Diabetes and DSME/T in the United States

The nation is in the grip of a diabetes epidemic. According to the Centers for Disease Control and Prevention, 29.1 million Americans have diabetes, exceeding the entire population of Texas. In 2014, 1.4 million adults were diagnosed with the disease—more than 3,900 every day. One in 3 adults has prediabetes, which often leads to diabetes.

Some risk factors for developing type 2 diabetes are increased age, higher weight, high blood pressure, high cholesterol, and physical inactivity. Further, people of color disproportionately bear the burden of type 2 diabetes and the related health effects. They are more likely to be diagnosed with the disease, and experience worse health outcomes overall. Low-income populations and populations without a high school degree or postsecondary education also experience disproportionately high type 2 diabetes prevalence, incidence, and complication rates.

Effective diabetes management depends largely on individual self-care, making diabetes self-management education and training (DSME/T) critical to addressing this epidemic. DSME/T is “the process of facilitating the knowledge, skill, and ability necessary for diabetes self-care.” This process requires incorporating patients’ unique needs and experiences into individualized education and support plans that promote new behaviors and solutions. These solutions include healthy eating, physical activity, self-monitoring, medication use, risk reduction, management of acute and chronic complications, and problem-solving strategies to address psychosocial issues and establish healthy habits.

Research shows that by giving patients the tools necessary to better manage their diabetes, DSME/T significantly improves health outcomes and reduces health care expenditures. Indeed, “persons with diabetes who do not receive [DSME/T] are four times as likely as those who do to develop a major diabetes complication.”

Despite this evidence, participation in DSME/T remains low, particularly among rural populations, Medicare beneficiaries, and Medicaid beneficiaries, uninsured or underinsured persons, and “ethnic minorities, older persons, and persons with language barriers and low literacy.” Moreover, DSME/T services often do not conform to best practices. To offer the most effective care, providers may consider patterning DSME/T services after the National Standards for Diabetes Self-Management Education and Support, developed by the American Diabetes Association (ADA) and American Association of Diabetes Educators (AADE).

Insurance coverage presents one lever for facilitating delivery of and access to high-quality DSME/T. In many states, statutes and regulations require public and private insurers to cover DSME/T services. Some Medicaid materials, including managed care contracts and Medicaid agency guidance, have specific DSME/T coverage requirements. Public health professionals and policymakers may use these statutes, regulations, and Medicaid materials to understand the patterns, trends, and gaps in DSME/T coverage as well as to identify opportunities for reform.

### Diabetes Burden in the United States (Age-Adjusted)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Overall</th>
<th>Male</th>
<th>Female</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Adults with Diagnosed Diabetes (2014)</td>
<td>8.4%</td>
<td>6.6%</td>
<td>5.9%</td>
<td>5.8%</td>
<td>9.5%</td>
<td>8.7%</td>
</tr>
<tr>
<td>New Cases of Diabetes / 1,000 Adults (2014)</td>
<td>6.6</td>
<td>6.8</td>
<td>6.5</td>
<td>6.4</td>
<td>8.4</td>
<td>8.5</td>
</tr>
<tr>
<td>Completed a DSME/T Class i (2010)</td>
<td>57.4%</td>
<td>56.5%</td>
<td>58.3%</td>
<td>58.7%</td>
<td>57.8%</td>
<td>45.8%</td>
</tr>
<tr>
<td>Daily Self-Monitoring Blood Glucose i (2010)</td>
<td>63.6%</td>
<td>59.6%</td>
<td>67.8%</td>
<td>63.5%</td>
<td>69.8%</td>
<td>56.9%</td>
</tr>
<tr>
<td>Received 2+ A1c Tests in Last Year ii (2010)</td>
<td>68.5%</td>
<td>67.5%</td>
<td>69.5%</td>
<td>68.9%</td>
<td>71.1%</td>
<td>59.1%</td>
</tr>
<tr>
<td>Overweight or Obese i (2010)</td>
<td>84.7%</td>
<td>85.1%</td>
<td>84.3%</td>
<td>83.7%</td>
<td>89.9%</td>
<td>85.4%</td>
</tr>
<tr>
<td>High Blood Pressure i (2009)</td>
<td>57.1%</td>
<td>57.5%</td>
<td>56.4%</td>
<td>53.8%</td>
<td>71.5%</td>
<td>53.2%</td>
</tr>
<tr>
<td>High Cholesterol i (2009)</td>
<td>58.4%</td>
<td>59.3%</td>
<td>57.4%</td>
<td>58%</td>
<td>60.7%</td>
<td>55.1%</td>
</tr>
<tr>
<td>Fair or Poor General Health ii (2011)</td>
<td>46.8%</td>
<td>45.0%</td>
<td>48.6%</td>
<td>44.1%</td>
<td>51.5%</td>
<td>61.3%</td>
</tr>
</tbody>
</table>

### Educational Achievement

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>Less than High School</th>
<th>High School</th>
<th>Greater than High School</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Male</td>
<td>62.2%</td>
<td>59.9%</td>
<td>53.7%</td>
</tr>
<tr>
<td>Black Male</td>
<td>65%</td>
<td>60.7%</td>
<td>55.3%</td>
</tr>
<tr>
<td>Hispanic Male</td>
<td>68.5%</td>
<td>67.5%</td>
<td>69.5%</td>
</tr>
<tr>
<td>White Female</td>
<td>63.8%</td>
<td>62%</td>
<td>56%</td>
</tr>
<tr>
<td>Black Female</td>
<td>63.6%</td>
<td>60.7%</td>
<td>54.3%</td>
</tr>
<tr>
<td>Hispanic Female</td>
<td>65%</td>
<td>60.7%</td>
<td>55.3%</td>
</tr>
</tbody>
</table>

---

i DSME/T may also be referred to as diabetes self-management education (DSME) or diabetes self-management training (DSMT).

ii Adults with Self-reported Diagnosed Diabetes
State Insurance Coverage Overview

This section examines DSME/T coverage by the 3 primary sources of health insurance: private insurance, Medicare, and Medicaid. Private insurance includes coverage provided by an employer, purchased through an Affordable Care Act Marketplace, or purchased directly from an insurer. Medicare is a public health insurance program that provides coverage for most individuals ages 65 or older, as well as certain individuals with disabilities. Medicaid is a public health insurance program for many low-income populations, certain individuals with disabilities, and pregnant women. Unlike Medicare, Medicaid limits eligibility based upon an individual’s income and assets. These limitations, as well as the services Medicaid covers, vary among the states.

Private Insurance

Forty-one states and the District of Columbia require most or all private insurance policies to provide coverage for DSME/T. Two other states (MS & MO) require only that health insurers offer plans that provide such coverage. More than half of these states (23 out of 44 total) explicitly require coverage for follow-up DSME/T in certain cases, such as: a significant change in a patient’s health status (20/23), a change in a patient’s treatment (10/23), and when a patient requires reeducation or refresher training (9/23). Ten states explicitly limit coverage for initial DSME/T, and 9 impose limitations on follow-up DSME/T. Only 2 states (FL & VA) explicitly prohibit some or all coverage limitations. No states explicitly require DSME/T coverage for individuals with prediabetes.

Medicare Coverage

Medicare provides recipients with up to 10 hours of outpatient DSME/T in the year following their first referral for DSME/T. Subject to limited exception, recipients may receive 1 hour of private training and 9 hours of group training. To receive coverage for DSME/T, a Medicare recipient must obtain a referral from the health care professional treating the recipient’s diabetes and receive the training from an ADA- or AADE-accredited program.

Recipients may be responsible for any applicable deductible and a copay up to 20% of the total cost of DSME/T services.

Medicaid Coverage

Twenty-five states provide DSME/T coverage to most or all Medicaid beneficiaries. Five other states require Medicaid managed care organizations (MCOs) to offer DSME/T to their members, and 3 states cover DSME/T for specific populations. Two-thirds of these states (22 out of 33 total) explicitly provide coverage for follow-up DSME/T, but 21 of the 33 impose quantitative limits on coverage for initial or follow-up DSME/T. Two states (MS & UT) require prior authorization for all DSME/T covered by Medicaid. Nine other states either provide programmatic diabetes education, contract with MCOs that provide DSME/T, or offer general health education services.

Conclusion

Research suggests that by empowering patients to manage their diabetes, DSME/T can improve health outcomes and reduce treatment costs. Private insurance and Medicaid coverage for DSME/T services may help with the provision of and access to DSME/T. States that already require such coverage might consider building on those efforts by ensuring covered DSME/T services comply with the National Standards. They may also consider reducing barriers to access, such as pre-authorization requirements, cost sharing, and utilization limitations; raising awareness about the availability of DSME/T; and increasing the frequency and duration of DSME/T services.

Resources

Diabetes Information from the CDC
www.cdc.gov/diabetes/new/index.html

ChangeLab Solutions
www.changelabsolutions.org

LawAtlas DSME/T Website
References


31. Age-Adjusted Percentage of Adults Aged 18 Years or Older with Diagnosed Diabetes Ever Attending a Diabetes Self-Management Class, United States,
32. Li R, Shrestha SS, Lipman R, Burrows NR, Kolb LE, Rutledge S. Diabetes Self-
Management Education and Training Among Privately Insured Persons with

33. Strawbridge JM, Lloyd JT, Meadow A, Riley GF, Howell BL. Use of Medicare’s

34. Shaw K, Killeen M, Sullivan E, Bowman P. Disparities in Diabetes Self-
management Education for Uninsured and Underinsured Adults. *Diabetes

35. Carpenter DM, Fisher EB, Greene SB. Shortcomings in Public and Private


37. Chronic Disease Indicators Comparison Report. Centers for Disease Control

38. Original Medicare (Part A and B) Eligibility and Enrollment. Centers for
Medicare & Medicaid Services website. https://www.cms.gov/medicare/eligibility-and-

https://www.medicaid.gov/medicaid-chip-program-information/by-

40. Kaiser Commission on Medicaid and the Uninsured. Where Are States Today?
Medicaid and CHIP Eligibility Levels for Adults, Children, and Pregnant


42. 42 C.F.R. § 410.141(c)(1)(i)(B)-(C).
43. 42 C.F.R. § 410.141(c)(1)(ii).
44. 42 C.F.R. §§ 410.141(c)(1)(i)(D), (F).
45. 42 C.F.R. § 410.141(c)(2)(i).
46. Administration on Aging USD of H and HS. DSMT Toolkit: Chapter 3. Medicare
DSMT Benefit Overview. Administration for Community Living website.

47. 42 C.F.R. §§ 410.141(b)(1), (c)(2)(v).
48. 42 C.F.R. § 410.142-.145.
49. Administration on Aging USD of H and HS. DSMT Toolkit: Chapter 7: CMS
Approved Accrediting Organizations. Administration for Community Living