have quite different perspectives on the applicability of fixed-point versus area-based estimates of precipitation design values. The engineer, who is concerned fundamentally with a structure at a fixed point, may feel justified in using fixed-point precipitation design values. On the other hand, managers dealing with several, perhaps many, individual and spatially independent projects within an area for which they are responsible are likely to be more comfortable with area-based precipitation design values. Reconciling these differing perspectives may be difficult.

In any case, our research indicates that the data and methodology used in TP 40 produced precipitation design values that were valid and the best estimates available when TP 40 was published in 1961, but that are probably too low now. If these design values are not reevaluated, we believe that our local infrastructure may be more susceptible to flooding and damage than planners and designers imagine, and will become more susceptible in the future as population and infrastructure expand.

Richard H. Skaggs is professor emeritus in the Department of Geography at the University of Minnesota. His research and teaching has centered on climatology, especially of severe local storms, drought, and Minnesota climate fluctuations. Kenneth A. Blumenfeld is a doctoral student in the Department of Geography at the University of Minnesota. His undergraduate and graduate studies have been in climatology, especially severe local storms, extreme rainfall, and synoptic climatology of heavy snow.

The research upon which this article is based was supported in part through a New Initiative grant from CURA. These grants support projects that are initiated by faculty, community organizations, government agencies, or students and that are not appropriate for consideration under another CURA program. Additional funding was provided by the Minnesota Department of Transportation.

The authors would like to thank State Climatologist James Zandlo for his substantial and consistent help with the data acquisition and data quality, and the many dedicated volunteer observers without whom this and many other studies would not be possible.

The number of immigrants to Minnesota from sub-Saharan West and East African countries has increased substantially during the last decade, due in large part to various national and tribal conflicts in these regions. Today, these new Americans make up the second largest immigrant group in Minnesota. Although many of these individuals are qualified professionals in their countries of origin, most discover they cannot practice in their field when they arrive in the United States because their licensure does not transfer to this country. This is particularly true in the healthcare field. Consequently, immigrants trained as doctors or nurses often have to take low-paying jobs outside of their field of expertise.

In 2005, the African American Friendship Association for Cooperation and Development, Inc. (AAFACD, www.aafacd-inc.org) received a grant from CURA’s Neighborhood Planning for Community Revitalization (NPCR) program in support of a project to assess the needs of foreign-trained healthcare professionals in Minnesota. Under the supervision of AAFACD, Nancy Omondi, a graduate student in the Division of Health Services Research and Policy at the University of Minnesota’s School of Public Health, identified barriers to and opportunities for transferring medical licensure to the United States so foreign healthcare professionals could continue to work in the medical field after emigrating to Minnesota.

### Employment Opportunities and Professional Licensure

Established in 2002, AAFACD engages locally established African immigrants...
in Minnesota to provide culturally sensitive employment, healthcare, and other support services to more recently arrived refugees and immigrants through programs and referrals to other service providers. The goals of the organization include empowering new immigrants to succeed in their new location and helping immigrants assimilate into American culture. The organization’s primary constituency is the estimated 50,000 to 100,000 immigrants to Minnesota from Kenya, Liberia, Ethiopia, Somalia, Tanzania, Uganda, Sierra Leone, Nigeria, Togo, Ivory Coast, Gambia, and Sudan. According to the 2000 U.S. Census, more than 50% of these immigrants live in the Twin Cities metropolitan area, clustered primarily in Brooklyn Center, New Hope, Minneapolis, St. Paul, Eagan, Maplewood, and Woodbury.

Many newly arrived African immigrants come to Minnesota with a broad range of medical education and training. In spite of their professional qualifications, roughly 80% are relegated to entry-level medical positions as nursing aides—or, worse, unskilled jobs as taxi drivers or parking lot attendants—simply because they lack the necessary licensing required for professional medical employment.

Labor analysts and healthcare experts predict alarming shortages in almost all healthcare positions during the next few decades. According to the Ramsey County Workforce Investment Board’s Annual Report 2005, Minnesota Department of Employment and Economic Development (DEED) employment projections indicate growth in the healthcare industry in the Twin Cities of more than 26,000 jobs between 2000 and 2010, in addition to 22,000 expected replacement openings. According to a June 2006 report titled Health Care Work Force, the Minnesota Hospital Association expects the gap between supply and demand of registered nurses to reach more than 8,000 by the year 2020. Given these trends, it is clear that properly licensed foreign-trained healthcare professionals could play an important role in preventing or reducing these shortages.

**Project Method**

Our project was undertaken in collaboration with the International Institute of Minnesota and the Rochester Workforce Center. The purpose of the study was to conduct focus groups with foreign-trained healthcare professionals to identify the barriers that prevent them from practicing in their professions and contributing meaningfully to their community in their new home in Minnesota.

Participants for the research were recruited through collaborations with the International Institute of Minnesota, Rochester Workforce Center, and Kaplan Test Preparation and Admissions. We conducted five focus groups of 29 unlicensed foreign-trained healthcare professionals: two with doctors and three with nurses. The focus groups were held mainly at AAFACD’s offices in St. Paul. We also conducted multiple telephone interviews. In addition, we made one trip to Rochester to conduct a focus group with five Sudanese medical doctors.

We encountered some difficulties recruiting participants due to perceptions about the study, scheduling issues, transportation, and privacy issues related to agencies providing names and contact information of potential participants. These challenges were ultimately overcome in the following ways:

- establishing a stronger working relationship with the staff of one of our refugee relocation agency collaborators, the International Institute of Minnesota
- holding focus groups in locations where participants normally congregate—for example, at the Rochester Workforce Center and at Kaplan in St. Paul
- conducting a survey of participants who, for different reasons, could not attend a focus group but agreed to a telephone interview

We also conducted a literature review to examine barriers to foreign-trained healthcare professionals becoming certified in the United States, opportunities for overcoming these barriers, and system adaptations and changes that would assist foreign-trained healthcare professionals to work in their chosen profession. In addition, we compared the licensure process for foreign-trained healthcare professionals in Minnesota to those used in other states with large immigrant populations, including California, Florida, and New York.

**Results**

Through our research, we learned that the International Institute of Minnesota, AAFACD, and Rochester Workforce Center together serve roughly 165 foreign-trained medical doctors and nurses who desire to gain licensure in their professions. Based on the focus groups and literature review, we were able to identify the types of problems that foreign-trained healthcare professionals encounter at various stages of the licensing process. These include the following:

- lack of access to information from foreign colleges that is required by accreditation bodies (this proves especially difficult for refugees)

![Nurses practice bandaging on a dummy in a hospital in Ghana. In spite of their professional qualifications, many foreign-trained healthcare professionals are relegated to entry-level medical positions when they arrive in the United States simply because they lack the necessary licensing required for professional medical employment.](image)
The University of Minnesota is an equal opportunity educator and employer.

In This Issue:

- Renewable Electricity Policy in Minnesota: Can We Change the Subject? 3
- Project Funding Available from CURA 9
- A New Twin Cities: The Shape of Things to Come 10
- CURA Launches Minnesota 3-D Mapping Application 19
- Visitor Management and Revegetation Efforts on a Degraded Lake Superior Cliff Edge 20
- Precipitation Design Values for Minnesota: Are They Adequate? 24
- Needs Assessment of Foreign-Trained Healthcare Professionals in Minnesota 29

- institutional disregard for past professional healthcare experience, resulting in requirements for retraining or externship/volunteer work
- lack of a central location for information about the complex licensure process in the United States
- transportation problems stemming from lack of a driver’s license or money to afford a car
- communication barriers that prevent applicants from understanding information that is provided
- high costs associated with the licensure process
- the need to study again for licensing exams basic material that they have already learned
- lack of computer skills necessary to take licensing exams, all of which are computer-based
- the need for coaching, advocacy, family, and peer support

In addition, we looked at the extent to which identified barriers were influenced by race, country of origin, and language competence. On the basis of the findings from the focus groups and literature review, we compiled the following specific recommendations for improving access to the profession, which were then disseminated to stakeholders:

1. formulate strategies to provide advocacy, peer, and mentor support
2. form support groups with other healthcare professionals pursuing their licensure
3. support research that addresses the transition of foreign-trained healthcare professionals into the Minnesota healthcare system
4. establish a scholarship fund to assist with licensing fees and studying costs
5. allow international medical graduates to complete rotations at American universities to provide exposure to the U.S. medical system
6. allow international medical graduates to have audit privileges at American universities for classes that can help prepare them for licensing exams
7. create a liaison to assist new foreign-trained healthcare professionals, modeled on successful programs in other states
8. identify ways the international medical graduate community can become more involved in the bodies that oversee licensing activities
9. create a one-stop website with links to all available resources for foreign-trained healthcare professionals seeking licensure in Minnesota
10. provide a mechanism to assess the knowledge and skills of foreign-trained healthcare professionals to make them eligible for temporary and appropriate jobs in the healthcare industry while they complete licensure requirements

The results of our study provided critical information that enabled us to mobilize and advocate for foreign-trained healthcare professionals to obtain their licensure. In March 2006, this effort culminated in Representative Karen Clarke (DFL-Minneapolis) proposing a bill in the Minnesota state legislature, House File 3578, that appropriated money from the workforce development fund for a pilot project to encourage licensure of foreign-trained healthcare professionals in Minnesota. Representative Clarke’s bill passed, allocating $450,000 for implementation of the program from July 1, 2006, to June 30, 2007. Three organizations—AAAFCD, the International Institute of Minnesota, and the Rochester Workforce Center—were awarded $150,000 each to undertake the Foreign-Trained Healthcare Professionals Licensure Project. Representatives from these three organizations, as well as the Minnesota Department of Employment and Economic Development (DEED), serve as members of a steering committee with oversight of the project. Under the program, scholarships are made available to foreign-trained healthcare professionals for specific training related to studying for the board licensing exam. To date, 39 doctors, 20 nurses, and 1 physical therapist have been interviewed and approved to receive scholarships to study at Kaplan and take licensure exams. In addition, AAFCAD received a grant for $5,000 from the Headwaters Foundation to develop a Multicultural Foreign-Trained Healthcare Professionals Advocacy Task Force, comprised of foreign-trained healthcare professionals and various stakeholders. This task force is charged with designing the identified barriers to licensure and employment for foreign-trained healthcare professionals, identifying strategies for addressing these barriers, and providing foreign-trained healthcare professionals with the knowledge, information, and skills to become empowered.

The task force’s goals are to increase skills in communication, leadership, and advocacy and to create a foreign-trained healthcare professionals advocacy agenda to present to Minnesota legislators, licensure boards, and professional associations.

Wilhelmina Holder, M.D., is a consultant with African American Friendship Association for Cooperation and Development, Inc. She is originally from Liberia. Nancy Omondi is a graduate student in the Division of Health Services Research and Policy at the University of Minnesota’s School of Public Health. She holds a master of business administration from the Carlson School of Management at the University of Minnesota, and is originally from Kenya. This project was supported by CURA’s Neighborhood Planning for Community Revitalization (NPCR) program, which provides student research assistance to community organizations in Minneapolis, St. Paul, and other metropolitan-area suburbs that are involved in community revitalization.

More information about this project can be found in the following publications:
