

US Medical Screening for Immigrants and Refugees

Public Health Issues

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Introduction

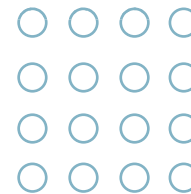
This chapter will present an overview of the refugee health screening process within the larger context of refugee resettlement. Included will be summaries of refugee health needs as justification for health screening, the legal and regulatory basis for refugee health screening, and the historical perspective of health screening of migrants to the US, and the overseas screening process as it relates to the domestic counterpart. Details of overseas screening and the clinical content of domestic health screening are described in other chapters. The process of refugee health screening will be described through discussion of its relationship with other resettlement services provided to refugees, funding mechanisms and public health infrastructure, different models used by states for implementing health screening programs, and the role of public health agencies in data collection and disease surveillance, monitoring, and reporting. Lastly, the chapter will conclude with a discussion of the cultural, linguistic, and demographic challenges for the future of refugee health screening. While the focus of this chapter is refugee screening, the guidance offered is appropriate for many foreign-born persons, regardless of immigration status.

In this chapter, the term 'refugee' refers to individuals eligible for federal refugee benefits and services, including immigrants holding a refugee visa from the US government. To receive refugee status, an individual must meet international standards of having suffered persecution or have a fear of persecution on account of race, religion, nationality, mem-

bership in a particular social group, or political opinion. Often, the persecution is conducted or tolerated by the government. As defined by international laws, the refugee has fled his or her country of origin, and is unable or unwilling to return to that country because of this persecution or fear. The term, as used here, also includes other immigration classifications such as Cuban and Haitian entrants, certain Amerasians, asylees and victims of a severe form of trafficking.

The Health Needs of Refugees Justify Prompt Health Screening in the United States

The health needs of refugees resettled in the United States have been well documented. Although this is particularly so for refugees from Southeast Asia and the former Soviet Union, more recent reviews have incorporated findings from African refugee populations.¹⁻⁸ These studies highlight the increased health morbidity of refugees, both adults and children. Refugees of many backgrounds now enter the country with a wide array of unmet health needs, including nutritional deficiencies, anemia, hepatitis B infection, tuberculosis infection, parasitosis, and other acute and chronic physical illnesses. While war and civil unrest have worsened the already poor health status of developing nations that are the sources of many refugees, developed countries such those of the former Soviet Union and Yugoslavia have seen marked deterioration in national health status attributable to the turmoil in those regions.^{9,10}



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In addition to these physical health concerns is the vast burden of potentially long-term mental illness and emotional distress.¹¹⁻¹³ Mental health concerns (including alcohol and drug abuse¹⁴) increasingly are garnering greater attention among the refugee resettlement and health communities. This is due both to the recognition of the violence directed at civilian populations in recent civil conflicts such as those of Bosnia, Rwanda, Somalia, and the Sudan and an understanding of the impact of such violence on human beings.¹⁵⁻¹⁷ Alternatively, economic deterioration in the formerly socialist countries of Eastern Europe (such as the USSR) is believed to have contributed greatly to the declining quality of life and concurrent rise in alcohol and drug abuse there.¹⁰ Lastly, increased use of government-sponsored torture and child soldiers have exacerbated mental health issues for adults and children. Amnesty International has estimated that over 150 countries around the world practice government-sponsored torture against their citizens.¹⁸ Refugee populations have historically included high proportions of survivors of torture who have serious physical and mental health concerns related to their torture experiences.¹⁹

These health concerns may confer significant functional limitations on refugees of all ages. Functional limitations may then limit a refugee's ability to integrate successfully into US society through completion of many of the tasks necessary for resettlement, such as job placement and English language training for adults and school attendance and performance for children. Health screening of newly arrived refugees in the US will allow follow-up of health conditions identified overseas and new identification of other health conditions that may negatively affect their functional health status.

The Legal and Regulatory Basis of Refugee Resettlement and Health Screening

The Refugee Act of 1980²⁰ amended the Immigration and Nationality Act to establish a domestic refugee resettlement program. This legislation marked the inauguration of the modern resettlement era as it currently exists. The Refugee Act delineated the philosophical approach and the role of government in facilitating refugee resettlement, stating the objectives 'to provide a permanent and systematic procedure for the admission to this country of refugees of special humanitarian concern to the United States, and provide comprehensive and uniform provisions for the effective resettlement and absorption of those

refugees who are admitted.'²¹ The Act defined the term *refugee*, outlined the process for the annual admission of refugees, and established the Office of Refugee Resettlement (ORR) in the Department of Health and Human Services, through which resources for domestic resettlement would be made available.

The Refugee Act codified the US definition of a refugee, similar to that noted earlier. Allowance is made for the President to include in this definition individuals who are within their country of nationality; that is, individuals who have not crossed an international border prior to seeking consideration for refugee status from the US. Such in-country processing has been conducted in Vietnam, Cuba, and countries of the former Soviet Union.

In accordance with the Refugee Act, and as part of a consultative process on refugee admissions, the President annually provides Congress with information on refugee admissions priorities.²² Proposed admission numbers are ceilings and not goals. In addition to refugees from overseas, other individuals are eligible for refugee benefits and services, including the domestic health assessment. Recipients of political asylum must meet the same 'well-founded fear of persecution' test as a refugee, but they make their claims from within the US rather than another country. Asylees may then petition for visas for family members who arrive from overseas and are also eligible. Cuban and Haitian entrants have special immigration statuses that also confer eligibility for refugee program participation. Finally, the Trafficking Victims Protection Act of 2001 granted certified victims of a severe form of trafficking eligibility for refugee benefits and services.

Public health activities delineated in the Refugee Act include notification to state or local health officials of each refugee's arrival and monitoring of refugees to insure that they receive appropriate and timely treatment for health conditions of public health significance that are identified overseas.²³ Furthermore, the 'Director [of the Office of Refugee Resettlement] is authorized to make grants to, and enter into contracts with, State and local health agencies for payments to meet their costs of providing medical screening and initial medical treatment to refugees.'²⁴

The implementing regulations of the Refugee Act further delineate the opportunity for states to provide domestic health assessment services with federal refugee funding support.²⁵ To qualify, state health assessments need to be in accordance with ORR requirements, be approved in writing by the ORR director, and, if done within the first 90 days

after a refugee's entry into the US, can be provided to all individuals eligible for the federal refugee program.

Historical Perspective of the Health Screening of Refugees and Immigrants

Medical and public health screening of refugees and immigrants has a long tradition, which began with centuries-old attempts to control the spread of leprosy. This tradition eventually expanded to include screening and quarantine programs. In recent times, the goal of health screening of refugees and immigrants has been to control the spread of infectious diseases and other health conditions and diseases of public health importance. To meet US admission requirements, refugees and immigrants complete an overseas screening, which is valid for a maximum of 1 year. Then, after arriving in the US, refugees generally complete a voluntary domestic screening as well.

Since refugees often have high health morbidity and come from situations of poor hygienic conditions, most US states have a refugee health assessment program which goes beyond the exclusionary focus of overseas screening and emphasis on screening out individuals with communicable diseases. The 1-year validity of the overseas evaluation allows the possibility of refugees acquiring new diseases or conditions before resettlement; thus, domestic health assessments are encouraged by US Office of Refugee Resettlement regulations to take place within 90 days after the refugee's arrival in the US.

The International Organization of Migration (IOM) conducts overseas screening of most refugee migrants to the US. IOM is an intergovernmental agency based in Switzerland that manages refugee movements for third-country resettlement. While destination countries such as the US, Canada, and Australia have different medical examination requirements and exclusionary criteria, IOM officials state the overarching goals of medical screening of migrants in four points: (1) to identify individuals with communicable diseases and thus to protect the public health in the receiving nation; (2) to prevent entry of individuals with health problems because they may constitute a financial burden or impose excessive demand on public health and medical services; (3) to ensure that as future residents the migrants will be healthy and productive (fit to work); and (4) to identify individuals in need of medical care in order to prepare the host country's healthcare system to meet their needs.^{26,27}

Countries such as the US that receive large numbers of immigrants and refugees have seen dramatic declines over time in domestic rates of some infectious disease such as tuberculosis²⁸ and vaccine-preventable diseases such as measles.²⁹ In the face of an increasingly mobile global population, some infectious diseases such as these in the US are becoming concentrated among recently migrated immigrant populations.^{22,23} Consequently, US and IOM public health officials have recognized the need to rethink strategies for the overseas screening of immigrants and refugees.

Recent Trends in Overseas Screening and Implication for Refugee Health Programs in the US

After a refugee's application for US resettlement has been approved by US immigration authorities, refugees undergo a health screening that is overseen by the CDC and implemented by the Migration Health Services of the IOM or local panel physicians under contract with US consular staff. The overseas screening is intended to identify conditions that will exclude the refugee from entering the US ('class A conditions') or warrant follow-up in the US ('class B conditions'). The screening is limited in its scope and focused mainly on detection of infectious disease of public health significance (tuberculosis, HIV, and syphilis) and mental health or other problems that may result in harmful behavior towards himself/herself or others. The content is fully described in the *Technical Instructions for Medical Examination of Aliens* (Atlanta, GA: Centers for Disease Control and Prevention; June 1991: <http://www.cdc.gov/ncidod/dq/technica.htm>) and summarized in the preceding chapter.

Following the historic infection control tradition of refugee health assessment, class A conditions are generally infectious diseases. Other class A conditions includes mental illness that is associated with violent or harmful behavior and substance abuse. While class A conditions are grounds for exclusion from the US, refugees may complete treatment to render the condition noninfectious or apply for a waiver to permit entry. The most notable of class A conditions are active infectious tuberculosis and HIV infection. Because of the humanitarian nature of their resettlement, unlike other immigrants, refugees with HIV infection may use a simplified waiver process to enter the US that releases them from the requirement of not being a public charge risk. Class

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B conditions are physical defects, diseases, or disabilities significant enough to cause functional impairment or require follow-up.

In the past decade, overseas screening of refugees has been the focus of applying modern epidemiologic and screening techniques.²⁰ Recent attention has been placed on identifying health needs of specific refugee populations that are to resettle in third countries such as the US in order to improve health among that community and reduce transmission of disease among the future resettlement community.^{20,30,31} Thus, interest in the control and prevention of certain diseases among refugees has been rejuvenated by efforts to control infectious diseases at different levels: the whole population through mass empiric treatment and the individual migrant through targeted screening for and treatment of specific conditions.^{20,22}

Once in the U., the question of how to address the health needs of refugees broadens beyond infectious disease screening. Domestic refugee health programs must consider the impact of changing overseas screening and empiric treatment on their clinical protocols and health needs of refugees while seeing them for screening. Similarly, as more empiric treatment is implemented overseas, chronic disease and mental health become more prominent as public health issues in the US at the state and local level. As such, one refugee health assessment program has implemented an innovative mental health screening program.³² The issue is further complicated by the added burden of language and cultural difficulties on local health resources in the resettlement communities. Refugees experience inequities in access to

and quality of primary care in many Western countries that resettle refugees, as described in a paper from Great Britain.³³ Inequities arise from the cumulative effects of local clinicians inexperienced with refugee health needs, deleterious mental health problems, extra time and expense required to overcome language and cultural barriers in primary care, and the need for comprehensive national strategies. These issues are all strikingly familiar to those faced by refugees and clinicians in the US.

Health Screening within the Process of Refugee Resettlement in the Us

Unlike immigrants, most of whom are required to be self-reliant or supported by family on arrival in the US, newly arrived refugees are provided services by a network of agencies receiving federal funds. The Department of State has cooperative agreements with nine private, nonprofit national voluntary agencies (VOLAGs) and the State of Iowa to provide initial reception and placement (R&P) services through their network of local affiliate offices (Table 11.1)

The R&P period is generally considered to be the first 30 days after arrival in the US. R&P services address immediate and essential needs of housing, clothing, and food as well as referral for health assessment and support to complete Social Security card applications, benefits applications (Medicaid, Transitional Assistance, and Food Stamps), and school enrollment for children. Orientation to life in the US and referral to services that will facilitate employment are also vital activities.

Table 11.1 Voluntary agencies (VOLAGs) that have cooperative agreements with department of state to resettle refugees

National VOLAG	Website
Church World Service	www.churchworldservice.org/Immigration/
Episcopal Migration Ministries	www.episcopalchurch.org/emm.htm
Ethiopian Community Development Council	www.ecdcinternational.org/
Hebrew Immigrant Aid Society	www.hias.org/
US Committee for Refugees and Immigrants	www.refugees.org/
International Rescue Committee	www.theirc.org/
Lutheran Immigrant and Refugee Services	www.lirs.org/
United States Conference of Catholic Bishops	www.usccb.org/mrs/
World Relief Corporation	www.wr.org/
State of Iowa, Bureau of Refugee Services	www.dhs.state.ia.us/refugee/resettlement/

Resettlement benefits and services funded by ORR are designed to extend beyond R&P, with the objective of facilitating refugee self-sufficiency. Benefits include time-limited cash and medical assistance (currently 8 months from date of entry). Services focus on employment preparation and job placement, skills training, English language training, and social adjustment. While the primary focus is on recently arrived refugees, social service funds can be used for refugees who are within 5 years of US entry.

The network of refugee service providers delivering ORR-funded services is far broader than the VOLAGs funded through R&P agreements. Mutual Assistance Associations (MAAs), as described by ORR, are agencies organized and directed by refugees to address community building, facilitate cultural adjustment and integration of refugees, and deliver mutually supportive functions such as information exchange, civic participation, resource enhancement, orientation and support to newly arriving refugees and public education to the larger community on the background, needs and potential of refugees.³⁴ Because MAAs, by definition, depends upon refugee community involvement for their organization and vitality, they are more typically found in areas where there are significant resettled ethnic populations. As a result, all communities do not have MAAs. Other private and public agencies that form part of the refugee service network include English language training providers, employment service agencies, community health agencies, and numerous public agencies such as departments of education, health, employment, and welfare.

The domestic health assessment occurs within the first 90 days after arrival in the US, at a time when refugees are concurrently engaged in other immediate tasks and activities noted above. Further, refugees are learning about activities of daily living and managing finances, having children attend school, and establishing new routines in a new home and country. In this context, health and healthcare are often a lower priority for refugees, particularly if there are no acute health problems. Yet, neglected health problems, for example chronic diseases such as hypertension in adults or developmental delay and under nutrition in children, have the potential to impair successful resettlement, especially if defined by the current focus on job placement and retention (and similarly school achievement for children).

Accomplishing the domestic health screening within the first 3 months of arrival is ideal for the purposes of identifying and treating infectious dis-

eases. However, challenges that range from health education and orientation to utilizing the American healthcare system to the management of chronic or long-neglected health conditions cannot be well served during a time when the refugee is preoccupied with the urgent demands of adjusting to life in the US.

Funding and Public Health Infrastructure for Refugee Health Screening in the US

The domestic health assessment differs significantly in scope and purpose from the overseas assessment. The domestic assessment is designed to eliminate health-related barriers to successful resettlement while also protecting the health of the US population. The refugee health assessment is usually considered to be very important for successful resettlement; however, the domestic assessment is a voluntary program for refugees.

State refugee health programs, most often run by departments of health or public health, are responsible for the design and implementation of the assessment. ORR provides guidance in its 'Medical Screening Protocol for Newly Arriving Refugees' (ORR State Letter #95-37, Nov. 11, 1995). As defined in this document, the purpose of domestic screening is to:

1. Ensure follow-up of class A and B conditions identified overseas;
2. Identify persons with communicable diseases of public health importance; and
3. Identify personal health conditions that adversely impact on effective resettlement (e.g. job placement or attending school).

Health screening for refugees is elective for both states and refugees. As a result, the range of what constitutes a health screening varies enormously beamongtween states. Some states screen refugees only for TB; other states add screening for conditions of particular concern to their own public health authorities. At the other end of the spectrum of state health screenings for refugees are states that see this initial contact with refugees as an opportunity to orient them to the local healthcare system, educate them on age, sex, or risk-specific issues (such as contraceptive use, cancer self-exams, and substance abuse), and connect these new client-patients with sensitive and capable providers for follow-up. In between these two extremes of what makes up a 'refugee health screening' are various combinations

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of testing for diseases (e.g. serologic testing for hepatitis B virus), screening for abnormalities (e.g. vision, hearing, oral health, or mental health), referrals for ancillary services (e.g. for WIC enrollment), education/orientation (e.g. HIV/AIDS risk factors, exercise, or prevention measures), and medical referrals (both for primary care follow-up and sub-specialty care as indicated). Further discussion of the clinical aspects of domestic refugee health screening is addressed in the following chapter.

One of the factors that influence what each state includes in its refugee health screening is the organization and payment of services. Funding for health screening may come from a number of sources: federal Refugee Medical Assistance (RMA) administered by ORR, state-administered Medicaid funds, discretionary preventive health grants funded by ORR and, at times, state and local governments.

ORR regulations allow states to use RMA funds to reimburse directly for refugee health assessment services without determining eligibility for Medicaid provided that the state has an approved health assessment protocol and service plan approved by ORR. Those states that do not have an approved, RMA-funded health assessment program rely on a combination of funding from Medicaid (for those refugees categorically eligible for Medicaid) and RMA (for those refugees not eligible for Medicaid) to reimburse for services through the state's Medicaid program. In cases such as this, the scope of services is dependent on the state's Medicaid plan and entry to care is dependent on receipt of Medicaid coverage. Regardless of the funding stream, all refugees entering the US are eligible for some package of screening services provided by the states.

The actual clinical settings for health screenings vary from state to state as well. Many states use networks of county and local public health clinics to screen and treat refugees. Other states use the competitive bidding process to identify private (generally not-for-profit) clinics to provide these services in areas where refugees are most concentrated. Still other states rely on physicians and clinical practices that accept Medicaid to perform screenings as they see fit, without guidance or standard requirements by the state.

To enter the US, refugees must pass through one of a limited number of ports of entry that have staffed quarantine stations. Members of the US Public Health Service operate these stations. The quarantine officers review refugees' medical documents and perform a limited inspection to look for obvious signs of illness. The officers forward notify state or county public health authorities in the refu-

gee's point of destination of the arrival as well as the overseas medical documentation. These state and county authorities, in turn, coordinate the domestic refugee health assessments for refugees arriving in their jurisdictions.

The domestic health assessment, while restricted in scope, serves as a refugee's first encounter with the US healthcare system. Given these limitations, the general approach taken by refugee health assessment programs is one that incorporates consideration of epidemiology, screening, and follow-up resources, refugee experiences, and the role of health assessment as an entrée to primary care.

Most refugee health assessment programs at a minimum include follow-up of class A and B conditions identified during the overseas medical examination and evaluation for tuberculosis. In many larger areas, the assessment also includes medical history and physical examination; evaluation for TB, hepatitis B, anemia, pregnancy, parasitic infections; lead poisoning; immunizations; and screening of vision, hearing, and dentition.³⁵ As stated earlier in this chapter, additional services and programs may compliment the health screening. The extent of how well these components are implemented, like the screening content, will vary considerable among states.

Public Health Models for Refugee Health Assessment Programs

The variation among health assessment program models found in the US partly reflects the organization of public health and healthcare services at the state and local level. Many refugees resettle in larger metropolitan areas, but significant numbers also resettle in rural communities or small cities that host industries or businesses that are attractive as employers to refugee populations. Therefore, while it is recommended to use a consistent statewide screening protocol, different models of screening may work better in different jurisdictions within a state. Three models are highlighted in this chapter: (1) an ORR-approved public-private model funded solely through RMA; (2) the public health clinic model; and (3) a private provider model funded through Medicaid and/or RMA.

Certain elements of the screening process are consistent throughout different models and states. Collaboration with VOLAGs and their case managers is critical. Once the resettlement agency knows the date of arrival for a given refugee or refugee family, the case manager usually contacts the clinic where

the health assessment will take place to provide contact information and initiate the scheduling process.

The RMA funded, public–private model

Massachusetts is among a handful of states, primarily in New England, that do not have county health departments. Rather, each of the 351 cities and towns has a municipal health department that is responsible for public health activities required by Massachusetts general laws and state and local regulations. Most do not provide direct clinical services. As a result, when organized refugee resettlement began in Massachusetts, health departments were not an option for screening refugees.

By 1994, efforts by the Massachusetts Department of Public Health to facilitate health screening for newly arrived refugees through the Medicaid system had failed to raise the very low assessment rates. As such, the screening process was ineffectual for infection control and prevention efforts. Private medical providers or clinics usually did the health assessments prior to that time and were under no obligation to follow state refugee health screening guidelines that were issued in 1987. The reliance on Medicaid to reimburse providers directly for screening services also contributed to low rates of initiation and limited laboratory and other testing. This occurred because the time lag between arrival in the US and the receipt of Medicaid numbers and cards effectively left refugees uninsured for the first months after arrival. Consequently, Massachusetts requested and received ORR approval for a RMA-funded refugee health assessment plan. The Massachusetts Department of Public Health implemented the plan in 1995 as the Refugee Health Assessment Program.

Essential elements of the Refugee Health Assessment Plan are: (1) a defined protocol with core elements and targeted testing options to provide consistent and uniform care while affording flexibility for clinicians to address individual health needs of refugee patients; (2) creation of a network of qualified private sector providers (usually community health centers that serve the geographic areas that are home to refugee populations) under contract with the Department of Public Health – essentially a ‘preferred provider network;’ and (3) linkages with other public health programs at the local and state level. The philosophical approach recognizes the importance of a service delivery model that provides linguistically and culturally appropriate services in

a manner that responds to the unique experiences of refugees.

By contracting with a limited number of clinics, the clinicians and staff at the sites become more knowledgeable about and responsive to the health needs of refugees, many of whom often continue at the site as primary care patients. Shaped by the pre-existing infrastructure of the public health system in Massachusetts, the consolidation of the health screening at these clinics significantly improved access, quality, and timeliness of health assessments in Massachusetts.³⁶ Prior to the creation of the Refugee Health Assessment Program, only 35% of eligible refugee arrivals completed health screening. Within 3 years of its implementation, over 90% completed screening, including 95% of those with class A or B conditions.

The public health clinic model

In many states, public health clinics exist at the county level and incorporate refugee health assessments into their operations. This is the case in the three largest counties in Minnesota, where public health clinics are staffed to complete the refugee screenings. Bilingual, bicultural staff members often act as interpreters and cultural brokers for refugees. Staffing at public clinics is fairly stable and provides an environment for continuous sharing of knowledge between and among all cultures represented. The screening, which includes a comprehensive examination, is completed over the course of three separate visits. The clinics maintain pharmacy stocks of commonly prescribed medications. Since these public health clinics do not offer primary care, all conditions needing follow-up must be referred; each has a close working relationship with the respective county tuberculosis clinic.

In the late 1970s, Minnesota began receiving large numbers of Southeast Asian arrivals and health screening efforts were initiated, but not funded. It was difficult for the Minnesota Department of Health (MDH) to do more than send out notice of arrival and a blank screening form to appropriate Local Public Health (LPH) agencies. With the passage of the Refugee Act in 1980, federal funding became available and MDH generated subcontracts with LPH agencies in the counties most heavily impacted by arrivals. A standardized screening form was generated for each refugee and, upon notification, the forms were sent to counties to initiate screening. The LPH was charged with accomplishing the screening, as described

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above, or making arrangements to have the screening completed elsewhere, and returning the completed screening forms to MDH. The state had no authority in this matter and the quality and completeness of screenings varied.

A combination of Medicaid and RMA pays for the screenings in Minnesota. Public and private clinics alike bill the state Medicaid office directly for the services they have provided. For those refugees who do not qualify for Medicaid, the MDH Refugee Health Program (RHP) uses RMA funds to reimburse providers at a flat fee.

In 1993, MDH hired the first Refugee Health Coordinator who began to develop a more comprehensive refugee health program. With this move MDH provided leadership and more clearly defined expectations for screening newly arrived refugees. Strong efforts were put in place to increase collaboration among all agencies working with refugees and the Metro Refugee Health Task Force was born. This Task Force includes concerned community and health professionals who continue to meet monthly to discuss topics of general interest.

This model of accomplishing refugee screening continues in Minnesota today, though both the state and local programs have grown much stronger over time. Local public health agencies now expect to organize screenings for refugees, are invested in their screening rates, and know how to contact the RHP when they have a concern.

Even though visibility and expectations were much clearer, in 1999 the overall screening rate in Minnesota was still only 74%. The MDH RHP initiated a series of efforts to improve the screening rates and experienced a rise to 85% in 2000 and 97% in 2004. These efforts included meeting with community colleagues one-on-one, asking how MDH could collaborate to improve screening quality and outcomes. For LPH agencies, MDH offered an in-service for their staff, highlighting their arrival numbers and screening rates followed by a discussion about what could be done to make things better. In areas where adversarial working relationships had developed, MDH met with VOLAGs and LPH agencies and helped them achieve a better appreciation for their differing, but complementary, missions. For private clinics, MDH offered a lunch or evening presentation on refugee health (sometimes paired with a tuberculosis update) emphasizing the importance of screening for communicable diseases within their communities as well as local demographics and screening results. These efforts were combined with others described in the data quality section of this chapter.

The private provider model

Another health assessment model is similar to the system that was in place in Massachusetts before implementation of the RMA-funded system of publicly contracted private providers. It is frequently used in rural areas of Minnesota without county health clinics, described here. In this system, county agencies typically have an identified refugee health contact, usually a public health nurse. This public health nurse works with private clinics in the community to achieve the refugee screening. The volume of refugee arrivals to counties can vary greatly, as do the resources available. Public health nurses and providers may be unfamiliar in working with non-English-speaking persons and need guidance through the process of completing the refugee health assessment. Finding an interpreter and transportation in rural areas is often a challenge. The centralized RHP at the state level makes an extra effort to support rural public health as they accomplish the health assessment.

Expectations for the public health nurse are critical to success. These start with contacting the refugee and the community clinic to arrange for the health screening examination. The nurse must determine the new arrival's health insurance coverage and provide assistance with facilitation of transportation and interpretation if needed. If possible, the nurse may offer immunization and tuberculosis screening if the county agency has this capacity. The nurse must also ensure the refugee has copies of all pertinent medical forms to take to the clinic, i.e. any record of immunizations or class A or B tuberculosis information. If the state has refugee health screening protocols or guidelines, the nurse will also assess the clinic's experience with these protocols and educate clinic staff regarding their content, as needed. The nurse will also ask the healthcare provider to return a completed reporting form to the public health agency, review the returned form for completion, and determine if any follow-up is needed on the part of the local public health agency (e.g. TB treatment, follow-up on pending lab results, immunizations, etc.). Finally, the nurse will send completed assessment forms to the centralized state office.

Data Collection and Reporting, Monitoring and Disease Surveillance, and Quality Assurance and Program Oversight

Public health departments are responsible for administrative oversight and quality assurance of state-

wide screening programs. In addition, they may have regulatory obligations related to monitoring and epidemiological surveillance of health conditions of public health significance. As such, public health departments usually request that health assessment providers report individual refugee health assessment findings. State-specific health assessment forms provide the framework for this reporting. In many areas, payment for services is contingent upon reporting, essentially guaranteeing high rates of return.

Quality assurance in refugee health assessment includes monitoring to determine timeliness of services, adherence to protocols, and appropriate linkage with follow-up services in the public or private sector. For those conditions that are followed in the public health sector – particularly infectious disease conditions such as tuberculosis, hepatitis B, and STDs – standard reporting mechanisms complement the health assessment form. As required by public health regulations, reporting of positive laboratory findings generates case investigations. In areas where the public health system utilizes bilingual, bicultural community outreach educators to extend public health services to refugees, health assessment providers often report findings to the health department to facilitate linkage with follow-up services, such as for evaluation of positive tuberculin skin test.

Data from health assessments also may form the basis for an improved understanding of refugee health status by population that is more comprehensive than can be learned from the overseas medical examination. Such knowledge enables the improvement of services that are provided to refugees. By evaluating health screening data from state or county programs with large enough populations, findings are more generalizable than those reported from smaller clinic-based evaluations, and analyses of subsets (such as gender or nationality) are possible. As newer refugee populations become smaller and more diverse, however, states may even need to pool their data to allow for meaningful, generalizable conclusions. Efforts of this nature have been initiated.

At the level of the state health assessment program, analysis of screening data by national origin or ethnicity can yield findings that provide benefit to that community at large. Such data offer public and private healthcare professionals an estimate of the prevalence of certain common conditions in newly arrived refugees. The information can be used to prioritize and strategize health education and interventions for specific communities. Individual clini-

cians would also benefit by having a heightened index of suspicion for common diseases, or prompting the inclusion of appropriate conditions in a differential diagnosis.

Health assessment data can also be reviewed in light of the quality and scope of the overseas medical examination. Positive consequences of CDC's pre-departure empiric albendazole treatment program for African refugees were observed in health assessment data from Massachusetts: on a population basis, rates of parasitic infections were significantly lower after this program was implemented.⁶ Although rare, conditions of public health significance that should have been identified prior to US entry are diagnosed during the health assessment. By providing feedback to the CDC, an evaluation of physician practice and laboratory quality at an overseas site can be initiated, if warranted. In 2005, cases of active TB, including some with multidrug-resistant organisms, in Hmong refugees arriving from Thailand were diagnosed soon after arrival in the US. Reports from state health departments generated an investigation by CDC that resulted in a revised algorithm for screening and treatment of refugees in Thailand.³⁷

As noted above, through centralized coordination at the state level, domestic health screening can produce data that inform health screening of both refugees and immigrants. For example, the documentation of elevated blood lead levels among refugees in Massachusetts⁵ and a subsequent CDC investigation of lead poisoning in New Hampshire³⁸ led to the issuance by the ORR³⁹ and CDC⁴⁰ of guidelines on screening for and follow-up of lead poisoning among refugee children. Minnesota has piloted the guidelines at one clinic while Massachusetts has fostered collaboration with its state childhood lead poisoning prevention program to direct prevention activities and follow-up to refugee children. Following reports from state and local refugee health programs of positive syphilis tests among refugee children from areas with endemic yaws,⁴¹ the CDC issued guidelines on screening for yaws that have been piloted by the Minnesota program. Similarly, coordinated domestic screening facilitates rapid response to data that suggest revision or expansion of screening protocols to meet newly identified health needs. When the CDC identified high rates of strongyloidiasis among Sudanese at a mass screening it conducted, states such as Massachusetts and Minnesota were quickly able to implement screening guidelines for their RHA clinics. After chart reviews of West African refugee children in Minnesota revealed high rates of subclinical malaria, Mas-

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sachusetts implemented a new protocol for screening African refugees for malaria. Like the issue of lead poisoning, such a malaria screening policy also bears relevance for the healthcare of the broader population of African immigrants such as Nigerians who may also be at high risk for *Plasmodia* spp. parasitemia.

Also important in quality assurance is determining which refugees fail to complete a health assessment and possible reasons why. Many programs survey health assessment providers, requesting explanation for why an examination was not completed. Common reasons include being unable to locate the refugee or the refugee having moved to another jurisdiction. Programs prioritize tracking refugees within their first 90 days so that, even if there is a jurisdictional change, the health assessment can be completed. Programs can use utilization data to recruit new providers if, for example, refugees resettle distant from existing sites and poor access to care is due to clinic location. Generally speaking, screening rates have increased with the maturity of the program.

Challenges Facing Public Health Screening Programs for Refugees

In recent years, there has been a dramatic shift away from resettlement of large refugee populations over an extended period of years (e.g. Vietnamese, former Soviet Union refugees) to smaller populations representing increased national, ethnic, and cultural diversity and a range of refugee experiences. Priority populations have been identified, processed overseas for US resettlement, and resettled as a group, all over a relatively short span of 1–2 years. Recent examples include the approximately 15 000 Hmong resettled from Thailand in fiscal year 2005 (FY05), 8000 at-risk Liberians resettled from Côte d'Ivoire in FY05, and 10 000 Somali Bantu resettled from Kenya in FY04–05. In contrast, resettlement of thousands of religious minorities from the former Soviet Union has been ongoing for two decades.

This increasing diversity, particularly among African refugees who now comprise approximately half of refugee arrivals, creates significant logistical difficulties in providing healthcare. Among refugees are a multitude of cultures, languages, experiences, and histories. Literacy levels reflect educational opportunities; low literacy rates are common. Providers offering refugee screening must be continuously cognizant of how recently these refugees have arrived in the US, what life experiences brought

them here, and how culturally based beliefs affect health behaviors.

Health systems, clinics, and providers must begin with knowing what communities they are likely to serve in refugee screening. Providers will benefit from awareness that disease prevalence rates vary among refugee populations. Similarly, differences may be manifest in the history and culture of new refugee groups, their knowledge of and names for different health conditions and their treatments, and past experiences with healthcare systems in their homelands and refugee camps. Clinics may be well versed in and capable of addressing the health needs of existing refugee or immigrant communities, but their competency may be strained by new arrivals with different cultural and linguistic needs as well as educational and literacy levels.

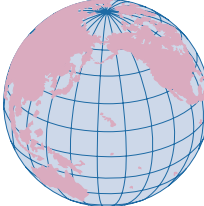
A significant challenge to public health is the limited pool of migrants who are eligible for domestic health assessment. In contrast to refugees who have access to government-funded health assessment services immediately upon entry in the US, the vast majority of migrants to the US, including many coming from similar situations and areas where infectious diseases are prevalent, do not receive any kind of organized health screening after arrival in the US. In the absence of a formal public health program, medical screening of migrants remains irregular, limited in scope, and dependent on health insurance coverage. Physicians and other medical professionals who care for these populations may, however, apply lessons learned from refugee health screening. The screening results of various ethnic groups can efficiently guide providers seeing non-refugee foreign-borns toward appropriate screening tests. Many refugee health programs have developed educational materials for providers seeing foreign-born patients without regard for immigration status. For example, the Refugee Health Assessment Pocket Guide (Fig. 11.1) would be useful in structuring a first clinic visit for all newly arrived foreign-borns. Many other health education resources and screening results can be found online at state health department sites such as those for Minnesota and Massachusetts:

- www.health.state.mn.us/refugee
- www.mass.gov/dph/cdc/rhip/wwwrhip.htm

Conclusion

Improved collaboration between all levels of public health and the US private medical community is

REFUGEE HEALTH ASSESSMENT POCKET GUIDE



All refugees should have a comprehensive health screening within 90 days of arrival in the U.S. After the exam, complete the MDH Initial Refugee Health Assessment Form and *return it to your county health department.*

THIS SCREENING SHOULD INCLUDE:

**HEALTH HISTORY, PHYSICAL EXAM INCLUDING VISION/HEARING/DENTAL ASSESSMENT
IMMUNIZATION REVIEW AND UPDATE**


- Record previous vaccines, lab evidence of immunity or history of disease; doses are valid if given according to Minnesota child or adult schedules.
- Do not restart a vaccine series.
- Update immunizations as indicated.
- If no documentation, assume patient is unvaccinated. Give age-appropriate vaccinations per the MN child or adult schedule.

TUBERCULOSIS SCREENING

- Apply Mantoux tuberculin skin test for patients >6 months of age, regardless of BCG history.
- Read Mantoux within 48-72 hours (measure mm of induration, not erythema).
- Chest x-ray **MUST** be done if:
 - Mantoux is positive (>10mm induration) OR
 - Refugee has a Class A or B TB condition (per overseas exam) OR
 - Patient is symptomatic, regardless of Mantoux results.
- Record whether treatment was prescribed and date started.

TUBERCULOSIS (TB) IN MINNESOTA

- 30-50% of MN refugees have latent TB infection.
- More than 80% of TB cases in MN are foreign-born.
- Foreign-born persons are more than twice as likely to have drug-resistant TB.
- MDH provides free TB medications.



HEPATITIS B SCREENING

- Screen all new arrivals for HBsAg and anti-HBs.
- Vaccinate all susceptibles (i.e., negative for both HBsAg and anti-HBs).
- Patients testing positive for anti-HBs are immune, no hep B vaccine needed.
- Refer all carriers (HBsAg positive) for additional medical evaluation. All susceptible household and sexual contacts of carriers should be screened and vaccinated.

SEXUALLY TRANSMITTED INFECTIONS (STI)

- Screen for syphilis with VDRL or RPR; confirm all positives.
- At provider's discretion, screen sexually active patients for other STIs.
- Use urine testing for GC/chlamydia, if possible.

PARASITE SCREENING

- Collect 3 stool specimens more than 24 hours apart. Eosinophilia requires further evaluation for pathogenic parasites, even with 3 negative stools.

MALARIA SCREENING

- Screen if symptomatic or if from an endemic area and suspicious history. Obtain 3 thick and thin smears to screen.

LEAD SCREENING


- Screen if child is ≤5 years
- Refer to Public Health and medical follow-up if BLL ≥10mg/DL

RECOMMENDED LAB TESTS FOR FIRST VISIT

<ul style="list-style-type: none"> ■ Varicella titer if no report of disease history or vaccination ■ Hepatitis B screening (anti-HBs, HBsAg, and per provider discretion, anti-HBc) ■ VDRL or RPR, urine GC/chlamydia if indicated ■ Hemoglobin/hematocrit ■ Pregnancy test, if indicated ■ UA/UC, if indicated 	<ul style="list-style-type: none"> ■ Blood lead level if ≤5 years ■ Stools for ova and parasites; send home containers and instruct patient on collection ■ CBC with differential ■ Malaria screening if history or symptoms are suspicious of malaria ■ Other labs, as appropriate, for follow up
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REFUGEE HEALTH RESOURCES

- **MDH Refugee Health Program, Tuberculosis Prevention and Control Program**
612-676-5414
www.health.state.mn.us/refugee
www.health.state.mn.us/tb
- **Minnesota Immunization Hotline**
1-800-657-3970
www.health.state.mn.us/immunize



IC# 141-05692004

Fig. 11.1 Refugee health assessment pocket guide.

increasingly sought as attention to global health issues has increased. This collaboration is especially relevant in refugee health assessment where overseas protocols can affect domestic screening in a most immediate manner and state screening programs can identify and address conditions of public health concern. Each state will benefit from establishing a model of refugee health screening that plays to the strengths of their public and private

health infrastructure. Centralized planning and two-way communications from the state are critical to the success of a comprehensive program with high screening rates.

As providers, it is critical to remember that the domestic health assessment is the refugee's first interaction with US medicine and as such is a great learning opportunity for both the refugee and provider. This assessment will make a strong impres-

SECTION TWO:

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sion upon the refugee about what it is like to seek and receive healthcare in the US. While the opportunities for cultural and linguistic miscommunications are high, incorporating trained medical interpreters and bilingual, bicultural staff in delivery models together with clinicians well versed in refugee health, will promote mutual understanding. Refugee health assessment can start the process of refugees building healthy lives in the US.

References

1. Ackerman LK. Health problems of refugees. *J Am Board Fam Pract* 1997; 10:337-348.
2. Hayes EB, Talbot SB, Matheson ES, et al. Health status of pediatric refugees in Portland, ME. *Arch Pediatr Adolesc Med* 1998; 152:564-568.
3. Lifson AR, Thai D, O'Fallon A, et al. Prevalence of tuberculosis, hepatitis B virus, and intestinal parasitic infections among refugees to Minnesota. *Public Health Reports* 2002; 117:69-77.
4. Geltman PL, Radin M, Zhang Z, et al. Growth status and related medical conditions among refugee children in Massachusetts, 1995-1998. *Am J Public Health* 2001; 91:1800-1805.
5. Geltman PL, Brown MJ, Cochran J. Lead poisoning among refugee children resettled in Massachusetts, 1995-1999. *Pediatrics* 2001; 108:158-162.
6. Geltman PL, Cochran J, Hedgecock C. Intestinal parasites and other African refugees resettled in Massachusetts and the impact of an overseas pre-departure treatment program. *Am J Tropical Med Hygiene* 2003; 69:657-662.
7. Cote S, Geltman PL, Nunn M, et al. Dental caries of refugee children compared to US children. *Pediatrics* 2004; 114: e733-e740.
8. Garg PK, Perry S, Dorn M, et al. Risk of intestinal helminth and protozoan infection in a refugee population. *Am J Trop Med Hyg* 2005; 73(2):386-391.
9. Centers for Disease Control and Prevention. Status of public health - Bosnia and Herzegovina, August - September 1993. *MMWR* 1993; 42:973, 979-982.
10. Notzon FC, Komarov YM, Ermakov SP, et al. Causes of declining life expectancy in Russia. *JAMA* 1998; 279:793-800.
11. Marshall GN, Schell TL, Elliott MC, et al. Mental health of Cambodian refugees 2 decades after resettlement in the United States. *JAMA* 2005; 294:571-579.
12. Lopes Cardozo B, Vergara A, Agani F, et al. Mental health, social functioning, and attitudes of Kosovar Albanians following the war in Kosovo. *JAMA* 2000; 284:569-577.
13. Sabin M, Cardozo BL, Nackerud L, et al. Factors associated with poor mental health among Guatemalan refugees living in Mexico 20 years after civil conflict. *JAMA* 2003; 290:635-642.
14. Nelson KR, Bui H, Samet JH. Screening in special populations: a 'case study' of recent Vietnamese immigrants. *Am J Med* 1997; 102:435-440.
15. Basoglu M, Livanou M, Crnobaric C, et al. Psychiatric and cognitive effects of war in former Yugoslavia. *JAMA* 2005; 294:580-590.
16. Toole MJ, Waldman RJ. The public health aspects of complex emergencies and refugee situations. *Annu Rev Public Health* 1997; 18:283-312.
17. Gellert GA. Humanitarian responses to mass violence perpetrated against vulnerable populations. *Br Med J* 1995; 311:995-1001.
18. Amnesty International. Amnesty International Annual Report. London: Amnesty International Secretariat, 1997.
19. Jaranson JM, Butcher J, Falcon L, et al. Somali and Oromo refugees: correlates of torture and trauma history. *Am J Pub Health* 2004; 94:591-598.
20. Public Law 96-212.
21. Refugee Act of 1980. PL 96-212. Section 101(b).
22. See www.state.gov/g/prm
23. Refugee Act of 1980. PL 96-212. Section 412 (b)(4)(C-D).
24. Refugee Act of 1980. PL 96-212. Section 412 (b)(5).
25. 45 CFR Chapter IV Part 400.017.
26. Gushulak B, ed. Immigration medical screening: a move towards public health risk management. *Migration and Health Newsletter* 1998; 2:1-3.
27. Weekers J, Siem H. Overseas screening of migrants: justifiable? *Public Health Reports* 1997; 112:397-402.
28. Centers for Disease Control and Prevention. Tuberculosis morbidity among US-born and foreign-born populations - United States, 2000. *MMWR* 2002; 51:101-104.
29. Centers for Disease Control and Prevention. Measles - United States, 2000. *MMWR* 2002; 51:120-123.
30. Miller JM, Boyd HA, Ostrowski SR, et al. Malaria, intestinal parasites, and schistosomiasis among Barawan Somali refugees resettling to the United States: a strategy to reduce morbidity and decrease the risk of imported infections. *Am J Trop Med Hyg* 2000; 62:115-121.
31. Centers for Disease Control and Prevention. Enhanced medical assessment strategy for Barawan Somali refugees - Kenya, 1997. *MMWR* 1998; 46:1520-1524.
32. Savin D, Seymour DJ, Littleford LN, et al. Finding from mental health screening of newly arrived refugees in Colorado. *Public Health Reports* 2005; 120:224-229.
33. Jones D, Gill PS. Refugees and primary care: tackling the inequalities. *Br Med J* 1998; 317:1444-1446.
34. Office of Refugee Resettlement. Federal Register. 2004; 69:22291.
35. Vergara AE, Miller JM, Martin DR, et al. A survey of refugee health assessments in the United States. *J Immig Health* 2003; 5:67-73.
36. Geltman PL, Cochran J. A private-sector preferred provider network model for public health screening of newly resettled refugees. *Am J Public Health* 2005; 95:196-199.
37. Centers for Disease Control and Prevention. Multidrug-resistant tuberculosis in Hmong refugees resettling from Thailand into the United States, 2004-2005. *MMWR* 2005; 54:741-744.
38. Centers for Disease Control and Prevention. Elevated blood lead levels in refugee children - New Hampshire, 2003-2004. *MMWR* 2005; 54:42-46.
39. Office of Refugee Resettlement. State Letter 05-01. 2005. Available: www.acf.hhs.gov/programs/orr/policy/sl05-01.htm
40. Centers for Disease Control and Prevention. CDC recommendations for lead poisoning prevention in newly arrived refugee children. 2005. Available: www.cdc.gov/nceh/lead/Refugee%20Recommendations.pdf
41. Centers for Disease Control and Prevention. Notice to readers: recommendation regarding screening of refugee children for treponemal infection. *MMWR* 2005; 54:933-934.