Medical Migration to the U.S.:
Trends and Impact

Editor’s note: The United States is in the midst of a prolonged nursing shortage, one that could reach a deficit of 800,000 registered nurses (RNs) by 2020. Increasingly, foreign-trained nurses are migrating to the U.S., particularly from low-income countries, seeking higher wages and a higher standard of living. Increased reliance on immigration may adversely affect health care in lower-income countries without solving the U.S. shortage. This Issue Brief analyzes trends in medical migration, and explores its short- and long-term effects on the health care workforce in the U.S. and in developing countries.

The U.S. has almost 20% of the world’s stock of professional nurses and about half of all English-speaking professional nurses. With such a large labor force, even a modest imbalance between supply and demand exerts a strong pull on global nurse resources.

• The nursing shortage has produced RN vacancy rates of 10%-15% in U.S. hospitals and nursing homes. Domestic nursing schools cannot keep up with demand; in fact, the American Association of Colleges of Nursing found that nearly 40,000 qualified applicants were turned away from baccalaureate nursing programs in 2006 because of shortages of faculty, resources, space, and clinical placement sites.

• This unmet demand, coupled with relaxed immigration policies, has led to an influx of nurses from other countries. Between 1994 and 2005, the number of foreign-trained nurses passing the RN licensing exam tripled to almost 15,000 annually.

• The increasing numbers of migrating nurses has raised concerns about the impact on their countries of origin. These are often developing countries that can ill-afford to lose the nurses they train.

Continued on next page.
Increasingly, migrant nurses come from low-income countries

Between 1990 and 2000, the percentage of foreign-trained nurses entering the U.S. workforce nearly doubled

Polsky and colleagues used U.S. Census data to describe trends in nurse migration and to compare characteristics of U.S.- and foreign-trained entrants to the RN workforce in 1990 and 2000.

- In 2000, about 181,000 foreign-trained RNs were working in the U.S., representing 9.1% of the nursing workforce. This is a 40% increase from 1990, when there were 113,000 foreign-trained RNs (6.5% of the nursing workforce).
- In 2000, 15.3% of RNs entering the workforce in the previous 10 years were foreign-trained, compared to 8.8% in 1990.
- Foreign-trained entrants earned more than U.S.-trained entrants. In 2000, they earned an average of $44,000 compared with $33,000 for U.S.-trained entrants. From 1990 to 2000, foreign-trained entrants experienced 8.5% real growth in income, whereas growth for U.S.-trained entrants was flat.
- The investigators estimate that half of the difference in earnings could be explained by the fact that foreign-trained nurses were older, worked more hours, and had located in states with higher nurse wages.

Increasingly, migrant nurses come from low-income countries

From national census and state licensing data, Polsky, Aiken, and colleagues identified the primary source countries for migrant nurses.

- Almost one-third of foreign-trained nurses come from the Philippines. In recent years, many physicians in the Philippines have retrained as nurses in order to migrate to the U.S.
- The second most important source of foreign-trained nurses is the Caribbean and Latin America, followed by developed regions such as Canada, Western Europe, and Australia.
- Migration from developed countries can have a domino effect on poorer countries. Developed countries largely replace the migrating nurses by recruiting from less developed countries.
- The source countries for foreign-trained nurses changed between 1990 and 2000 (see table), with more coming from Africa and fewer from Asia. Compared with 1990, new foreign-trained RNs in 2000 were twice as likely to come from low-income countries and 30% more likely to come from countries with a low supply of nurses.

### Foreign-Trained Nurses

<table>
<thead>
<tr>
<th>Continent/country, %</th>
<th>1990 Census</th>
<th>2000 Census</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>10.9</td>
<td>11.5</td>
</tr>
<tr>
<td>Asia</td>
<td>62.8</td>
<td>52.1</td>
</tr>
<tr>
<td>Americas (excluding Canada)</td>
<td>15.3</td>
<td>10.9</td>
</tr>
<tr>
<td>Canada</td>
<td>6.1</td>
<td>13.6</td>
</tr>
<tr>
<td>Africa</td>
<td>4.1</td>
<td>11.1</td>
</tr>
<tr>
<td>Oceania</td>
<td>0.7</td>
<td>0.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Annual per capita country income, %</th>
<th>1990</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low (≤$755)</td>
<td>11.1</td>
<td>20.7</td>
</tr>
<tr>
<td>Middle ($755-$9265)</td>
<td>70.9</td>
<td>54.0</td>
</tr>
<tr>
<td>High (&gt; $9266)</td>
<td>18.0</td>
<td>25.4</td>
</tr>
</tbody>
</table>

Foreign-trained nurses settle along coasts and in central cities

The investigators used census and licensing data to explore the geographic distribution of foreign-trained nurses.

- Foreign-trained nurses tend to settle in states along the coasts and in central cities. New York, New Jersey, Florida, and Illinois have the highest density of foreign-trained nurses.
Medical migration is also substantial for physicians

- Foreign-trained nurses are much less likely to reside in rural areas than U.S.-trained nurses and are not likely to have much of an impact on nurse shortages in rural areas. Less than 2% of foreign-born nurses live outside of metropolitan areas, compared to 18% of native-born nurses.

- The geographic distribution of foreign-trained entrants changed between 1990 and 2000, while the distribution of U.S-trained entrants stayed the same. For foreign-trained entrants, there was a dramatic shift from the Mid-Atlantic and Pacific census divisions to the South and Midwest.

- Not surprisingly, foreign-trained nurses tend to work in settings with the highest nurse vacancy/turnover rates.

  - Compared to U.S.-trained nurses, foreign-trained nurses are more likely to work in hospitals, in intensive care, and in nursing homes, settings in which the nurse shortage is the greatest. They are less likely to work in community settings or in ambulatory care.

  - Nursing home employment of foreign-trained RN entrants grew by nearly 3 times between 1990 and 2000. Historical difficulties in maintaining adequate staffing levels may have influenced the growth in numbers of foreign-trained nurses in long-term care settings. In 2000, 17.5% of foreign-trained entrants worked in nursing homes, compared to 6.6% of U.S.-trained entrants.

Cooper and Aiken point out that the U.S. has both a nurse and physician shortage, and that the circumstances that surround these shortages are interrelated.

- As in nursing, one half of all physicians in English-speaking countries are in the U.S. Despite this reservoir of roughly 750,000 physicians, Cooper and colleagues predict a shortage of approximately 200,000 physicians by 2020.

- In the 1980s and 1990s, many experts predicted that the U.S. would have a surplus of physicians by now. However, growing evidence suggests instead that the U.S. does not train enough physicians to meet its needs. About 22% of physicians in the U.S. are foreign-born and foreign-educated.

- The consequences of medical migration of physicians and nurses can be devastating for low-income countries with a high burden of disease and too few health care professionals to meet even basic health care needs.

The United States plays an important role in global nurse migration because of the size of its nurse workforce and its growing demand for more nurses. Continued shortages threaten to undermine health care delivery in the U.S. as well as in developing countries.

- Even a small increase in the numbers of U.S. RNs from low-income countries might represent a large proportion of the source country's nurses. For example, the 11.1% of foreign-trained RNs who entered the U.S. from Africa between 1990 and 2000 alone represents more than 1% of the entire stock of African nurses. These losses, especially in sub-Saharan Africa, are dearly felt.

Continued on back.
POLICY IMPLICATIONS

Continued

- It is not likely that the global impact of medical migration can be minimized without greater self-sufficiency in the U.S. This country must increase its domestic capacity to produce the health care professionals it needs. This will require a national health care workforce policy, as well as a commitment to build its educational infrastructure for nursing and medicine.

- U.S. policies to manage medical migration must balance the rights of migrating health professionals and their families, the needs of their countries of origin, and U.S. needs. Employers, professional associations, and other stakeholders with interests in having an adequate supply of health care professionals should work with the federal government to promote more coherence between international development and immigration policies.


Published by the Leonard Davis Institute of Health Economics, University of Pennsylvania, 3641 Locust Walk, Philadelphia, PA 19104-6218.
Janet Weiner, MPH, Associate Director for Health Policy, Editor (215-573-9374)
David A. Asch, MD, MBA, Executive Director

Issue Briefs synthesize the results of research by LDI’s Senior Fellows, a consortium of Penn scholars studying medical, economic, and social and ethical issues that influence how health care is organized, financed, managed, and delivered in the United States and internationally. The LDI is a cooperative venture among Penn schools including Dental Medicine, Medicine, Nursing and Wharton, and the Children’s Hospital of Philadelphia. For additional information on this or other Issue Briefs, contact Janet Weiner (e-mail: weinerja@mail.med.upenn.edu; 215-573-9374).

© 2007 Leonard Davis Institute