

## PROVIDING DIABETES SELF-MANAGEMENT EDUCATION AND SUPPORT FOR RURAL AMERICANS

### THE DATA

In the United States, 30.3 million people (9% of the population) have diabetes. In 2015, diabetes was the seventh leading cause of death.<sup>1</sup> CDC estimates that in 2012 the total direct and indirect costs from diabetes was \$245 billion.<sup>1</sup> Diabetes Self-Management Education and Support (DSMES) provides evidence-based education to teach patients the knowledge and skills they need to manage their diabetes. DSMES may reduce health care costs associated with hospital admissions, readmissions, and complications while improving health outcomes for participants.<sup>2</sup>

Diabetes is about 17% more prevalent in rural areas than urban ones, but despite this higher prevalence, CDC researchers found that 62% of nonmetropolitan counties do not have a DSMES program. Further research is needed to understand how to effectively address geographic differences.

### ISSUE OVERVIEW

A variety of individual, provider, and environmental factors influence access to and use of DSMES by rural residents. These factors may include:<sup>4</sup>

- Cost of DSMES to providers and patients
- Lack of access caused by insufficient number or uneven distribution of programs or insufficient staffing
- Patient barriers including lack of transportation and lower income

These challenges may be different than those faced by urban residents. This brief presents a selection of potential policies and practices that may help rural residents access DSMES.

Policy options that can help rural residents access Diabetes Self-Management Education and Support include:



**Expanding insurance coverage of diabetes self-management education**



**Providing diabetes self-management education in non-traditional venues**



**Addressing patient barriers**



## POLICY OPTIONS



### **Private and Public Insurance Coverage**

Forty-one states and the District of Columbia require some level of private insurance coverage of DSMES. Providing coverage through private insurance may improve access to DSMES, but some state laws allow insurers to put in place requirements such as preauthorization and cost-sharing, which may limit access for patients.<sup>5</sup> Having private insurance does not automatically result in a new diabetes patient entering DSMES. CDC researchers found that from 2011-2012, only 6.8% of newly diagnosed patients with private insurance participated in DSMES within one year of being diagnosed. More research is needed to understand how to increase the number of newly diagnosed patients with private insurance who receive DSMES.

Research has shown that expanding Medicaid coverage for DSMES may create financial benefits for states. For example, New York State compiled cost savings estimates for reimbursing DSMES based on the evidence that Medicaid beneficiaries who take part in DSMES are better able to control their blood sugar. The state estimated that a 1% reduction in blood glucose levels for Medicaid beneficiaries could result in net savings of almost \$22 million per year. A study in Alaska found that diabetes patients who participated in DSMES had lower Medicaid costs when compared to those who did not. The state estimated that if all adult Medicaid beneficiaries received DSMES services, the Alaska Medicaid program could save \$36 million per year.

Medicare covers DSMES when delivered by programs recognized by the American Diabetes Association (ADA) or accredited by the American Association of Diabetes Educators. Some of the requirements for recognition or accreditation, such as having a certified diabetes educator (CDE) on staff, may be more challenging in rural areas and could limit the number of DSMES programs that are eligible for Medicare coverage.

A survey of diabetes control program coordinators explored perceived barriers to providing Medicare-reimbursed DSMES in rural areas. The survey found that most coordinators believed rural providers faced more difficulties in achieving ADA recognition due in part to costs and reporting requirements. Overall, more research is needed to understand how changing DSMES reimbursement at the state and federal levels may affect patient and provider participation in DSMES. In addition, DSMES programs and coordinators may need more support and resources to be prepared to meet certification requirements and costs.

## POLICY OPTIONS (CONTINUED)

### **Nontraditional Delivery Methods and Venues**

#### TELEHEALTH

Traditionally, DSMES interventions have been “formal program[s] where patients and family members participate in an outpatient service conducted at a hospital/health facility,” but the evolution of patient needs and available technology is expanding the way interventions are delivered.<sup>2</sup> Telehealth may offer one way to help more patients benefit from DSMES. A systematic literature review of the evidence for DSMES programs designed for rural patients considered both in-person and telehealth interventions. The telehealth programs used “technology, such as videoconferencing, telephone calls, or the internet to deliver an intervention from a remote site.” The review found that both telehealth and face-to-face interventions may be effective for rural DSMES participants.<sup>11</sup>

There are barriers to widespread adoption of DSMES telehealth interventions. For example, in order to qualify for Medicare reimbursement, there are limitations on where patients can receive telehealth services. In addition, states have substantial flexibility in determining which telehealth services Medicaid covers.

#### COMMUNITY-BASED SETTINGS

Providers can also consider establishing in-person programs that convene outside of the typical health care venues. The Community Guide recommends that adults with type 2 diabetes receive DSMES interventions in community gathering places, such as community centers and libraries, provided that the care is coordinated with the patient’s primary care physician and is supplemented by education provided in a clinical setting.

### **Addressing Patient Challenges and Barriers**

#### LACK OF TRANSPORTATION

Rural residents report that lack of transportation limits their participation in general health programs. This issue is often cited as “one of the major concerns reported by rural residents in discussing limitations to their access to health care or their participation in health programs.” Telehealth programs may help with this challenge, but individual DSMES programs can also consider other options to help patients. Some diabetes management programs have found that coordinating patient travel and putting in place flexible scheduling may help with transportation challenges.

#### LOWER INCOME

The overall cost of managing diabetes could make individuals with lower incomes less likely to participate in DSMES. Some diabetes patients may already struggle to cover the equipment and supplies necessary to manage their diabetes;<sup>9</sup> the added cost of paying for DSMES out of pocket, either because the patient does not have insurance or due to insurance cost-sharing requirements, could be a barrier to participation. For example, Medicare covers DSMES, but beneficiaries are required to pay 20% of the cost. Some research suggests that reducing or eliminating the costs to DSMES patients could improve patient access while also producing cost savings for insurers.<sup>16</sup>

## CASE STUDIES

### **Montana Quality Diabetes Education Initiative**

With the goal of increasing the number of CDEs and accredited programs, the Montana Diabetes Control Program and the Montana chapter of the ADA created a mentorship program for CDEs, as well as a technical assistance program for facilities interested in becoming recognized or accredited in order to receive Medicare reimbursement. From 2000-2016 over 130 health care professionals have signed up for the self-study and peer-mentoring program. As of March 2016, Montana has 37 recognized or accredited DSMES programs, as well as 87 CDEs, with almost half practicing in rural or areas of the state.<sup>18</sup>

### **Arkansas Diabetes Prevention and Control Program**

Funded by CDC, the Arkansas Diabetes Prevention and Control Program is intended to “reduce and prevent the burden of diabetes in Arkansas.” In 2001, the program brought together public and private partners to establish 12 DSMES programs in underserved counties with a high prevalence of diabetes. The program recruited facilities to participate and provided resources for the programs to begin seeing patients and eventually obtain ADA recognition. As a result of the project, 11 DSMES programs received ADA recognition. From February 2003 to March 2004, DSMES participation increased 138%, and program participants improved both their preventive care practices and health outcomes.<sup>20</sup>

*CDC policy briefs provide a summary of evidence-based best practices or policy options for a public health issue. They also include information on the background and significance of the issue as well as current status and potential next steps. This policy brief is part of a series accompanying **CDC’s Morbidity and Mortality Weekly Reports on rural health.***

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