



**A Key Tool in Health Care: Diabetes Self-Management Education and Training (DSME/T)  
Mississippi: Background, Benefits, and Insurance Coverage of DSME/T**

This fact sheet provides information about public and private insurance coverage for diabetes self-management education and training (DSME/T)<sup>i</sup> services in Mississippi.

**Diabetes and DSME/T in the United States**

The nation is in the grips of a diabetes epidemic. According to the Centers for Disease Control and Prevention, 30.3 million Americans have diabetes,<sup>1</sup> exceeding the entire population of Texas.<sup>2</sup> In 2015, 1.5 million adults were diagnosed—more than 4,100 every day.<sup>1</sup> One in 3 adults has prediabetes, which often leads to diabetes.<sup>1</sup>

Some risk factors for developing type 2 diabetes are increased age, higher weight, high blood pressure, high cholesterol, and physical inactivity.<sup>3</sup> 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,<sup>1</sup> are less likely to have positive diabetes control indicators, such as lower A1c levels,<sup>4</sup> and experience worse health outcomes overall.<sup>5-7</sup>

Effective diabetes management depends largely on individual self-care,<sup>8,9</sup> making DSME/T critical to addressing this epidemic. DSME/T is “the process of facilitating the knowledge, skill, and ability necessary for diabetes self-care.”<sup>10</sup> This process requires incorporating patients’ unique needs and experiences into individualized education and support plans that promote new behaviors and solutions.<sup>10</sup> 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.<sup>11</sup>

Research shows that by giving patients the tools necessary to better manage their diabetes, DSME/T significantly improves health outcomes<sup>12-15</sup> and reduces health care expenditures.<sup>8,9,16-23</sup> 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.”<sup>24</sup>

Despite this evidence, participation in DSME/T remains low,<sup>25,26</sup> particularly among rural populations,<sup>12</sup> Medicare<sup>27</sup> and Medicaid beneficiaries,<sup>16</sup> uninsured or underinsured persons,<sup>28,29</sup> and “ethnic minorities, older persons, and persons with language barriers and low literacy.”<sup>24</sup> Moreover, DSME/T services often do not conform to best practices.<sup>28</sup> 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).<sup>11</sup>

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 and to identify opportunities for reform.

**Diabetes in Mississippi**

As of 2015, more than 1 in 8 adults in Mississippi had been diagnosed with diabetes—more than 334,000 individuals in total.<sup>30</sup> According to the ADA, an additional 810,000 people—37.5% of the state’s adult population—have prediabetes.<sup>31</sup> African Americans with diabetes in Mississippi are at least 2.5 times more likely than white individuals with diabetes in the state to die from the disease.<sup>32</sup>

In 2015, more than half of Mississippi adults with diabetes reported “fair or poor” general health, and 65.9% reported poor mental or physical health at least 1 day in the past 30 days.<sup>30</sup> However, in 2014, nearly 10% of adults with diabetes in Mississippi did not visit a health professional for their diabetes.<sup>30</sup> The annual medical and economic costs attributable to diabetes in Mississippi exceeds \$4.7 billion.<sup>33</sup> As part of a multipronged effort to combat the disease, the state is seeking to increase the number of DSME/T providers, awareness of DSME/T programs, and the number of persons referred to and participating in DSME/T.<sup>32</sup>

<b>MS Diabetes Burden Compared with National Diabetes Burden (Age-Adjusted)<sup>30,34</sup></b>	<b>MS</b>	<b>U.S.</b>
% of Adults with Diagnosed Diabetes (2015)	13.6%	9.1% <sup>iii</sup>
New Cases of Diabetes / 1,000 Adults (2015)	13.7	6.5
Completed a DSME/T Class <sup>ii</sup> (2010)	44.7%	57.4%
Daily Self-Monitoring Blood Glucose <sup>ii</sup> (2010)	74.2%	63.6%
Overweight or Obese <sup>ii</sup> (2010)	88.2%	84.7%
Physical Inactivity <sup>ii</sup> (2010)	51.3%	36.1%
High Blood Pressure <sup>ii</sup> (2015)	66%	57.9% <sup>iii</sup>
High Cholesterol <sup>ii</sup> (2015)	55.3%	55.5% <sup>iii</sup>

<sup>i</sup> DSME/T may also be referred to as diabetes self-management education (DSME), diabetes self-management training (DSMT), or diabetes self-management education and support.

<sup>ii</sup> Adults with Self-reported Diagnosed Diabetes  
<sup>iii</sup> 50 States + DC: US Median

## Current State Insurance Coverage for DSME/T

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.<sup>35</sup> 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.<sup>36</sup> These limitations, as well as the services Medicaid covers, vary among the states.<sup>37</sup>

Insurance Type	Private	Medicare	Medicaid
% of State Population <sup>38</sup>	46%	15%	23%
Coverage Required	No	Part B only	Yes
Cost Sharing	Varies by plan	Up to 20% copay Deductible	Varies
Limitations	\$250 coverage limit	10 hours within 12 months of initial referral 2 hours annual follow-up training Referral required	Prior authorization 7 hours within 6 months of initial visit 2 hours annual follow-up training

### Private Insurance

Mississippi requires most private health insurance policies to offer an option to receive DSME/T coverage.<sup>39</sup> This coverage is limited to \$250 annually, and a patient must obtain a prescription for DSME/T before receiving coverage for services.<sup>39</sup> DSME/T may be delivered in outpatient, inpatient, or home health settings and should follow nationally recognized standards.<sup>40</sup> The DSME/T provider must be a Certified Diabetes Educator, and the medical nutrition therapy provider must be an appropriately licensed Registered Dietitian.<sup>40</sup> Insurers may impose the same cost-sharing requirements applicable to other covered benefits.<sup>41</sup>

### Medicare Coverage

Medicare provides recipients with up to 10 hours of outpatient DSME/T in the year following their first referral for DSME/T.<sup>42,43</sup> Subject to limited exception,<sup>44</sup> recipients may receive 1 hour of private training and 9 hours of group training.<sup>45</sup> Recipients may qualify for up to 2 hours of follow-up training each year after

they receive initial training.<sup>46</sup> To receive coverage for DSME/T, a Medicare recipient must obtain a referral from the health care professional treating the recipient's diabetes<sup>47,48</sup> and receive the training from an ADA- or AADE-accredited program.<sup>47,49</sup> Recipients may be responsible for any applicable deductible and a copay up to 20% of the total cost of DSME/T services.<sup>47,50</sup>

### Medicaid Coverage

Mississippi's Medicaid program covers certain low-income populations, including low-income pregnant women, parents or caretakers of minor children, children, and individuals with disabilities.<sup>37,51,52</sup> The program covers medically necessary DSME/T if a beneficiary has been diagnosed with diabetes, receives an order for DSME/T from the health professional actively managing the beneficiary's disease, and receives prior authorization for the services.<sup>53</sup> The program covers up to 7 hours of initial training and up to 2 hours of annual follow-up training.<sup>54</sup>

DSME/T must be provided "under the direct supervision of a physician, physician assistant, nurse practitioner, pharmacist or a registered nurse certified as a diabetes educator,"<sup>53</sup> and the provider seeking reimbursement must be ADA- or AADE-accredited.<sup>55</sup> The DSME/T program must meet ADA training standards and include an individualized needs and goals assessment.<sup>53,56</sup> Subject to limited exception, a beneficiary may receive 1 hour of private initial training; the beneficiary receives the remaining DSME/T services in group settings.<sup>54</sup>

### Conclusion

Research suggests that by empowering patients to manage their diabetes, DSME/T can improve health outcomes and reduce treatment costs.<sup>12-23</sup> 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

#### Mississippi Medicaid Information

<https://medicaid.ms.gov>

#### Medicare DSME/T Information

<http://bit.ly/2wC4pRE>

#### Diabetes Information from the CDC

[www.cdc.gov/diabetes/](http://www.cdc.gov/diabetes/)

#### LawAtlas Mississippi DSME/T Website

<http://j.mp/2chrhfn>

## References

- Centers for Disease Control and Prevention. *National Diabetes Statistics Report, 2017*. Atlanta, GA: Centers for Disease Control and Prevention; 2017. <https://www.cdc.gov/diabetes/pdfs/data/statistics/national-diabetes-statistics-report.pdf>.
- U.S. Census Bureau PD. Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2015. United States Census Bureau Website. <http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk>. Published 2015. Accessed February 4, 2016.
- Am I at Risk for Type 2 Diabetes? Taking Steps to Lower Your Risk of Getting Diabetes. National Institute of Diabetes and Digestive and Kidney Diseases website. <http://www.niddk.nih.gov/health-information/health-topics/Diabetes/type-2-diabetes-taking-steps-lower-your-risk-diabetes/Pages/index.aspx#7>. Published 2012. Accessed February 29, 2016.
- Risk Factors for Complications. Centers for Disease Control and Prevention website. [http://www.cdc.gov/diabetes/statistics/risk\\_factors\\_national.htm](http://www.cdc.gov/diabetes/statistics/risk_factors_national.htm). Accessed January 22, 2016.
- Health Status and Disability. Centers for Disease Control and Prevention website. [http://www.cdc.gov/diabetes/statistics/health\\_status\\_national.htm](http://www.cdc.gov/diabetes/statistics/health_status_national.htm). Accessed January 22, 2016.
- Diabetes Complications. Centers for Disease Control and Prevention website. [http://www.cdc.gov/diabetes/statistics/complications\\_national.htm](http://www.cdc.gov/diabetes/statistics/complications_national.htm). Accessed January 22, 2016.
- Hospitalization. Centers for Disease Control and Prevention website. [http://www.cdc.gov/diabetes/statistics/hospitalization\\_national.htm](http://www.cdc.gov/diabetes/statistics/hospitalization_national.htm). Accessed January 22, 2016.
- Ryan JG, Jennings T, Vittoria I, Fedders M. Short and long-term outcomes from a multisession diabetes education program targeting low-income minority patients: A six-month follow up. *Clin Ther*. 2013;35(1):A43-A53. doi:10.1016/j.clinthera.2012.12.007.
- Ruppert K, Uhler A, Siminerio L. Examining patient risk factors, comorbid conditions, participation, and physician referrals to a rural diabetes self-management education program. *Diabetes Educ*. 2010;36(4):603-612. doi:10.1177/0145721710369705.
- Powers MA, Bardsley J, Cypress M, et al. Diabetes self-management education and support in type 2 diabetes: A joint position statement of the American Diabetes Association, the American Association of Diabetes Educators, and the Academy of Nutrition and Dietetics. *Diabetes Care*. 2015;38(7):1372-1382. <http://care.diabetesjournals.org/content/38/7/1372.full.pdf>.
- Haas L, Maryniuk M, Beck J, et al. National standards for diabetes self-management education and support. *Diabetes Care*. 2014;37(Supplement 1):S144-S153. doi:<http://dx.doi.org/10.2337/dc14-S144>.
- Lepard MG, Joseph AL, Agne AA, Cherrington AL. Diabetes Self-Management Interventions for Adults with Type 2 Diabetes Living in Rural Areas: A Systematic Literature Review. *Curr Diab Rep*. 2015;15(6):37.
- Norris SL, Nichols PJ, Caspersen CJ, et al. Increasing Diabetes Self-Management Education in Community Settings: A Systematic Review. *Am J Prev Med*. 2002;22(4S):39-66.
- Brunisholz KD, Briot P, Hamilton S, et al. Diabetes self-management education improves quality of care and clinical outcomes determined by a diabetes bundle measure. *J Multidiscip Healthc*. 2014;7:533-542. doi:10.2147/JMDH.S69000.
- Chrvala CA, Sherr D, Lipman RD. Diabetes self-management education for adults with type 2 diabetes mellitus: A systematic review of the effect on glycemic control. *Patient Educ Couns*. November 2015. doi:10.1016/j.pec.2015.11.003.
- Balamurugan A, Ohsfeldt R, Hughes T, Phillips M. Diabetes self-management education program for Medicaid recipients: A continuous quality improvement process. *Diabetes Educ*. 2006;32(6):893-900. doi:10.1177/0145721706294787.
- Frye R. Self-management education is the key to helping Medicaid patients with diabetes. *Health Care Strateg Manage*. 1997;15(11):16-17.
- Boren SA, Fitzner KA, Panhalkar PS, Specker JE. Costs and benefits associated with diabetes education: a review of the literature. *Diabetes Educ*. 2009;35(1):72-96.
- Duncan I, Birkmeyer C, Coughlin S, Li Q (Emily), Sherr D, Boren S. Assessing the Value of Diabetes Education. *Diabetes Educ*. 2009;35(5):752-760.
- Duncan I, Ahmed T, Li Q, et al. Assessing the value of the diabetes educator. *Diabetes Educ*. 2011;37(5):638-657. doi:10.1177/01457217111416256.
- Brownson CA, Hoerger TJ, Fisher EB, Kilpatrick KE. Cost-effectiveness of diabetes self-management programs in community primary care settings. *Diabetes Educ*. 2009;35(5):761-769.
- Li R, Zhang P, Barker LE, Chowdhury FM, Zhang X. Cost-Effectiveness of Interventions to Prevent and Control Diabetes Mellitus: A Systematic Review. *Diabetes Care*. 2010;33(8):1872-1894. <http://care.diabetesjournals.org/content/33/8/1872.long>.
- Micklethwaite A, Brownson CA, O'Toole ML, Kilpatrick KE. The Business Case for a Diabetes Self-Management Intervention in a Community General Hospital. *Popul Health Manag*. 2012;15(4):230-235.
- Strine TW, Okoro CA, Chapman DP, Beckles G LA, Balluz L, Mokdad AH. The impact of formal diabetes education on the preventive health practices and behaviors of persons with type 2 diabetes. *Prev Med (Baltim)*. 2005;41(1):79-84.
- Age-Adjusted Percentage of Adults Aged 18 Years or Older with Diagnosed Diabetes Ever Attending a Diabetes Self-Management Class, United States, 2000–2010. Centers for Disease Control and Prevention website. [http://www.cdc.gov/diabetes/statistics/preventive/fy\\_class.htm](http://www.cdc.gov/diabetes/statistics/preventive/fy_class.htm). Accessed January 21, 2016.
- Li R, Shrestha SS, Lipman R, Burrows NR, Kolb LE, Rutledge S. Diabetes self-management education and training among privately insured persons with newly diagnosed diabetes — United States, 2011–2012. *Morb Mortal Wkly Rep*. 2014;63(46):1045-1049. [www.cdc.gov/mmwr/preview/mmwrhtml/mm6346a2.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6346a2.htm).
- Strawbridge LM, Lloyd JT, Meadow A, Riley GF, Howell BL. Use of Medicare's diabetes self-management training benefit. *Heal Educ Behav*. 2015;42(4):530-538. doi:10.1177/1090198114566271.
- Shaw K, Killeen M, Sullivan E, Bowman P. Disparities in diabetes self-management education for uninsured and underinsured adults. *Diabetes Educ*. 2011;37(6):813-819. doi:10.1177/0145721711424618.
- Carpenter DM, Fisher EB, Greene SB. Shortcomings in Public and Private Insurance Coverage of Diabetes Self-Management Education and Support. *Popul Health Manag*. 2012;15(3):144-148.
- United States Diabetes Surveillance System. Centers for Disease Control and Prevention website. <http://gis.cdc.gov/grasp/diabetes/DiabetesAtlas.html>. Accessed August

- 22, 2017. state/stateprofile.html?state=mississippi. Accessed September 22, 2017.
31. American Diabetes Association. *The Burden of Diabetes in Mississippi*; 2015. <http://main.diabetes.org/dorg/PDFs/Advocacy/burden-of-diabetes/mississippi.pdf>.
  32. Mississippi State Department of Health. *2015 Mississippi Diabetes Action Plan*; 2015. [http://msdh.ms.gov/msdhsite/\\_static/resources/6180.pdf](http://msdh.ms.gov/msdhsite/_static/resources/6180.pdf).
  33. Diabetes State Burden Toolkit. Centers for Disease Control and Prevention website. <https://nccd.cdc.gov/Toolkit/DiabetesBurden/>.
  34. Chronic Disease Indicators Comparison Report. Centers for Disease Control and Prevention website. [http://nccd.cdc.gov/CDI/rdPage.aspx?rdReport=DPH\\_CDI.ComparisonReport](http://nccd.cdc.gov/CDI/rdPage.aspx?rdReport=DPH_CDI.ComparisonReport). Accessed August 22, 2017.
  35. Original Medicare (Part A and B) Eligibility and Enrollment. Centers for Medicare & Medicaid Services website. <https://www.cms.gov/medicare/eligibility-and-enrollment/origmedicarepartabeligenrol/index.html>. Accessed August 22, 2017.
  36. Centers for Medicare & Medicaid Services. Eligibility. Medicaid.gov website. <https://www.medicare.gov/medicaid/eligibility/index.html>. Accessed August 22, 2017.
  37. Kaiser Family Foundation. *Where Are States Today? Medicaid and CHIP Eligibility Levels for Children, Pregnant Women, and Adults*; 2017. <http://www.kff.org/medicaid/fact-sheet/where-are-states-today-medicare-and-chip/>.
  38. Kaiser Family Foundation. Health Insurance Coverage of the Total Population. Kaiser Family Foundation website. <http://kff.org/other/state-indicator/total-population/>. Published 2015. Accessed August 22, 2017.
  39. Miss. Code Ann. § 83-9-46(1).
  40. Miss. Code Ann. § 83-9-46(2).
  41. Miss. Code Ann. § 83-9-46(3).
  42. Centers for Medicare & Medicaid Services. Diabetes self-management training. Medicare.gov website. <https://www.medicare.gov/coverage/diabetes-self-mgmt-training.html>. Accessed August 22, 2017.
  43. 42 C.F.R. § 410.141(c)(1)(i)(B)-(C).
  44. 42 C.F.R. § 410.141(c)(1)(ii).
  45. 42 C.F.R. §§ 410.141(c)(1)(i)(D), (F).
  46. 42 C.F.R. § 410.141(c)(2)(i).
  47. Administration on Aging. AoA Diabetes Self-Management (DSMT) Toolkit. 2015. <https://www.acl.gov/sites/default/files/programs/2016-11/AoA-DSMT-Toolkit-2015.pdf>.
  48. 42 C.F.R. §§ 410.141(b)(1), (c)(2)(v).
  49. 42 C.F.R. § 410.142-.145.
  50. 42 C.F.R. § 410.152(b).
  51. Mississippi Division of Medicaid. Who Qualifies for Coverage? Mississippi Division of Medicaid website. <https://medicaid.ms.gov/medicaid-coverage/who-qualifies-for-coverage/>. Accessed June 3, 2016.
  52. Centers for Medicare & Medicaid Services. Medicaid & CHIP in Mississippi. Medicaid website. <https://www.medicare.gov/medicaid/by->
  53. 23-200 Miss. Code R. § 5.6(C).
  54. 23-200 Miss. Code R. § 5.6(E).
  55. 23-200 Miss. Code R. § 5.6(B).
  56. 23-200 Miss. Code R. § 5.6(D).