Rural Health in Wisconsin–Looking to the Future

Sarina Schrager, MD, MS, *WMJ* Associate Editor

Twenty percent of the US population lives in a rural area. In Wisconsin, this number is 26%. Yet only 10% of physicians (both nationally and in Wisconsin) practice in rural areas and the ratio of primary care providers (PCP) to population numbers is significantly higher in rural areas.[1] Significant health disparities exist between rural and urban populations. Rural populations have higher poverty rates, lower access to high speed internet, and more tobacco use in rural youth. Infant mortality rates are 25% higher in rural areas than in urban areas, likely due in part to lack of access to medical care.[2] More than half of motor vehicle crash fatalities happen on rural roads, resulting from a combination of delay in the arrival of emergency personnel, high speeds on roads, or decreased visibility.[3] In 2013, 66% of all traffic related fatalities in Wisconsin were in rural areas.[3] Rural youth are twice as likely to commit suicide.[2] Rural populations have high medical needs, and are at increasing risk of opioid use disorder, which is epidemic. However, the number of physicians practicing in rural areas is not adequate to meet the need.

The path forward requires increased graduate medical education (GME) initiatives to develop the physician workforce in rural Wisconsin. The paper by Bruksch-Meck, et al in this issue provides a summary of various strategies geared toward increasing rural physicians in Wisconsin.[4] Both Wisconsin medical schools, along with the Wisconsin legislature and the Wisconsin Rural Health Cooperative have promoted educational opportunities for medical students, residents, and fellows that encourage rural practice. The goal is to create 141 new GME positions statewide by 2020. One example of such a program is the Wisconsin Academy for Rural Medicine (WARM) program through the University of Wisconsin School of Medicine and Public Health. This program, started in 2007, develops rural physicians by exposing undergraduate medical students to rural areas. The WARM students do a majority of their clinical rotations at rural practices and hospitals. To date, 91% of WARM graduates practice in Wisconsin, 51% in rural areas.[5] A second example is the creation of 2 rural regional campuses by the Medical College of Wisconsin, in northeastern and central Wisconsin in 2015 and 2016 respectively.[4]

Rural populations have high medical needs, and are at increasing risk of opioid use disorder, which is epidemic. However, the number of physicians practicing in rural areas is not adequate to meet the need.

In northern Wisconsin, federally qualified health centers (FQHC) work to meet the needs of rural patients. FQHCs were created to provide primary care services in underserved rural and urban communities. Northlakes Community Health Center is an FQHC with 14 clinics in 12 communities in Northern Wisconsin. In a December 2018 conversation with Reba Rice, CEO of Northlakes, she commented that "a key component of FQHCs are that they are community based and are focused on the needs of their particular community." By individualizing the approach to health care within a community, the FQHC can affect health outcomes unique to each individual area. Rice sees the opioid epidemic as one of the main health challenges for rural Wisconsin.

Northlakes employs 110 clincians and a dedicated recruiter who focuses on engaging providers who are "mission driven." Recruiting and retaining providers continues to be a struggle for rural practices. A paper by Morken et al explores factors related to retention of family doctors in rural Wisconsin.[6] The authors surveyed graduates of the University of Wisconsin Department of Family Medicine and Community Health rural residency track in Baraboo, Wisconsin to determine why their graduates decide to practice in rural areas. This rural training track started in 1996. The authors found that the most important issues relate to needs of their significant others, availability of meaningful work, and involvement in the local community. Loan repayment was the least important reason to practice in a rural area.

Transportation barriers can affect access to health care in rural areas. In an "As I See It"

column, Marshall comments on the cost of helicopter emergency medical services.[7] These services are used mostly in rural areas and confer a high cost to the system, and sometimes to the patients. Improving access to helicopter emergency services may help decrease the mortality rates in rural communities after motor vehicle accidents. He suggests developing collaborative membership groups among different companies to defray the cost for patients.

This issue of *WMJ* details a number of innovative efforts to improve health care in Wisconsin's rural communities. Such efforts should go a long way in narrowing the health disparities between rural and urban Wisconsin residents. According to the Wisconsin Council on Medical Education and Workforce, 86% of physicians stay and practice in Wisconsin if they go to medical school and complete their residencies in the state.[1] So, the state focus on expanding training programs in rural communities may further the supply of physicians in our state.

REFERENCES

1. Wisconsin Council on Medical Education and Workforce. www.wcmew.org. Accessed December 10, 2018.

2. Berezow A. Infant mortality 25% higher in rural areas. American Council on Science and Health. Published October 25, 2017. https://www.acsh.org/news/2017/10/25/infant-mortality-25-higher-rural-areas-12031. Accessed December 20, 2018.

3. National Center for Statistics and Analysis. Rural/urban comparison: 2013 data. Traffic Safety Facts. Washington, DC: National Highway Traffic Safety Administration. https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812181. Report No. DOT HS 812 181. Published July 2015. Accessed December 21, 2018.

4. Bruksch-Meck K, Crouse B, Quinn G, McCart L, Traxler K. Graduate medical education initiatives to develop the physician workforce in rural Wisconsin. *WMJ.* 2018;117(5):201-207.

5. Wisconsin Academy for Rural Medicine. University of Wisconsin School of Medicine and Public Health. https://www.med.wisc.edu/education/md-program/warm/. Accessed December 21, 208.

6. Morken C, Bruksch-Meck K, Crouse B, Traxler K. Factors influencing rural physician retention following completion of a rural training track family medicine residency program. *WMJ.* 2018;117(5):208-210.

7. Marshall DM. Helicopter emergency medical services: the financial burden patients face. *WMJ.* 2018;117(5):188-189.

From Asthma to Zika

A physician's guide to summer

April 5 & 6, 2019
Monona Terrace Convention Center
Madison, Wis.

With a focus on environmental health, infectious disease and trauma, this two-day conference will bring together physicians from all specialties to ensure you're prepared for summer's emerging health trends.

This conference is approved for *AMA PRA Category 1 Credit™.*

Hosted by the Wisconsin Medical Society, in partnership with the Medical College of Wisconsin and the University of Wisconsin School of Medicine and Public Health.

wisconsinmedicalsociety.org

advancing the art & science of medicine in the midwest

WMJ

WMJ (ISSN 1098-1861) is published through a collaboration between The Medical College of Wisconsin and The University of Wisconsin School of Medicine and Public Health. The mission of *WMJ* is to provide an opportunity to publish original research, case reports, review articles, and essays about current medical and public health issues.

© 2018 Board of Regents of the University of Wisconsin System and The Medical College of Wisconsin, Inc.

Visit www.wmjonline.org to learn more.