

The Immigrant, Refugee, or Internationally Adopted Child

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Objectives

After completing this article, readers should be able to:

1. Describe the variety of backgrounds of immigrant children.
2. Delineate which groups of immigrant children have high rates of unaddressed health issues.
3. List the major health-care issues for immigrant children.
4. Characterize the screening that should be performed at the point of immigration for children.
5. Characterize medical, social, and mental health issues that are prevalent and frequently poorly addressed in this patient population.

Introduction

As never before, the United States is becoming a population of immigrants. In the year 2000, more than 28 million persons born in other countries were resident in the United States, a 43% increase during the decade of the 1990s. Over the same period, immigrants and children born to immigrants accounted for 70% of the population growth.

Immigrant health is a complex topic. Not only do many immigrant children arrive with multiple unaddressed health issues, but there is evidence that the health of some immigrant children actually declines after living in the United States.

Becoming an immigrant is never easy. Although our emphasis is on the health-care needs of this diverse population, the most important long-term issues may be those of identity and acculturation. As one immigrant author so eloquently notes, “We have to live these half-lives of people who cannot forget what they used to be and who are afraid of being addressed in a foreign language, no longer able to utter anything meaningful.” (Hemon A. *The Question of Bruno*. London, England: Picador; 2000)

Who Are the Children Immigrating to the United States?

Immigrant children are a diverse group and are encountered in every pediatric practice (Table 1). By far, the largest category is the temporary visitor. More than 3 million children, 0 to 19 years of age, arrive each year to the United States, usually accompanying their parents, who are visitors, temporary workers, diplomats, or students. Small percentages of these children are students or exchange visitors. The majority of these visitors arrive from Asia, Western Europe, and North America. Although not technically immigrants, some of these children present for medical care with issues similar to those of immigrant children.

A special class of nonimmigrant visitor is comprised of the several thousand children brought to the United States by various humanitarian organizations for medical care. Some may remain with foster families for several years while undergoing treatment and rehabilitation for various cardiac, orthopedic, and congenital defects.

Almost 200,000 legal immigrant children enter the United States annually under various forms of permanent residency visas. Most eventually become naturalized citizens. In the past decade, the majority of legal aliens have emigrated from Asia, North America, and the countries of the former Soviet Union. Nearly all immigrant children arrive with or to family members, although each year several thousand adolescents immigrate unaccompanied. About 4,000 teens, 75% of them female, are married at the time of immigration.

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Table 1. Immigrant Children (0 to 19 years of age) Entering the United States in Fiscal Year 1998

Type of Immigrant	Definition	Number Admitted in 1998	Number of Children Admitted in 1998	Top Five Birth Countries	Top Five Receiving States
Temporary	Visitors, students, temporary workers, diplomats	25,000,000	3,000,000	Japan, United Kingdom, Germany, Mexico, Canada	CA, FL, NY, HI, IL (ports of entry)
Permanent alien	Legally admitted immigrant under any of a variety of programs	660,000	198,000	Mexico, China, former Soviet Union, India, Philippines	CA, NY, FL, TX, IL
Adopted orphan	Child adopted by a United States citizen	15,000	15,000	Former Soviet Union, China, Korea, Guatemala, Vietnam	NY, CA, PA, IL, TX
Refugee	Person outside the United States who is unable/unwilling to return to native country because of persecution	76,000	Included under legal immigrants	Former Yugoslavia, former Soviet Union, Vietnam, Somalia, Iran	CA, NY, FL, MA, IL
Person seeking asylum	Person within the United States who is unable/unwilling to return to native country because of persecution	55,000 applications filed	Included under legal immigrants	Mexico, El Salvador, China, Haiti, Guatemala	CA, FL, NY, TX, VA
Illegal	Illegal admission, lost legal immigrant status	Estimated 5,000,000 in residence	Estimated 30,000 annually	Mexico, El Salvador, Honduras, Guatemala, Dominican Republic	CA, TX, NY, FL, LA

Data from the 1998 Statistical Yearbook of the Immigration and Naturalization Service, October 2000.

Several special classes of legal immigrant are likely to be seen in the pediatrician's office. Each year, United States citizens adopt more than 15,000 foreign-born children. Since 1990, the majority has been adopted from China and countries of the former Soviet Union. Because the adoption process usually is completed in the country of origin, most of the new parents have spent some time (although possibly only hours or days) with the child prior to the adoption. About 10% of families adopt two or more unrelated children at the same time.

Refugees are persons living outside the United States who cannot or who are unwilling to return to their native country because of persecution. Persons seeking asylum (asylees) have the same issues but already reside in the United States. More than 75,000 refugees arrive in the United States each year, most recently from the countries of the former Yugoslavia and Soviet Union, Vietnam, and other war-torn regions such as Somalia. The majority of applications for asylum come from persons who have emigrated from Central America or China. Although most asylees live in the community, some are held in detention camps awaiting immigration court proceedings. Children may be refugees or asylees based on the situations of their parents or on their own history.

An estimated 5,000,000 illegal aliens reside in the United States at any one time. Most are persons who entered the country illegally, and almost all are from Mexico and other Latin American countries. Others may have entered as legal immigrants or visitors but either overstayed their visas or lost legal status by committing a crime. Unaccompanied minors who are illegal aliens may be held in special detention camps, often for many months, until a relative or other responsible adult is located to take custody.

In a special category are children who are born to immigrants or who live in immigrant households or communities. Although born in the United States, some of these children may have issues similar to

those faced by the foreign-born members of their communities, such as infectious disease exposure, poor access to health care, and acculturation and mental health problems.

What Medical Evaluation is Performed Before Arrival to the United States?

No medical evaluation is required for nonimmigrant children, that is, tourists and other temporary visitors. Visas are not required for stays of fewer than 90 days from 26 countries, mostly in western Europe and the Pacific rim. A visa may be denied if the consular officer suspects that the child has an infectious disease that is a threat to the public health of the United States, such as active tuberculosis or leprosy. In practice, no medical evaluation typically is performed, and short-stay visiting children may arrive with a history ranging from excellent comprehensive prior medical care to virtually no medical attention.

The medical examination for a permanent residency visa is limited, requiring only a physical examination for certain “excludable conditions,” such as active tuberculosis, human immunodeficiency virus (HIV) infection, syphilis, gonorrhea, lymphogranuloma venereum, chancroid, leprosy, or any severe physical or mental disability that might cause the immigrant to become a public charge. No laboratory testing is required of children younger than age 15 years. This visa examination is neither comprehensive nor a guarantee of health. All immigrants must provide evidence of immunization to meet United States age standards, although there are certain exemptions, such as if the vaccine is not available in the country of origin. The visa medical examination form is collected at the point of entry into the United States and is not available to the physician providing care in the United States.

Some special provisions apply to certain groups of immigrants. For example, children adopted by United States citizens, entering on an “orphan visa,” are exempt from the immunization rule if they are younger than 10 years of age.

Refugees receive a more comprehensive medical evaluation, tailored to the local conditions, and usually are screened for infectious, nutritional, and other diseases prior to immigration. The evaluation is determined by the authority administering the refugee program, which may be the United States government, the United Nations, or other refugee organizations. When there is a mass arrival of refugees, such as from Kosovo, screening may be carried out in special temporary camps at the point of entry into the United States. The results of this

Table 2. Factors Affecting the Health Care of Immigrant Children

- Lack of health insurance
- Incubating or exotic infectious diseases
- Ethnic or genetic conditions
- Negative past living circumstances
- Exposure to violence, torture, or natural disaster
- Language and cultural adjustments
- Ideas about the causation and treatment of illness
- Access to ethnic medical practitioners
- Use of traditional, herbal, or imported drugs
- Dietary preferences
- Religious practices that have a medical component
- Differing expectations of the medical system
- Translation and interpretation issues
- Repeated exposures to adverse health conditions via travel or within the immigrant community

examination are forwarded to the public health department of the county in which the refugee intends to reside.

Should Immigrant Children Receive Specialized Medical Care?

When presented with an immigrant child, the immediate concern is almost always for exotic infectious diseases and ethnic conditions. Indeed, most standards for the medical care of children born in other countries have emphasized screening for infectious diseases and, to a lesser extent, consideration of genetic conditions such as the thalassemias, lactose intolerance, or glucose-6-phosphate dehydrogenase (G-6-PD) deficiency. However, many additional issues affect the health of children born in other countries; some may present life-long risks (Table 2).

Although all applicants for a permanent residency visa must provide an Affidavit of Support showing sufficient financial resources, immigrant children are less likely to have health insurance or well-educated parents and are more likely to live in crowded conditions and in poverty. With the exception of the state of New York, which has provided for coverage of all children otherwise eligible for State Children’s Health Insurance Plan and Medicaid, children arriving after 1996 are subject to a 5-year waiting period for public benefits such as Medicaid, food stamps, and Supplemental Security Income. Recent reports from the Institute of Medicine note that the health condition of immigrant children actually declines after arrival in the United States because of fewer health-care

visits and a lower probability of having an identified health-care practitioner.

Most refugees are eligible for Medicaid or for at least 8 months of care subsidized by the federal Office of Refugee Resettlement. However, many refugee benefits and supports are time-limited, leaving less acculturated groups with little ability to negotiate the complex system of health care and social services. Children accompanying illegal immigrant relatives are a particularly vulnerable group medically because many parents are unwilling to seek health care, fearing deportation.

Depending on the reason for immigration, the child may have had traumatic life experiences. In general, the more involuntary the reason for immigration, the more negative the former living circumstances. Witness to or experience of war, torture, or natural disaster or involuntary migration due to social or economic factors may place the child at risk for numerous mental health problems, including depression, posttraumatic stress disorder, unresolved grief, and chronic anxiety. Indeed, many of these issues are not recognized or are overlooked when dealing with medical, language, and acculturation problems.

Even the child who immigrates for more positive reasons, such as to join family members or for educational opportunities, usually has language and cultural adjustments. Because children may become fluent in English more quickly than their parents, they may be required to translate and interpret medical, legal, and other sensitive information for adults.

All immigrants go through the processes of acculturation (learning the culture of the new society) and assimilation (becoming a member of the new society) to some degree; these processes may create great tension within the immigrant community and with the larger society. Many immigrants, especially children, are poorly prepared to deal with the additional stresses of racist and anti-immigrant attitudes prevalent in some communities.

The medical care of an immigrant child may be affected by any number of acculturation issues, including:

- *Ideas about the causation and treatment of illness.* For example, the Hmong culture recognizes that many, if not all illnesses, are caused by an imbalance in the universe. Failure to recognize and to work to correct this disruption by using traditional western medicine

alone may lead the physician to conclude that the patient is noncompliant, superstitious, or ignorant.

- *Access to ethnic medical practitioners.* Parents may not report alternative medical treatments or may substitute care by a traditional healer for western medicine. Efforts to cooperate with traditional or ethnic healers may allow acceptable integration of important public health practices into the community, such as the uptake of hepatitis B vaccine among high-risk Southeast Asian populations.
- *Use of traditional, herbal, or imported drugs.* Families may treat their children with medications they or relatives have brought from the native country, including antipyretics, antibiotics, antimalarial agents, and other drugs, which may be sold over-the-counter. Parents also may use herbal or ethnic medications purchased in the United States that may contain pharmaceutical

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agents or contaminants such as heavy metals or strychnine. In one recent study of 260 Asian medicines bought at herbal stores in California, 37% had at least one or more declared or undeclared pharmaceuticals, heavy metals, or other adulterants.

- *Dietary preferences.* Cooking practices, such as the use of unpasteurized milk for certain Indian sweets or raw fish for some Asian dishes, the consumption of foods imported or brought by travelers from other countries, or storage or preparation of foods in unsafe lead- or copper-contaminated vessels, may expose the child to infectious diseases or toxins. Occasionally, immigrants may misidentify poisonous plants found in North America, especially mushrooms, herbs, and teas, as similar to nontoxic variants found in their own countries.
- *Religious practices that have a medical component.* Body piercing, tattoos, and circumcisions are some procedures that may be performed by nonmedical practitioners in the ethnic community, exposing the child to infectious disease risks and other complications. Some clinics have been highly successful at recognizing the

Table 3. Questions to Understand the Patient's Concept of Illness or Symptoms*

- What do you call the problem?
- What do you think caused the problem?
- Why do you think it started when it did?
- What do you think the sickness does? How does it work?
- How severe is the sickness? Will it have a long or short course?
- What kind of treatment do you think the patient should receive? What are the most important results you expect from this treatment?
- What are the chief problems the sickness has caused?
- What do you fear most about the illness?

*Kleinman A, as quoted by Fadiman A. *The Spirit Catches You and You Fall Down. A Hmong Child, Her American Doctors, and the Collision of Two Cultures*. New York, NY: Farrar, Straus and Giroux; 1997.

community desire for these procedures (eg, circumcision for older Muslim boys) and negotiating culturally acceptable practices within the medical system.

- *Translation and interpretation of medical concepts.* Professionally trained interpreters are expensive and rarely available. However, reliance on friends, relatives, children, or others may lead to lack of confidentiality, an inaccurate or incomplete medical history, and dissatisfaction with the visit. Numerous studies have shown that when a fluent physician or interpreter is not available, patients undergo more tests, receive fewer pain medicines and prescriptions, suffer delays in surgery and follow-up, and are less likely to comply with instructions for home therapy and further medical care.
- *Differing expectations of the medical system.* Cultural competence (recognizing and incorporating culturally important differences into the practice of clinical medicine) is a difficult but not impossible skill to achieve. Failure to recognize such important concepts as “familismo,” dependence on the extended family, or “fatalismo,” the belief that an individual cannot alter his fate, may result in frustration, lack of communication, delayed treatment, and other dire consequences. Arthur Kleinman, a medical anthropologist, has developed a widely used set of questions (Table 3) to elicit the patient's or family's understanding of an illness. When used with a trained interpreter, these can be invaluable in negotiating a medical plan acceptable to all.

Finally, immigrant children may remain at risk for repeated exposures to the conditions of their native land. For example, visiting relatives or later immigrants may transmit infectious diseases not found in this country. An outbreak of rubella affecting many immigrants and spreading to the local community in Nebraska was traced to employees of a meat-packing plant who grew up in Latin America when rubella immunization was not standard. Immigrant mothers may transmit tuberculosis, malaria, or other infections to their children born in this country. Travel to the homeland may expose the child to infections, toxins, or dangerous medical practices.

What Should Be Included in the Initial Medical Evaluation of the Immigrant Child?

The life or travel history of the child is probably the best screening tool to determine the need for an extensive initial medical evaluation after immigration.

- *In which countries has the child lived and under what circumstances?* Interim stays in displaced persons or refugee camps may not be mentioned. Living in an institution such as a hospital or orphanage poses different risks than living in a family home in the same country.
- *Who is caring for the child now, and does the individual have personal knowledge of the child's social and medical history?* Although most immigrant children are accompanied by parents or other relatives, adolescents, some refugees, and virtually all internationally adopted or foster children are under the care of persons who have only a sketchy outline of the child's previous life.
- *Has the child's living situation changed recently?* A period of rehabilitation may mask previous insults, such as chronic malnutrition or abuse. Conversely, even a brief period living in a chaotic postdisaster setting may obscure the child's underlying or previous good health.
- *Are medical records available, and can the caregiver verify these?* Children who are refugees, unaccompanied minors, or adopted may have accompanying medical records that are difficult or impossible to authenticate, especially when the child's age is unknown. Occasionally, caregivers may use the records of a child who is a legal immigrant to obtain medical care or other benefits for another child who is an undocumented alien.
- *What quality of medical care did the child receive?* The country of origin is not always an absolute indicator of the excellence of prior medical care. For example, adopted children arriving from privately funded Gua-

Table 4. Initial Medical Evaluation of the Immigrant Child

- Review any existing medical records
- Update immunization status
- Screen for infectious diseases
- Evaluate for nutritional disorders
- Assess dental health
- Review occupational/environmental exposures
- Perform vision and hearing screening
- Remember routine well child screening
- Assess developmental status/school placement
- Estimate age
- Consider ethnic/genetic medical issues
- Review mental health issues

temalan foster care programs usually have received medical care equivalent to that available in the United States

- *Are there any unusual exposure risks?* Has the child undergone surgical or dental procedures, transfusions, or injections? Does the child have any personal occupational health risks or has he or she been exposed to environmental toxins such as chemical pollutants or radiation?

In general, voluntary immigrants from market economy countries (Canada, Western Europe, New Zealand, Australia, and Japan) have received comprehensive quality medical care. Typically, the only health issues are those of routine well child care and updating of immunizations to United States standards. Similarly, wealthy urban migrants from many countries will have received medical care far above the standard care of their homeland, resulting in few health issues specific to immigration.

In contrast, adopted children, refugees, illegal aliens, and less privileged immigrants from developing nations may have received inadequate, irregular, or no medical care. No single standardized protocol is appropriate for all such children. The health risks for a Latin American family joining migrant worker relatives in Texas are very different from those of a well-educated Jewish family fleeing Russia for political reasons. Some general principles apply, however, to the initial medical evaluation of most immigrant children (Table 4) (Table 5).

Review Any Existing Medical Records

A complete translation of the records is not always necessary. Immunization records, results of laboratory tests, and growth data often are discerned easily. When the

Table 5. Most Common Health Issues Encountered in High-risk Immigrant Children

Infectious	Inadequate immunizations Tuberculosis Parasites Hepatitis B Syphilis Malaria
Nutritional	Anemia Malnutrition Obesity Rickets Iodine deficiency
Toxin Exposures	Lead Environmental pollution Prenatal exposure to alcohol Radioactivity
Mental Health	Depression Anxiety Posttraumatic stress disorder Hyperactivity/attention deficit due to stress
General	Dental caries Estimated age Vision and hearing problems Congenital defects Genetic conditions Delayed development Precocious puberty

child has an unusual diagnosis or complicated medical history, a full translation may be helpful. There are professional medical translators in most big cities. University foreign language departments are also good resources. Medical terminology from other countries may be obscure, such as the Russian term “perinatal encephalopathy,” used loosely to describe any perinatal risk factor that could affect normal development. Unfortunately, there is no comprehensive single reference to medical terminology used in other countries.

In most cases, any previous diagnosis that is not immediately apparent should be reconfirmed. For example, neurologic, cardiac, and metabolic diseases may be overdiagnosed or missed completely. A typical example is hemiplegic cerebral palsy that is diagnosed as congenital clubfoot. Foreign medications often can be identified by a regional poison control center or by using the publication *Unlisted Drugs*, published monthly with periodic indices by Pharmaco-Medical Documentation, Inc, Chatham, NJ 07928.

Update Immunization Status

Immunization records documenting the date, dose, and name of the vaccine are acceptable from around the world. The most common problems are doses administered at too short an interval (typically 4 wk instead of the minimal 6 wk) or at younger ages than in the United States. Occasionally records appear to be fraudulent (eg, doses were administered before the child was born or vaccines were used that were not available at that date). Children who have received all their immunizations in an institutional setting such as an orphanage, especially from the countries of the former Soviet Union and China, may not have produced an adequate immunologic response. If the child is very young, the questionable doses or vaccines can be repeated. For older children, it is more cost-effective to determine serum immunity for the major antigens.

Children who have chronic hepatitis B should be screened for hepatitis D, "delta hepatitis," which is found only in the presence of hepatitis B surface antigenemia.

Screen for Infectious Diseases

The most common infectious diseases are tuberculosis, intestinal parasites, and hepatitis B. A few children are at increased risk of congenital syphilis or HIV infection. It usually is most efficient to screen all children for these five infections, regardless of foreign laboratory study results or immunization status because it is impossible to predict the quality of any individual report from abroad. To detect infection incubating at the time of arrival, studies should be repeated 6 months later unless the child is unequivocally infected or immune at the initial screening.

Immigrant children have a more than 100 times greater risk of tuberculosis than children born in the United States. Immigrants account for almost 50% of all new cases of tuberculosis in the United States, with most cases diagnosed within the first 5 years of immigration. Multiply drug-resistant tuberculosis is a major public health problem in many countries from which children are emigrating today, especially eastern Europe and Russia. However, this has not yet been a problem in clinical practice. The most frequent error is failure to screen the child. In a recent well-publicized case, 56 persons (20%

of the child's contacts) acquired tuberculosis after exposure to a 9-year-old from the Marshall Islands who had not been screened appropriately at the time of immigration.

Infestation with intestinal parasites is common and may be completely asymptomatic. Some clinics specializing in immigrant health treat all patients with a single empiric dose of albendazole as a more cost-effective approach than diagnosis, treatment, and re-examination. The safety and efficacy of such a policy in children have not been evaluated.

Hepatitis B is endemic worldwide, with the highest risk from Asia, Africa, and countries of the former Soviet Union. The prevalence of markers of infection can be as high as 50% in certain populations, such as older Romanian children adopted from orphanages for the "irrecoverables" (children for whom recovery from their illness is considered impossible) or Southeast Asian teens who have lived in refugee or detention camps.

Children who have chronic hepatitis B should be screened for hepatitis D. Hepatitis D or "delta hepatitis" is found only in the presence of hepatitis B surface antigenemia. It is prevalent in countries around the Mediterranean and the Pacific basin. Screening for hepatitis C is controversial at this point. A child who has received an organ transplant or

blood transfusion should be screened. Some experts believe that any child who has lived in an institution or camp should be tested, although incidence rates are unknown.

Malaria is a frequent problem among children from Africa and Southeast Asia, although routine screening is of little value until the patient becomes symptomatic. Similarly, many other parasitic diseases, such as schistosomiasis and neurocysticercosis, may be present in certain populations. Routine screening usually is not indicated unless a high prevalence is known in a particular group or the patient is symptomatic.

Evaluate for Nutritional Disorders

Anemia is extremely common among immigrant children. All children should be retested after treatment because correction of iron deficiency may unmask other underlying conditions, such as thalassemia trait, lead poisoning, or hemoglobinopathies. Rickets is a frequent diagnosis in the medical records of children adopted from China and countries of the former Soviet Union. Most cases respond to simple dietary measures and a multivitamin supplement. Iodine deficiency with goiter

occasionally is encountered in children from the inland regions of China and Russia.

Although chronic malnutrition and growth failure remain problems for many immigrant children from adverse environments, more recent immigrants, especially from Latin America and eastern Europe, suffer more from obesity. The National Center for Health Statistics growth curves (accessed from www.cdc.gov/growthcharts) should be used to monitor growth. Failure to show catch-up growth after immigration may be a sign of an underlying missed diagnosis such as tuberculosis. An interesting phenomenon noted in some children who have emigrated from extremely deprived environments is the onset of early puberty. This seems to affect girls more than boys and is seen most commonly in toddlers or older children who have dramatic catch-up growth within the first few months after arrival.

Assess Dental Health

The condition of the child's teeth is often a very low priority for families who have many other immigration issues, no dental insurance, and limited access to dental clinicians. However, poor dental health is one of the most frequent and debilitating conditions noted in refugee and immigrant children evaluated in school health clinics, affecting up to 50% of children screened. If dental disease is extensive, it may be covered under health insurance, especially if there is a need for extensive work under sedation or general anesthesia.

Review Occupational/Environmental Exposures

Lead poisoning is prevalent among children from developing countries, with rates of up to 50% in some refugee populations. Adoptees from China also seem to be at increased risk, with about 15% having elevated blood lead levels. Recent studies of immigrant children in Massachusetts have suggested that children should be rescreened 6 months after arrival because some will acquire lead poisoning from poor-quality housing. Although there is great concern for other toxin exposures, such as radiation, heavy metals, and chemical pollution from many countries, especially the former Soviet Union, routine screening is not indicated unless there is a known specific exposure.

A common problem among adopted children from countries of eastern Europe and the former Soviet Union

is prenatal exposure to alcohol. Exact prevalence data are unknown, but some estimate that the risk of fetal alcohol syndrome or other neurodevelopmental effects of prenatal alcohol exposure may be as high as 20%.

Occupational exposures are more common among teens and include a variety of insults ranging from parasites acquired from working in agriculture to chronic lung disease following cotton fiber exposure in a clothing factory.

Perform Vision and Hearing Screening

Such routine screening tests often are deferred because the child does not speak English or has no complaints. However, when parents have concerns about their child's vision or hearing, the yield on screening tests is as high as 30%.

Remember Routine Well Child Screening

Age-appropriate well child screening and counseling often are deferred and eventually missed because of the

After relocation to Western societies, there is a higher-than-expected incidence of chronic diseases such as obesity, hypertension, cancer, diabetes, and sexually transmitted diseases.

numerous other issues that need to be addressed. However, the incidence of chronic health conditions such as hypertension, obesity, and sexual/reproductive issues is relatively high, especially among immigrants from eastern Europe.

Assess Developmental Status/School Placement

It can be difficult to assess the development of an infant or toddler who just has arrived from a chaotic and possibly neglectful background. However, monitoring development is an extremely important element in the evaluation of the newly arrived child. Failure to gain new skills at an appropriate rate, even if delayed, may be the best indicator of more serious problems with the child or the caregivers, ranging from undiagnosed infectious diseases to parental depression. Sometimes the issue is as simple as the family subsisting on an inadequate diet because they could not find familiar foods in the grocery store. The most vulnerable immigrant children (refugees

and adoptees) must be seen frequently in the first weeks after arrival merely to obtain all necessary laboratory studies and immunizations. It is a good policy to include a brief developmental screen at each visit.

The screening tools used in the pediatrician's office may not be appropriate for older children because they are usually language-based. If there is any question about the child's developmental level, an evaluation should be performed as soon as possible. Waiting "until he or she learns English" usually does not resolve the suspicion of cognitive delay and only leaves the child further behind. There are nonlanguage-based evaluation tools. Federal law also mandates that any child older than age 3 years who is tested within the public school system be offered the testing in the child's primary language.

Most children should be placed in an age-appropriate grade, taking into account both the child's and the parent's preferences. For children whose ages are not known or who never have had any formal education, the tendency is to place the child in a younger grade or a grade most appropriate for his or her size. This should be done cautiously because the child's social skills and life experiences may be appropriate for an older grade. Also, with catch-up growth, the child may rapidly end up larger and at a more advanced pubertal level than classmates.

Estimate Age

Unless the child's age is clearly several years different from the reported age, it is often wise to accept the paperwork "as is" initially. Almost all methods for estimating the child's age produce an underestimate soon after arrival. Abuse, neglect, malnutrition, and institutional living all retard size and bone and dental ages. It usually is best to delay a final age determination for as long as possible, preferably at least 1 year. Using a combination of factors, including bone, dental, and pubertal ages and the child's maturity and school performance, a much better approximation can be made at that time. Even when it is known that the child is older than the stated age, only about 25% of children change their legal age, usually to make them younger to take advantage of educational and pediatric health care benefits that are better than those offered for adults.

Consider Ethnic/Genetic Medical Issues

Although most of these issues are chronic health problems that can be addressed over time, some may affect the child's immediate care. The most common such condition is G-6-PD deficiency in children from southeast Asia, the Mediterranean, and Africa. Other blood dyscrasias, such as abnormal hemoglobins and the thalassemias,

are frequent in certain populations but generally are not of immediate importance. Up to 40% of persons from Southeast Asia carry one or more genes for various red blood cell disorders.

Rare today are children who have undergone various ethnic or cultural procedures such as female circumcision or various types of tattooing.

Review Mental Health Issues

These issues are the most difficult to assess because of language and cultural barriers. In addition, the family's early priorities are usually safety and security. However, efforts should be made to address these issues promptly. As time increases from the point of immigration, children may "forget" their past experiences or be more reluctant to discuss them. Parents often are unaware of the existence or severity of mental health issues in their children. Studies of immigrant families in Head Start have indicated that when parents themselves have mental health issues, their children are much less likely to receive needed social and mental health services.

Experience with survivors of the recent Balkan wars has shown that mental health services often are provided best within the ethnic community. A "contact zone" where collaboration and negotiation between the mental health clinicians and the ethnic community can occur appears to be a successful model for developing supports both acceptable and appropriate to the needs and strengths of the immigrant community.

Common Long-term Health Issues

As the time from immigration increases, health problems become less important. There is a burgeoning literature on the health of immigrants after relocation to western societies. Most studies indicate higher-than-expected incidences of chronic diseases such as obesity, hypertension, cancer, diabetes, and sexually transmitted diseases. However, social, mental health, and acculturation issues become far more important over time. Domestic violence, substance abuse, gang membership, and intergenerational conflict become issues, especially in the generation that has lost the support system of the old country but has not yet integrated fully into the new society. Survivors of conflict and disaster report mental health issues persisting for years following immigration. Adopted children often have limited connection to their birth country and may have identity issues surrounding both the cultural and social aspects of their adoption and involuntary migration.

On the other hand, immigrants may have remarkable strengths, including extensive family support, resilience in the face of social turmoil, willingness to accept eco-

conomic hardship, and determination to improve the lives of their children through education and financial success. A growing body of literature has addressed the immigrant experience. Novels and essays by authors such as Alexander Hemon, Amy Tan, Pico Iyer, and Bharat Mukherjee provide fascinating insights into the functioning of families in an often completely alien society.

Summary

Attention to detail early and throughout the life of the child is the most important skill in making sure that infectious disease or other health issues are not overlooked in the newly arrived immigrant child. As time from immigration increases, however, health issues become less important than identity and acculturation.

Suggested Reading

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PIR Quiz

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7. Which statement regarding children immigrating to the United States is *true*?
 - A. All health care costs for immigrant children are covered by the United States government.
 - B. An immigrant child's age is often overestimated if accurate records are not available.
 - C. Few children who immigrate to the United States are considered permanent legal aliens.
 - D. Most immigrant children need only to have their immunization states updated on entry to the United States.
 - E. No medical evaluation is required at the time of entry into the United States.

8. You are evaluating a 3-year-old Romanian girl who has been adopted by an American family. Her adoptive parents have an incomplete immunization record from her orphanage. Which of the following should you do next?
 - A. Assume her immunizations are up-to-date.
 - B. Perform antibody testing to determine her immunity.
 - C. Repeat any doses of vaccines in question.
 - D. Write a letter to the adoption agency asking for a complete immunization record.

9. Screening for which of the following infectious diseases should be performed in all children immigrating to the United States?
 - A. Hepatitis A.
 - B. Hepatitis C.
 - C. Malaria.
 - D. Schistosomiasis.
 - E. Tuberculosis.

10. You are seeing a 6-year-old child who recently moved from China with his parents, who will be working at the local university under temporary visas. He appears healthy overall, and his parents report that he has received adequate health care in the past. For which of the following diseases is he *most* at risk?
 - A. Heavy metal poisoning.
 - B. Human immunodeficiency virus infection.
 - C. Lead poisoning.
 - D. Posttraumatic stress disorder.
 - E. Thalassemia trait.

11. Which of the following is *true* regarding the health care of immigrant children?
 - A. Depression and anxiety are uncommon illnesses.
 - B. Iron deficiency may mask other underlying etiologies for anemia.
 - C. Most children have adequate access to health care after immigration.
 - D. Most children have hearing and vision screening abnormalities.
 - E. Speech assessment should be delayed until the child is familiar with the English language.