

3.9 SCREENING

Basic Health Screening <input type="checkbox"/> H&P Done						
	NL ABNL	Wgt (lb):	Hgt (in):	BP:	Hgb:	MCV:
Vision:	<input type="checkbox"/> <input type="checkbox"/>		WBC:	EOS (%):	Plt Ct:	Pb:
Hearing:	<input type="checkbox"/> <input type="checkbox"/>	UA Sugar:	UA Protein:	UA Blood:	uHCG1: <input type="checkbox"/> Neg <input type="checkbox"/> Pos	uHCG 2: <input type="checkbox"/> Neg <input type="checkbox"/> Pos
Dental:	<input type="checkbox"/> <input type="checkbox"/>	Tob. Use: <input type="checkbox"/> Yes <input type="checkbox"/> No	Alc. Use: <input type="checkbox"/> Yes <input type="checkbox"/> No	RHS-15	Q1-14: /56	Distress Therm: /10

HIV	
HIV-1 antibody: <input type="checkbox"/> Neg <input type="checkbox"/> Pos <input type="checkbox"/> Offered, but refused	HIV-2 antibody: <input type="checkbox"/> Neg <input type="checkbox"/> Pos <input type="checkbox"/> Offered, but refused

PURPOSE

To evaluate and identify abnormalities in vital signs, visual acuity, oral health, hematological indices, and urine chemistry which may indicate underlying disease pathology; to evaluate use of tobacco, alcohol and other drugs

PROGRAM REQUIREMENTS

In brief, the RHAP requires the following of providers:

1. Collect a urine sample from all refugees who are continent of urine for urinalysis by dipstick.
2. Draw blood for all tests at the first visit before vaccines are administered.
3. Order tests for all refugees:
 - ⇒ Anti-HBs and HBsAg
 - ⇒ CBC with 5 cell differential
4. With consent, order testing for HIV antigen and/or antibodies for all refugees 14-64 years of age at first visit. (4th generation antigen-antibody test is preferred). Screening of refugees <14 years and > 64 years of age is also encouraged.
5. Order blood lead level with a venous sample for all refugees <14 years of age.
6. Order serum IgG levels against varicella zoster virus (chicken pox) for all refugees 5 years of age and older.
7. Conduct formal, age-appropriate vision screening, gross hearing screening, and oral health/dental screening for all refugees.

[Note: RHS-15 requirements are discussed in Section 3.4]

Refugees should have an evaluation for abnormalities of vision, hearing, and dentition as well as a complete set of vital signs and routine laboratory tests of blood and urine. Vital signs should include head circumference in preschool-aged children.

VISUAL ACUITY: To test visual acuity, use the Snellen E chart. For preverbal children, the MassVAT flip cards may be used. Report 20/50 or worse as abnormal.

HEARING: An otoscopic examination of the external ear, the ear canal, and the tympanic membrane should precede any auditory test. Test for hearing grossly with the whisper test.

If you notice your patient is having difficulty understanding you or the interpreter (and this is not a language barrier) or if you observe that in the interpreter's interaction with the patient, the interpreter is having difficulty understanding the patient (and again, this is not a problem with language or dialects), consider possible hearing impairment and the need for further evaluation.

DENTITION: All refugees should receive a gross oral exam to assess for oral health problems. Abnormal findings may include missing teeth, caries, significant spacing problems, poorly fitting dentures, gingivitis, excessive plaque, signs of oral cancer, multiple fillings, etc...

WEIGHT: Record weight in pounds

HEIGHT: Record height in inches

BP: Utilize appropriate size cuffs for children.

HEAD CIRCUM:	Required for children under 3 years old; record in <u>centimeters</u> in chart (not reported on RHAP form).
CBC:	Required for adults and children, with a five-cell white blood cell differential; document hemoglobin, mean corpuscular volume, white blood cell count, percent eosinophils, and platelet count on the RHAP form.
HIV:	<p>Required to be offered for all refugees 14-64 years of age at first visit. Screening of refugees < 14 years and > 64 years of age is also strongly encouraged. RHAP recommendations are adapted and modified slightly from CDC guidelines for HIV screening of refugees. RHAP encourages sites to use 4th generation (as of 2013) HIV antigen-antibody testing.</p> <p>Screening should be repeated 3-6 months following resettlement for refugees who had recent exposure or at high risk.</p> <p>Children <18 months of age who test positive for HIV antibodies should receive further testing with DNA or RNA assays. Results of positive antibody tests in this age group can be unreliable because they may detect persistent maternal antibody.</p>
LEAD:	Blood lead level is required for children < 14 years of age. Record results in <u>micrograms per deciliter</u> .
URINALYSIS:	Required for all patients, except children who are unable to void voluntarily. Record the presence of sugar, protein, or blood as (-), (+), or (++)

Section 3: CLINICAL PROGRAM

TOBACCO:	Assess use of tobacco products for all patients age 14 years and older. Record response as Yes or No.
ALCOHOL:	Assess alcohol consumption for all patients age 14 years and older. Record response as Yes or No. (Note: Providers may need to specifically ask about beer as this is not always considered when discussing alcohol use.)
FULL H & P:	Document that a full history and physical examination were completed.
MULTIVITAMINS:	Provide all refugees with an age-appropriate multivitamin and iron formulation in a quantity roughly sufficient to last one month.
VITAMIN D:	All refugees should be provided with a prescription for vitamin D using MassHealth coverage during the second health assessment visit (at treatment doses). Recent cohorts of refugees have been documented to have high prevalence of insufficiency or deficiency. ⁵⁸

TESTING AND REFERRALS FOR HIV

HIV testing, diagnosis, and care should be provided within specific cultural and societal norms. All HIV-infected individuals should receive culturally sensitive and appropriate counseling in their primary spoken language. MDPH offers various patient and clinician guides on its information [clearinghouse](#). Appropriate referral (with a warm hand-off) for care, treatment and preventive services should be made for all individuals confirmed to be HIV-infected.

CONFIDENTIALITY AND DISCLOSURE FOR HIV

Refugees may not understand their rights to confidentiality in the United States. Information about refugees newly diagnosed with HIV during the health assessment should not be released to Resettlement Agencies or other third parties without the patient's expressed permission in writing;

⁵⁸ Penrose K, Hunter Adams J, Nguyen T, Cochran J, Geltman PL. Vitamin D Deficiency Among Newly Resettled Refugees in Massachusetts. *J Immigr Minor Health*. 2012 Mar 13.

however, results may be reported to the Division of Global Populations and Infectious Disease Prevention, MDPH, on the health assessment form without such written consent. (When obtaining verbal consent for testing, clinicians should inform refugees that results of all RHAP testing are reported to the Massachusetts Department of Public Health).

As of July 26, 2012, [Massachusetts General Law \(M.G.L.\), c. 111, § 70F](#) permits health care providers to test patients for HIV infection following verbal informed consent. Verbal informed consent should include an explanation of HIV infection and the meanings of positive and negative test results, and the patient should be offered an opportunity to ask questions. The Department of Public Health also had issued a [clinical advisory](#) regarding the change in consent process.

When a refugee declines an HIV test, this decision should be documented in the medical record.

MALNUTRITION, ANEMIA, AND LEAD POISONING AMONG REFUGEE CHILDREN

Malnutrition, manifesting as growth abnormalities and micronutrient deficiencies, is an important and highly prevalent problem among child and adult refugees. In addition, iron deficiency is known to predispose children to having elevated blood lead levels. RHAP data have shown that refugee children have significant growth abnormalities and rates of anemia⁵⁹ as well as a double risk of having elevated blood lead: both on arrival due to overseas exposures and after resettlement in the United States due to lead contamination of the home environment (i.e. lead paint).^{60,61} Among some age groups of refugee children, rates of anemia may be well over 50%. Growth abnormalities and anemia have been particularly prevalent among recently arrived refugees from Africa. Recent investigation by the CDC has also found that lead poisoning (more common in iron-deficient children) continues to be prevalent among African⁶² and Burmese⁶³ refugee children.

⁵⁹ Geltman PL, Radin M, Zhang Z, Cochran J, Meyers AF. Growth status and related medical conditions among refugee children in Massachusetts, 1995 – 1998. *Am J Public Health*. 2001;91:1800-1805.

⁶⁰ Geltman PL, Brown MJ, Cochran J. Lead poisoning among refugee children resettled in Massachusetts, 1995 – 1999. *Pediatrics*. 2001;108:158-162.

⁶¹ Eisenberg KW, van Wijngaarden E, Cochran J, Geltman PL. Increases in blood lead levels among refugee children resettled in Massachusetts, 2000-2007. *Am J Public Health*. 2011;101:48-54.

⁶² Kellenberg J, DiPentima R, Maruyama M, et al. Elevated blood lead levels in refugee children – New Hampshire, 2003 – 2004. *MMWR*. 2005;54:42-46.

⁶³ Mitchell T, Jentes E, Ortega L, Scalia Sucusky M, Jefferies T, Bajcevic P, Parr V, Jones W, Brown MJ, Painter J. Lead poisoning in United States-bound refugee children: Thailand-Burma border, 2009. *Pediatrics*. 2012 Feb;129(2):e392-9.

Among adults, RHAP data indicate high rates of anemia. In particular, recent cohorts of refugee women of child-bearing years entering Massachusetts have had rates of anemia as high as 57%. In addition, published reports have documented many other manifestations of nutritional deficiency among adult refugees. One area of concern is vitamin D deficiency. In New Zealand, 17% of refugees were deficient, and another 37% were insufficient. Female gender was strongly associated with low vitamin D levels.⁶⁴ Vitamin B12 deficiency is addressed in Section 3.12 Targeted Testing.

Because of these issues, RHAP sites are required to obtain and provide 30-day supply of multivitamins with iron for refugees during the first health assessment visit.

At the first RHAP visit, clinicians should conduct an appropriate nutritional assessment, including use of anthropometrics and CDC growth charts, and refer appropriate children and families to their local WIC program and other nutritional support services. In addition, during the second RHAP visit, clinicians should provide new written prescriptions for supplements that will be covered by the refugee's MassHealth.

Lastly, in response to [CDC guidance](#) on the issue of lead poisoning, the RHAP protocol requires lead testing of older children and thorough assessment of nutritional status.

- All refugee children should have a thorough nutritional assessment.
- All children should start taking a daily multivitamin with iron shortly after arrival in the United States. RHAP clinicians should check to be sure that children are taking vitamins with iron, assess the need for refills that can be covered by MassHealth after a family's temporary supply runs out, or prescribe them if not already being taken.
- All children should have blood testing for anemia, and children < 14 years of age should have testing of blood lead levels.
- Children under 7 years of age should have another lead test 3-6 months after the first test, after permanent housing placement as recommended by CDC guidelines
- Consider repeat blood lead testing of older children living with lead hazards

⁶⁴ Wishart HD, Reeve AMF, Grant CC. Vitamin D deficiency in a multinational refugee population. *Internal Med Journal*. 2007 Dec;37(12):792-7. Epub 2007 May 21.

The recommendation for repeat lead testing derives from clear evidence that refugee children, particularly those from Africa, are developing elevated blood levels after resettlement in the United States as a result of lead contamination of their home environments.⁶⁵

The Division of Global Populations and Infectious Disease Prevention encourages all RHAP provider sites to collaborate with resettlement agencies and the Massachusetts Childhood Lead Poisoning Prevention Program (CLPPP) to ensure repeat testing and follow-up of young refugee children.

More information on lead prevention services, regulations and statistics in Massachusetts is available at <http://www.mass.gov/eohhs/gov/departments/dph/programs/environmental-health/exposure-topics/lead/>. In addition, information from the CDC on lead prevention programs is available at <http://www.cdc.gov/nceh/lead/about/program.htm>.

RESOURCES

[Massachusetts Childhood Lead Poisoning Prevention Program](#)

Massachusetts Department of Public Health
617-624-5757

[CDC Lead Poisoning Prevention in Newly Arrived Refugee Children: Tool Kit](#)

[Screening for Lead during the Domestic Medical Examination for Newly Arrived Refugees](#)

[CDC Domestic Refugee Health Guidelines](#)

[MDPH Office of HIV/AIDS](#)

Massachusetts Department of Public Health
617-624-5300
800-443-2437

[AIDS Action Committee HIV-AIDS Hotline](#)

800-235-2331

⁶⁵ Eisenberg KW, van Wijngaarden E, Fisher SG, Korfmacher KS, Campbell JR, Fernandez ID, Cochran J, Geltman PL. Blood lead levels of refugee children resettled in Massachusetts, 2000 to 2007. *Am J Public Health*. 2011 Jan;101(1):48-54. Epub 2010 Nov 18.

[Division of HIV/AIDS Prevention](#)

U.S. Centers for Disease Control and Prevention

1-800-CDC-INFO (1-800-232-4636) (assistance regarding personal risk)

1-800-HIV-0440 (1-800-448-0440) (assistance regarding clinical care)

1-800-458-5231 (National Prevention Information Network, assistance regarding information distribution)

The Massachusetts [HIV/AIDS Services and Resource Guide](#) was updated in 2012 and provides extensive information on services and resources.