Twenty years ago, Philip Farrell, MD, and Michael Dunn, MD—then-deans of the University of Wisconsin School of Medicine and Public Health (UWSMPH) and Medical College of Wisconsin (MCW), respectively—led a statewide assessment of Wisconsin’s health care needs. The assessment showed that Wisconsin had a growing shortage of physicians in rural areas.

The UWSMPH began actively taking steps to address this need. Through a series of coordinated efforts, it created educational opportunities and specialized programs for individuals ranging from middle school students to established practicing physicians.

One of the resulting UWSMPH entities is the Office of Rural and Community Health, which includes the Wisconsin Area Health Education Centers (AHEC) and Wisconsin Office of Rural Health (WiORH) and provides oversight of several community-based medical education programs. The Office of Rural and Community Health immediately began efforts to analyze assets, gaps, and opportunities, and created a strategic plan to improve health and health care in rural Wisconsin.

As shown in the Figure, the UWSMPH has created a continuum of “pipeline” programs—described below—that support our state’s physician workforce.

Wisconsin AHEC is a statewide organization with 7 regional centers and a system office housed in the UWSMPH. It is funded by state and federal programs that focus on enrichment experiences for high school students interested in health careers, community-based training opportunities for health professions students, professional development programs for providers, and health promotion for Wisconsin residents. In 2015, 1,276 health professions students participated in AHEC-sponsored programs. Examples include the signature Community Health Internship Program (CHIP), which placed 85 students in local public health departments for 8-week experiences. Participants learn the importance of community engagement through direct experience.

Wisconsin Express is another such program. It provides 1-week cultural immersion experiences for health professions students throughout Wisconsin. They study a diverse population in a rural or urban setting by focusing on their own cultural awareness and self-reflection. During the past year, 100 students participated in Wisconsin Express.

UWSMPH faculty and staff, through their efforts to increase the number of medical students from underserved communities, noted that prospective students from disadvantaged areas often had less competitive applications.

For more information
- Wisconsin AHEC programs: www.ahec.wisc.edu
- RUSCH: www.med.wisc.edu/25063
- WARM: www.med.wisc.edu/WARM
- WRPRAP: www.fammed.wisc.edu/rural/
- WiORH: www.worh.org/

DEAN’S CORNER

A Strategic Approach to Addressing the Rural Wisconsin Physician Shortage

Byron Crouse, MD, and Robert N. Golden, MD

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submit stronger applications when they apply to medical school. We also assist those who are interested in working with underserved populations. The program has expanded to include partnerships with UW-Milwaukee, UW-Parkside, UW-Platteville, and Spelman College in Atlanta, Georgia. Eighty-two students have participated in RUSCH; of them, 27 (35%) matriculated into medical school, and another 34% have entered other health professions.

Aspiring physicians who have a strong desire to practice in rural Wisconsin can apply to the 4-year Wisconsin Academy for Rural Medicine (WARM). The UWSMPH increased its class size by 26 students per year to accommodate this program, which was established in 2006. Initial funding for the planning and early development of WARM was provided by the Wisconsin Partnership Program, with sustained support provided by the UWSMPH and the Wisconsin Legislature.

WARM students spend their first 2 years in the traditional MD curriculum in Madison, where they are able to participate in extra experiences to prepare them for their final 2 years of clinical training in community-based rural clinics and hospitals. These experiences support the students’ goal to become rural physicians. Immersive experiences in rural areas provide positive mentors who nurture the students’ passion to care for patients in medically underserved regions. To date, 102 students have graduated from WARM. Short-term outcomes show that 54% of graduates have entered primary care specialties, and 47% are completing their residency training in Wisconsin. The long-term outcomes, based on the 23 WARM graduates to date, show that 87% are practicing in Wisconsin, 52% are practicing in rural Wisconsin communities, and 30% are practicing in their hometowns.

While initiatives such as the UWSMPH’s WARM Program and MCW’s new campuses in Green Bay and Wausau have increased the number of medical students being trained in the state, academic leaders note that the number of residency positions in the state has not increased. Through advocacy efforts by the Wisconsin Hospital Association, the Rural Wisconsin Health Cooperative, the Wisconsin Council on Medical Education and Workforce, the Wisconsin Medical Society, and the Wisconsin Academy of Family Physicians, the Wisconsin Legislature established 2 programs to expand the state’s graduate medical education offerings.

One of these programs is the Wisconsin Rural Physician Residency Assistance Program (WRPRAP), which is supporting the development of 3 new rural family medicine residency programs; new rural residency tracks in psychiatry, general surgery, and obstetrics and gynecology; 2 additional new family medicine residencies; and 2 new psychiatry residencies.

In addition to recruiting and training rural physicians, it is critical to keep them practicing here. Sustaining high-quality hospitals, emergency medical services, and rural clinics is integral to this success. The WiOHR plays a vital role in supporting Critical Access Hospitals in rural Wisconsin and assists with the recruitment and retention of physicians practicing in underserved communities through its New Physicians for Wisconsin Program and loan repayment incentives.

Through this series of programs, the UWSMPH is actively working to improve the health of rural Wisconsin residents. At the same time, we are helping medical graduates pursue their dreams of caring for patients in small towns and rural areas, often in the hometowns where they grew up.

**Figure.** University of Wisconsin Affiliated Rural Medicine Pipeline

<table>
<thead>
<tr>
<th>Elementary school student</th>
<th>Medical student</th>
<th>Established rural physician</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepare primary and secondary students in basic sciences and expose them to health care professional role models</td>
<td>Identify students with rural backgrounds and career goals</td>
<td>Locate education and training programs within rural communities in Wisconsin</td>
</tr>
<tr>
<td>Enhance college pre-medical experiences and strengthen medical school application portfolio</td>
<td>Enhance traditional MD curriculum with relevant rural medicine rotations, residencies, and fellowships</td>
<td>Promote development of rural GME training and retention of graduates for employment in rural Wisconsin</td>
</tr>
<tr>
<td>RUSCH</td>
<td>WARM</td>
<td>WRPRAP</td>
</tr>
</tbody>
</table>

**WIHEC** Wisconsin Area Health Education Centers, administered through the SMPH
**RUSCH** Rural and Urban Scholars in Community Health, a pipeline program of the SMPH
**WARM** Wisconsin Academy for Rural Medicine, a program within the SMPH
**WRPRAP** Wisconsin Rural Physician Residency Assistance Program, a program within the SMPH
**WiOHR** Wisconsin Office of Rural Health, administered through the SMPH

<table>
<thead>
<tr>
<th>Ideal student</th>
<th>Ideal Environment</th>
<th>Ideal Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-medical experiences</td>
<td>Rural communities in Wisconsin</td>
<td>Rural GME training</td>
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