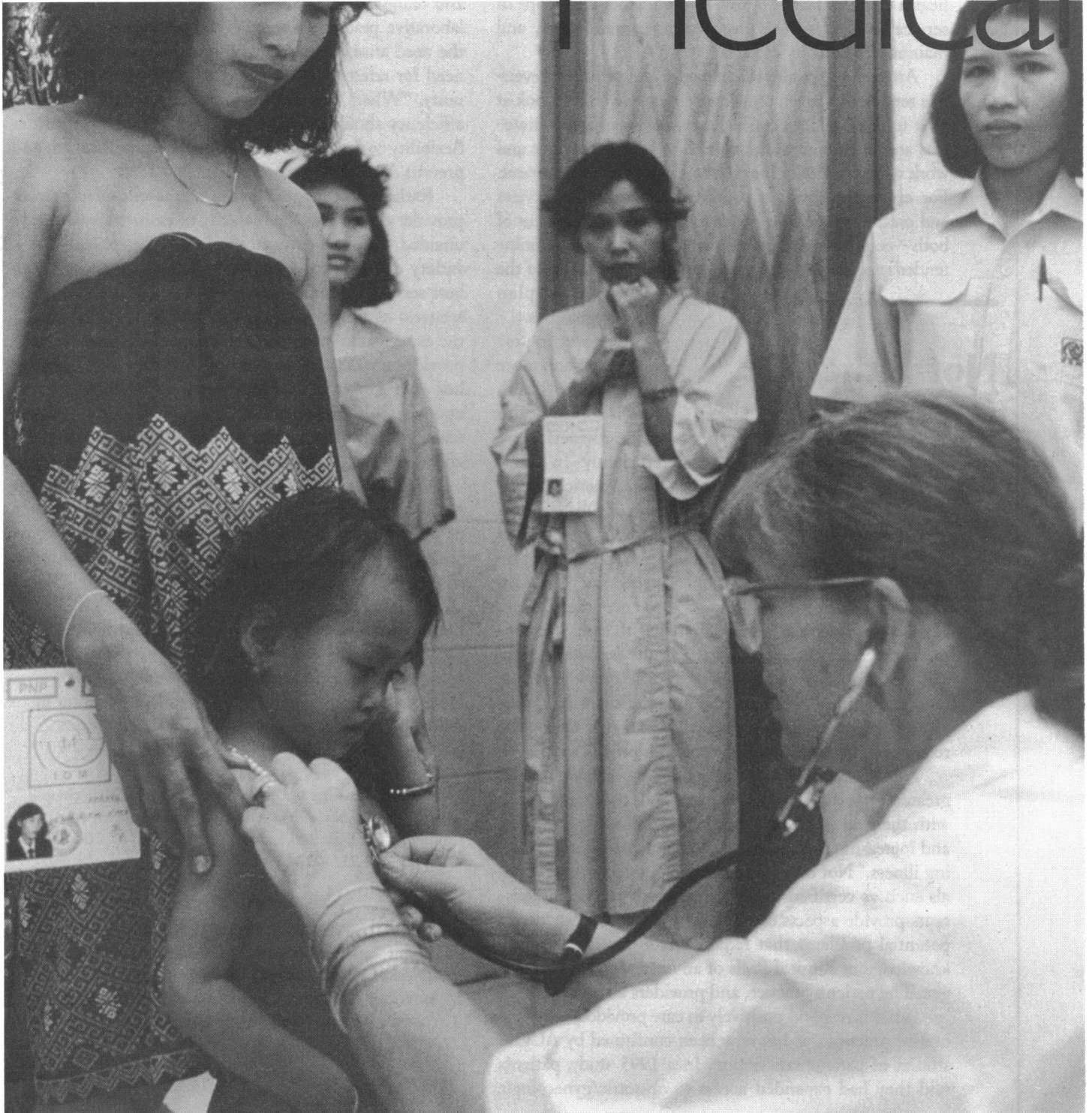


Is Compulsory Medical



Overseas Screening of Migrants Justifiable?

*Jacqueline Weekers, Dipl Psych
Harald Siem, MD MPH*

SYNOPSIS

FOR MORE THAN four decades the International Organization for Migration (IOM) has been providing medical screening of prospective migrants according to the admission requirements of resettlement countries. The main reason resettlement countries impose mandatory medical screening is to prevent the entrance of migrants with certain health problems in the belief that they pose a potential public health risk or financial burden to the nation.

High rates of communicable diseases among foreign-born residents of industrial countries have raised concern about the impact of international migration on transmission of such diseases and the role and efficacy of medical screening.

IOM's experience provides insight into the complex and sensitive problems related to mandatory screening of migrant populations, including: conflicting objectives, epidemiological concerns, uncertain economic benefit, and ethical dilemmas. Medically sound screening mechanisms must be formulated that meet the needs of receiving countries while responding to the epidemiology of disease, the rights of individuals, and the public health concerns of the community.

Countries such as the United States, Canada, and Australia apply conditions, including medical screening requirements, to be met before immigrants are accepted. Resettlement countries typically contract with physicians for medical screening of immigration applicants in their countries of origin. The organization for which we work, the International Organization for Migration (IOM), performs screening examinations in locations where it has been difficult to contract with local health professionals to fulfill this role. This has been the case in particular for the

resettlement of refugees. This article will describe some of the challenges we encounter in our role as a gatekeeper; we hope to stimulate discussions about both principles and practice in this field.

We use the term "migrants" to describe people who wish, on a voluntary basis, to move to another country for economic or social reasons; refugees; and displaced and uprooted persons in need of international migration assistance.¹

Medical screening of migrants has reflected four goals of the receiving countries: (a) to identify people with communicable diseases and thus to protect public health in the receiving nation; (b) to prevent entry of people with health problems because they may constitute a financial burden or impose excessive demand on health services; (c) to ensure that as future residents the migrants will be healthy and productive (fit to work); and (d) to identify people in need of medical care in order to prepare the host country's health care system to meet their needs.² Some of these objectives conflict with the needs and desires of the migrant, who wants to obtain a "certification of good health." Moreover, some of these objectives are not in line with the usual goals of medical screening—to limit the spread of infectious diseases, to detect disease in an early stage in the interest of the individual being screened, and possibly to collect data for research.³

IOM is an intergovernmental organization based in Geneva with 59 member governments and 74 offices throughout the world. IOM is committed to the principle that humane and orderly migration benefits society in general and the people who are in need of resettlement. To these ends, IOM acts in partnership with the United Nations system, other intergovernmental bodies, and nongovernmental organizations.

IOM often works with people who originate from areas with high prevalences of communicable diseases. Many of the people we screen live in refugee camps with inadequate sanitation, contaminated water supplies, poor nutrition, and severe overcrowding. They typically migrate to countries where residents have little exposure to communicable diseases such as hepatitis B, malaria, and tuberculosis (TB). Medical facilities and personnel in resettlement countries may not be familiar with the signs and symptoms of these "exotic" diseases and may not suspect them while examining patients from overseas. Furthermore, the lack of immunity in the host population increases the risk that nonindigenous communicable diseases will spread.

Some resettlement countries, including Australia, Canada,

and the United States, have well-defined policies and standard criteria for mandatory medical screening and require that screening be performed before departure to their shores. Other, smaller nations (Switzerland and the Nordic countries, for example) use flexible screening requirements, taking into consideration the prevalence of certain diseases in the country of origin, and perform screening on arrival on a voluntary basis.

Before entry, the United States requires a physical examination; a mental status examination; screening for TB; and testing for hepatitis B, leprosy (Hansen's disease), human immunodeficiency virus (HIV), and syphilis (and in the event of symptoms, other sexually transmitted diseases).⁴ Other nations may in addition require urinalysis for sugar, blood, and protein. IOM is often asked to ensure adequate vaccine coverage and to manage treatment for diseases such as TB. For the United States, IOM's medical activities are overseen by the Centers for Disease Control and Prevention (CDC).⁵

We discuss herein the central policy issues related to the practice of medical screening as currently applied to long-term or permanent resettlers, not to short-term visitors. Do screening

methods respond appropriately to epidemiologic concern about communicable disease? Do conflicting objectives make it impossible to meet the needs of both migrants and the receiving countries? Does screening make sense economically? Is it ethically justifiable?

A Mixture of Objectives

Medical screening is part of a process in which many individuals and entities have a stake—the migrant and her or his family, the resettlement authorities and receiving country, possibly the country providing temporary asylum, and international humanitarian organizations. Moreover, objectives may conflict, some encouraging and some discouraging migration. While the migrant hopes for a better, more humane, or safer future, the priority for the receiving country is to protect itself. An intergovernmental agency such as IOM, meanwhile, needs to respond to the requests of governments while serving the interests of migrants and to try to find a balance between the two.

Epidemiology

Limitations of medical screening tests. The specifics of testing raise epidemiologic issues. In health care, screening has become popular; it is even considered to be a pillar of preventive medicine.⁶ Medical personnel administer inves-



tigative tests to reverse, halt, or retard the progress of disease by detecting it early in its natural history.⁷ Ideally, all screening tests meet established criteria, as follows:^{8,9}

- A test should be acceptable to those undergoing it, simple, cheap, safe, and capable—with a high degree of validity—of sorting the population into those who have a condition and those who do not.
- That condition should constitute an important health problem.
- The natural history of the disease should be understood, and treatment should be available.
- There should be an established basis for deciding whom to treat, and the cost of case finding should be economically justified in relation to medical care expenditures as a whole.

No test, however, is perfect. Tests suffer from the burden of false positives (testing positive for a disease that, in fact, is absent) and false negatives (failing to identify a disease that is present). If a disease is uncommon in the population being screened, even a sensitive test will show a high proportion of false positives in relation to true positives. While the impact of a false positive on the recipient country is low, the impact on the potential migrant is very high: they may be denied entry into a resettlement country, they may lose social and economic opportunities, and they may be prevented from being reunited with family already in the resettlement country. When high rates of false negatives occur, the recipient country and, in particular, the migrant community will be exposed to undetected disease. Thus the screening procedures themselves and how they are calibrated in an effort to minimize either false negatives or false positives ultimately influences the outcomes for both migrants and the sending and receiving countries.

In the case of positive results, ideally treatment should follow medical screening. After screening for migration, however, often little is done other than to identify and document the medical conditions in question. Furthermore, knowing that the detection of disease may be used to deny acceptance, some applicants are tempted to cover up medical histories or falsify documents in fear they will fail the examination.

Public health relevance of screening of migrants. All resettlement countries using compulsory screening share one rationale: protecting receiving communities from dangerous infectious diseases. Historically, strategies to control infectious diseases have included quarantines and barriers to international travel and immigration. The efficacy of such restrictive measures have

been debated since the mid-19th century and especially in global forums since 1948, when the World Health Organization (WHO) was established.¹⁰ Recently, new and reemerging infectious diseases have reentered the international agenda, fueling a fear of epidemics,¹¹ justified or not.

Recent studies show that foreign-born people living in Western Europe and the United States have a higher incidence of TB than those who are native born. For example, between 1986 and 1994, the number of cases reported annually among foreign-born people in the United States increased 55% (from 4925 to 7627) while the proportion of all cases accounted for by foreign-born people increased from 22% to 32%.¹² These findings have been attributed to the inadequacy of screening procedures, reactivation of latent infection because of stress and poor living conditions in the receiving country, or ongoing transmission within groups with high TB prevalence. They may also be attributable to more active TB screening of migrants than of native populations.^{13,14}

Some argue that high prevalence rates of communicable diseases in immigrant communities in resettlement countries call for improvements in screening methods.¹² On the other hand, it has been argued that for migrants who import communicable diseases with little risk of transmission, the recipient nation is at the most accepting an economic burden to treat the disease among the newcomers.¹⁵ In general, migrants' minimal contribution to the spread of communicable diseases rarely constitutes a general risk to the public health of industrialized nations; expensive medical care in the receiving industrial countries may constitute a larger burden, principally economic, than the risk of spreading disease.

Screening, irrespective of disease prevalence in the country of origin, is rarely attuned epidemiologically to the interest of public health in either the sending or the receiving country. Data gathered

in screening immigrants are used to select those who are "healthy" or to reject those who are not "healthy" enough. They are rarely used for disease surveillance or to provide follow-up health care in the receiving country. Public health efforts to "ensure the conditions in which people can be healthy"¹⁶ are applied only to the receiving society and its people—not to the group of people awaiting immigration.

In an age of rapid communication and transportation, when tens of millions of people move annually from one country to another, screening refugees and other permanent resettlers does not contribute much to controlling the spread of communicable diseases. In 1994, approximately 800,000 immigrants and more than 22 million non-immigrants—travelers—were admitted to the United States.¹⁷ Only the

Historically, strategies to control infectious diseases have included quarantines and barriers to international travel and immigration.

immigrants underwent a prescribed medical evaluation. U.S. citizens traveling to less developed nations—including former immigrants visiting their country of origin—do not need an examination before re-entry to the United States, yet any traveler may arrive with active disease.

We believe screening programs that are more sensitive to conditions in the country of origin, such as the immunization status of the population and disease prevalence, could provide more meaningful contributions to public health. Results could be used for follow-up care and research, rather than for selection alone. They could shed light on the link between migration and the transmission of communicable disease and provide data for use in considering the efficacy of screening for disease control.

Economics

Where medical care is expensive, the costs of screening programs can be recovered if early detection leads to effective treatment and restores health rapidly. The benefits of screening outweigh its costs for common conditions such as hypertension and cancer of the cervix in certain age groups, whereas the benefits of screening are relatively smaller for less common conditions, for which the costs of finding a case are high. These generalizations may not apply in the countries that migrants are leaving, where expensive medical services are not available.

One of the principal reasons resettlement countries screen migrants is to control medical expenditures. Some countries reject migrants for no reason other than that they may require expensive health care. Canada's Department of Citizenship and Immigration has proposed to restrict entry of those who may create heavy demand for health or social services, by estimating future direct and indirect expenditures for treatment and control of introduced communicable diseases.¹⁸

In general, receiving nations bear the costs of screening refugees. Non-refugee immigrants usually pay a fee for an examination. IOM screening expenditures depend on local prices and the number of people examined. In 1995, IOM's per capita screening costs ranged from U.S.\$19 to U.S.\$308 (median U.S.\$63). These costs include test materials, equipment, medical staff salaries or fees, and office costs. Part of the disparity reflects the fact that where fixed program costs (costs not a function of the number of examinations) are distributed over a large number of applicants, per capita costs are lower.

Governments are concerned about cost, but it is clear that cost containment pressures do not dominate decision-making. Between 1988 and 1995 IOM performed over 800,000 HIV tests in Southeast Asia and the former Soviet Union. At most locations seroprevalence rates were very low. The highest rate was in Cambodia, where IOM started medical screening in 1993. Out of 5310 people tested, 47 were HIV-positive (prevalence rate of 0.01). Other rates ranged from zero to 0.0004. Could the money spent on screening have been better spent on prevention efforts? In Russia, for instance, where the resettlement nations covered the screen-

ing costs, HIV testing cost about U.S.\$4 per migrant (excluding staff costs). Between 1990 and 1995, over \$1 million was spent to detect three confirmed HIV positive people among 253,399 screened. These calculations fail to include the benefit of excluding those HIV-positive people who did not apply because they knew they would be rejected. It might be argued that nations accepting HIV-positive applications would open floodgates for those seeking treatment. The number of HIV-positive migrants might well increase somewhat; this increase would be limited, however, as national quotas are set yearly and medical screening is the last requirement in the resettlement application process after selection by immigration services on the basis of family ties, skills, and other economic factors.

In 1987, a WHO consultation report concluded that the diversion of resources toward HIV screening of international travelers and away from measures to prevent transmission is difficult to justify epidemiologically, economically, and ethically.¹⁹ This may apply to migrants as well. If the cost of treating an infected individual is the basis for exclusion, it seems unsound to exclude people infected with HIV while accepting people suffering from costly chronic diseases, such as heart disease, cancer, or mental illness.

Not all countries refuse migrants needing costly treatment. Most European countries accept refugees with medical problems and then provide treatment at the resettlement country's expense. During the war in former Yugoslavia, more than 30 countries accepted patients from this region and paid for treatment.²⁰ In 1973, the United Nations High Commissioner for Refugees established the "ten or more" plan for the resettlement of ten or more handicapped refugees per year in participating resettlement countries.²¹

If economics is to drive decisions, screening targets should be set by taking into account disease prevalences in countries of origin, the risk of disease transmission, and the direct and indirect economic impact of introduced diseases on health care systems in the receiving countries.

Ethics

Medical ethics is founded in large part on four classic human rights principles:

- respect for autonomy (human dignity, freedom, the fundamental rights of the individual);
- nonmaleficence (the principle of not harming, cultural sensitivity);
- beneficence (the principle of doing good); and
- justice (even distribution of burden and benefit, impartiality).²²

A fundamental document with respect to human rights is the Universal Declaration of Human Rights.²³ Article 13 says, "everyone has the right to leave any country including his own, and to return to his country," and Article 14 continues, "everyone has the right to seek and enjoy in other

countries asylum from persecution." Are these rights compatible with medical screening as employed today?

Medical screening often aims at excluding people who may impose a financial burden or pose a health risk to society. Does this deny resettlement and deter free movement when results of health examinations block migration? Sometimes healthy family members are accepted and "unhealthy" ones rejected. If a migrant does not wish to be screened, he or she will not be accepted by countries that require screening. We must make a distinction here between a refugee in a camp who fled his or her country for compelling reasons and an immigrant leaving by choice.

Once migrants pursue the immigration process, they are often assumed to have given consent for medical information to be passed on to officials of the resettlement country. Is the purpose of screening fully understood by migrants? Do resettlement authorities protect the confidentiality of the screening results?

These ethical issues have been handled most explicitly for HIV testing. Since December 1987, when mandatory testing was first required by U.S. immigration authorities, HIV examinations have constituted a major IOM activity. To secure anonymity as much as possible, IOM uses numbers and codes rather than names for HIV testing. Initially, migrants did not receive counseling before HIV testing. In 1990, UNHCR, IOM, and WHO formulated pre- and post-test counseling guidelines designed to: (a) obtain written consent, (b) provide basic information on the disease and its prevention, and in the case of a positive test (c) provide an opportunity to discuss the personal and family consequences and (d) offer assistance to permit resettlement

through a waiver of the exclusion rule.²⁴

Medical screening can be a tool for discrimination. It can compromise universal ethical principles. Screening to protect the health of the community, on the one hand, and promotion of the rights of individuals, on the other hand, do not necessarily match well. Health measures that infringe on or put into question individual rights might well be subjected to stringent analysis and applied only when essential for the well-being of the public. Policies that require mandatory testing for migrants should be reviewed regularly by both public health and human rights specialists as well as by policy makers.

Summary

Hundreds of millions of people cross national borders each year, some as permanent resettlers on a one-way ticket, many more as tourists and other short-stay travelers. Population movements may constitute a growing public health threat because of new and reemerging infectious diseases. Receiving countries try to keep unwanted germs and genes at bay by imposing medical screening on prospective migrants. The relationship between migration and the transmission of communicable disease is tenuous, and the justifications for mandatory medical screening based on containing health care expenditures are of questionable validity.

Public health protection and cost control are cited as the main reasons why resettlement countries request medical screening. But to what extent do national health authorities base their decisions regarding screening of migrants on these criteria? Research data suggest only limited economic and public health benefits of screening programs. Indeed, non-economic and non-medical factors seem to play a large role in resettlement countries' decisions about what to screen for, or whether to impose medical restrictions.

Our review of current practices reveals many complexities and inconsistencies—conflicting objectives, imperfect screening methods, limited public health relevance, debatable economic benefit, and ethical lapses. We urge international bodies, national health authorities, public health officials, and human rights professionals to develop and agree upon more appropriate, medically sound, and practical screening options. Such policies must respond to changing societies, the evolving epidemiology of disease, the rights of individuals, and the public health needs of the community.

Table. Medical examinations of prospective migrants performed by the International Organization for Migration, 1987 to 1995

Location	1987-1989	1990-1992	1993-1995	Total
Southeast Asia				
Cambodia	0	0	6474	6474
Hong Kong	14,664	49,911	27,006	91,581
Indonesia	7930	24,551	5633	38,114
Malaysia	31,635	19,738	2559	53,932
Philippines	41,278	41,706	10,929	93,913
Singapore	2915	149	0	3064
Thailand	96,189	51,143	20,186	167,518
Vietnam	90,783	284,846	163,266	538,895
Eastern Europe				
Federal Republic of Yugoslavia . .	0	0	2676	2676
Croatia	0	0	401	401
Russia	0	168,262	156,216	324,478
Ukraine	0	0	6653	6653
Africa				
Ivory Coast	0	485	352	837
Kenya	0	0	3429	3429
Saudi Arabia	0	0	1246	1246
Sudan	0	0	500	500
Total				1,333,711

SOURCE: International Organization for Migration, Medical Services, Geneva.

In the authors' opinion, overseas medical screening of migrants can be refined and improved in epidemiologic, economic, and ethical terms by:

- focusing on diseases prevalent in the country of origin that pose a significant threat to the public health and for which effective medical treatment or preventive measures are available or can be organized;
- being flexible and attuned to trends in communicable diseases, both new and reemerging diseases;
- assessing the cost of accepting migrants based on disease prevalence in the country of origin, risk of disease transmission, and the impact of introduced diseases on demand for health services;
- using data on the results of medical screening for international communicable disease surveillance; for follow-up care, and for research on long-term health status, both the migrants' and of those rejected for immigration;
- educating and counseling migrants to improve their health;
- vaccinating to improve the immunization status of migrants;
- distinguishing between immigrant and refugee populations and being more lenient toward refugees with medical conditions, even those that may cause a burden to health care systems.

Ms. Weekers is the Medical Administrator with the International Organization for Migration, Medical Services. At the time of writing, Dr. Siem was Director of Medical Services with the International Organization for Migration; he is currently a Senior Advisor with the World Health Organization. Views herein reflect those of the authors and not necessarily those of IOM.

Address correspondence to Ms. Weekers, International Organization for Migration, Medical Services, 17 Route des Morillons, PO Box 71, 1211 Geneva, Switzerland; tel. 41-22-717-9355; fax 41-22-798-6150; e-mail <weekers@geneva.iom.ch>.

References

1. International Organization for Migration. Persons falling under the mandate of IOM and to whom the organization may provide migration services. Geneva: The Organization; 1990.
2. International Organization for Migration, International Centre for Migration and Health. Report workshop on medical screening of migrants. Geneva: The Organization; 1996.
3. McKeown T. Validation of screening procedures. In: McKeown T, editor. Screening in medical care: reviewing the evidence. Oxford: Oxford University Press for the Nuffield Provincial Hospitals Trust; 1968. p. 1-13.
4. Keane V, editor. IOM medical manual. 4th rev. ed. Geneva: International Organization for Migration; 1993.
5. Centers for Disease Control (US). Technical instructions for medical examination of aliens. Atlanta: Department of Health and Human Services, Public Health Service; 1991.
6. Holland WW, Stewart S. Screening: a general review. In: Holland WW, Stewart S. Screening in health care: benefit or bane? London: The Nuffield Provincial Hospitals Trust; 1990. p. 1-20.
7. Last JM. The scope, goals, and methods of public health. In: Last JM. Public health and human ecology. East Norwalk, CT: Appleton & Lange; 1987. p. 1-26.
8. Cochrane AL, Holland WW. Validation of screening procedures. *Br Med Bull* 1971;27:3-8.
9. Wilson JMG, Jungner G. Principles and practices of screening for disease. Geneva: World Health Organization; 1968.
10. Duckett M, Orkin AJ. Aids-related migration and travel policies and restrictions: a global survey. *AIDS* 1989;3 Suppl: S231-S252.
11. Garrett L. The coming plague: newly emerging diseases in a world out of balance. New York: Farrar, Straus & Giroux; 1994.
12. Tuberculosis among foreign-born persons who had recently arrived in United States, Hawaii, 1992-1993, and Los Angeles County, 1993. *MMWR Morb Mortal Wkly Rep* 1995;44:703-7.
13. Keane V, O'Rourke T, Bollini P, Pampallona S, Siem H. Prevalence of tuberculosis in Vietnamese immigrants: the experience of the orderly departure programme. *Southeast Asian J Trop Med Public Health* 1995;26:1-7.
14. Cantwell MF, Snider DE, Caughen GM, Onorato IM. Epidemiology of tuberculosis in United States, 1985 through 1992. *JAMA* 1994;272:535-9.
15. Gellert GA. International migration and control of communicable diseases. *Soc Sci Med* 1993;37:1489-99.
16. International Federation of Red Cross and Red Crescent Societies; François-Xavier Bagnoud Center for Health and Human Rights, Harvard School of Public Health. AIDS, health and human rights: an exploratory manual. Boston: Harvard School of Public Health; 1995.
17. Immigration and Naturalization Service (US). 1994 statistical yearbook of the Immigration and Naturalization Service. Washington: Department of Justice; 1996.
18. Health Canada, Health Protection Branch, Laboratory Centre for Disease Control, Quarantine Health Services. Public health screening of immigrants: a Health Canada approach. Ottawa: Health Canada; 1996 Jan.
19. World Health Organization. Report of the consultation on international travel and HIV infection. Geneva: The Organization; 1987 Mar. WHO/SPA/GLO/87.1.
20. Weekers J, Bollini P, Siem H. Medical evacuations from the former Yugoslavia. *JAMA* 1994;272:351.
21. United Nations General Assembly. Report on the resettlement of refugees. Geneva: Executive Committee of the High Commissioner's Programme; 34th Session. 1983 Aug. A/AC.96/624.
22. Last JM. Ethics and public health policy. In: Last JM, Wallace RB. Public health and preventive medicine. 13th ed. East Norwalk (CT): Appleton & Lange; 1992: 1187-96.
23. United Nations General Assembly, Universal Declaration of Human Rights. Geneva: United Nations General Assembly; Resolution 217 A (III), UN doc. A/ 810 (III) (1948 Dec).
24. Panza A. Migrants: HIV testing and counseling: a manual for IOM counselors. Geneva: International Organization for Migration; 1993.