anti-HBc to determine their hepatitis B status. HBV infection is highly endemic in all of Africa, Southeast, East, and Northern Asia, and in most of the Pacific Islands. CDC's new recommendations include testing all individuals born in Asia and Africa and other geographic regions with 2 percent or higher prevalence of chronic HBV in-

fections, as well as additional at-risk populations. Worldwide, most infections occur through mother-to-child transmission, child-to-child in household contacts, or reuse of unsterilized needles and syringes. While the newly arrived refugee is no longer experiencing an endemic environment in the U.S., refugee communities tend to congregate and may continue to passively act as a host environment for those who are infected with

HBV. Being in close contact in the household and within the community increases the risk of infection and makes it especially important to screen all household contacts and vaccinate all those who are susceptible.

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/5hepb.html](http://www.health.state.mn.us/refugee/guide/5hepb.html)

CDC:

[www.cdc.gov/ncidod/diseases/hepatitis/b/faqb.html](http://www.cdc.gov/ncidod/diseases/hepatitis/b/faqb.html)

## Parasitic Infection

Of the 20 new primary refugee arrivals tested for intestinal parasites in Kandiyohi County, five (25%) tested positive for at least one pathogenic intestinal parasite. **State:** 384/2,526 (15%)

*Entamoeba histolytica* (2\*), *Giardia lamblia* (2\*), *Hymenolepis nana* (1\*)

\*number of cases identified (several individuals were co-infected with multiple parasites)

Screening for both **symptomatic** and **asymptomatic parasitosis** among refugees remains a high priority since at least one third of the world's population may be infected with intestinal parasites and all immigrant groups are affected to some degree by intestinal parasites.<sup>1</sup> Potentially harmful outcomes underscore the importance of distinguishing between pathogenic and non-pathogenic parasites and treating the former appropriately.

Current overseas protocol includes pre-departure albendazole therapy within three days prior to departure to the U.S. for Southeast Asian and sub-Saharan refugees (excluding special groups, such as pregnant women and small infants). Albendazole is an antihelminthic treatment and has been documented to dramatically decrease the prevalence of *Ascaris* and *Trichuris* in newly arrived refugees. At this time, documentation of pre-departure therapy is NOT included in the

overseas records that MDH/RHP receives and forwards to local public health. It is sent directly with the refugee. When making appointments, request all medical papers be brought to clinic. Some clinics have reported finding the treatment documentation in the jacket of the x-ray films.

Certain pathogenic parasitic infections can persist for many years if left untreated and have been associated with both chronic illnesses and life threatening infections. This can range from malnutrition, iron-deficiency anemia, malabsorption syndrome, mental and physical growth retardation to life-threatening liver abscess or hyperinfection.<sup>2</sup>

*Strongyloides stercoralis* (roundworm), which is found in almost all refugee groups, and *Schis-*

*tosomiasis spp* (fluke), predominantly seen in sub-Saharan refugees, are two parasitic infections of particular concern. Pre-departure albendazole therapy is not adequate treatment for either of these. Most refugees with strongyloidiasis are asymptomatic. If left unchecked, it can persist for years, and under certain conditions can lead to a severe hyper-infection. Schistosomiasis is often asymptomatic initially; however for people who are not treated and /or are repeatedly infected for many years, infection can cause damage to the liver, intestines, lungs, and bladder.

## Malaria

The one new primary refugee arrival tested for malaria in Kandiyohi County tested negative for malaria. **State:** 1/34 (3%)

Clinicians should have a high index of suspicion of malaria, particularly for refugees from tropical and subtropical areas who have fever of unknown origin or other characteristic symptoms. In particular, sub-Saharan Africans are considered to be from a highly endemic area where asymptomatic malaria infection is common and the predominant species found in this part of the world, *Plasmodium falciparum*, can cause severe, potentially fatal malaria.<sup>1</sup>

Currently CDC is recommending presumptive pre-departure anti-malarial DOT administered overseas for sub-Saharan refugees, completed at least two days prior to departure (excluding special populations of pregnant or lactating women and children under 5 kg). At this time, MDH/RHP

does NOT receive documentation of pre-departure therapy in the overseas records. Instead, it is sent directly with the refugee in the sealed IOM bag. When making appointments, clinics should request all medical papers be brought to clinic. Some clinics have reported finding documentation in the jacket of the x-ray films. When status of pre-departure therapy is unknown, the following fact should be taken into account as to whether or not to test:

<sup>1,2</sup>Garg, P., Perry, S., Dorn, M., Hardcastle, L., Parsonnet, J. 2005. Risk of intestinal helminth and protozoan

infection in a refugee population. *Am. J. Trop. Med. Hyg.*, 73(2):386-391.

<sup>3</sup> Centers for Disease Control and Prevention. Retrieved September 2008 from [www.cdc.gov/ncidod/dpd/parasites/schistosomiasis/factsht\\_schistosomiasis.htm#symptoms](http://www.cdc.gov/ncidod/dpd/parasites/schistosomiasis/factsht_schistosomiasis.htm#symptoms)

<sup>3</sup> Centers for Disease Control and Prevention. Retrieved September 2008 from [www.cdc.gov/ncidod/dpd/parasites/schistosomiasis/factsht\\_schistosomiasis.htm#symptoms](http://www.cdc.gov/ncidod/dpd/parasites/schistosomiasis/factsht_schistosomiasis.htm#symptoms)

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/7parasites.html](http://www.health.state.mn.us/refugee/guide/7parasites.html)

CDC:

[www.cdc.gov/ncidod/dpd/parasites](http://www.cdc.gov/ncidod/dpd/parasites)

[www.cdc.gov/ncidod/dq/refugee/rh\\_guide.index.htm](http://www.cdc.gov/ncidod/dq/refugee/rh_guide.index.htm)

- Consider consulting with a tropical disease expert for options, including post-arrival presumptive and directed treatment for sub-Saharan refugees. MDH Refugee Health Program can help facilitate the consult.
- **Regardless of post-arrival testing, newly arrived refugees from known endemic regions should be closely monitored for signs or symptoms of malaria, particularly during the initial three months after arrival.**

<sup>1</sup> Centers for Disease Control and Prevention. Retrieved September 2008 from [www.cdc.gov/malaria/biology/parasites/index.htm](http://www.cdc.gov/malaria/biology/parasites/index.htm)

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/8malaria.html](http://www.health.state.mn.us/refugee/guide/8malaria.html)

CDC:

[www.cdc.gov/malaria/index.htm](http://www.cdc.gov/malaria/index.htm)



## Lead

Of the two new primary refugee arrivals under 6 years old who were tested for lead poisoning in Kandiyohi, none tested positive for elevated blood lead level. **State:** 8/205 (4%)

There is no *safe* level of lead for children (BLL $\geq$ 10 is the cut-off), and the effects of lead depend on the dose. Refugee children are particularly at risk for lead poisoning given their exposure to toxic atmospheric emissions found in many parts of the world. Several factors increase the potential for lead exposure in developing countries including poor nutrition, eating utensils,

home remedies, environmental pollution, absent or lax environmental regulations, hot climates that imply a prolonged stay in the outdoor environment, airy housing construction, and concentration of populations around traffic arteries. These children continue to be at risk in the U.S. if living in sub-standard housing conditions. Additionally clinicians should be aware that home

remedies which might contain lead, may continue to be acquired from overseas and used in the states.

### **Resources**

MDH:

[www.health.state.mn.us/refugee/guide/9lead.html](http://www.health.state.mn.us/refugee/guide/9lead.html)

CDC:

[www.cdc.gov/nceh/lead](http://www.cdc.gov/nceh/lead)

## Sexually Transmitted Infections

Of the 21 new primary refugee arrivals tested for syphilis in Kandiyohi County, none tested positive for syphilis. None of the new primary arrivals to the county tested positive for HIV overseas. Of the new primary arrivals tested for chlamydia (18) and/or gonorrhea (11), none tested positive. **State:** *syphilis*, 19/2,030 (1%); *HIV(overseas)*, 11/2,867 (<1%); *chlamydia*, 0/164 (0%); *gonorrhea* 0/154 (0%)

**Syphilis** screening is considered standard for the domestic health exam. Evidence of discordant results between overseas syphilis screening results and domestic results highlights the importance of including this exam in the domestic exam.

All refugees aged 15 years and older are tested for **HIV** overseas. At this time, domestic screening does not call for re-testing for HIV. It is recommended that all family members of an HIV+ person get tested, regardless of age.

Technology for urine screening for both

***Chlamydia trachomatis*** and ***Neisseria gonorrhoeae*** is available and is considered equally, if not more sensitive, than traditional cultures. This non-invasive testing is preferred for the refugee population.

In general, the quality of lab facilities overseas varies and providers should keep this in mind when determining whether or not to screen for STI's.

### **Resources**

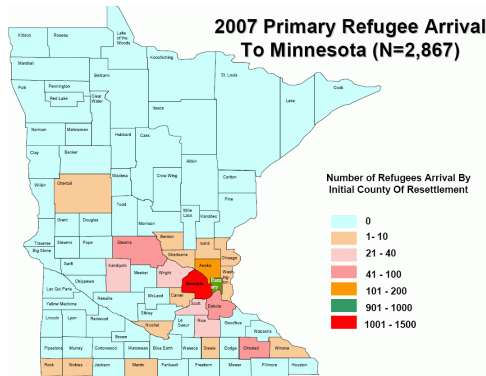
MDH:

[www.health.state.mn.us/refugee/guide/6stds.html](http://www.health.state.mn.us/refugee/guide/6stds.html)

CDC:

[www.cdc.gov/std](http://www.cdc.gov/std)

[www.cdc.gov/hiv](http://www.cdc.gov/hiv)



# Olmsted County

## 2007

### Refugee Health Report

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**Hepatitis B**

**Parasitic Infection**

**Malaria**

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**STIs**

Welcome to the second edition of the Refugee Health County Report. An individualized report is compiled for those counties that have received at least 15 new primary refugee arrivals to their county during the past year. In 2007, ten counties met this criterion: Anoka, Dakota, Hennepin, Kandiyohi, Olmsted, Ramsey, Rice, Scott, Stearns, and Wright. This year, statewide demographics and health status data are included in the reports as another means of comparison for counties.

In 2007, there was a significant drop in the number of primary refugee arrivals to our state. There were 2,867 new primary refugee arrivals to Minnesota compared with 5,356 in 2006. This slowing trend reflects policy changes at the national level rather than any decrease in the need for resettlement of the growing numbers of refugees worldwide. At the local level, your expertise and commitment to ensure the complete and timely initial refugee health screening exam for this population continues to play a crucial role in promoting the health and well-being of some of the newest arrivals to Minnesota as well as protecting the health of the community at large.

We encourage counties to use this report as a tool to measure the effectiveness of the health screening services offered to newly arrived refugees in your county. The objectives used to measure these goals are consistent with the objectives set forth by the Minnesota Department of Health’s Refugee Health Program (RHP)

to measure our program’s overall quality. This county specific data can also be used to support planning and development of appropriate public health responses to both immediate and emerging health issues in your region.

For refugees who arrived between January 1, 2007 and December 31, 2007, counties and/or private providers submitted the domestic screening results once the refugees completed their exams. All data included in this report were recorded on the Refugee Health Assessment Form (“pink” form) or the Outcome Form for each person. In addition, in 2007, two of our largest counties, Ramsey and Hennepin, began submitting these data electronically using a new web-based application developed by the MDH RHP called Electronic System for Health Assessment of Refugees, better known as eSHARE. eSHARE is specifically designed to collect results from the domestic health screenings and conduct surveillance activities. Any county interested in learning more about this system can go to our website or contact the RHP.

In early 2009, we will review the protocols for the refugee health screening exam based on revised recommendations from the Centers for Disease Control and Prevention (CDC). Look for updates throughout Winter/Spring 2008-09.

Again, let us know how we might tailor or improve this report to better support your work!

# Health Screening Indicators

The indicators on the following page are measurable objectives that correlate with the Minnesota refugee health assessment for newly arrived refugees. The highlighted yellow columns on the right of the chart are specific to your county, indicating how effectively these objectives were met. Together with *Significant Findings and Trends* on page 6 and *Health Status* data summary on pages 8 to 11, this 2007 report is a snapshot of the demographics and health needs of newly arrived primary refugees.

**Objective 1.** *Within 90 days of arrival, 90% of newly arrived refugees who are eligible\* will have received a health assessment.*

**Objective 2.** *Ensure immunizations will be initiated or continued according to the recommended MDH child and adult immunization schedules on 90% of persons provided a health screening.*

**Objective 3.** *Ensure evaluation for 95% of refugees arriving with infectious TB disease, non-communicable for travel purposes (Class A) or non-infectious TB disease (Class B1).*

**Objective 4.** *Within 90 days of arrival, 75% of persons in need of therapy for latent TB infection (LTBI) will have been placed on such therapy.*

**Objective 5.** *On an ongoing basis, 40% of persons placed on therapy for latent tuberculosis infection (LTBI) will have completed therapy.*

**Objective 6.** *On an ongoing basis, 90% of persons provided a health screening will receive a hepatitis B surface antigen (HBsAg) test.*

**Objective 7.** *Ensure 90% of persons provided a health screening will get tested for parasitic infections (parasitosis).*

**Objective 8.** *Ensure 90% of all children less than 6 years of age who receive a health screening will be screened for lead poisoning.*

**Objective 9.** *Ensure 100% of all newly arrived HIV+ refugees will be screened within 30 days of arrival and referred to a HIV specialty clinic or provider.*

**\*Ineligible** if: moved out of state, moved to unknown destination, unable to locate due to invalid contact information, never arrived to county, or died before screening.

# Health Screening Indicators

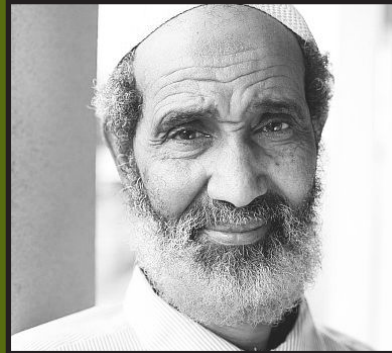
Olmsted County, 2007

All results are based on domestically completed screenings

Performance Goal	Objective	Measure	Data	Year 2007	
				No.	%
<b>Health Screening Rate</b>					
Increase percentage of newly arrived refugees* who receive a health assessment within 90 days of their arrival	Percentage of persons who received at least the first visit of their health assessment within 90 days of their arrival	$\frac{\text{\# of newly arrived refugees to county X who received at least the first visit of their health assessment within 90 days of arrival}}{\text{\# of newly arrived refugees to county X who were eligible for a screening}}$	Objective	90%	
			County	59/(59-0)	100%
			State	2697/(2867-127)	98%
<b>Immunizations</b>					
Increase percentage of newly arrived refugees who have immunization series initiated or continued according to recommended MDH child/adult immunization schedules	Percentage of persons who have immunization series initiated or continued according to the recommended MDH child/adult immunization schedules	$\frac{\text{\# of newly arrived refugees to county X with immunization series initiated or continued}}{\text{\# of newly arrived refugees* to county X who received a screening}}$	Objective	90%	
			County	59/59	100%
			State	2398/2697	89%
<b>TB</b>					
<i>Follow-up of Refugees with TB Class Conditions</i> Increase percentage of newly arrived refugees designated as TB Class A or B1 who are appropriately evaluated	Percentage of newly arrived refugees designated as TB Class A or B1 who are appropriately evaluated	$\frac{\text{\# of newly arrived refugees to county X designated as TB Class A or B1 and who are appropriately evaluated}}{\text{\# of newly arrived eligible refugees to county X designated as TB Class A or B1}}$	Objective	95%	
			County	7/7	100%
			State	253/(266-7)	98%
<i>LTBI Therapy</i> Increase percentage of newly arrived refugees in need of therapy for latent tuberculosis infection (LTBI) who have been placed on such therapy within 90 days of arrival	Percentage of persons in need of therapy for LTBI who are placed on such therapy within 90 days of arrival	$\frac{\text{\# of newly arrived refugees to county X in need of LTBI therapy and placed on such therapy within 90 days of arrival}}{\text{\# of newly arrived refugees to county X in need of LTBI therapy}}$	Objective	75%	
			County	16/22	73%
			State	1010/1156	87%
Increase the percentage of newly arrived refugees who have been placed on therapy for LTBI and have completed therapy	Percentage of persons who are placed on therapy for LTBI and have completed therapy	$\frac{\text{\# of newly arrived refugees to county X in need of LTBI therapy and who have been placed on and completed LTBI therapy}}{\text{\# of newly arrived refugees to county X placed on LTBI therapy}}$	Objective	40%	
			County	36/54**	67%
			State	885/1661**	53%
<b>Hepatitis B</b>					
Increase percentage of newly arrived refugees who have received a hepatitis B surface antigen (HBsAg) test	Percentage of persons who receive a hepatitis B surface antigen (HBsAg) test	$\frac{\text{\# of newly arrived refugees to county X who received HBsAg test}}{\text{\# of newly arrived refugees to county X who received a screening}}$	Objective	90%	
			County	59/59	100%
			State	2656/2697	98%
<b>Intestinal Parasites</b>					
Increase percentage of newly arrived refugees who are tested for parasitic infections (parasitosis)	Percentage of persons who are tested for parasitic infections (O & P)	$\frac{\text{\# of newly arrived refugees to county X tested for parasitic infections (O&P)}}{\text{\# of newly arrived refugees to county X who received a screening}}$	Objective	90%	
			County	57/59	97%
			State	2526/2697	94%
<b>Lead Poisoning</b>					
Increase percentage of newly arrived refugees < 6 years old who are screened for lead poisoning	Percentage of newly arrived refugees < 6 years old who are screened for lead poisoning	$\frac{\text{\# of newly arrived refugees to county X who are < 6 years old and screened for lead poisoning}}{\text{\# of newly arrived refugees <6 years old to county X who received a screening}}$	Objective	90%	
			County	3/3	100%
			State	205/225	91%
<b>HIV+</b>					
Increase percentage of newly arrived HIV+ refugees who are screened within 30 days of arrival and referred to a HIV specialty clinic or provider	Percentage of newly arrived HIV+ refugees who are screened within 30 days of arrival and referred to a HIV specialty clinic or provider	$\frac{\text{\# of newly arrived HIV+ refugees to county X screened within 30 days of arrival and referred to specialty clinic or provider}}{\text{\# of newly arrived HIV+ refugees to county X who received a screening}}$	Objective	100%	
			County	0/0	NA
			State	9/10	90%

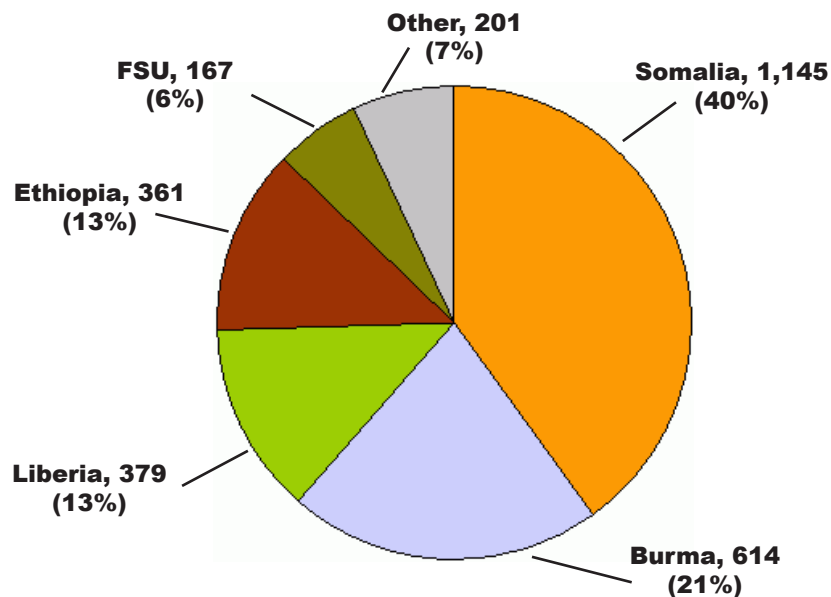
\* *Newly arrived refugees* refers to all newly arrived refugees **eligible** for refugee health screening in Minnesota

\*\* Based on 2006 data which reflects the most recent completion date for 9-month treatment protocol



# Significant Findings and Trends: Minnesota

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**N=2,867**

FSU includes Belarus, Kazakhstan, Latvia, Moldova, Russia, Ukraine.

“Other” includes Afghanistan, Cameroon, Chad, China (including Tibet), DR Congo, Cuba, Eritrea, France, Indonesia, Ivory Coast, Kenya, Laos (Hmong), Nigeria, Sierra Leone, Sudan, Uganda, and Vietnam.

\**Primary arrival* is a refugee who is residing in the state listed as the initial point of destination with the USCIS. Refugees are free to move from state to state, but sponsors, VOLAGs, and state health departments are designed to serve only newly arrived primary refugees to the state.

## Demographics

During the period of 01/01/2007 - 12/31/2007, Minnesota was notified of 2,867 primary refugee arrivals. The regional breakdown is as follows: sub-Saharan Africa, 69%; South/Southeast/East Asia, 25%; Europe/Eastern Europe, 6%; Latin America, <1%. From a country perspective, the largest arrival groups during this period were Somali and Karen from Burma.

In general, refugee arrivals to Minnesota are a young population; 1,223 (43%) were 15-24 years of age and 793 (28%) were less than 15 years of age in 2007. Regarding gender, 1,450 (51%) of newly arrived refugees to the state were male.

## Screening Rate and Outcome for Those Not Screened

Of the 2,867 new primary refugee arrivals 2,740 (96%) were eligible for a health screening and 2,697 (98%) were screened. This compares to 4,893 primary arrivals eligible for a screening in 2006 and a screening rate of 96%.

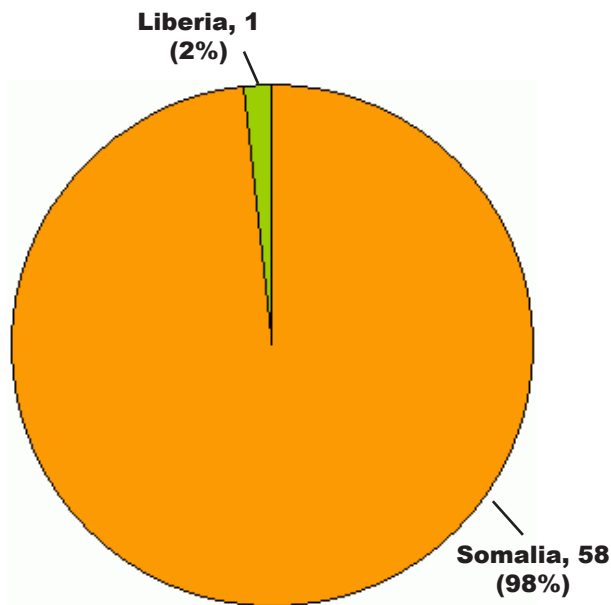
There were 170 refugees who were not screened and had a known outcome. Forty-three were eligible for the screening and did not receive one. Of these, 17 were failed attempts to schedule, eight were screened elsewhere with no available results, eight refused screening, eight persons missed his/her appointment and two moved to another county. The remaining 124 were ineligible for screening because they moved out of state or to an unknown destination, and three never arrived to the state.

## Flat Fee Reimbursement

During this same time period 164 refugees qualified for flat fee reimbursement. One hundred and fifty-two were full payment and 12 were partial payment.

# Significant Findings and Trends

## Number of Primary Arrivals\* to Olmsted 01/01/2007 - 12/31/2007



N=59

\**Primary arrival* is a refugee who is residing in the state listed as the initial point of destination with the USCIS. Refugees are free to move from state to state, but sponsors, VOLAGs, and state health departments are designed to serve only newly arrived primary refugees to the state.

## Demographics

During the period of 01/01/2007 - 12/31/2007, Olmsted County was notified of 59 primary refugee arrivals. This is 2% of the 2,867 total primary refugee arrivals to Minnesota. All the arrivals were from sub-Saharan Africa, and nearly all from Somalia. They represented 5% of the 1,145 primary Somali refugee arrivals to the state in 2007. Compared to 2006, there was a notable absence of arrivals from Sudan (31 or 12% in 2006).

In general, refugee arrivals to Minnesota are a young population; 1,223 (43%) were 15-24 years of age and 793 (28%) were less than 15 years of age in 2007. A similarly young age distribution can be seen among the new primary arrivals in Olmsted County: 29 (49%) were 15-24 years of age and 12 (20%) were less than 15 years of age. Regarding gender, 34 (58%) refugees were female; the state average was 1,417 (49%).

## Screening Rate and Outcome for Those Not Screened

Of the 59 new primary refugee arrivals, 100% were eligible for a health screening and 59 (100%) were screened. This compares to 266 primary arrivals eligible for a screening in 2006 and a 99% screening rate.

## Flat Fee Reimbursement

During this same time period all refugees qualified for MA and there were no requests for flat fee reimbursement from Olmsted County.

# Health Status of New Refugees to Olmsted County

**Tuberculosis (TB)**  
**Hepatitis B**  
**Parasitic Infection**  
**Malaria**  
**Sexually Transmitted  
Infections (STI)**  
**Lead**



## Tuberculosis

Of the 59 new primary refugee arrivals to Olmsted County, seven (12%) arrived with a Class B1 TB status. **State:** 266/2,687 (9%)

Of the 59 new primary refugee arrivals tested for tuberculosis in Olmsted County, 24 (41%) tested positive for latent tuberculosis infection or suspect/active TB disease. **State:** 1,177/2,649 (44%)

More than 80% of active TB cases in Minnesota occur among persons born outside the United States. During the past decade, the percentage of foreign-born persons among TB cases reported in Minnesota increased from 71% in 1997, peaked at 87% in 2005, and has slightly decreased to 85% in 2007.

- *The data strongly suggest that clinicians should not rely solely on medical examinations performed overseas to identify cases of TB disease among foreign-born persons.* During the period of 2003-2007, only 14% of the foreign-born TB case-patients who initially arrived in the U.S. as refugees or

other immigrants and who were diagnosed with TB within one year of their arrival, were known to have been identified as being at high risk for active TB disease on the overseas medical evaluation.

- More than half (52%) of foreign-born TB case-patients reported during 2003-2007 in Minnesota had been in the U.S. for three or more years prior to being diagnosed with TB disease. *These data suggest that at least half of foreign-born TB cases reported in Minnesota may be preventable by focusing on thorough domestic screening, evaluation, and treatment of latent TB infection among recently arrived refugees, immigrants, and other foreign-born persons.*
- Drug-resistant TB and extrapulmonary TB disease are more common among foreign-born persons; extrapulmonary disease may be more difficult to diagnose. Common extrapulmonary sites of disease reported in Minnesota include lymphatic, pleural, bone/joint and peritoneal.

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/4tb.html](http://www.health.state.mn.us/refugee/guide/4tb.html)

[www.health.state.mn.us/divs/idepc/diseases/tb/stats.html](http://www.health.state.mn.us/divs/idepc/diseases/tb/stats.html)

CDC:

[www.cdc.gov/tb](http://www.cdc.gov/tb)



## Hepatitis B

Of the 59 new primary refugee arrivals tested for hepatitis B in Olmsted County, three (5%) tested positive for hepatitis B surface antigen (HBsAg). **State:** 206/2,656 (8%)

All newly arrived refugees, adults and children, should be screened for HBsAg, anti-HBs, and anti-HBc to determine their hepatitis B status. HBV infection is highly endemic in all of Africa, Southeast, East, and Northern Asia, and in most of the Pacific Islands. CDC's new recommendations include testing all individuals born in Asia and Africa and other geographic regions with 2 percent or higher prevalence of chronic HBV in-

fections, as well as additional at-risk populations. Worldwide, most infections occur through mother-to-child transmission, child-to-child in household contacts, or reuse of unsterilized needles and syringes. While the newly arrived refugee is no longer experiencing an endemic environment in the U.S., refugee communities tend to congregate and may continue to passively act as a host environment for those who are infected with

HBV. Being in close contact in the household and within the community increases the risk of infection and makes it especially important to screen all household contacts and vaccinate all those who are susceptible.

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/5hepb.html](http://www.health.state.mn.us/refugee/guide/5hepb.html)

CDC:

[www.cdc.gov/ncidod/diseases/hepatitis/b/faqb.html](http://www.cdc.gov/ncidod/diseases/hepatitis/b/faqb.html)

## Parasitic Infection

Of the 57 new primary refugee arrivals tested for intestinal parasites in Olmsted County, 20 (35%) tested positive for at least one pathogenic intestinal parasite. **State:** 384/2,526 (15%)

*Dientamoeba fragilis* (13\*), *Entamoeba histolytica* (6\*), *Giardia lamblia* (4\*), *Hymenolepis nana* (3\*), *Trichuris* (2\*)

\*number of cases identified (several individuals were co-infected with multiple parasites)

Screening for both *symptomatic* and *asymptomatic parasitosis* among refugees remains a high priority since at least one third of the world's population may be infected with intestinal parasites and all immigrant groups are affected to some degree by intestinal parasites.<sup>1</sup> Potentially harmful outcomes underscore the importance of distinguishing between pathogenic and non-pathogenic parasites and treating the former appropriately.

Current overseas protocol includes pre-departure albendazole therapy within three days prior to departure to the U.S. for Southeast Asian and sub-Saharan refugees (excluding special groups, such as pregnant women and small infants). Albendazole is an antihelminthic treatment and has been documented to dramatically decrease the prevalence of *Ascaris* and *Trichuris* in newly arrived refugees. At this time, documentation of pre-departure therapy is NOT included in the

overseas records that MDH/RHP receives and forwards to local public health. It is sent directly with the refugee. When making appointments, request all medical papers be brought to clinic. Some clinics have reported finding the treatment documentation in the jacket of the x-ray films.

Certain pathogenic parasitic infections can persist for many years if left untreated and have been associated with both chronic illnesses and life threatening infections. This can range from malnutrition, iron-deficiency anemia, malabsorption syndrome, mental and physical growth retardation to life-threatening liver abscess or hyperinfection.<sup>2</sup>

*Strongyloides stercoralis* (roundworm), which is found in almost all refugee groups, and *Schistosomiasis spp* (flake), predominantly seen in

sub-Saharan refugees, are two parasitic infections of particular concern. Pre-departure albendazole therapy is not adequate treatment for either of these. Most refugees with strongyloidiasis are asymptomatic. If left unchecked, it can persist for years, and under certain conditions can lead to a severe hyper-infection. Schistosomiasis is often asymptomatic initially; however for people who are not treated and /or are repeatedly infected for many years, infection can cause damage to the liver, intestines, lungs, and bladder.

New overseas treatment recommendations in-

clude expanded presumptive treatment to address these concerns. The new CDC guidelines for domestic screening indicate the implementation of these overseas guidelines may vary depending on funding and population. Therefore it is imperative for domestic screening guidelines to take into consideration the refugee's point of departure for the U.S. and whether the refugee received pre-departure presumptive therapy<sup>3</sup>

<sup>1,2</sup>Garg, P., Perry, S., Dorn, M., Hardcastle, L., Parsonnet, J. 2005. Risk of intestinal helminth and protozoan infection in a refugee population. *Am. J. Trop. Med.*

*Hyg.*, 73(2):386-391.

<sup>3</sup> Centers for Disease Control and Prevention. Retrieved September 2008 from [www.cdc.gov/ncidod/dpd/parasites/schistosomiasis/factsht\\_schistosomiasis.htm#symptoms](http://www.cdc.gov/ncidod/dpd/parasites/schistosomiasis/factsht_schistosomiasis.htm#symptoms)

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/7parasites.html](http://www.health.state.mn.us/refugee/guide/7parasites.html)

CDC:

[www.cdc.gov/ncidod/dpd/parasites](http://www.cdc.gov/ncidod/dpd/parasites)

[www.cdc.gov.ncidod/dq/refugee/rh\\_guide.index.htm](http://www.cdc.gov.ncidod/dq/refugee/rh_guide.index.htm)

## Malaria

Of the two new primary refugee arrivals tested for malaria in Olmsted County, none tested positive for malaria. **State:** 1/34 (3%)

Clinicians should have a high index of suspicion of malaria, particularly for refugees from tropical and subtropical areas who have fever of unknown origin or other characteristic symptoms. In particular, sub-Saharan Africans are considered to be from a highly endemic area where asymptomatic malaria infection is common and the predominant species found in this part of the world, *Plasmodium falciparum*, can cause severe, potentially fatal malaria.<sup>1</sup>

Currently CDC is recommending presumptive pre-departure anti-malarial DOT administered overseas for sub-Saharan refugees, completed at least two days prior to departure (excluding special populations of pregnant or lactating women and children under 5 kg). At this time, MDH/RHP does NOT receive documentation of pre-depar-

ture therapy in the overseas records. Instead, it is sent directly with the refugee in the sealed IOM bag. When making appointments, clinics should request all medical papers be brought to clinic. Some clinics have reported finding documentation in the jacket of the x-ray films.

When status of pre-departure therapy is unknown, the following fact should be taken into account as to whether or not to test:

- Neither single malaria thick-and-thin blood film nor rapid malaria test (RDT) are adequate for detecting asymptomatic or sub-clinical malaria found in sub-Saharan populations.
- Consider consulting with a tropical disease expert for options, including post-arrival

presumptive and directed treatment for sub-Saharan refugees. MDH Refugee Health Program can help facilitate the consult.

- **Regardless of post-arrival testing, newly arrived refugees from known endemic regions should be closely monitored for signs or symptoms of malaria, particularly during the initial three months after arrival.**

<sup>1</sup> Centers for Disease Control and Prevention. Retrieved September 2008 from

[www.cdc.gov/malaria/biology/parasites/index.htm](http://www.cdc.gov/malaria/biology/parasites/index.htm)

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/8malaria.html](http://www.health.state.mn.us/refugee/guide/8malaria.html)

CDC:

[www.cdc.gov/malaria/index.htm](http://www.cdc.gov/malaria/index.htm)

## Lead

Of the three new primary refugee arrivals under 6 years old who were tested for lead poisoning in Olmsted County, none tested positive for elevated blood lead level. **State:** 8/205 (4%)

There is no *safe* level of lead for children (BLL $\geq$ 10 is the cut-off), and the effects of lead depend on the dose. Refugee children are particularly at risk for lead poisoning given their exposure to toxic atmospheric emissions found in many parts of the world. Several factors increase the potential for lead exposure in developing countries including poor nutrition, eating utensils,

home remedies, environmental pollution, absent or lax environmental regulations, hot climates that imply a prolonged stay in the outdoor environment, airy housing construction, and concentration of populations around traffic arteries. These children continue to be at risk in the U.S. if living in sub-standard housing conditions. Additionally clinicians should be aware that home

remedies which might contain lead, may continue to be acquired from overseas and used in the states.

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/9lead.html](http://www.health.state.mn.us/refugee/guide/9lead.html)

CDC:

[www.cdc.gov/nceh/lead](http://www.cdc.gov/nceh/lead)

## Sexually Transmitted Infections

The one new primary refugee arrival tested for syphilis in Olmsted County, tested negative for syphilis. None of the 59 new primary refugee arrivals to Olmsted tested positive for HIV overseas. None of the new primary arrivals were tested for either chlamydia or gonorrhea. **State:** *syphilis*, 19/2,030 (1%); *HIV(overseas)*, 11/2,867 (<1%); *chlamydia*, 0/164 (0%); *gonorrhea* 0/154 (0%)

**Syphilis** screening is considered standard for the domestic health exam. Evidence of discordant results between overseas syphilis screening results and domestic results highlights the importance of including this exam in the domestic exam.

All refugees aged 15 years and older are tested for **HIV** overseas. At this time, domestic screening does not call for re-testing for HIV. It is recommended that all family members of an HIV+ person get tested, regardless of age.

Technology for urine screening for both *Chlamydia trachomatis* and *Neisseria gonorrhoeae* is available and is considered equally, if not more sensitive, than traditional cultures. This non-invasive testing is preferred for the refugee population.

In general, the quality of lab facilities overseas varies and providers should keep this in mind when determining whether or not to screen for STI's.

### Resources

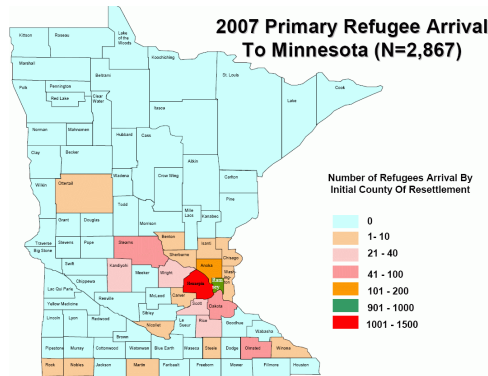
MDH:

[www.health.state.mn.us/refugee/guide/6stds.html](http://www.health.state.mn.us/refugee/guide/6stds.html)

CDC:

[www.cdc.gov/std](http://www.cdc.gov/std)

[www.cdc.gov/hiv](http://www.cdc.gov/hiv)



# Ramsey County

## 2007

### Refugee Health Report

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**TB**

**Hepatitis B**

**Parasitic Infection**

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**STIs**

Welcome to the second edition of the Refugee Health County Report. An individualized report is compiled for those counties that have received at least 15 new primary refugee arrivals to their county during the past year. In 2007, ten counties met this criterion: Anoka, Dakota, Hennepin, Kandiyohi, Olmsted, Ramsey, Rice, Scott, Stearns, and Wright. This year, statewide demographics and health status data are included in the reports as another means of comparison for counties.

In 2007, there was a significant drop in the number of primary refugee arrivals to our state. There were 2,867 new primary refugee arrivals to Minnesota compared with 5,356 in 2006. This slowing trend reflects policy changes at the national level rather than any decrease in the need for resettlement of the growing numbers of refugees worldwide. At the local level, your expertise and commitment to ensure the complete and timely initial refugee health screening exam for this population continues to play a crucial role in promoting the health and well-being of some of the newest arrivals to Minnesota as well as protecting the health of the community at large.

We encourage counties to use this report as a tool to measure the effectiveness of the health screening services offered to newly arrived refugees in your county. The objectives used to measure these goals are consistent with the objectives set forth by the Minnesota Department of Health’s Refugee Health Program (RHP)

to measure our program’s overall quality. This county specific data can also be used to support planning and development of appropriate public health responses to both immediate and emerging health issues in your region.

For refugees who arrived between January 1, 2007 and December 31, 2007, counties and/or private providers submitted the domestic screening results once the refugees completed their exams. All data included in this report were recorded on the Refugee Health Assessment Form (“pink” form) or the Outcome Form for each person. In addition, in 2007, two of our largest counties, Ramsey and Hennepin, began submitting these data electronically using a new web-based application developed by the MDH RHP called Electronic System for Health Assessment of Refugees, better known as eSHARE. eSHARE is specifically designed to collect results from the domestic health screenings and conduct surveillance activities. Any county interested in learning more about this system can go to our website or contact the RHP.

In early 2009, we will review the protocols for the refugee health screening exam based on revised recommendations from the Centers for Disease Control and Prevention (CDC). Look for updates throughout Winter/Spring 2008-09.

Again, let us know how we might tailor or improve this report to better support your work!

# Health Screening Indicators

The indicators on the following page are measurable objectives that correlate with the Minnesota refugee health assessment for newly arrived refugees. The highlighted yellow columns on the right of the chart are specific to your county, indicating how effectively these objectives were met. Together with *Significant Findings and Trends* on page 6 and *Health Status* data summary on pages 8 to 11, this 2007 report is a snapshot of the demographics and health needs of newly arrived primary refugees.

**Objective 1.** *Within 90 days of arrival, 90% of newly arrived refugees who are eligible\* will have received a health assessment.*

**Objective 2.** *Ensure immunizations will be initiated or continued according to the recommended MDH child and adult immunization schedules on 90% of persons provided a health screening.*

**Objective 3.** *Ensure evaluation for 95% of refugees arriving with infectious TB disease, non-communicable for travel purposes (Class A) or non-infectious TB disease (Class B1).*

**Objective 4.** *Within 90 days of arrival, 75% of persons in need of therapy for latent TB infection (LTBI) will have been placed on such therapy.*

**Objective 5.** *On an ongoing basis, 40% of persons placed on therapy for latent tuberculosis infection (LTBI) will have completed therapy.*

**Objective 6.** *On an ongoing basis, 90% of persons provided a health screening will receive a hepatitis B surface antigen (HBsAg) test.*

**Objective 7.** *Ensure 90% of persons provided a health screening will get tested for parasitic infections (parasitosis).*

**Objective 8.** *Ensure 90% of all children less than 6 years of age who receive a health screening will be screened for lead poisoning.*

**Objective 9.** *Ensure 100% of all newly arrived HIV+ refugees will be screened within 30 days of arrival and referred to a HIV specialty clinic or provider.*

**\*Ineligible** if: moved out of state, moved to unknown destination, unable to locate due to invalid contact information, never arrived to county, or died before screening.

# Health Screening Indicators

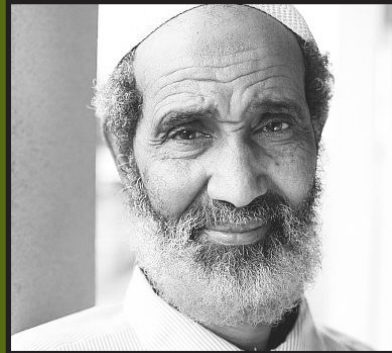
All results are based on domestically completed screenings

# Ramsey County, 2007

Performance Goal	Objective	Measure	Data	Year 2007	
				No.	%
<b>Health Screening Rate</b>					
Increase percentage of newly arrived refugees* who receive a health assessment within 90 days of their arrival	Percentage of persons who received at least the first visit of their health assessment within 90 days of their arrival	$\frac{\text{\# of newly arrived refugees to county X who received at least the first visit of their health assessment within 90 days of arrival}}{\text{\# of newly arrived refugees to county X who were eligible for a screening}}$	Objective	90%	
			County	934/(973-34)	99%
			State	2697/(2867-127)	98%
<b>Immunizations</b>					
Increase percentage of newly arrived refugees who have immunization series initiated or continued according to recommended MDH child/adult immunization schedules	Percentage of persons who have immunization series initiated or continued according to the recommended MDH child/adult immunization schedules	$\frac{\text{\# of newly arrived refugees to county X with immunization series initiated or continued}}{\text{\# of newly arrived refugees* to county X who received a screening}}$	Objective	90%	
			County	839/934	90%
			State	2398/2697	89%
<b>TB</b>					
<i>Follow-up of Refugees with TB Class Conditions</i> Increase percentage of newly arrived refugees designated as TB Class A or B1 who are appropriately evaluated	Percentage of newly arrived refugees designated as TB Class A or B1 who are appropriately evaluated	$\frac{\text{\# of newly arrived refugees to county X designated as TB Class A or B1 and who are appropriately evaluated}}{\text{\# of newly arrived eligible refugees to county X designated as TB Class A or B1}}$	Objective	95%	
			County	120/(124-2)	98%
			State	253/(266-7)	98%
<i>LTBI Therapy</i> Increase percentage of newly arrived refugees in need of therapy for latent tuberculosis infection (LTBI) who have been placed on such therapy within 90 days of arrival	Percentage of persons in need of therapy for LTBI who are placed on such therapy within 90 days of arrival	$\frac{\text{\# of newly arrived refugees to county X in need of LTBI therapy and placed on such therapy within 90 days of arrival}}{\text{\# of newly arrived refugees to county X in need of LTBI therapy}}$	Objective	75%	
			County	316/348	91%
			State	1010/1156	87%
Increase the percentage of newly arrived refugees who have been placed on therapy for LTBI and have completed therapy	Percentage of persons who are placed on therapy for LTBI and have completed therapy	$\frac{\text{\# of newly arrived refugees to county X in need of LTBI therapy and who have been placed on and completed LTBI therapy}}{\text{\# of newly arrived refugees to county X placed on LTBI therapy}}$	Objective	40%	
			County	180/275**	65%
			State	885/1661**	53%
<b>Hepatitis B</b>					
Increase percentage of newly arrived refugees who have received a hepatitis B surface antigen (HBsAg) test	Percentage of persons who receive a hepatitis B surface antigen (HBsAg) test	$\frac{\text{\# of newly arrived refugees to county X who received HBsAg test}}{\text{\# of newly arrived refugees to county X who received a screening}}$	Objective	90%	
			County	929/934	99%
			State	2656/2697	98%
<b>Intestinal Parasites</b>					
Increase percentage of newly arrived refugees who are tested for parasitic infections (parasitosis)	Percentage of persons who are tested for parasitic infections (O & P)	$\frac{\text{\# of newly arrived refugees to county X tested for parasitic infections (O&P)}}{\text{\# of newly arrived refugees to county X who received a screening}}$	Objective	90%	
			County	891/934	95%
			State	2526/2697	94%
<b>Lead Poisoning</b>					
Increase percentage of newly arrived refugees < 6 years old who are screened for lead poisoning	Percentage of newly arrived refugees < 6 years old who are screened for lead poisoning	$\frac{\text{\# of newly arrived refugees to county X who are < 6 years old and screened for lead poisoning}}{\text{\# of newly arrived refugees <6 years old to county X who received a screening}}$	Objective	90%	
			County	115/123	93%
			State	205/225	91%
<b>HIV+</b>					
Increase percentage of newly arrived HIV+ refugees who are screened within 30 days of arrival and referred to a HIV specialty clinic or provider	Percentage of newly arrived HIV+ refugees who are screened within 30 days of arrival and referred to a HIV specialty clinic or provider	$\frac{\text{\# of newly arrived HIV+ refugees to county X screened within 30 days of arrival and referred to specialty clinic or provider}}{\text{\# of newly arrived HIV+ refugees to county X who received a screening}}$	Objective	100%	
			County	0/2	0%
			State	9/10	90%

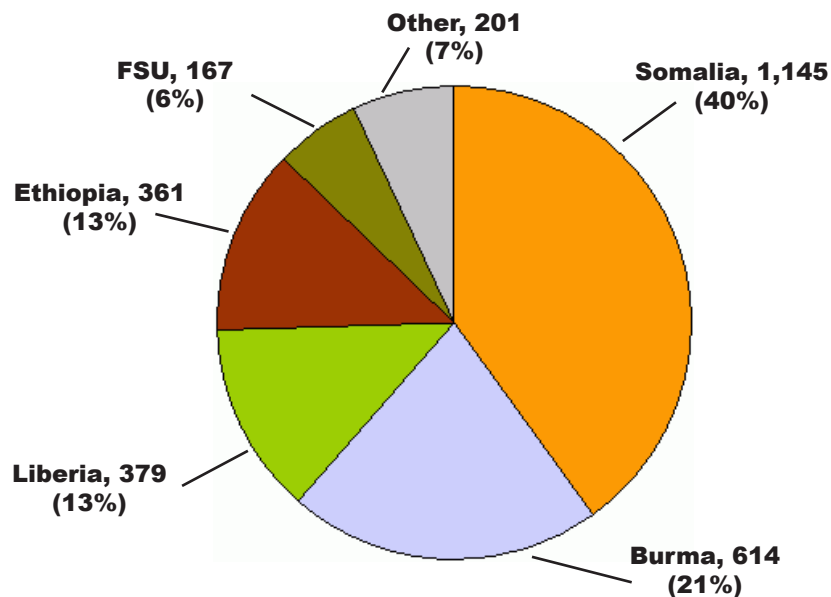
\* *Newly arrived refugees* refers to all newly arrived refugees **eligible** for refugee health screening in Minnesota

\*\* Based on 2006 data which reflects the most recent completion date for 9-month treatment protocol



# Significant Findings and Trends: Minnesota

## Number of Primary Arrivals\* to Minnesota 01/01/2007 - 12/31/2007



**N=2,867**

FSU includes Belarus, Kazakhstan, Latvia, Moldova, Russia, Ukraine.

“Other” includes Afghanistan, Cameroon, Chad, China (including Tibet), DR Congo, Cuba, Eritrea, France, Indonesia, Ivory Coast, Kenya, Laos (Hmong), Nigeria, Sierra Leone, Sudan, Uganda, and Vietnam.

\**Primary arrival* is a refugee who is residing in the state listed as the initial point of destination with the USCIS. Refugees are free to move from state to state, but sponsors, VOLAGs, and state health departments are designed to serve only newly arrived primary refugees to the state.

## Demographics

During the period of 01/01/2007 - 12/31/2007, Minnesota was notified of 2,867 primary refugee arrivals. The regional breakdown is as follows: sub-Saharan Africa, 69%; South/Southeast/East Asia, 25%; Europe/Eastern Europe, 6%; Latin America, <1%. From a country perspective, the largest arrival groups during this period were Somali and Karen from Burma.

In general, refugee arrivals to Minnesota are a young population; 1,223 (43%) were 15-24 years of age and 793 (28%) were less than 15 years of age in 2007. Regarding gender, 1,450 (51%) of newly arrived refugees to the state were male.

## Screening Rate and Outcome for Those Not Screened

Of the 2,867 new primary refugee arrivals 2,740 (96%) were eligible for a health screening and 2,697 (98%) were screened. This compares to 4,893 primary arrivals eligible for a screening in 2006 and a screening rate of 96%.

There were 170 refugees who were not screened and had a known outcome. Forty-three were eligible for the screening and did not receive one. Of these, 17 were failed attempts to schedule, eight were screened elsewhere with no available results, eight refused screening, eight persons missed his/her appointment and two moved to another county. The remaining 124 were ineligible for screening because they moved out of state or to an unknown destination, and three never arrived to the state.

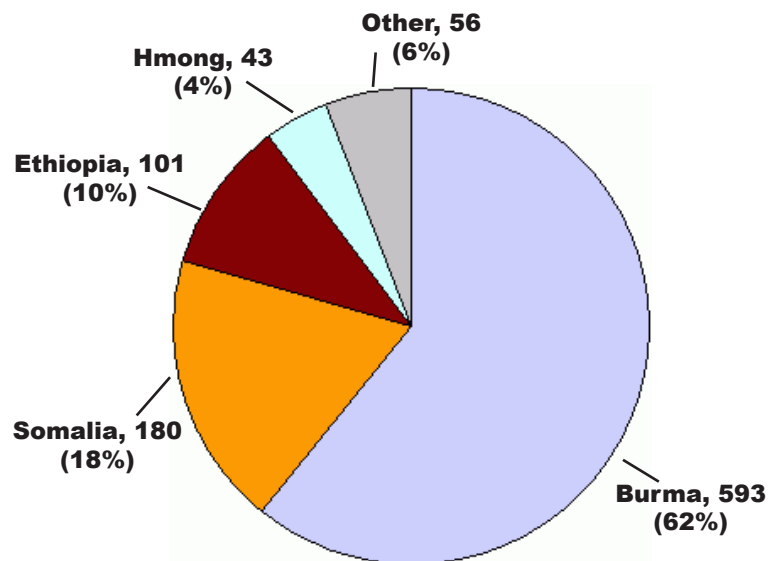
## Flat Fee Reimbursement

During this same time period 164 refugees qualified for flat fee reimbursement. One hundred and fifty-two were full payment and 12 were partial payment.



# Significant Findings and Trends

**Number of Primary Arrivals\* to Ramsey County  
01/01/2007 - 12/31/2007**



**N=973**

“Other” includes Cameroon, China, Congo, Cuba, Kenya, Liberia, Nigeria, Sierra Leone, Sudan, Togo, and Vietnam.

\**Primary arrival* is a refugee who is residing in the state listed as the initial point of destination with the USCIS. Refugees are free to move from state to state, but sponsors, VOLAGs, and state health departments are designed to serve only newly arrived primary refugees to the state.

## Demographics

During the period of 01/01/2007 - 12/31/2007, Ramsey County was notified of 973 primary refugee arrivals. This is 34% of the 2,867 total primary refugee arrivals to Minnesota. Ramsey received the second highest number of primary arrivals, after Hennepin County. The regional breakdown is as follows: South/Southeast/East Asia, 68%; sub-Saharan Africa, 32%; Latin America, <1%. From a country perspective, the three largest arrival groups during this period were Burmese, Somali and Ethiopian. The Karen from Burma comprised close to two-thirds of all arrivals to Ramsey; this is 97% of the 614 primary Karen refugees to the state. This refugee population continues to initially resettle almost exclusively in Ramsey County.

In general, refugee arrivals to Minnesota are a young population; 1,223 (43%) were 15-24 years of age and 793 (28%) were less than 15 years of age in 2007. In Ramsey 337 (35%) of the new primary arrivals were 15-24 years of age and 313 (33%) were less than 15 years old. Regarding gender, 489 (51%) refugees were female; the state average was 1,417 (49%).

## Screening Rate and Outcome for Those Not Screened

Of the 973 new primary refugee arrivals, 939 (97%) were eligible for a health screening and 934 (99%) were screened. This compares to 900 primary arrivals eligible for a screening in 2006 and a 98% screening rate.

There were 39 refugees who were not screened and had a known outcome. Five were eligible for the screening and did not receive one. Of these, two persons missed his/her appointment, two were screened elsewhere (screened at a private clinic and results not returned), and one was a failed attempt to schedule. The remaining 34 were ineligible for screening because they moved out of state or to an unknown destination.

## Flat Fee Reimbursement

During this same time period 33 refugees qualified for the flat fee reimbursement in Ramsey County. Thirty were full reimbursement and three were partial payment reimbursement.

# Health Status of New Refugees to Ramsey County

**Tuberculosis (TB)**  
**Hepatitis B**  
**Parasitic Infection**  
**Malaria**  
**Sexually Transmitted  
Infections (STI)**  
**Lead**



## Tuberculosis

Of the 973 new primary refugee arrivals to Ramsey County, 124 (13%) arrived with a Class B1 TB status. **State:** 266/2,687 (9%)

Of the 923 new primary refugee arrivals tested for tuberculosis in Ramsey, 355 (39%) tested positive for latent tuberculosis infection or suspect/active TB disease. **State:** 1,177/2,649 (44%)

More than 80% of active TB cases in Minnesota occur among persons born outside the United States. During the past decade, the percentage of foreign-born persons among TB cases reported in Minnesota increased from 71% in 1997, peaked at 87% in 2005, and has slightly decreased to 85% in 2007.

- *The data strongly suggest that clinicians should not rely solely on medical examinations performed overseas to identify cases of TB disease among foreign-born persons. During the period of 2002-2007, only 14% of the foreign-born TB case-patients who initially arrived in the U.S. as refugees or other*

immigrants and who were diagnosed with TB within one year of their arrival, were known to have been identified as being at high risk for active TB disease on the overseas medical evaluation.

- More than half (52%) of foreign-born TB case-patients reported during 2002-2007 in Minnesota had been in the U.S. for three or more years prior to being diagnosed with TB disease. *These data suggest that at least half of foreign-born TB cases reported in Minnesota may be preventable by focusing on thorough domestic screening, evaluation, and treatment of latent TB infection among recently arrived refugees, immigrants, and other foreign-born persons.*
- Drug-resistant TB and extrapulmonary TB disease are more common among foreign-born persons; extrapulmonary disease may be more difficult to diagnose. Common extrapulmonary sites of disease reported in Minnesota include lymphatic, pleural, bone/joint and peritoneal.

## Resources

MDH:

[www.health.state.mn.us/refugee/guide/4tb.html](http://www.health.state.mn.us/refugee/guide/4tb.html)

[www.health.state.mn.us/divs/idepc/diseases/tb/stats.html](http://www.health.state.mn.us/divs/idepc/diseases/tb/stats.html)

CDC:

[www.cdc.gov/tb](http://www.cdc.gov/tb)

## Hepatitis B

Of the 929 new primary refugee arrivals tested for hepatitis B in Ramsey County, 75 (8%) tested positive for hepatitis B surface antigen (HBsAg). **State:** 206/2,656 (8%)

All newly arrived refugees, adults and children, should be screened for HBsAg, anti-HBs, and anti-HBc to determine their hepatitis B status. HBV infection is highly endemic in all of Africa, Southeast, East, and Northern Asia, and in most of the Pacific Islands. CDC's new recommendations include testing all individuals born in Asia and Africa and other geographic regions with 2 percent or higher prevalence of chronic HBV in-

fections, as well as additional at-risk populations. Worldwide, most infections occur through mother-to-child transmission, child-to-child in household contacts, or reuse of unsterilized needles and syringes. While the newly arrived refugee is no longer experiencing an endemic environment in the U.S., refugee communities tend to congregate and may continue to passively act as a host environment for those who are infected with

## Parasitic Infection

Of the 891 new primary refugee arrivals tested for intestinal parasites in Ramsey County, 125 (14%) tested positive for at least one pathogenic intestinal parasite. **State:** 384/2,526 (15%)

*Giardia lamblia* (100\*), *Entamoeba histolytica* (17\*), *Trichuris* (8\*), *Ascaris* (2\*), *Fasciola hepatica* (1\*), *Hookworm* (1\*), *Hymenolepis nana* (1\*), *Schistosoma* (1\*), *Taenia* (1\*),

\*number of cases identified (several individuals were co-infected with multiple parasites)

Screening for both **symptomatic** and **asymptomatic parasitosis** among refugees remains a high priority since at least one third of the world's population may be infected with intestinal parasites and all immigrant groups are affected to some degree by intestinal parasites.<sup>1</sup> Potentially harmful outcomes underscore the importance of distinguishing between pathogenic and non-pathogenic parasites and treating the former appropriately.

Current overseas protocol includes pre-departure albendazole therapy within three days prior to departure to the U.S. for Southeast Asian and sub-Saharan refugees (excluding special groups, such as pregnant women and small infants). Albendazole is an antihelminthic treatment and has been documented to dramatically decrease the prevalence of *Ascaris* and *Trichuris* in newly arrived refugees. At this time, documentation of pre-departure therapy is NOT included in the

HBV. Being in close contact in the household and within the community increases the risk of infection and makes it especially important to screen all household contacts and vaccinate all those who are susceptible.

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/5hepb.html](http://www.health.state.mn.us/refugee/guide/5hepb.html)

CDC:

[www.cdc.gov/ncidod/diseases/hepatitis/b/faqb.html](http://www.cdc.gov/ncidod/diseases/hepatitis/b/faqb.html)

overseas records that MDH/RHP receives and forwards to local public health. It is sent directly with the refugee. When making appointments, request all medical papers be brought to clinic. Some clinics have reported finding the treatment documentation in the jacket of the x-ray films.

Certain pathogenic parasitic infections can persist for many years if left untreated and have been associated with both chronic illnesses and life threatening infections. This can range from malnutrition, iron-deficiency anemia, malabsorption syndrome, mental and physical growth retardation to life-threatening liver abscess or hyperinfection.<sup>2</sup>

*Strongyloides stercoralis* (roundworm), which is found in almost all refugee groups, and *Schistosomiasis spp* (flake), predominantly seen in

sub-Saharan refugees, are two parasitic infections of particular concern. Pre-departure albendazole therapy is not adequate treatment for either of these. Most refugees with strongyloidiasis are asymptomatic. If left unchecked, it can persist for years, and under certain conditions can lead to a severe hyper-infection. Schistosomiasis is often asymptomatic initially; however for people who are not treated and /or are repeatedly infected for many years, infection can cause damage to the liver, intestines, lungs, and bladder.

New overseas treatment recommendations in-

clude expanded presumptive treatment to address these concerns. The new CDC guidelines for domestic screening indicate the implementation of these overseas guidelines may vary depending on funding and population. Therefore it is imperative for domestic screening guidelines to take into consideration the refugee's point of departure for the U.S. and whether the refugee received pre-departure presumptive therapy.<sup>3</sup>

<sup>1,2</sup>Garg, P., Perry, S., Dorn, M., Hardcastle, L., Parsonnet, J. 2005. Risk of intestinal helminth and protozoan infection in a refugee population. *Am. J. Trop. Med.*

*Hyg.*, 73(2):386-391.

<sup>3</sup> Centers for Disease Control and Prevention. Retrieved September 2008 from [www.cdc.gov/ncidod/dpd/parasites/schistosomiasis/factsht\\_schistosomiasis.htm#symptoms](http://www.cdc.gov/ncidod/dpd/parasites/schistosomiasis/factsht_schistosomiasis.htm#symptoms)

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/7parasites.html](http://www.health.state.mn.us/refugee/guide/7parasites.html)

CDC:

[www.cdc.gov/ncidod/dpd/parasites](http://www.cdc.gov/ncidod/dpd/parasites)

[www.cdc.gov.ncidod/dq/refugee/rh\\_guide.index.htm](http://www.cdc.gov.ncidod/dq/refugee/rh_guide.index.htm)

## Malaria

Of the eight new primary refugee arrivals tested for malaria in Ramsey County, none tested positive for malaria. **State:** 1/34 (3%)

Clinicians should have a high index of suspicion of malaria, particularly for refugees from tropical and subtropical areas who have fever of unknown origin or other characteristic symptoms. In particular, sub-Saharan Africans are considered to be from a highly endemic area where asymptomatic malaria infection is common and the predominant species found in this part of the world, *Plasmodium falciparum*, can cause severe, potentially fatal malaria.<sup>1</sup>

Currently CDC is recommending presumptive pre-departure anti-malarial DOT administered overseas for sub-Saharan refugees, completed at least two days prior to departure (excluding special populations of pregnant or lactating women and children under 5 kg). At this time, MDH/RHP does NOT receive documentation of pre-depar-

ture therapy in the overseas records. Instead, it is sent directly with the refugee in the sealed IOM bag. When making appointments, clinics should request all medical papers be brought to clinic. Some clinics have reported finding documentation in the jacket of the x-ray films.

When status of pre-departure therapy is unknown, the following fact should be taken into account as to whether or not to test:

- Neither single malaria thick-and-thin blood film nor rapid malaria test (RDT) are adequate for detecting asymptomatic or sub-clinical malaria found in sub-Saharan populations.
- Consider consulting with a tropical disease expert for options, including post-arrival

presumptive and directed treatment for sub-Saharan refugees. MDH Refugee Health Program can help facilitate the consult.

- **Regardless of post-arrival testing, newly arrived refugees from known endemic regions should be closely monitored for signs or symptoms of malaria, particularly during the initial three months after arrival.**

<sup>1</sup> Centers for Disease Control and Prevention.

Retrieved September 2008 from

[www.cdc.gov/malaria/biology/parasites/index.htm](http://www.cdc.gov/malaria/biology/parasites/index.htm)

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/8malaria.html](http://www.health.state.mn.us/refugee/guide/8malaria.html)

CDC:

[www.cdc.gov/malaria/index.htm](http://www.cdc.gov/malaria/index.htm)

## Lead

Of the 115 new primary refugee arrivals under 6 years old who were tested for lead poisoning in Ramsey County, six children (5%) tested positive for elevated blood lead level. **State:** 8/205 (4%)

There is no *safe* level of lead for children (BLL $\geq$ 10 is the cut-off), and the effects of lead depend on the dose. Refugee children are particularly at risk for lead poisoning given their exposure to toxic atmospheric emissions found in many parts of the world. Several factors increase the potential for lead exposure in developing countries including poor nutrition, eating utensils,

home remedies, environmental pollution, absent or lax environmental regulations, hot climates that imply a prolonged stay in the outdoor environment, airy housing construction, and concentration of populations around traffic arteries. These children continue to be at risk in the U.S. if living in sub-standard housing conditions. Additionally clinicians should be aware that home

remedies which might contain lead, may continue to be acquired from overseas and used in the states.

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/9lead.html](http://www.health.state.mn.us/refugee/guide/9lead.html)

CDC:

[www.cdc.gov/nceh/lead](http://www.cdc.gov/nceh/lead)

## Sexually Transmitted Infections

Of the 640 new primary refugee arrivals tested for syphilis in Ramsey County, five (<1%) tested positive for syphilis. Of the 973 new primary refugee arrivals to Ramsey, two (<1%) tested positive for HIV overseas. Of the new primary arrivals tested for chlamydia (13) and/or gonorrhea (13), none tested positive. **State:** *syphilis*, 19/2,030 (1%); *HIV(overseas)*, 11/2,867 (<1%); *chlamydia*, 0/164 (0%); *gonorrhea* 0/154 (0%)

**Syphilis** screening is considered standard for the domestic health exam. Evidence of discordant results between overseas syphilis screening results and domestic results highlights the importance of including this exam in the domestic exam.

All refugees aged 15 years and older are tested for **HIV** overseas. At this time, domestic screening does not call for re-testing for HIV. It is recommended that all family members of an HIV+ person get tested, regardless of age.

Technology for urine screening for both *Chlamydia trachomatis* and *Neisseria gonorrhoeae* is available and is considered equally, if not more sensitive, than traditional cultures. This non-invasive testing is preferred for the refugee population.

In general, the quality of lab facilities overseas varies and providers should keep this in mind when determining whether or not to screen for STI's.

### Resources

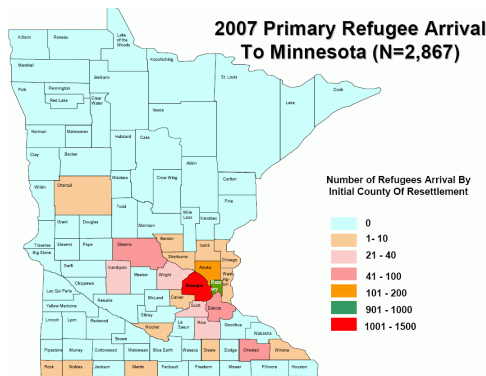
MDH:

[www.health.state.mn.us/refugee/guide/6stds.html](http://www.health.state.mn.us/refugee/guide/6stds.html)

CDC:

[www.cdc.gov/std](http://www.cdc.gov/std)

[www.cdc.gov/hiv](http://www.cdc.gov/hiv)



# Rice County

## 2007

### Refugee Health Report

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**TB**

**Hepatitis B**

**Parasitic Infection**

**Malaria**

**Lead**

**STIs**

Welcome to the second edition of the Refugee Health County Report. An individualized report is compiled for those counties that have received at least 15 new primary refugee arrivals to their county during the past year. In 2007, ten counties met this criterion: Anoka, Dakota, Hennepin, Kandiyohi, Olmsted, Ramsey, Rice, Scott, Stearns, and Wright. This year, statewide demographics and health status data are included in the reports as another means of comparison for counties.

In 2007, there was a significant drop in the number of primary refugee arrivals to our state. There were 2,867 new primary refugee arrivals to Minnesota compared with 5,356 in 2006. This slowing trend reflects policy changes at the national level rather than any decrease in the need for resettlement of the growing numbers of refugees worldwide. At the local level, your expertise and commitment to ensure the complete and timely initial refugee health screening exam for this population continues to play a crucial role in promoting the health and well-being of some of the newest arrivals to Minnesota as well as protecting the health of the community at large.

We encourage counties to use this report as a tool to measure the effectiveness of the health screening services offered to newly arrived refugees in your county. The objectives used to measure these goals are consistent with the objectives set forth by the Minnesota Department of Health’s Refugee Health Program (RHP)

to measure our program’s overall quality. This county specific data can also be used to support planning and development of appropriate public health responses to both immediate and emerging health issues in your region.

For refugees who arrived between January 1, 2007 and December 31, 2007, counties and/or private providers submitted the domestic screening results once the refugees completed their exams. All data included in this report were recorded on the Refugee Health Assessment Form (“pink” form) or the Outcome Form for each person. In addition, in 2007, two of our largest counties, Ramsey and Hennepin, began submitting these data electronically using a new web-based application developed by the MDH RHP called Electronic System for Health Assessment of Refugees, better known as eSHARE. eSHARE is specifically designed to collect results from the domestic health screenings and conduct surveillance activities. Any county interested in learning more about this system can go to our website or contact the RHP.

In early 2009, we will review the protocols for the refugee health screening exam based on revised recommendations from the Centers for Disease Control and Prevention (CDC). Look for updates throughout Winter/Spring 2008-09.

Again, let us know how we might tailor or improve this report to better support your work!

# Health Screening Indicators

The indicators on the following page are measurable objectives that correlate with the Minnesota refugee health assessment for newly arrived refugees. The highlighted yellow columns on the right of the chart are specific to your county, indicating how effectively these objectives were met. Together with *Significant Findings and Trends* on page 6 and *Health Status* data summary on pages 8 to 11, this 2007 report is a snapshot of the demographics and health needs of newly arrived primary refugees.

**Objective 1.** *Within 90 days of arrival, 90% of newly arrived refugees who are eligible\* will have received a health assessment.*

**Objective 2.** *Ensure immunizations will be initiated or continued according to the recommended MDH child and adult immunization schedules on 90% of persons provided a health screening.*

**Objective 3.** *Ensure evaluation for 95% of refugees arriving with infectious TB disease, non-communicable for travel purposes (Class A) or non-infectious TB disease (Class B1).*

**Objective 4.** *Within 90 days of arrival, 75% of persons in need of therapy for latent TB infection (LTBI) will have been placed on such therapy.*

**Objective 5.** *On an ongoing basis, 40% of persons placed on therapy for latent tuberculosis infection (LTBI) will have completed therapy.*

**Objective 6.** *On an ongoing basis, 90% of persons provided a health screening will receive a hepatitis B surface antigen (HBsAg) test.*

**Objective 7.** *Ensure 90% of persons provided a health screening will get tested for parasitic infections (parasitosis).*

**Objective 8.** *Ensure 90% of all children less than 6 years of age who receive a health screening will be screened for lead poisoning.*

**Objective 9.** *Ensure 100% of all newly arrived HIV+ refugees will be screened within 30 days of arrival and referred to a HIV specialty clinic or provider.*

**\*Ineligible** if: moved out of state, moved to unknown destination, unable to locate due to invalid contact information, never arrived to county, or died before screening.

# Health Screening Indicators

Rice County, 2007

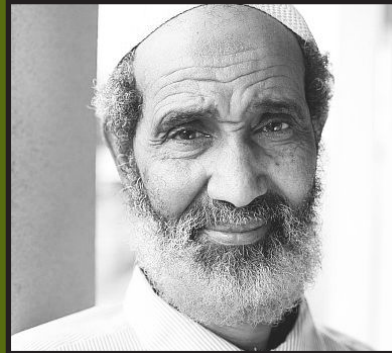
All results are based on domestically completed screenings

Performance Goal	Objective	Measure	Data	Year 2007	
				No.	%
<b>Health Screening Rate</b>					
Increase percentage of newly arrived refugees* who receive a health assessment within 90 days of their arrival	Percentage of persons who received at least the first visit of their health assessment within 90 days of their arrival	$\frac{\text{\# of newly arrived refugees to county X who received at least the first visit of their health assessment within 90 days of arrival}}{\text{\# of newly arrived refugees to county X who were eligible for a screening}}$	Objective	90%	
			County	31/(32-1)	100%
			State	2697/(2867-127)	98%
<b>Immunizations</b>					
Increase percentage of newly arrived refugees who have immunization series initiated or continued according to recommended MDH child/adult immunization schedules	Percentage of persons who have immunization series initiated or continued according to the recommended MDH child/adult immunization schedules	$\frac{\text{\# of newly arrived refugees to county X with immunization series initiated or continued}}{\text{\# of newly arrived refugees* to county X who received a screening}}$	Objective	90%	
			County	27/31	87%
			State	2398/2697	89%
<b>TB</b>					
<i>Follow-up of Refugees with TB Class Conditions</i> Increase percentage of newly arrived refugees designated as TB Class A or B1 who are appropriately evaluated	Percentage of newly arrived refugees designated as TB Class A or B1 who are appropriately evaluated	$\frac{\text{\# of newly arrived refugees to county X designated as TB Class A or B1 and who are appropriately evaluated}}{\text{\# of newly arrived eligible refugees to county X designated as TB Class A or B1}}$	Objective	95%	
			County	4/4	100%
			State	253/(266-7)	98%
<i>LTBI Therapy</i> Increase percentage of newly arrived refugees in need of therapy for latent tuberculosis infection (LTBI) who have been placed on such therapy within 90 days of arrival	Percentage of persons in need of therapy for LTBI who are placed on such therapy within 90 days of arrival	$\frac{\text{\# of newly arrived refugees to county X in need of LTBI therapy and placed on such therapy within 90 days of arrival}}{\text{\# of newly arrived refugees to county X in need of LTBI therapy}}$	Objective	75%	
			County	16/17	94%
			State	1010/1156	87%
Increase the percentage of newly arrived refugees who have been placed on therapy for LTBI and have completed therapy	Percentage of persons who are placed on therapy for LTBI and have completed therapy	$\frac{\text{\# of newly arrived refugees to county X in need of LTBI therapy and who have been placed on and completed LTBI therapy}}{\text{\# of newly arrived refugees to county X placed on LTBI therapy}}$	Objective	40%	
			County	24/38**	63%
			State	885/1661**	53%
<b>Hepatitis B</b>					
Increase percentage of newly arrived refugees who have received a hepatitis B surface antigen (HBsAg) test	Percentage of persons who receive a hepatitis B surface antigen (HBsAg) test	$\frac{\text{\# of newly arrived refugees to county X who received HBsAg test}}{\text{\# of newly arrived refugees to county X who received a screening}}$	Objective	90%	
			County	31/31	100%
			State	2656/2697	98%
<b>Intestinal Parasites</b>					
Increase percentage of newly arrived refugees who are tested for parasitic infections (parasitosis)	Percentage of persons who are tested for parasitic infections (O & P)	$\frac{\text{\# of newly arrived refugees to county X tested for parasitic infections (O&P)}}{\text{\# of newly arrived refugees to county X who received a screening}}$	Objective	90%	
			County	27/37	87%
			State	2526/2697	94%
<b>Lead Poisoning</b>					
Increase percentage of newly arrived refugees < 6 years old who are screened for lead poisoning	Percentage of newly arrived refugees < 6 years old who are screened for lead poisoning	$\frac{\text{\# of newly arrived refugees to county X who are < 6 years old and screened for lead poisoning}}{\text{\# of newly arrived refugees <6 years old to county X who received a screening}}$	Objective	90%	
			County	0/0	NA
			State	205/225	91%
<b>HIV+</b>					
Increase percentage of newly arrived HIV+ refugees who are screened within 30 days of arrival and referred to a HIV specialty clinic or provider	Percentage of newly arrived HIV+ refugees who are screened within 30 days of arrival and referred to a HIV specialty clinic or provider	$\frac{\text{\# of newly arrived HIV+ refugees to county X screened within 30 days of arrival and referred to specialty clinic or provider}}{\text{\# of newly arrived HIV+ refugees to county X who received a screening}}$	Objective	100%	
			County	0/0	NA
			State	9/10	90%

\* *Newly arrived refugees* refers to all newly arrived refugees **eligible** for refugee health screening in Minnesota

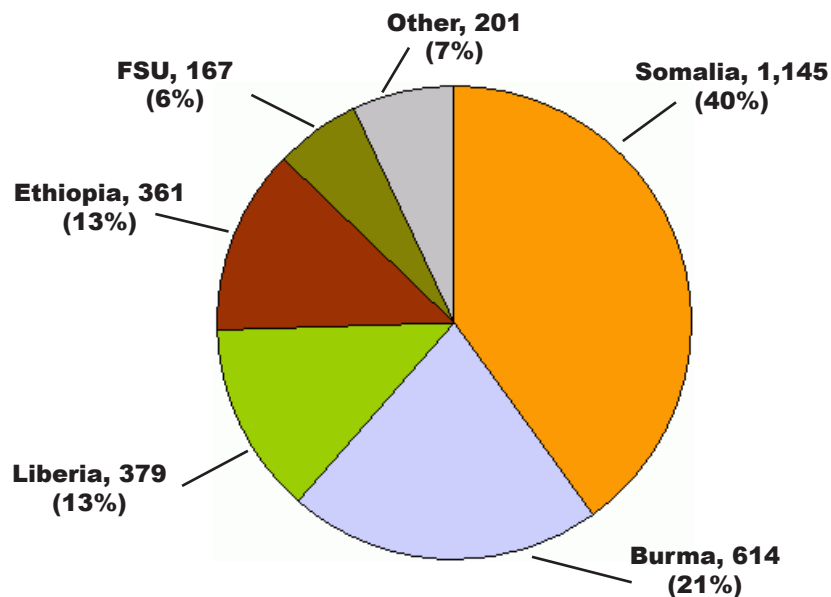
\*\* Based on 2006 data which reflects the most recent completion date for 9-month treatment protocol





# Significant Findings and Trends: Minnesota

## Number of Primary Arrivals\* to Minnesota 01/01/2007 - 12/31/2007



**N=2,867**

FSU includes Belarus, Kazakhstan, Latvia, Moldova, Russia, Ukraine.

“Other” includes Afghanistan, Cameroon, Chad, China (including Tibet), DR Congo, Cuba, Eritrea, France, Indonesia, Ivory Coast, Kenya, Laos (Hmong), Nigeria, Sierra Leone, Sudan, Uganda, and Vietnam.

\**Primary arrival* is a refugee who is residing in the state listed as the initial point of destination with the USCIS. Refugees are free to move from state to state, but sponsors, VOLAGs, and state health departments are designed to serve only newly arrived primary refugees to the state.

## Demographics

During the period of 01/01/2007 - 12/31/2007, Minnesota was notified of 2,867 primary refugee arrivals. The regional breakdown is as follows: sub-Saharan Africa, 69%; South/Southeast/East Asia, 25%; Europe/Eastern Europe, 6%; Latin America, <1%. From a country perspective, the largest arrival groups during this period were Somali and Karen from Burma.

In general, refugee arrivals to Minnesota are a young population; 1,223 (43%) were 15-24 years of age and 793 (28%) were less than 15 years of age in 2007. Regarding gender, 1,450 (51%) of newly arrived refugees to the state were male.

## Screening Rate and Outcome for Those Not Screened

Of the 2,867 new primary refugee arrivals 2,740 (96%) were eligible for a health screening and 2,697 (98%) were screened. This compares to 4,893 primary arrivals eligible for a screening in 2006 and a screening rate of 96%.

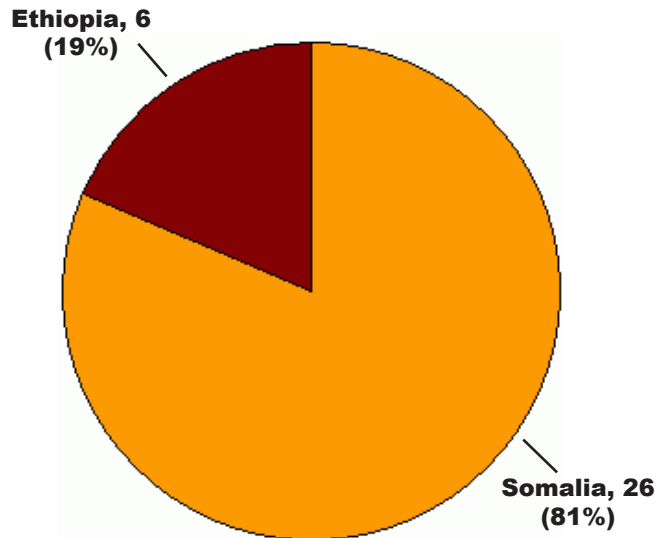
There were 170 refugees who were not screened and had a known outcome. Forty-three were eligible for the screening and did not receive one. Of these, 17 were failed attempts to schedule, eight were screened elsewhere with no available results, eight refused screening, eight persons missed his/her appointment and two moved to another county. The remaining 124 were ineligible for screening because they moved out of state or to an unknown destination, and three never arrived to the state.

## Flat Fee Reimbursement

During this same time period 164 refugees qualified for flat fee reimbursement. One hundred and fifty-two were full payment and 12 were partial payment.

# Significant Findings and Trends

## Number of Primary Arrivals\* to Rice County 01/01/2007 - 12/31/2007



**N=32**

\**Primary arrival* is a refugee who is residing in the state listed as the initial point of destination with the USCIS. Refugees are free to move from state to state, but sponsors, VOLAGs, and state health departments are designed to serve only newly arrived primary refugees to the state.

## Demographics

During the period of 01/01/2007 - 12/31/2007, Rice County was notified of 32 primary refugee arrivals. This is 1% of the 2,867 total primary refugee arrivals to Minnesota. All arrivals were from sub-Saharan Africa with the majority from Somalia. They represented 2% of the 1,145 primary Somali arrivals to the state in 2007.

In general, refugee arrivals to Minnesota are a young population; 1,223 (43%) were 15-24 years of age and 793 (28%) were less than 15 years of age in 2007. A similarly young age distribution can be seen among the new primary arrivals in Rice: 16 (50%) were 15-24 years of age and 5 (16%) were less than 15 years old. Regarding gender, 23 (72%) were male; the state average was 1,450 (51%).

## Screening Rate and Outcome for Those Not Screened

Of the 32 new primary refugee arrivals, 31 (97%) were eligible for a health screening and all (100%) were screened. This compares to 88 primary arrivals eligible for a screening in 2006 and an 89% screening rate.

There was one refugee who was not screened and was considered ineligible as she/he was unable to be located.

## Flat Fee Reimbursement

During this same time period all refugees qualified for MA and there were no requests for flat fee reimbursement from Rice County.

# Health Status of New Refugees to Rice County

**Tuberculosis (TB)**  
**Hepatitis B**  
**Parasitic Infection**  
**Malaria**  
**Sexually Transmitted  
Infections (STI)**  
**Lead**



## Tuberculosis

Of the 32 new primary refugee arrivals to Rice County, 4 (13%) arrived with a Class B1 TB status. **State:** 266/2,687 (9%)

Of the 30 new primary refugee arrivals tested for tuberculosis in Rice, 17 (57%) tested positive for latent tuberculosis infection or suspect /active TB disease. **State:** 1,177/2,649 (44%)

More than 80% of active TB cases in Minnesota occur among persons born outside the United States. During the past decade, the percentage of foreign-born persons among TB cases reported in Minnesota increased from 71% in 1997, peaked at 87% in 2005, and has slightly decreased to 85% in 2007.

- *The data strongly suggest that clinicians should not rely solely on medical examinations performed overseas to identify cases of TB disease among foreign-born persons. During the period of 2003-2007, only 14% of the foreign-born TB case-patients who initially arrived in the U.S. as refugees or other immigrants and who were diagnosed with TB*

within one year of their arrival, were known to have been identified as being at high risk for active TB disease on the overseas medical evaluation.

- More than half (52%) of foreign-born TB case-patients reported during 2003-2007 in Minnesota had been in the U.S. for three or more years prior to being diagnosed with TB disease. *These data suggest that at least half of foreign-born TB cases reported in Minnesota may be preventable by focusing on thorough domestic screening, evaluation, and treatment of latent TB infection among recently arrived refugees, immigrants, and other foreign-born persons.*
- Drug-resistant TB and extrapulmonary TB disease are more common among foreign-born persons; extrapulmonary disease may be more difficult to diagnose. Common extrapulmonary sites of disease reported in Minnesota include lymphatic, pleural, bone/joint and peritoneal.

## Resources

MDH:

[www.health.state.mn.us/refugee/guide/4tb.html](http://www.health.state.mn.us/refugee/guide/4tb.html)

[www.health.state.mn.us/divs/idepc/diseases/tb/stats.html](http://www.health.state.mn.us/divs/idepc/diseases/tb/stats.html)

CDC:

[www.cdc.gov/tb](http://www.cdc.gov/tb)

## Hepatitis B

Of the 31 new primary refugee arrivals tested for hepatitis B in Rice County, five (16%) tested positive for hepatitis B surface antigen (HBsAg). **State:** 206/2,656 (8%)

All newly arrived refugees, adults and children, should be screened for HBsAg, anti-HBs, and anti-HBc to determine their hepatitis B status. HBV infection is highly endemic in all of Africa, Southeast, East, and Northern Asia, and in most of the Pacific Islands. CDC's new recommendations include testing all individuals born in Asia and Africa and other geographic regions with 2 percent or higher prevalence of chronic HBV in-

fections, as well as additional at-risk populations. Worldwide, most infections occur through mother-to-child transmission, child-to-child in household contacts, or reuse of unsterilized needles and syringes. While the newly arrived refugee is no longer experiencing an endemic environment in the U.S., refugee communities tend to congregate and may continue to passively act as a host environment for those who are infected with

HBV. Being in close contact in the household and within the community increases the risk of infection and makes it especially important to screen all household contacts and vaccinate all those who are susceptible.

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/5hepb.html](http://www.health.state.mn.us/refugee/guide/5hepb.html)

CDC:

[www.cdc.gov/ncidod/diseases/hepatitis/b/faqb.html](http://www.cdc.gov/ncidod/diseases/hepatitis/b/faqb.html)

## Parasitic Infection

Of the 27 new primary refugee arrivals tested for intestinal parasites in Rice County, two (7%) tested positive for at least one pathogenic intestinal parasite. **State:** 384/2,526 (15%)

*Entamoeba histolytica* (1\*), *Hymenolepis* (1\*), *Trichuris* (1\*),

\*number of cases identified (one person was co-infected with two parasites)

Screening for both **symptomatic** and **asymptomatic parasitosis** among refugees remains a high priority since at least one third of the world's population may be infected with intestinal parasites and all immigrant groups are affected to some degree by intestinal parasites.<sup>1</sup> Potentially harmful outcomes underscore the importance of distinguishing between pathogenic and non-pathogenic parasites and treating the former appropriately.

Current overseas protocol includes pre-departure albendazole therapy within three days prior to departure to the U.S. for Southeast Asian and sub-Saharan refugees (excluding special groups, such as pregnant women and small infants). Albendazole is an antihelminthic treatment and has been documented to dramatically decrease the prevalence of *Ascaris* and *Trichuris* in newly arrived refugees. At this time, documentation of pre-departure therapy is NOT included in the

overseas records that MDH/RHP receives and forwards to local public health. It is sent directly with the refugee. When making appointments, request all medical papers be brought to clinic. Some clinics have reported finding the treatment documentation in the jacket of the x-ray films.

Certain pathogenic parasitic infections can persist for many years if left untreated and have been associated with both chronic illnesses and life threatening infections. This can range from malnutrition, iron-deficiency anemia, malabsorption syndrome, mental and physical growth retardation to life-threatening liver abscess or hyperinfection.<sup>2</sup>

*Strongyloides stercoralis* (roundworm), which is found in almost all refugee groups, and *Schis-*

*tosomiasis spp* (fluke), predominantly seen in sub-Saharan refugees, are two parasitic infections of particular concern. Pre-departure albendazole therapy is not adequate treatment for either of these. Most refugees with strongyloidiasis are asymptomatic. If left unchecked, it can persist for years, and under certain conditions can lead to a severe hyper-infection. Schistosomiasis is often asymptomatic initially; however for people who are not treated and /or are repeatedly infected for many years, infection can cause damage to the liver, intestines, lungs, and bladder.

## Malaria

Of the three new primary refugee arrivals tested for malaria in Rice County, none tested positive for malaria. **State:** 1/34 (3%)

Clinicians should have a high index of suspicion of malaria, particularly for refugees from tropical and subtropical areas who have fever of unknown origin or other characteristic symptoms. In particular, sub-Saharan Africans are considered to be from a highly endemic area where asymptomatic malaria infection is common and the predominant species found in this part of the world, *Plasmodium falciparum*, can cause severe, potentially fatal malaria.<sup>1</sup>

Currently CDC is recommending presumptive pre-departure anti-malarial DOT administered overseas for sub-Saharan refugees, completed at least two days prior to departure (excluding special populations of pregnant or lactating women and children under 5 kg). At this time, MDH/RHP

New overseas treatment recommendations include expanded presumptive treatment to address these concerns. The new CDC guidelines for domestic screening indicate the implementation of these overseas guidelines may vary depending on funding and population. Therefore it is imperative for domestic screening guidelines to take into consideration the refugee's point of departure for the U.S. and whether the refugee received pre-departure presumptive therapy<sup>3</sup>

<sup>1,2</sup>Garg, P., Perry, S., Dorn, M., Hardcastle, L., Parsonnet, J. 2005. Risk of intestinal helminth and protozoan

does NOT receive documentation of pre-departure therapy in the overseas records. Instead, it is sent directly with the refugee in the sealed IOM bag. When making appointments, clinics should request all medical papers be brought to clinic. Some clinics have reported finding documentation in the jacket of the x-ray films.

When status of pre-departure therapy is unknown, the following fact should be taken into account as to whether or not to test:

- Neither single malaria thick-and-thin blood film nor rapid malaria test (RDT) are adequate for detecting asymptomatic or sub-clinical malaria found in sub-Saharan populations.

infection in a refugee population. *Am. J. Trop. Med. Hyg.*, 73(2):386-391.

<sup>3</sup> Centers for Disease Control and Prevention. Retrieved September 2008 from [www.cdc.gov/ncidod/dpd/parasites/schistosomiasis/factsht\\_schistosomiasis.htm#symptoms](http://www.cdc.gov/ncidod/dpd/parasites/schistosomiasis/factsht_schistosomiasis.htm#symptoms)

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/7parasites.html](http://www.health.state.mn.us/refugee/guide/7parasites.html)

CDC:

[www.cdc.gov/ncidod/dpd/parasites](http://www.cdc.gov/ncidod/dpd/parasites)

[www.cdc.gov.ncidod/dq/refugee/rh\\_guide.index.htm](http://www.cdc.gov.ncidod/dq/refugee/rh_guide.index.htm)

- Consider consulting with a tropical disease expert for options, including post-arrival presumptive and directed treatment for sub-Saharan refugees. MDH Refugee Health Program can help facilitate the consult.
- **Regardless of post-arrival testing, newly arrived refugees from known endemic regions should be closely monitored for signs or symptoms of malaria, particularly during the initial three months after arrival.**

<sup>1</sup> Centers for Disease Control and Prevention. Retrieved September 2008 from [www.cdc.gov/malaria/biology/parasites/index.htm](http://www.cdc.gov/malaria/biology/parasites/index.htm)

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/8malaria.html](http://www.health.state.mn.us/refugee/guide/8malaria.html)

CDC:

[www.cdc.gov/malaria/index.htm](http://www.cdc.gov/malaria/index.htm)

## Lead

There were no new primary refugee arrivals under 6 years old to be tested for lead poisoning in Rice County. **State:** 8/205 (4%)

There is no *safe* level of lead for children (BLL $\geq$ 10 is the cut-off), and the effects of lead depend on the dose. Refugee children are particularly at risk for lead poisoning given their exposure to toxic atmospheric emissions found in many parts of the world. Several factors increase the potential for lead exposure in developing countries including poor nutrition, eating utensils,

home remedies, environmental pollution, absent or lax environmental regulations, hot climates that imply a prolonged stay in the outdoor environment, airy housing construction, and concentration of populations around traffic arteries. These children continue to be at risk in the U.S. if living in sub-standard housing conditions. Additionally clinicians should be aware that home

remedies which might contain lead, may continue to be acquired from overseas and used in the states.

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/9lead.html](http://www.health.state.mn.us/refugee/guide/9lead.html)

CDC:

[www.cdc.gov/nceh/lead](http://www.cdc.gov/nceh/lead)

## Sexually Transmitted Infections

Of the 24 new primary refugee arrivals tested for syphilis in Rice County, none tested positive for syphilis. None of the new primary arrivals to the county tested positive for HIV overseas. Of the new primary arrivals tested for chlamydia (10) and/or gonorrhea (10), none tested positive.

**State:** *syphilis*, 19/2,030 (1%); *HIV(overseas)*, 11/2,867 (<1%); *chlamydia*, 0/164 (0%); *gonorrhea* 0/154 (0%)

**Syphilis** screening is considered standard for the domestic health exam. Evidence of discordant results between overseas syphilis screening results and domestic results highlights the importance of including this exam in the domestic exam.

All refugees aged 15 years and older are tested for **HIV** overseas. At this time, domestic screening does not call for re-testing for HIV. It is recommended that all family members of an HIV+ person get tested, regardless of age.

Technology for urine screening for both *Chlamydia trachomatis* and *Neisseria gonorrhoeae* is available and is considered equally, if not more sensitive, than traditional cultures. This non-invasive testing is preferred for the refugee population.

In general, the quality of lab facilities overseas varies and providers should keep this in mind when determining whether or not to screen for STI's.

### Resources

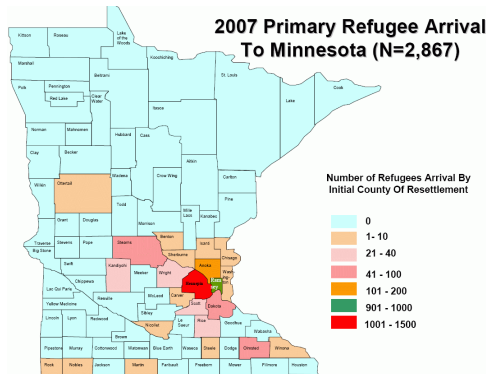
MDH:

[www.health.state.mn.us/refugee/guide/6stds.html](http://www.health.state.mn.us/refugee/guide/6stds.html)

CDC:

[www.cdc.gov/std](http://www.cdc.gov/std)

[www.cdc.gov/hiv](http://www.cdc.gov/hiv)



# Scott County 2007 Refugee Health Report

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Welcome to the second edition of the Refugee Health County Report. An individualized report is compiled for those counties that have received at least 15 new primary refugee arrivals to their county during the past year. In 2007, ten counties met this criterion: Anoka, Dakota, Hennepin, Kandiyohi, Olmsted, Ramsey, Rice, Scott, Stearns, and Wright. This year, statewide demographics and health status data are included in the reports as another means of comparison for counties.

In 2007, there was a significant drop in the number of primary refugee arrivals to our state. There were 2,867 new primary refugee arrivals to Minnesota compared with 5,356 in 2006. This slowing trend reflects policy changes at the national level rather than any decrease in the need for resettlement of the growing numbers of refugees worldwide. At the local level, your expertise and commitment to ensure the complete and timely initial refugee health screening exam for this population continues to play a crucial role in promoting the health and well-being of some of the newest arrivals to Minnesota as well as protecting the health of the community at large.

We encourage counties to use this report as a tool to measure the effectiveness of the health screening services offered to newly arrived refugees in your county. The objectives used to measure these goals are consistent with the objectives set forth by the Minnesota Department of Health’s Refugee Health Program (RHP)

to measure our program’s overall quality. This county specific data can also be used to support planning and development of appropriate public health responses to both immediate and emerging health issues in your region.

For refugees who arrived between January 1, 2007 and December 31, 2007, counties and/or private providers submitted the domestic screening results once the refugees completed their exams. All data included in this report were recorded on the Refugee Health Assessment Form (“pink” form) or the Outcome Form for each person. In addition, in 2007, two of our largest counties, Ramsey and Hennepin, began submitting these data electronically using a new web-based application developed by the MDH RHP called Electronic System for Health Assessment of Refugees, better known as eSHARE. eSHARE is specifically designed to collect results from the domestic health screenings and conduct surveillance activities. Any county interested in learning more about this system can go to our website or contact the RHP.

In early 2009, we will review the protocols for the refugee health screening exam based on revised recommendations from the Centers for Disease Control and Prevention (CDC). Look for updates throughout Winter/Spring 2008-09.

Again, let us know how we might tailor or improve this report to better support your work!



# Health Screening Indicators

The indicators on the following page are measurable objectives that correlate with the Minnesota refugee health assessment for newly arrived refugees. The highlighted yellow columns on the right of the chart are specific to your county, indicating how effectively these objectives were met. Together with *Significant Findings and Trends* on page 6 and *Health Status* data summary on pages 8 to 11, this 2007 report is a snapshot of the demographics and health needs of newly arrived primary refugees.

**Objective 1.** *Within 90 days of arrival, 90% of newly arrived refugees who are eligible\* will have received a health assessment.*

**Objective 2.** *Ensure immunizations will be initiated or continued according to the recommended MDH child and adult immunization schedules on 90% of persons provided a health screening.*

**Objective 3.** *Ensure evaluation for 95% of refugees arriving with infectious TB disease, non-communicable for travel purposes (Class A) or non-infectious TB disease (Class B1).*

**Objective 4.** *Within 90 days of arrival, 75% of persons in need of therapy for latent TB infection (LTBI) will have been placed on such therapy.*

**Objective 5.** *On an ongoing basis, 40% of persons placed on therapy for latent tuberculosis infection (LTBI) will have completed therapy.*

**Objective 6.** *On an ongoing basis, 90% of persons provided a health screening will receive a hepatitis B surface antigen (HBsAg) test.*

**Objective 7.** *Ensure 90% of persons provided a health screening will get tested for parasitic infections (parasitosis).*

**Objective 8.** *Ensure 90% of all children less than 6 years of age who receive a health screening will be screened for lead poisoning.*

**Objective 9.** *Ensure 100% of all newly arrived HIV+ refugees will be screened within 30 days of arrival and referred to a HIV specialty clinic or provider.*

**\*Ineligible** if: moved out of state, moved to unknown destination, unable to locate due to invalid contact information, never arrived to county, or died before screening.

# Health Screening Indicators

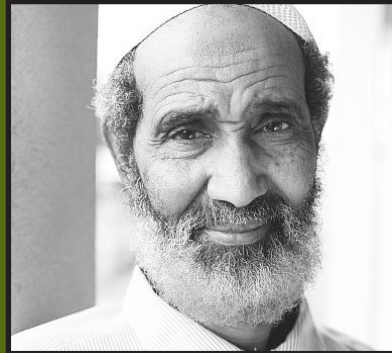
Scott County, 2007

All results are based on domestically completed screenings

Performance Goal	Objective	Measure	Data	Year 2007	
Health Screening Rate				No.	%
Increase percentage of newly arrived refugees* who receive a health assessment within 90 days of their arrival	Percentage of persons who received at least the first visit of their health assessment within 90 days of their arrival	$\frac{\text{\# of newly arrived refugees to county X who received at least the first visit of their health assessment within 90 days of arrival}}{\text{\# of newly arrived refugees to county X who were eligible for a screening}}$	Objective	90%	
			County	33/(33-0)	100%
			State	2697/(2867-127)	98%
Immunizations					
Increase percentage of newly arrived refugees who have immunization series initiated or continued according to recommended MDH child/adult immunization schedules	Percentage of persons who have immunization series initiated or continued according to the recommended MDH child/adult immunization schedules	$\frac{\text{\# of newly arrived refugees to county X with immunization series initiated or continued}}{\text{\# of newly arrived refugees* to county X who received a screening}}$	Objective	90%	
			County	29/33	88%
			State	2398/2697	89%
TB					
<i>Follow-up of Refugees with TB Class Conditions</i> Increase percentage of newly arrived refugees designated as TB Class A or B1 who are appropriately evaluated	Percentage of newly arrived refugees designated as TB Class A or B1 who are appropriately evaluated	$\frac{\text{\# of newly arrived refugees to county X designated as TB Class A or B1 and who are appropriately evaluated}}{\text{\# of newly arrived eligible refugees to county X designated as TB Class A or B1}}$	Objective	95%	
			County	1/1	100%
			State	253/(266-7)	98%
<i>LTBI Therapy</i> Increase percentage of newly arrived refugees in need of therapy for latent tuberculosis infection (LTBI) who have been placed on such therapy within 90 days of arrival	Percentage of persons in need of therapy for LTBI who are placed on such therapy within 90 days of arrival	$\frac{\text{\# of newly arrived refugees to county X in need of LTBI therapy and placed on such therapy within 90 days of arrival}}{\text{\# of newly arrived refugees to county X in need of LTBI therapy}}$	Objective	75%	
			County	7/9	78%
			State	1010/1156	87%
Increase the percentage of newly arrived refugees who have been placed on therapy for LTBI and have completed therapy	Percentage of persons who are placed on therapy for LTBI and have completed therapy	$\frac{\text{\# of newly arrived refugees to county X in need of LTBI therapy and who have been placed on and completed LTBI therapy}}{\text{\# of newly arrived refugees to county X placed on LTBI therapy}}$	Objective	40%	
			County	11/15**	73%
			State	885/1661**	53%
Hepatitis B					
Increase percentage of newly arrived refugees who have received a hepatitis B surface antigen (HBsAg) test	Percentage of persons who receive a hepatitis B surface antigen (HBsAg) test	$\frac{\text{\# of newly arrived refugees to county X who received HBsAg test}}{\text{\# of newly arrived refugees to county X who received a screening}}$	Objective	90%	
			County	32/33	97%
			State	2656/2697	98%
Intestinal Parasites					
Increase percentage of newly arrived refugees who are tested for parasitic infections (parasitosis)	Percentage of persons who are tested for parasitic infections (O & P)	$\frac{\text{\# of newly arrived refugees to county X tested for parasitic infections (O&P)}}{\text{\# of newly arrived refugees to county X who received a screening}}$	Objective	90%	
			County	25/33	76%
			State	2526/2697	94%
Lead Poisoning					
Increase percentage of newly arrived refugees < 6 years old who are screened for lead poisoning	Percentage of newly arrived refugees < 6 years old who are screened for lead poisoning	$\frac{\text{\# of newly arrived refugees to county X who are < 6 years old and screened for lead poisoning}}{\text{\# of newly arrived refugees <6 years old to county X who received a screening}}$	Objective	90%	
			County	0/1	0%
			State	205/225	91%
HIV+					
Increase percentage of newly arrived HIV+ refugees who are screened within 30 days of arrival and referred to a HIV specialty clinic or provider	Percentage of newly arrived HIV+ refugees who are screened within 30 days of arrival and referred to a HIV specialty clinic or provider	$\frac{\text{\# of newly arrived HIV+ refugees to county X screened within 30 days of arrival and referred to specialty clinic or provider}}{\text{\# of newly arrived HIV+ refugees to county X who received a screening}}$	Objective	100%	
			County	0/0	NA
			State	9/10	90%

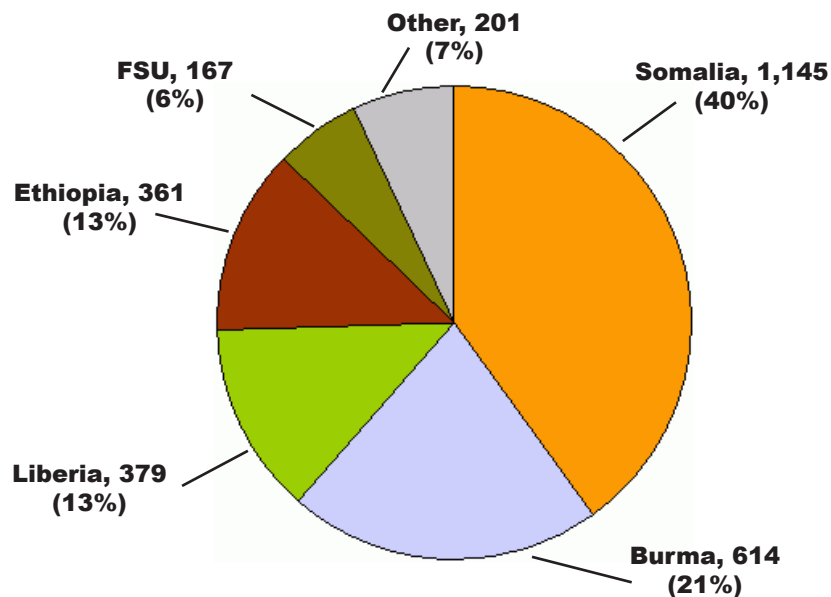
\* *Newly arrived refugees* refers to all newly arrived refugees **eligible** for refugee health screening in Minnesota

\*\* Based on 2006 data which reflects the most recent completion date for 9-month treatment protocol



# Significant Findings and Trends: Minnesota

## Number of Primary Arrivals\* to Minnesota 01/01/2007 - 12/31/2007



**N=2,867**

FSU includes Belarus, Kazakhstan, Latvia, Moldova, Russia, Ukraine.

“Other” includes Afghanistan, Cameroon, Chad, China (including Tibet), DR Congo, Cuba, Eritrea, France, Indonesia, Ivory Coast, Kenya, Laos (Hmong), Nigeria, Sierra Leone, Sudan, Uganda, and Vietnam.

\**Primary arrival* is a refugee who is residing in the state listed as the initial point of destination with the USCIS. Refugees are free to move from state to state, but sponsors, VOLAGs, and state health departments are designed to serve only newly arrived primary refugees to the state.

## Demographics

During the period of 01/01/2007 - 12/31/2007, Minnesota was notified of 2,867 primary refugee arrivals. The regional breakdown is as follows: sub-Saharan Africa, 69%; South/Southeast/East Asia, 25%; Europe/Eastern Europe, 6%; Latin America, <1%. From a country perspective, the largest arrival groups during this period were Somali and Karen from Burma.

In general, refugee arrivals to Minnesota are a young population; 1,223 (43%) were 15-24 years of age and 793 (28%) were less than 15 years of age in 2007. Regarding gender, 1,450 (51%) of newly arrived refugees to the state were male.

## Screening Rate and Outcome for Those Not Screened

Of the 2,867 new primary refugee arrivals 2,740 (96%) were eligible for a health screening and 2,697 (98%) were screened. This compares to 4,893 primary arrivals eligible for a screening in 2006 and a screening rate of 96%.

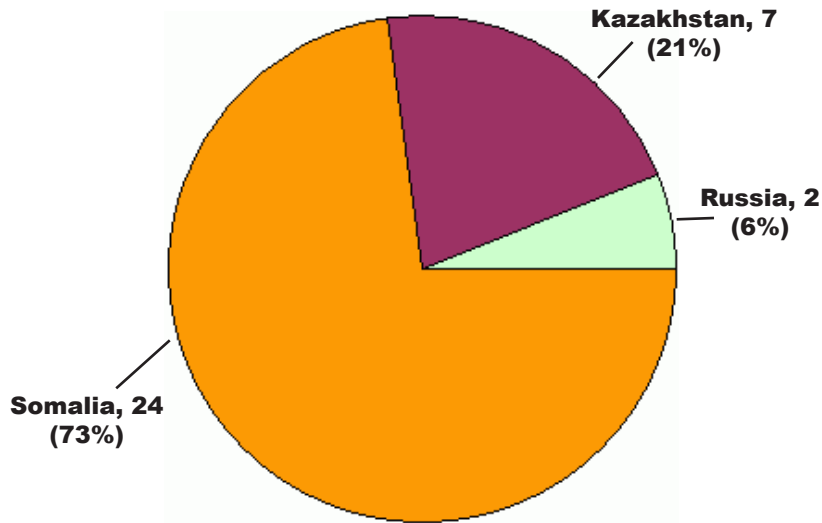
There were 170 refugees who were not screened and had a known outcome. Forty-three were eligible for the screening and did not receive one. Of these, 17 were failed attempts to schedule, eight were screened elsewhere with no available results, eight refused screening, eight persons missed his/her appointment and two moved to another county. The remaining 124 were ineligible for screening because they moved out of state or to an unknown destination, and three never arrived to the state.

## Flat Fee Reimbursement

During this same time period 164 refugees qualified for flat fee reimbursement. One hundred and fifty-two were full payment and 12 were partial payment.

# Significant Findings and Trends

## Number of Primary Arrivals\* to Scott County 01/01/2007 - 12/31/2007



**N=33**

**\*Primary arrival** is a refugee who is residing in the state listed as the initial point of destination with the USCIS. Refugees are free to move from state to state, but sponsors, VOLAGs, and state health departments are designed to serve only newly arrived primary refugees to the state.

## Demographics

During the period of 01/01/2007 - 12/31/2007, Scott County was notified of 33 primary refugee arrivals. This is <1% of the 2,867 total primary refugee arrivals to Minnesota. The largest arrival group during this period was Somali from sub-Saharan Africa; this was 2% of the 1,145 primary Somali arrivals to the state in 2007.

In general, refugee arrivals to Minnesota are a young population; 1,223 (43%) were 15-24 years of age and 793 (28%) were less than 15 years of age in 2007. In Scott County, 19 (58%) of the new primary arrivals were less than 25 years of age, with the majority (18 or 55%) between the ages of 15-24. Regarding gender, 19 (58%) refugees were female; the state average was 1,417 (49%).

## Screening Rate and Outcome for Those Not Screened

Of the 33 new primary refugee arrivals, 100% were eligible for a health screening and 33 (100%) were screened. This compares to 27 primary arrivals eligible for a screening in 2006 and a 96% screening rate.

## Flat Fee Reimbursement

During this same time period, one refugee qualified for partial flat fee reimbursement in Scott County.

# Health Status of New Refugees to Scott County

**Tuberculosis (TB)**  
**Hepatitis B**  
**Parasitic Infection**  
**Malaria**  
**Sexually Transmitted  
Infections (STI)**  
**Lead**



## Tuberculosis

Of the 33 new primary refugee arrivals to Scott County, one (3%) arrived with a Class B1 TB status. **State:** 266/2,687 (9%)

Of the 32 new primary refugee arrivals tested for tuberculosis in Scott, 9 (28%) tested positive for latent tuberculosis infection or suspect /active TB disease. **State:** 1,177/2,649 (44%)

More than 80% of active TB cases in Minnesota occur among persons born outside the United States. During the past decade, the percentage of foreign-born persons among TB cases reported in Minnesota increased from 71% in 1997, peaked at 87% in 2005, and has slightly decreased to 85% in 2007.

- *The data strongly suggest that clinicians should not rely solely on medical examinations performed overseas to identify cases of TB disease among foreign-born persons. During the period of 2003-2007, only 14% of the foreign-born TB case-patients who initially arrived in the U.S. as refugees or other*

immigrants and who were diagnosed with TB within one year of their arrival, were known to have been identified as being at high risk for active TB disease on the overseas medical evaluation.

- More than half (52%) of foreign-born TB case-patients reported during 2003-2007 in Minnesota had been in the U.S. for three or more years prior to being diagnosed with TB disease. *These data suggest that at least half of foreign-born TB cases reported in Minnesota may be preventable by focusing on thorough domestic screening, evaluation, and treatment of latent TB infection among recently arrived refugees, immigrants, and other foreign-born persons.*
- Drug-resistant TB and extrapulmonary TB disease are more common among foreign-born persons; extrapulmonary disease may be more difficult to diagnose. Common extrapulmonary sites of disease reported in Minnesota include lymphatic, pleural, bone/joint and peritoneal.

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/4tb.html](http://www.health.state.mn.us/refugee/guide/4tb.html)

[www.health.state.mn.us/divs/idepc/diseases/tb/stats.html](http://www.health.state.mn.us/divs/idepc/diseases/tb/stats.html)

CDC:

[www.cdc.gov/tb](http://www.cdc.gov/tb)

## Hepatitis B

Of the 32 new primary refugee arrivals tested for hepatitis B in Scott County, three (9%) tested positive for hepatitis B surface antigen (HBsAg). *State: 206/2,656 (8%)*

All newly arrived refugees, adults and children, should be screened for HBsAg, anti-HBs, and anti-HBc to determine their hepatitis B status. HBV infection is highly endemic in all of Africa, Southeast, East, and Northern Asia, and in most of the Pacific Islands. CDC's new recommendations include testing all individuals born in Asia and Africa and other geographic regions with 2 percent or higher prevalence of chronic HBV infections, as well as additional at-risk populations.

Worldwide, most infections occur through mother-to-child transmission, child-to-child in household contacts, or reuse of unsterilized needles and syringes. While the newly arrived refugee is no longer experiencing an endemic environment in the U.S., refugee communities tend to congregate and may continue to passively act as a host environment for those who are infected with HBV. Being in close contact in the household and within the community increases the risk of infec-

tion and makes it especially important to screen all household contacts and vaccinate all those who are susceptible.

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/5hepb.html](http://www.health.state.mn.us/refugee/guide/5hepb.html)

CDC:

[www.cdc.gov/ncidod/diseases/hepatitis/b/faqb.html](http://www.cdc.gov/ncidod/diseases/hepatitis/b/faqb.html)

## Parasitic Infection

Of the 25 new primary refugee arrivals tested for intestinal parasites in Scott County, none tested positive for any pathogenic intestinal parasite. *State: 384/2,526 (15%)*

Screening for both *symptomatic* and *asymptomatic parasitosis* among refugees remains a high priority since at least one third of the world's population may be infected with intestinal parasites and all immigrant groups are affected to some degree by intestinal parasites.<sup>1</sup> Potentially harmful outcomes underscore the importance of distinguishing between pathogenic and non-pathogenic parasites and treating the former appropriately.

Current overseas protocol includes pre-departure albendazole therapy within three days prior to departure to the U.S. for Southeast Asian and

sub-Saharan refugees (excluding special groups, such as pregnant women and small infants). Albendazole is an antihelminthic treatment and has been documented to dramatically decrease the prevalence of *Ascaris* and *Trichuris* in newly arrived refugees. At this time, documentation of pre-departure therapy is NOT included in the overseas records that MDH/RHP receives and forwards to local public health. It is sent directly with the refugee. When making appointments, request all medical papers be brought to clinic. Some clinics have reported finding the treatment documentation in the jacket of the x-ray films.

Certain pathogenic parasitic infections can persist for many years if left untreated and have been associated with both chronic illnesses and life threatening infections. This can range from malnutrition, iron-deficiency anemia, malabsorption syndrome, mental and physical growth retardation to life-threatening liver abscess or hyperinfection.<sup>2</sup>

*Strongyloides stercoralis* (roundworm), which is found in almost all refugee groups, and *Schistosomiasis spp* (flake), predominantly seen in sub-Saharan refugees, are two parasitic infections of particular concern. Pre-departure albendazole therapy is not adequate treatment for either of these. Most refugees with strongyloidiasis are asymptomatic. If left unchecked, it can persist for

years, and under certain conditions can lead to a severe hyper-infection. Schistosomiasis is often asymptomatic initially; however for people who are not treated and /or are repeatedly infected for many years, infection can cause damage to the liver, intestines, lungs, and bladder.

New overseas treatment recommendations include expanded presumptive treatment to address these concerns. The new CDC guidelines for domestic screening indicate the implementation of

these overseas guidelines may vary depending on funding and population. Therefore it is imperative for domestic screening guidelines to take into consideration the refugee's point of departure for the U.S. and whether the refugee received pre-departure presumptive therapy<sup>3</sup>

<sup>1,2</sup> Garg, P., Perry, S., Dorn, M., Hardcastle, L., Parsonnet, J. 2005. Risk of intestinal helminth and protozoan infection in a refugee population. *Am. J. Trop. Med. Hyg.*, 73(2):386-391.

<sup>3</sup> Centers for Disease Control and Prevention. Retrieved September 2008 from [www.cdc.gov/ncidod/dpd/parasites/schistosomiasis/factsht\\_schistosomiasis.htm#symptoms](http://www.cdc.gov/ncidod/dpd/parasites/schistosomiasis/factsht_schistosomiasis.htm#symptoms)

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/7parasites.html](http://www.health.state.mn.us/refugee/guide/7parasites.html)

CDC:

[www.cdc.gov/ncidod/dpd/parasites](http://www.cdc.gov/ncidod/dpd/parasites)

[www.cdc.gov/ncidod/dq/refugee/rh\\_guide.index.htm](http://www.cdc.gov/ncidod/dq/refugee/rh_guide.index.htm)

## Malaria

Of the 33 new primary refugee arrivals in Scott County who were screened, none were tested for malaria. **State:** 1/34 (3%)

Clinicians should have a high index of suspicion of malaria, particularly for refugees from tropical and subtropical areas who have fever of unknown origin or other characteristic symptoms. In particular, sub-Saharan Africans are considered to be from a highly endemic area where asymptomatic malaria infection is common and the predominant species found in this part of the world, *Plasmodium falciparum*, can cause severe, potentially fatal malaria.<sup>1</sup>

Currently CDC is recommending presumptive pre-departure anti-malarial DOT administered overseas for sub-Saharan refugees, completed no sooner than three days prior to departure (excluding special populations of pregnant or lactating women and children under 5 kg). At this time, MDH/RHP does NOT receive documentation of

pre-departure therapy in the overseas records. Instead, it is sent directly with the refugee in the sealed IOM bag. When making appointments, clinics should request all medical papers be brought to clinic. Some clinics have reported finding documentation in the jacket of the x-ray films.

When status of pre-departure therapy is unknown, the following fact should be taken into account as to whether or not to test:

- Neither single malaria thick-and-thin blood film nor rapid malaria test (RDT) are adequate for detecting asymptomatic or sub-clinical malaria found in sub-Saharan populations.
- Consider consulting with a tropical disease expert for options, including post-arrival

presumptive and directed treatment for sub-Saharan refugees. MDH Refugee Health Program can help facilitate the consult.

- **Regardless of post-arrival testing, newly arrived refugees from known endemic regions should be closely monitored for signs or symptoms of malaria, particularly during the initial three months after arrival.**

<sup>1</sup> Centers for Disease Control and Prevention. Retrieved September 2008 from [www.cdc.gov/malaria/biology/parasites/index.htm](http://www.cdc.gov/malaria/biology/parasites/index.htm)

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/8malaria.html](http://www.health.state.mn.us/refugee/guide/8malaria.html)

CDC:

[www.cdc.gov/malaria/index.htm](http://www.cdc.gov/malaria/index.htm)



## Lead

No new primary refugee arrivals under 6 years old (one arrival) were tested for lead poisoning in Scott County. **State:** 8/205 (4%)

There is no *safe* level of lead for children (BLL $\geq$ 10 is the cut-off), and the effects of lead depend on the dose. Refugee children are particularly at risk for lead poisoning given their exposure to toxic atmospheric emissions found in many parts of the world. Several factors increase the potential for lead exposure in developing countries including poor nutrition, eating utensils,

home remedies, environmental pollution, absent or lax environmental regulations, hot climates that imply a prolonged stay in the outdoor environment, airy housing construction, and concentration of populations around traffic arteries. These children continue to be at risk in the U.S. if living in sub-standard housing conditions. Additionally clinicians should be aware that home

remedies which might contain lead, may continue to be acquired from overseas and used in the states.

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/9lead.html](http://www.health.state.mn.us/refugee/guide/9lead.html)

CDC:

[www.cdc.gov/nceh/lead](http://www.cdc.gov/nceh/lead)

## Sexually Transmitted Infections

Of the 27 new primary refugee arrivals tested for syphilis in Scott County, none tested positive for syphilis. None of the new primary arrivals to the county tested positive for HIV overseas. Of the four new primary arrivals tested for chlamydia and/or gonorrhea, none tested positive.

**State:** *syphilis*, 19/2,030 (1%); *HIV(overseas)*, 11/2,867 (<1%); *chlamydia*, 0/164 (0%); *gonorrhea* 0/154 (0%)

**Syphilis** screening is considered standard for the domestic health exam. Evidence of discordant results between overseas syphilis screening results and domestic results highlights the importance of including this exam in the domestic exam.

All refugees aged 15 years and older are tested for **HIV** overseas. At this time, domestic screening does not call for re-testing for HIV. It is recommended that all family members of an HIV+ person get tested, regardless of age.

Technology for urine screening for both *Chlamydia trachomatis* and *Neisseria gonorrhoeae* is available and is considered equally, if not more sensitive, than traditional cultures. This non-invasive testing is preferred for the refugee population.

In general, the quality of lab facilities overseas varies and providers should keep this in mind when determining whether or not to screen for STI's.

### Resources

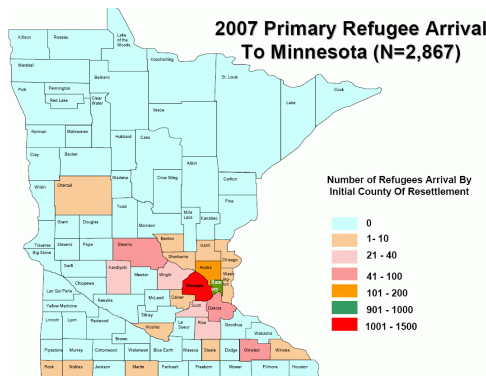
MDH:

[www.health.state.mn.us/refugee/guide/6stds.html](http://www.health.state.mn.us/refugee/guide/6stds.html)

CDC:

[www.cdc.gov/std](http://www.cdc.gov/std)

[www.cdc.gov/hiv](http://www.cdc.gov/hiv)



# Stearns County

## 2007

### Refugee Health Report

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Welcome to the second edition of the Refugee Health County Report. An individualized report is compiled for those counties that have received at least 15 new primary refugee arrivals to their county during the past year. In 2007, ten counties met this criterion: Anoka, Dakota, Hennepin, Kandiyohi, Olmsted, Ramsey, Rice, Scott, Stearns, and Wright. This year, statewide demographics and health status data are included in the reports as another means of comparison for counties.

In 2007, there was a significant drop in the number of primary refugee arrivals to our state. There were 2,867 new primary refugee arrivals to Minnesota compared with 5,356 in 2006. This slowing trend reflects policy changes at the national level rather than any decrease in the need for resettlement of the growing numbers of refugees worldwide. At the local level, your expertise and commitment to ensure the complete and timely initial refugee health screening exam for this population continues to play a crucial role in promoting the health and well-being of some of the newest arrivals to Minnesota as well as protecting the health of the community at large.

We encourage counties to use this report as a tool to measure the effectiveness of the health screening services offered to newly arrived refugees in your county. The objectives used to measure these goals are consistent with the objectives set forth by the Minnesota Department of Health’s Refugee Health Program (RHP)

to measure our program’s overall quality. This county specific data can also be used to support planning and development of appropriate public health responses to both immediate and emerging health issues in your region.

For refugees who arrived between January 1, 2007 and December 31, 2007, counties and/or private providers submitted the domestic screening results once the refugees completed their exams. All data included in this report were recorded on the Refugee Health Assessment Form (“pink” form) or the Outcome Form for each person. In addition, in 2007, two of our largest counties, Ramsey and Hennepin, began submitting these data electronically using a new web-based application developed by the MDH RHP called Electronic System for Health Assessment of Refugees, better known as eSHARE. eSHARE is specifically designed to collect results from the domestic health screenings and conduct surveillance activities. Any county interested in learning more about this system can go to our website or contact the RHP.

In early 2009, we will review the protocols for the refugee health screening exam based on revised recommendations from the Centers for Disease Control and Prevention (CDC). Look for updates throughout Winter/Spring 2008-09.

Again, let us know how we might tailor or improve this report to better support your work!

# Health Screening Indicators

The indicators on the following page are measurable objectives that correlate with the Minnesota refugee health assessment for newly arrived refugees. The highlighted yellow columns on the right of the chart are specific to your county, indicating how effectively these objectives were met. Together with *Significant Findings and Trends* on page 6 and *Health Status* data summary on pages 8 to 11, this 2007 report is a snapshot of the demographics and health needs of newly arrived primary refugees.

**Objective 1.** *Within 90 days of arrival, 90% of newly arrived refugees who are eligible\* will have received a health assessment.*

**Objective 2.** *Ensure immunizations will be initiated or continued according to the recommended MDH child and adult immunization schedules on 90% of persons provided a health screening.*

**Objective 3.** *Ensure evaluation for 95% of refugees arriving with infectious TB disease, non-communicable for travel purposes (Class A) or non-infectious TB disease (Class B1).*

**Objective 4.** *Within 90 days of arrival, 75% of persons in need of therapy for latent TB infection (LTBI) will have been placed on such therapy.*

**Objective 5.** *On an ongoing basis, 40% of persons placed on therapy for latent tuberculosis infection (LTBI) will have completed therapy.*

**Objective 6.** *On an ongoing basis, 90% of persons provided a health screening will receive a hepatitis B surface antigen (HBsAg) test.*

**Objective 7.** *Ensure 90% of persons provided a health screening will get tested for parasitic infections (parasitosis).*

**Objective 8.** *Ensure 90% of all children less than 6 years of age who receive a health screening will be screened for lead poisoning.*

**Objective 9.** *Ensure 100% of all newly arrived HIV+ refugees will be screened within 30 days of arrival and referred to a HIV specialty clinic or provider.*

**\*Ineligible** if: moved out of state, moved to unknown destination, unable to locate due to invalid contact information, never arrived to county, or died before screening.

# Health Screening Indicators

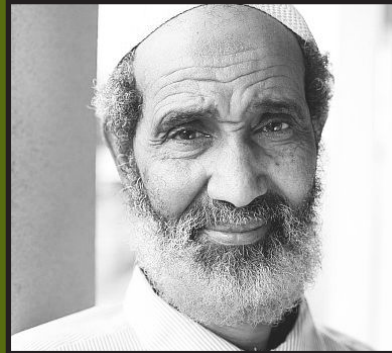
# Stearns County, 2007

All results are based on domestically completed screenings

Performance Goal	Objective	Measure	Data	Year 2007	
				No.	%
<b>Health Screening Rate</b>					
Increase percentage of newly arrived refugees* who receive a health assessment within 90 days of their arrival	Percentage of persons who received at least the first visit of their health assessment within 90 days of their arrival	$\frac{\text{\# of newly arrived refugees to county X who received at least the first visit of their health assessment within 90 days of arrival}}{\text{\# of newly arrived refugees to county X who were eligible for a screening}}$	Objective	90%	
			County	49/(50-1)	100%
			State	2697/(2867-127)	98%
<b>Immunizations</b>					
Increase percentage of newly arrived refugees who have immunization series initiated or continued according to recommended MDH child/adult immunization schedules	Percentage of persons who have immunization series initiated or continued according to the recommended MDH child/adult immunization schedules	$\frac{\text{\# of newly arrived refugees to county X with immunization series initiated or continued}}{\text{\# of newly arrived refugees* to county X who received a screening}}$	Objective	90%	
			County	42/49	86%
			State	2398/2697	89%
<b>TB</b>					
<i>Follow-up of Refugees with TB Class Conditions</i> Increase percentage of newly arrived refugees designated as TB Class A or B1 who are appropriately evaluated	Percentage of newly arrived refugees designated as TB Class A or B1 who are appropriately evaluated	$\frac{\text{\# of newly arrived refugees to county X designated as TB Class A or B1 and who are appropriately evaluated}}{\text{\# of newly arrived eligible refugees to county X designated as TB Class A or B1 Objective}}$	Objective	95%	
			County	3/3	100%
			State	253/(266-7)	98%
<i>LTBI Therapy</i> Increase percentage of newly arrived refugees in need of therapy for latent tuberculosis infection (LTBI) who have been placed on such therapy within 90 days of arrival	Percentage of persons in need of therapy for LTBI who are placed on such therapy within 90 days of arrival	$\frac{\text{\# of newly arrived refugees to county X in need of LTBI therapy and placed on such therapy within 90 days of arrival}}{\text{\# of newly arrived refugees to county X in need of LTBI therapy}}$	Objective	75%	
			County	16/17	94%
			State	1010/1156	87%
Increase the percentage of newly arrived refugees who have been placed on therapy for LTBI and have completed therapy	Percentage of persons who are placed on therapy for LTBI and have completed therapy	$\frac{\text{\# of newly arrived refugees to county X in need of LTBI therapy and who have been placed on and completed LTBI therapy}}{\text{\# of newly arrived refugees to county X placed on LTBI therapy}}$	Objective	40%	
			County	68/80**	85%
			State	885/1661**	53%
<b>Hepatitis B</b>					
Increase percentage of newly arrived refugees who have received a hepatitis B surface antigen (HBsAg) test	Percentage of persons who receive a hepatitis B surface antigen (HBsAg) test	$\frac{\text{\# of newly arrived refugees to county X who received HBsAg test}}{\text{\# of newly arrived refugees to county X who received a screening}}$	Objective	90%	
			County	48/49	98%
			State	2656/2697	98%
<b>Intestinal Parasites</b>					
Increase percentage of newly arrived refugees who are tested for parasitic infections (parasitosis)	Percentage of persons who are tested for parasitic infections (O & P)	$\frac{\text{\# of newly arrived refugees to county X tested for parasitic infections (O&P)}}{\text{\# of newly arrived refugees to county X who received a screening}}$	Objective	90%	
			County	40/49	82%
			State	2526/2697	94%
<b>Lead Poisoning</b>					
Increase percentage of newly arrived refugees < 6 years old who are screened for lead poisoning	Percentage of newly arrived refugees < 6 years old who are screened for lead poisoning	$\frac{\text{\# of newly arrived refugees to county X who are < 6 years old and screened for lead poisoning}}{\text{\# of newly arrived refugees <6 years old to county X who received a screening}}$	Objective	90%	
			County	2/3	67%
			State	205/225	91%
<b>HIV+</b>					
Increase percentage of newly arrived HIV+ refugees who are screened within 30 days of arrival and referred to a HIV specialty clinic or provider	Percentage of newly arrived HIV+ refugees who are screened within 30 days of arrival and referred to a HIV specialty clinic or provider	$\frac{\text{\# of newly arrived HIV+ refugees to county X screened within 30 days of arrival and referred to specialty clinic or provider}}{\text{\# of newly arrived HIV+ refugees to county X who received a screening}}$	Objective	100%	
			County	0/0	NA
			State	9/10	90%

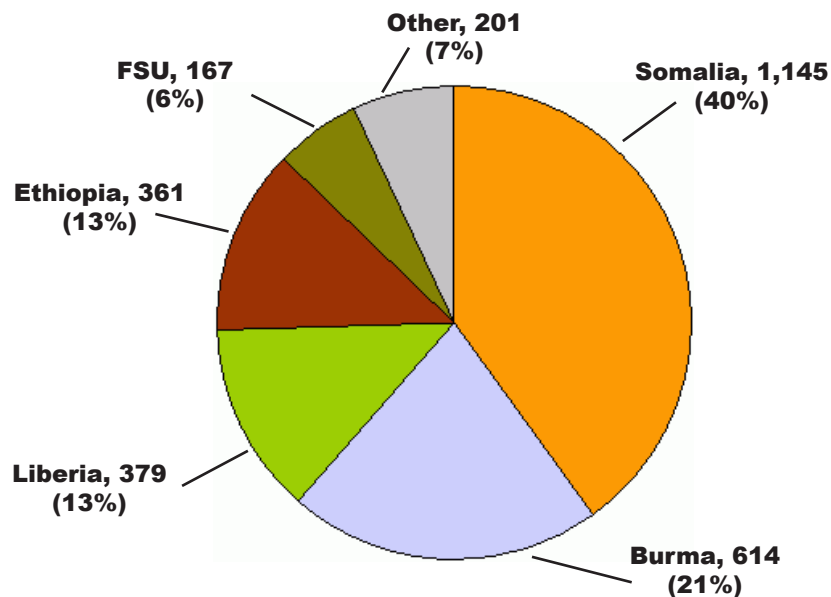
\* *Newly arrived refugees* refers to all newly arrived refugees **eligible** for refugee health screening in Minnesota

\*\* Based on 2006 data which reflects the most recent completion date for 9-month treatment protocol



# Significant Findings and Trends: Minnesota

## Number of Primary Arrivals\* to Minnesota 01/01/2007 - 12/31/2007



**N=2,867**

FSU includes Belarus, Kazakhstan, Latvia, Moldova, Russia, Ukraine.

“Other” includes Afghanistan, Cameroon, Chad, China (including Tibet), DR Congo, Cuba, Eritrea, France, Indonesia, Ivory Coast, Kenya, Laos (Hmong), Nigeria, Sierra Leone, Sudan, Uganda, and Vietnam.

\**Primary arrival* is a refugee who is residing in the state listed as the initial point of destination with the USCIS. Refugees are free to move from state to state, but sponsors, VOLAGs, and state health departments are designed to serve only newly arrived primary refugees to the state.

## Demographics

During the period of 01/01/2007 - 12/31/2007, Minnesota was notified of 2,867 primary refugee arrivals. The regional breakdown is as follows: sub-Saharan Africa, 69%; South/Southeast/East Asia, 25%; Europe/Eastern Europe, 6%; Latin America, <1%. From a country perspective, the largest arrival groups during this period were Somali and Karen from Burma.

In general, refugee arrivals to Minnesota are a young population; 1,223 (43%) were 15-24 years of age and 793 (28%) were less than 15 years of age in 2007. Regarding gender, 1,450 (51%) of newly arrived refugees to the state were male.

## Screening Rate and Outcome for Those Not Screened

Of the 2,867 new primary refugee arrivals 2,740 (96%) were eligible for a health screening and 2,697 (98%) were screened. This compares to 4,893 primary arrivals eligible for a screening in 2006 and a screening rate of 96%.

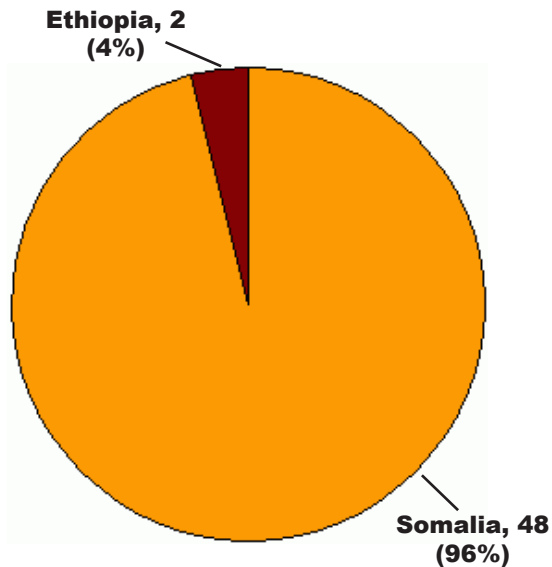
There were 170 refugees who were not screened and had a known outcome. Forty-three were eligible for the screening and did not receive one. Of these, 17 were failed attempts to schedule, eight were screened elsewhere with no available results, eight refused screening, eight persons missed his/her appointment and two moved to another county. The remaining 124 were ineligible for screening because they moved out of state or to an unknown destination, and three never arrived to the state.

## Flat Fee Reimbursement

During this same time period 164 refugees qualified for flat fee reimbursement. One hundred and fifty-two were full payment and 12 were partial payment.

# Significant Findings and Trends

## Number of Primary Arrivals\* to Stearns County 01/01/2007-12/31/2007



**N=50**

*\*Primary arrival* is a refugee who is residing in the state listed as the initial point of destination with the USCIS. Refugees are free to move from state to state, but sponsors, VOLAGs, and state health departments are designed to serve only newly arrived primary refugees to the state.

## Demographics

During the period of 01/01/2007 - 12/31/2007, Stearns County was notified of 50 primary refugee arrivals. This is 2% of the 2,867 total primary refugee arrivals to Minnesota. All the arrivals were from the region of sub-Saharan Africa. From a country perspective, the largest arrival group during this period was Somali; this was 4% of all 1,145 primary Somali refugees to the state.

In general, refugee arrivals to Minnesota are a young population; 1,223 (43%) were 15-24 years of age and 793 (28%) were less than 15 years of age in 2007. A similarly young age distribution can be seen among the new primary arrivals in Stearns: 29 (58%) were 15-24 years of age and 10 (20%) were less than 15 years old. Regarding gender, 28 (56%) refugees were male; the state average was 1,450 (51%).

## Screening Rate and Outcome for Those Not Screened

Of the 50 new primary refugee arrivals, 49 (98%) were eligible for a health screening and 49 (100%) were screened. This compares to 183 primary arrivals eligible for a screening in 2006 and a 97% screening rate.

There was one refugee who was not screened and was considered ineligible as she/he moved out of state.

## Flat Fee Reimbursement

During this same time period, two refugees qualified for full flat fee reimbursement in Stearns County.

# Health Status of New Refugees to Stearns County

**Tuberculosis (TB)**  
**Hepatitis B**  
**Parasitic Infection**  
**Malaria**  
**Sexually Transmitted  
Infections (STI)**  
**Lead**



## Tuberculosis

Of the 50 new primary refugee arrivals to Stearns County, 3 (6%) arrived with a Class B1 TB status. **State:** 266/2,687 (9%)

Of the 47 new primary refugee arrivals tested for tuberculosis in Stearns, 18 (38%) tested positive for latent tuberculosis infection or suspect/active TB disease. **State:** 1,177/2,649 (44%)

More than 80% of active TB cases in Minnesota occur among persons born outside the United States. During the past decade, the percentage of foreign-born persons among TB cases reported in Minnesota increased from 71% in 1997, peaked at 87% in 2005, and has slightly decreased to 85% in 2007.

- *The data strongly suggest that clinicians should not rely solely on medical examinations performed overseas to identify cases of TB disease among foreign-born persons.* During the period of 2003-2007, only 14% of the foreign-born TB case-patients who initially arrived in the U.S. as refugees or other immigrants and who were diagnosed with TB

within one year of their arrival, were known to have been identified as being at high risk for active TB disease on the overseas medical evaluation.

- More than half (52%) of foreign-born TB case-patients reported during 2003-2007 in Minnesota had been in the U.S. for three or more years prior to being diagnosed with TB disease. *These data suggest that at least half of foreign-born TB cases reported in Minnesota may be preventable by focusing on thorough domestic screening, evaluation, and treatment of latent TB infection among recently arrived refugees, immigrants, and other foreign-born persons.*
- Drug-resistant TB and extrapulmonary TB disease are more common among foreign-born persons; extrapulmonary disease may be more difficult to diagnose. Common extrapulmonary sites of disease reported in Minnesota include lymphatic, pleural, bone/joint and peritoneal.

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/4tb.html](http://www.health.state.mn.us/refugee/guide/4tb.html)

[www.health.state.mn.us/divs/idepc/diseases/tb/stats.html](http://www.health.state.mn.us/divs/idepc/diseases/tb/stats.html)

CDC:

[www.cdc.gov/tb](http://www.cdc.gov/tb)



## Hepatitis B

Of the 48 new primary refugee arrivals tested for hepatitis B in Stearns County, two (4%) tested positive for hepatitis B surface antigen (HBsAg). **State:** 206/2,656 (8%)

All newly arrived refugees, adults and children, should be screened for HBsAg, anti-HBs, and anti-HBc to determine their hepatitis B status. HBV infection is highly endemic in all of Africa, Southeast, East, and Northern Asia, and in most of the Pacific Islands. CDC's new recommendations include testing all individuals born in Asia and Africa and other geographic regions with 2 percent or higher prevalence of chronic HBV in-

fections, as well as additional at-risk populations. Worldwide, most infections occur through mother-to-child transmission, child-to-child in household contacts, or reuse of unsterilized needles and syringes. While the newly arrived refugee is no longer experiencing an endemic environment in the U.S., refugee communities tend to congregate and may continue to passively act as a host environment for those who are infected with

HBV. Being in close contact in the household and within the community increases the risk of infection and makes it especially important to screen all household contacts and vaccinate all those who are susceptible.

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/5hepb.html](http://www.health.state.mn.us/refugee/guide/5hepb.html)

CDC:

[www.cdc.gov/ncidod/diseases/hepatitis/b/faqb.html](http://www.cdc.gov/ncidod/diseases/hepatitis/b/faqb.html)

## Parasitic Infection

Of the 40 new primary refugee arrivals tested for intestinal parasites in Stearns County, five (13%) tested positive for at least one pathogenic intestinal parasite. **State:** 384/2,526 (15%)

*Giardia lamblia* (4\*), *Hymenolepis nana* (1\*)

\*number of cases identified (several individuals were co-infected with multiple parasites)

Screening for both *symptomatic* and *asymptomatic parasitosis* among refugees remains a high priority since at least one third of the world's population may be infected with intestinal parasites and all immigrant groups are affected to some degree by intestinal parasites.<sup>1</sup> Potentially harmful outcomes underscore the importance of distinguishing between pathogenic and non-pathogenic parasites and treating the former appropriately.

Current overseas protocol includes pre-departure albendazole therapy within three days prior to departure to the U.S. for Southeast Asian and sub-Saharan refugees (excluding special groups, such as pregnant women and small infants). Albendazole is an antihelminthic treatment and has been documented to dramatically decrease the prevalence of *Ascaris* and *Trichuris* in newly arrived refugees. At this time, documentation of pre-departure therapy is NOT included in the

overseas records that MDH/RHP receives and forwards to local public health. It is sent directly with the refugee. When making appointments, request all medical papers be brought to clinic. Some clinics have reported finding the treatment documentation in the jacket of the x-ray films.

Certain pathogenic parasitic infections can persist for many years if left untreated and have been associated with both chronic illnesses and life threatening infections. This can range from malnutrition, iron-deficiency anemia, malabsorption syndrome, mental and physical growth retardation to life-threatening liver abscess or hyperinfection.<sup>2</sup>

*Strongyloides stercoralis* (roundworm), which is found in almost all refugee groups, and *Schis-*

*tosomiasis spp* (fluke), predominantly seen in sub-Saharan refugees, are two parasitic infections of particular concern. Pre-departure albendazole therapy is not adequate treatment for either of these. Most refugees with strongyloidiasis are asymptomatic. If left unchecked, it can persist for years, and under certain conditions can lead to a severe hyper-infection. Schistosomiasis is often asymptomatic initially; however for people who are not treated and /or are repeatedly infected for many years, infection can cause damage to the liver, intestines, lungs, and bladder.

## Malaria

Of the 49 new primary refugee arrivals in Stearns County who were screened, none were tested for malaria. **State:** 1/34 (3%)

Clinicians should have a high index of suspicion of malaria, particularly for refugees from tropical and subtropical areas who have fever of unknown origin or other characteristic symptoms. In particular, sub-Saharan Africans are considered to be from a highly endemic area where asymptomatic malaria infection is common and the predominant species found in this part of the world, *Plasmodium falciparum*, can cause severe, potentially fatal malaria.<sup>1</sup>

Currently CDC is recommending presumptive pre-departure anti-malarial DOT administered overseas for sub-Saharan refugees, completed at least two days prior to departure (excluding special populations of pregnant or lactating women and children under 5 kg). At this time, MDH/RHP does NOT receive documentation of pre-depar-

New overseas treatment recommendations include expanded presumptive treatment to address these concerns. The new CDC guidelines for domestic screening indicate the implementation of these overseas guidelines may vary depending on funding and population. Therefore it is imperative for domestic screening guidelines to take into consideration the refugee's point of departure for the U.S. and whether the refugee received pre-departure presumptive therapy.<sup>3</sup>

<sup>1,2</sup>Garg, P., Perry, S., Dorn, M., Hardcastle, L., Parsonnet, J. 2005. Risk of intestinal helminth and protozoan

ture therapy in the overseas records. Instead, it is sent directly with the refugee in the sealed IOM bag. When making appointments, clinics should request all medical papers be brought to clinic. Some clinics have reported finding documentation in the jacket of the x-ray films.

When status of pre-departure therapy is unknown, the following fact should be taken into account as to whether or not to test:

- Neither single malaria thick-and-thin blood film nor rapid malaria test (RDT) are adequate for detecting asymptomatic or sub-clinical malaria found in sub-Saharan populations.
- Consider consulting with a tropical disease expert for options, including post-arrival

infection in a refugee population. *Am. J. Trop. Med. Hyg.*, 73(2):386-391.

<sup>3</sup> Centers for Disease Control and Prevention. Retrieved September 2008 from [www.cdc.gov/ncidod/dpd/parasites/schistosomiasis/factsht\\_schistosomiasis.htm#symptoms](http://www.cdc.gov/ncidod/dpd/parasites/schistosomiasis/factsht_schistosomiasis.htm#symptoms)

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/7parasites.html](http://www.health.state.mn.us/refugee/guide/7parasites.html)

CDC:

[www.cdc.gov/ncidod/dpd/parasites](http://www.cdc.gov/ncidod/dpd/parasites)

[www.cdc.gov/ncidod/dq/refugee/rh\\_guide.index.htm](http://www.cdc.gov/ncidod/dq/refugee/rh_guide.index.htm)

presumptive and directed treatment for sub-Saharan refugees. MDH Refugee Health Program can help facilitate the consult.

- **Regardless of post-arrival testing, newly arrived refugees from known endemic regions should be closely monitored for signs or symptoms of malaria, particularly during the initial three months after arrival.**

<sup>1</sup> Centers for Disease Control and Prevention. Retrieved September 2008 from

[www.cdc.gov/malaria/biology/parasites/index.htm](http://www.cdc.gov/malaria/biology/parasites/index.htm)

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/8malaria.html](http://www.health.state.mn.us/refugee/guide/8malaria.html)

CDC:

[www.cdc.gov/malaria/index.htm](http://www.cdc.gov/malaria/index.htm)

## Lead

Of the two new primary refugee arrivals under 6 years old who were tested for lead poisoning in Stearns County, none tested positive for elevated blood lead level. **State:** 8/205 (4%)

There is no *safe* level of lead for children (BLL $\geq$ 10 is the cut-off), and the effects of lead depend on the dose. Refugee children are particularly at risk for lead poisoning given their exposure to toxic atmospheric emissions found in many parts of the world. Several factors increase the potential for lead exposure in developing countries including poor nutrition, eating utensils,

home remedies, environmental pollution, absent or lax environmental regulations, hot climates that imply a prolonged stay in the outdoor environment, airy housing construction, and concentration of populations around traffic arteries. These children continue to be at risk in the U.S. if living in sub-standard housing conditions. Additionally clinicians should be aware that home

remedies which might contain lead, may continue to be acquired from overseas and used in the states.

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/9lead.html](http://www.health.state.mn.us/refugee/guide/9lead.html)

CDC:

[www.cdc.gov/nceh/lead](http://www.cdc.gov/nceh/lead)

## Sexually Transmitted Infections

Of the 39 new primary refugee arrivals tested for syphilis in Stearns County, none tested positive for syphilis. None of the new primary arrivals to the county tested positive for HIV overseas. Of the 24 new primary arrivals tested for chlamydia and/or gonorrhea, none tested positive.

**State:** *syphilis*, 19/2,030 (1%); *HIV(overseas)*, 11/2,867 (<1%); *chlamydia*, 0/164 (0%); *gonorrhea* 0/154 (0%)

**Syphilis** screening is considered standard for the domestic health exam. Evidence of discordant results between overseas syphilis screening results and domestic results highlights the importance of including this exam in the domestic exam.

All refugees aged 15 years and older are tested for **HIV** overseas. At this time, domestic screening does not call for re-testing for HIV. It is recommended that all family members of an HIV+ person get tested, regardless of age.

Technology for urine screening for both ***Chlamydia trachomatis*** and ***Neisseria gonorrhoeae*** is available and is considered equally, if not more sensitive, than traditional cultures. This non-invasive testing is preferred for the refugee population.

In general, the quality of lab facilities overseas varies and providers should keep this in mind when determining whether or not to screen for STI's.

### Resources

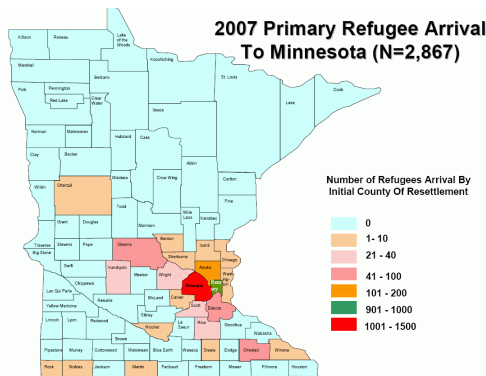
MDH:

[www.health.state.mn.us/refugee/guide/6stds.html](http://www.health.state.mn.us/refugee/guide/6stds.html)

CDC:

[www.cdc.gov/std](http://www.cdc.gov/std)

[www.cdc.gov/hiv](http://www.cdc.gov/hiv)



# Wright County

## 2007

### Refugee Health Report

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Welcome to the second edition of the Refugee Health County Report. An individualized report is compiled for those counties that have received at least 15 new primary refugee arrivals to their county during the past year. In 2007, ten counties met this criterion: Anoka, Dakota, Hennepin, Kandiyohi, Olmsted, Ramsey, Rice, Scott, Stearns, and Wright. This year, statewide demographics and health status data are included in the reports as another means of comparison for counties.

In 2007, there was a significant drop in the number of primary refugee arrivals to our state. There were 2,867 new primary refugee arrivals to Minnesota compared with 5,356 in 2006. This slowing trend reflects policy changes at the national level rather than any decrease in the need for resettlement of the growing numbers of refugees worldwide. At the local level, your expertise and commitment to ensure the complete and timely initial refugee health screening exam for this population continues to play a crucial role in promoting the health and well-being of some of the newest arrivals to Minnesota as well as protecting the health of the community at large.

We encourage counties to use this report as a tool to measure the effectiveness of the health screening services offered to newly arrived refugees in your county. The objectives used to measure these goals are consistent with the objectives set forth by the Minnesota Department of Health’s Refugee Health Program (RHP)

to measure our program’s overall quality. This county specific data can also be used to support planning and development of appropriate public health responses to both immediate and emerging health issues in your region.

For refugees who arrived between January 1, 2007 and December 31, 2007, counties and/or private providers submitted the domestic screening results once the refugees completed their exams. All data included in this report were recorded on the Refugee Health Assessment Form (“pink” form) or the Outcome Form for each person. In addition, in 2007, two of our largest counties, Ramsey and Hennepin, began submitting these data electronically using a new web-based application developed by the MDH RHP called Electronic System for Health Assessment of Refugees, better known as eSHARE. eSHARE is specifically designed to collect results from the domestic health screenings and conduct surveillance activities. Any county interested in learning more about this system can go to our website or contact the RHP.

In early 2009, we will review the protocols for the refugee health screening exam based on revised recommendations from the Centers for Disease Control and Prevention (CDC). Look for updates throughout Winter/Spring 2008-09.

Again, let us know how we might tailor or improve this report to better support your work!

# Health Screening Indicators

The indicators on the following page are measurable objectives that correlate with the Minnesota refugee health assessment for newly arrived refugees. The highlighted yellow columns on the right of the chart are specific to your county, indicating how effectively these objectives were met. Together with *Significant Findings and Trends* on page 6 and *Health Status* data summary on pages 8 to 11, this 2007 report is a snapshot of the demographics and health needs of newly arrived primary refugees.

**Objective 1.** *Within 90 days of arrival, 90% of newly arrived refugees who are eligible\* will have received a health assessment.*

**Objective 2.** *Ensure immunizations will be initiated or continued according to the recommended MDH child and adult immunization schedules on 90% of persons provided a health screening.*

**Objective 3.** *Ensure evaluation for 95% of refugees arriving with infectious TB disease, non-communicable for travel purposes (Class A) or non-infectious TB disease (Class B1).*

**Objective 4.** *Within 90 days of arrival, 75% of persons in need of therapy for latent TB infection (LTBI) will have been placed on such therapy.*

**Objective 5.** *On an ongoing basis, 40% of persons placed on therapy for latent tuberculosis infection (LTBI) will have completed therapy.*

**Objective 6.** *On an ongoing basis, 90% of persons provided a health screening will receive a hepatitis B surface antigen (HBsAg) test.*

**Objective 7.** *Ensure 90% of persons provided a health screening will get tested for parasitic infections (parasitosis).*

**Objective 8.** *Ensure 90% of all children less than 6 years of age who receive a health screening will be screened for lead poisoning.*

**Objective 9.** *Ensure 100% of all newly arrived HIV+ refugees will be screened within 30 days of arrival and referred to a HIV specialty clinic or provider.*

**\*Ineligible** if: moved out of state, moved to unknown destination, unable to locate due to invalid contact information, never arrived to county, or died before screening.

# Health Screening Indicators

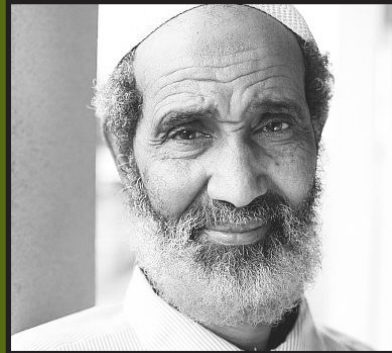
All results are based on domestically completed screenings

Wright County, 2007

Performance Goal	Objective	Measure	Data	Year 2007	
				No.	%
<b>Health Screening Rate</b>					
Increase percentage of newly arrived refugees* who receive a health assessment within 90 days of their arrival	Percentage of persons who received at least the first visit of their health assessment within 90 days of their arrival	$\frac{\text{\# of newly arrived refugees to county X who received at least the first visit of their health assessment within 90 days of arrival}}{\text{\# of newly arrived refugees to county X who were eligible for a screening}}$	Objective	90%	
			County	24/(24-0)	100%
			State	2697/(2867-127)	98%
<b>Immunizations</b>					
Increase percentage of newly arrived refugees who have immunization series initiated or continued according to recommended MDH child/adult immunization schedules	Percentage of persons who have immunization series initiated or continued according to the recommended MDH child/adult immunization schedules	$\frac{\text{\# of newly arrived refugees to county X with immunization series initiated or continued}}{\text{\# of newly arrived refugees* to county X who received a screening}}$	Objective	90%	
			County	17/24	71%
			State	2398/2697	89%
<b>TB</b>					
<i>Follow-up of Refugees with TB Class Conditions</i> Increase percentage of newly arrived refugees designated as TB Class A or B1 who are appropriately evaluated	Percentage of newly arrived refugees designated as TB Class A or B1 who are appropriately evaluated	$\frac{\text{\# of newly arrived refugees to county X designated as TB Class A or B1 and who are appropriately evaluated}}{\text{\# of newly arrived eligible refugees to county X designated as TB Class A or B1}}$	Objective	95%	
			County	1/1	100%
			State	253/(266-7)	98%
<i>LTBI Therapy</i> Increase percentage of newly arrived refugees in need of therapy for latent tuberculosis infection (LTBI) who have been placed on such therapy within 90 days of arrival	Percentage of persons in need of therapy for LTBI who are placed on such therapy within 90 days of arrival	$\frac{\text{\# of newly arrived refugees to county X in need of LTBI therapy and placed on such therapy within 90 days of arrival}}{\text{\# of newly arrived refugees to county X in need of LTBI therapy}}$	Objective	75%	
			County	5/5	100%
			State	1010/1156	87%
Increase the percentage of newly arrived refugees who have been placed on therapy for LTBI and have completed therapy	Percentage of persons who are placed on therapy for LTBI and have completed therapy	$\frac{\text{\# of newly arrived refugees to county X in need of LTBI therapy and who have been placed on and completed LTBI therapy}}{\text{\# of newly arrived refugees to county X placed on LTBI therapy}}$	Objective	40%	
			County	1/1**	100%
			State	885/1661**	53%
<b>Hepatitis B</b>					
Increase percentage of newly arrived refugees who have received a hepatitis B surface antigen (HBsAg) test	Percentage of persons who receive a hepatitis B surface antigen (HBsAg) test	$\frac{\text{\# of newly arrived refugees to county X who received HBsAg test}}{\text{\# of newly arrived refugees to county X who received a screening}}$	Objective	90%	
			County	24/24	100%
			State	2656/2697	98%
<b>Intestinal Parasites</b>					
Increase percentage of newly arrived refugees who are tested for parasitic infections (parasitosis)	Percentage of persons who are tested for parasitic infections (O & P)	$\frac{\text{\# of newly arrived refugees to county X tested for parasitic infections (O&P)}}{\text{\# of newly arrived refugees to county X who received a screening}}$	Objective	90%	
			County	23/24	96%
			State	2526/2697	94%
<b>Lead Poisoning</b>					
Increase percentage of newly arrived refugees < 6 years old who are screened for lead poisoning	Percentage of newly arrived refugees < 6 years old who are screened for lead poisoning	$\frac{\text{\# of newly arrived refugees to county X who are < 6 years old and screened for lead poisoning}}{\text{\# of newly arrived refugees <6 years old to county X who received a screening}}$	Objective	90%	
			County	5/5	100%
			State	205/225	91%
<b>HIV+</b>					
Increase percentage of newly arrived HIV+ refugees who are screened within 30 days of arrival and referred to a HIV specialty clinic or provider	Percentage of newly arrived HIV+ refugees who are screened within 30 days of arrival and referred to a HIV specialty clinic or provider	$\frac{\text{\# of newly arrived HIV+ refugees to county X screened within 30 days of arrival and referred to specialty clinic or provider}}{\text{\# of newly arrived HIV+ refugees to county X who received a screening}}$	Objective	100%	
			County	0/0	NA
			State	9/10	90%

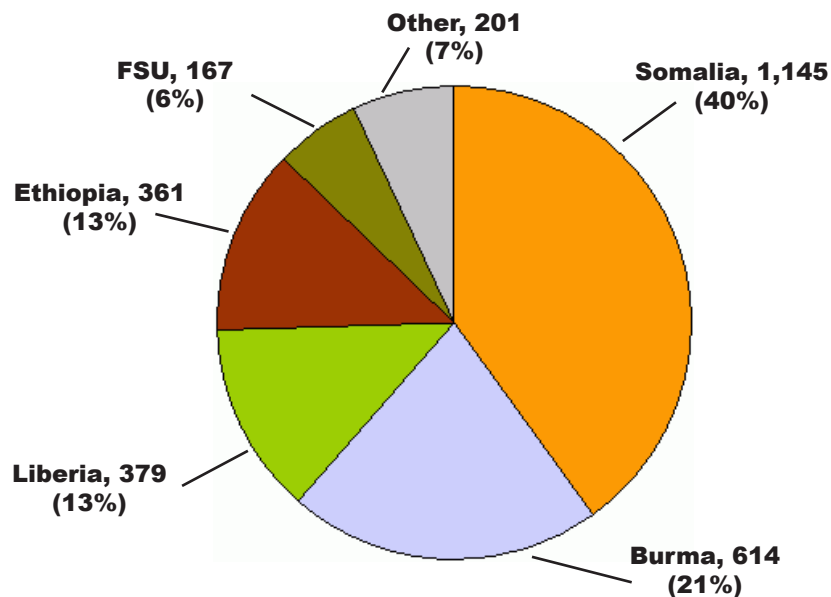
\* *Newly arrived refugees* refers to all newly arrived refugees **eligible** for refugee health screening in Minnesota

\*\* Based on 2006 data which reflects the most recent completion date for 9-month treatment protocol



# Significant Findings and Trends: Minnesota

## Number of Primary Arrivals\* to Minnesota 01/01/2007 - 12/31/2007



**N=2,867**

FSU includes Belarus, Kazakhstan, Latvia, Moldova, Russia, Ukraine.

“Other” includes Afghanistan, Cameroon, Chad, China (including Tibet), DR Congo, Cuba, Eritrea, France, Indonesia, Ivory Coast, Kenya, Laos (Hmong), Nigeria, Sierra Leone, Sudan, Uganda, and Vietnam.

\**Primary arrival* is a refugee who is residing in the state listed as the initial point of destination with the USCIS. Refugees are free to move from state to state, but sponsors, VOLAGs, and state health departments are designed to serve only newly arrived primary refugees to the state.

## Demographics

During the period of 01/01/2007 - 12/31/2007, Minnesota was notified of 2,867 primary refugee arrivals. The regional breakdown is as follows: sub-Saharan Africa, 69%; South/Southeast/East Asia, 25%; Europe/Eastern Europe, 6%; Latin America, <1%. From a country perspective, the largest arrival groups during this period were Somali and Karen from Burma.

In general, refugee arrivals to Minnesota are a young population; 1,223 (43%) were 15-24 years of age and 793 (28%) were less than 15 years of age in 2007. Regarding gender, 1,450 (51%) of newly arrived refugees to the state were male.

## Screening Rate and Outcome for Those Not Screened

Of the 2,867 new primary refugee arrivals 2,740 (96%) were eligible for a health screening and 2,697 (98%) were screened. This compares to 4,893 primary arrivals eligible for a screening in 2006 and a screening rate of 96%.

There were 170 refugees who were not screened and had a known outcome. Forty-three were eligible for the screening and did not receive one. Of these, 17 were failed attempts to schedule, eight were screened elsewhere with no available results, eight refused screening, eight persons missed his/her appointment and two moved to another county. The remaining 124 were ineligible for screening because they moved out of state or to an unknown destination, and three never arrived to the state.

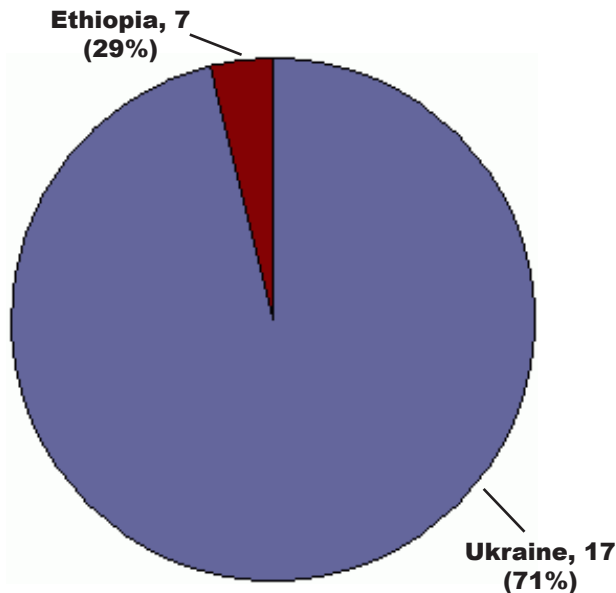
## Flat Fee Reimbursement

During this same time period 164 refugees qualified for flat fee reimbursement. One hundred and fifty-two were full payment and 12 were partial payment.



# Significant Findings and Trends

Number of Primary Arrivals\* to  
Wright County  
01/01/2007 - 12/31/2007



N=24

\**Primary arrival* is a refugee who is residing in the state listed as the initial point of destination with the USCIS. Refugees are free to move from state to state, but sponsors, VOLAGs, and state health departments are designed to serve only newly arrived primary refugees to the state.

## Demographics

During the period of 01/01/2007 - 12/31/2007, Wright County was notified of 24 primary refugee arrivals. This is 1% of the 2,867 total primary refugee arrivals to Minnesota. The arrivals came from Eastern Europe and sub-Saharan Africa. From a country perspective, the largest arrival group during this period was Ukrainian. This was 33% of the 52 primary Ukrainian refugees to the state. In 2007, Wright County had the second highest Ukrainian resettlement after Hennepin County (22).

In general, refugee arrivals to Minnesota are a young population; 1,223 (43%) were 15-24 years of age and 793 (28%) were less than 15 years of age in 2007. A similarly young age distribution can be seen among the new primary arrivals in Wright; 5 (21%) were 15-24 years of age and 12 (50%) were less than 15 years old. Regarding gender, 14 (58%) refugees were female; the state average was 1,417 (49%).

## Screening Rate and Outcome for Those Not Screened

Of the 24 new primary refugee arrivals, 24 (100%) were eligible for a health screening and all (100%) were screened.

## Flat Fee Reimbursement

During this same time period all refugees qualified for MA and there were no requests for flat fee reimbursement from Wright County.

# Health Status of New Refugees to Wright County

**Tuberculosis (TB)**  
**Hepatitis B**  
**Parasitic Infection**  
**Malaria**  
**Sexually Transmitted  
Infections (STI)**  
**Lead**



## Tuberculosis

Of the 24 new primary refugee arrivals to Wright County, one (4%) arrived with a Class B1 TB status. **State:** 266/2,687 (9%)

Of the 24 new primary refugee arrivals tested for tuberculosis in Wright, five (21%) tested positive for latent tuberculosis infection or suspect /active TB disease. **State:** 1,177/2,649 (44%)

More than 80% of active TB cases in Minnesota occur among persons born outside the United States. During the past decade, the percentage of foreign-born persons among TB cases reported in Minnesota increased from 71% in 1997, peaked at 87% in 2005, and has slightly decreased to 85% in 2007.

- *The data strongly suggest that clinicians should not rely solely on medical examinations performed overseas to identify cases of TB disease among foreign-born persons. During the period of 2003-2006, only 14% of the foreign-born TB case-patients who initially arrived in the U.S. as refugees or other immigrants and who were diagnosed with TB*

within one year of their arrival, were known to have been identified as being at high risk for active TB disease on the overseas medical evaluation.

- More than half (52%) of foreign-born TB case-patients reported during 2003-2006 in Minnesota had been in the U.S. for three or more years prior to being diagnosed with TB disease. *These data suggest that at least half of foreign-born TB cases reported in Minnesota may be preventable by focusing on thorough domestic screening, evaluation, and treatment of latent TB infection among recently arrived refugees, immigrants, and other foreign-born persons.*
- Drug-resistant TB and extrapulmonary TB disease are more common among foreign-born persons; extrapulmonary disease may be more difficult to diagnose. Common extrapulmonary sites of disease reported in Minnesota include lymphatic, pleural, bone/joint and peritoneal.

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/4tb.html](http://www.health.state.mn.us/refugee/guide/4tb.html)

[www.health.state.mn.us/divs/idepc/diseases/tb/stats.html](http://www.health.state.mn.us/divs/idepc/diseases/tb/stats.html)

CDC:

[www.cdc.gov/tb](http://www.cdc.gov/tb)

## Hepatitis B

Of the 24 new primary refugee arrivals tested for hepatitis B in Wright County, one (4%) tested positive for hepatitis B surface antigen (HBsAg). **State:** 206/2,656 (8%)

All newly arrived refugees, adults and children, should be screened for HBsAg, anti-HBs, and anti-HBc to determine their hepatitis B status. HBV infection is highly endemic in all of Africa, Southeast, East, and Northern Asia, and in most of the Pacific Islands. CDC's new recommendations include testing all individuals born in Asia and Africa and other geographic regions with 2 percent or higher prevalence of chronic HBV in-

fections, as well as additional at-risk populations. Worldwide, most infections occur through mother-to-child transmission, child-to-child in household contacts, or reuse of unsterilized needles and syringes. While the newly arrived refugee is no longer experiencing an endemic environment in the U.S., refugee communities tend to congregate and may continue to passively act as a host environment for those who are infected with

HBV. Being in close contact in the household and within the community increases the risk of infection and makes it especially important to screen all household contacts and vaccinate all those who are susceptible.

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/5hepb.html](http://www.health.state.mn.us/refugee/guide/5hepb.html)

CDC:

[www.cdc.gov/ncidod/diseases/hepatitis/b/faqb.html](http://www.cdc.gov/ncidod/diseases/hepatitis/b/faqb.html)

## Parasitic Infection

Of the 23 new primary refugee arrivals tested for intestinal parasites in Wright County, none tested positive for any pathogenic intestinal parasite. **State:** 384/2,526 (15%)

Screening for both *symptomatic* and *asymptomatic parasitosis* among refugees remains a high priority since at least one third of the world's population may be infected with intestinal parasites and all immigrant groups are affected to some degree by intestinal parasites.<sup>1</sup> Potentially harmful outcomes underscore the importance of distinguishing between pathogenic and non-pathogenic parasites and treating the former appropriately.

Current overseas protocol includes pre-departure albendazole therapy within three days prior to departure to the U.S. for Southeast Asian and

sub-Saharan refugees (excluding special groups, such as pregnant women and small infants). Albendazole is an antihelminthic treatment and has been documented to dramatically decrease the prevalence of *Ascaris* and *Trichuris* in newly arrived refugees. At this time, documentation of pre-departure therapy is NOT included in the overseas records that MDH/RHP receives and forwards to local public health. It is sent directly with the refugee. When making appointments, request all medical papers be brought to clinic. Some clinics have reported finding the treatment documentation in the jacket of the x-ray films.

Certain pathogenic parasitic infections can persist for many years if left untreated and have been associated with both chronic illnesses and life threatening infections. This can range from malnutrition, iron-deficiency anemia, malabsorption syndrome, mental and physical growth retardation to life-threatening liver abscess or hyperinfection.<sup>2</sup>

*Strongyloides stercoralis* (roundworm), which is found in almost all refugee groups, and *Schistosomiasis spp* (flake), predominantly seen in sub-Saharan refugees, are two parasitic infections of particular concern. Pre-departure albendazole therapy is not adequate treatment for either of these. Most refugees with strongyloidiasis are asymptomatic. If left unchecked, it can persist for

years, and under certain conditions can lead to a severe hyper-infection. Schistosomiasis is often asymptomatic initially; however for people who are not treated and /or are repeatedly infected for many years, infection can cause damage to the liver, intestines, lungs, and bladder.

New overseas treatment recommendations include expanded presumptive treatment to address these concerns. The new CDC guidelines for domestic screening indicate the implementation

of these overseas guidelines may vary depending on funding and population. Therefore it is imperative for domestic screening guidelines to take into consideration the refugee's point of departure for the U.S. and whether the refugee received pre-departure presumptive therapy.<sup>3</sup>

<sup>1,2</sup> Garg, P., Perry, S., Dorn, M., Hardcastle, L., Parsonnet, J. 2005. Risk of intestinal helminth and protozoan infection in a refugee population. *Am. J. Trop. Med. Hyg.*, 73(2):386-391.

<sup>3</sup> Centers for Disease Control and Prevention. Retrieved September 2008 from [www.cdc.gov/ncidod/dpd/parasites/schistosomiasis/factsht\\_schistosomiasis.htm#symptoms](http://www.cdc.gov/ncidod/dpd/parasites/schistosomiasis/factsht_schistosomiasis.htm#symptoms)

### Resources

MDH:  
[www.health.state.mn.us/refugee/guide/7parasites.html](http://www.health.state.mn.us/refugee/guide/7parasites.html)

CDC:  
[www.cdc.gov/ncidod/dpd/parasites](http://www.cdc.gov/ncidod/dpd/parasites)  
[www.cdc.gov/ncidod/dq/refugee/rh\\_guide.index.htm](http://www.cdc.gov/ncidod/dq/refugee/rh_guide.index.htm)

## Malaria

Of the 24 new primary refugee arrivals in Wright County who were screened, none were tested for malaria. **State:** 1/34 (3%)

Clinicians should have a high index of suspicion of malaria, particularly for refugees from tropical and subtropical areas who have fever of unknown origin or other characteristic symptoms. In particular, sub-Saharan Africans are considered to be from a highly endemic area where asymptomatic malaria infection is common and the predominant species found in this part of the world, *Plasmodium falciparum*, can cause severe, potentially fatal malaria.<sup>1</sup>

Currently CDC is recommending presumptive pre-departure anti-malarial DOT administered overseas for sub-Saharan refugees, completed at least two days prior to departure (excluding special populations of pregnant or lactating women and children under 5 kg). At this time, MDH/RHP does NOT receive documentation of pre-depar-

ture therapy in the overseas records. Instead, it is sent directly with the refugee in the sealed IOM bag. When making appointments, clinics should request all medical papers be brought to clinic. Some clinics have reported finding documentation in the jacket of the x-ray films.

When status of pre-departure therapy is unknown, the following fact should be taken into account as to whether or not to test:

- Neither single malaria thick-and-thin blood film nor rapid malaria test (RDT) are adequate for detecting asymptomatic or sub-clinical malaria found in sub-Saharan populations.
- Consider consulting with a tropical disease expert for options, including post-arrival

presumptive and directed treatment for sub-Saharan refugees. MDH Refugee Health Program can help facilitate the consult.

- **Regardless of post-arrival testing, newly arrived refugees from known endemic regions should be closely monitored for signs or symptoms of malaria, particularly during the initial three months after arrival.**

<sup>1</sup> Centers for Disease Control and Prevention. Retrieved September 2008 from [www.cdc.gov/malaria/biology/parasites/index.htm](http://www.cdc.gov/malaria/biology/parasites/index.htm)

### Resources

MDH:  
[www.health.state.mn.us/refugee/guide/8malaria.html](http://www.health.state.mn.us/refugee/guide/8malaria.html)

CDC:  
[www.cdc.gov/malaria/index.htm](http://www.cdc.gov/malaria/index.htm)

## Lead

Of the five new primary refugee arrivals under 6 years old who were tested for lead poisoning in Wright County, none tested positive for elevated blood lead level. **State:** 8/205 (4%)

There is no *safe* level of lead for children (BLL $\geq$ 10 is the cut-off), and the effects of lead depend on the dose. Refugee children are particularly at risk for lead poisoning given their exposure to toxic atmospheric emissions found in many parts of the world. Several factors increase the potential for lead exposure in developing countries including poor nutrition, eating utensils,

home remedies, environmental pollution, absent or lax environmental regulations, hot climates that imply a prolonged stay in the outdoor environment, airy housing construction, and concentration of populations around traffic arteries. These children continue to be at risk in the U.S. if living in sub-standard housing conditions. Additionally clinicians should be aware that home

remedies which might contain lead, may continue to be acquired from overseas and used in the states.

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/9lead.html](http://www.health.state.mn.us/refugee/guide/9lead.html)

CDC:

[www.cdc.gov/nceh/lead](http://www.cdc.gov/nceh/lead)

## Sexually Transmitted Infections

Of the 14 new primary refugee arrivals tested for syphilis in Wright County, none tested positive for syphilis. None of the new primary arrivals to the county tested positive for HIV overseas. Of the 24 new primary refugees who were screened in the county, none were tested for chlamydia and/or gonorrhea. **State:** *syphilis*, 19/2,030 (1%); *HIV(overseas)*, 11/2,867 (<1%); *chlamydia*, 0/164 (0%); *gonorrhea* 0/154 (0%)

**Syphilis** screening is considered standard for the domestic health exam. Evidence of discordant results between overseas syphilis screening results and domestic results highlights the importance of including this exam in the domestic exam.

All refugees aged 15 years and older are tested for **HIV** overseas. At this time, domestic screening does not call for re-testing for HIV. It is recommended that all family members of an HIV+ person get tested, regardless of age.

Technology for urine screening for both *Chlamydia trachomatis* and *Neisseria gonorrhoeae* is available and is considered equally, if not more sensitive, than traditional cultures. This non-invasive testing is preferred for the refugee population.

In general, the quality of lab facilities overseas varies and providers should keep this in mind when determining whether or not to screen for STI's.

### Resources

MDH:

[www.health.state.mn.us/refugee/guide/6stds.html](http://www.health.state.mn.us/refugee/guide/6stds.html)

CDC:

[www.cdc.gov/std](http://www.cdc.gov/std)

[www.cdc.gov/hiv](http://www.cdc.gov/hiv)