



**A Key Tool in Health Care: Diabetes Self-Management Education and Training (DSME/T)  
Michigan: 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 Michigan.

**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 Michigan**

As of 2015, nearly 1 in 10 adults in Michigan had been diagnosed with diabetes—more than 827,000 individuals in total.<sup>30</sup> African Americans and Hispanic individuals in Michigan are twice as likely as non-Hispanic whites to have the disease.<sup>31</sup> According to the ADA, an additional 2.74 million individuals—37% of the state’s adult population—have prediabetes.<sup>32</sup>

Michigan adults with diabetes are 2.5 times more likely to have high blood pressure and 1.8 times more likely to have high cholesterol than those without the disease.<sup>33</sup> More than a quarter of adults with diabetes in the state have had a heart attack or stroke.<sup>31</sup> Between 2011 and 2013, Michigan adults with diabetes who received DSME/T were 61% more likely than those who did not receive DSME/T to receive 3 key preventive services: 2 A1c measurements, an eye examination, and a foot examination.<sup>33</sup> The annual medical and economic costs attributable to diabetes in Michigan exceeds \$13.5 billion.<sup>34</sup>

<b>MI Diabetes Burden Compared with National Diabetes Burden (Age-Adjusted)<sup>30,35</sup></b>	<b>MI</b>	<b>U.S.</b>
% of Adults with Diagnosed Diabetes (2015)	9.5%	9.1% <sup>iii</sup>
New Cases of Diabetes / 1,000 Adults (2015)	6.5	6.5
Completed a DSME/T Class <sup>ii</sup> (2010)	60.5%	57.4%
Daily Self-Monitoring Blood Glucose <sup>ii</sup> (2010)	65.1%	63.6%
Overweight or Obese <sup>ii</sup> (2010)	82.4%	84.7%
Physical Inactivity <sup>ii</sup> (2010)	33.2%	36.1%
High Blood Pressure <sup>ii</sup> (2015)	54.6%	57.9% <sup>iii</sup>
High Cholesterol <sup>ii</sup> (2015)	52.1%	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 Diabetes Diagnosis

<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>36</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>37</sup> These limitations, as well as the services Medicaid covers, vary among the states.<sup>38</sup>

Insurance Type	Private	Medicare	Medicaid
% of State Population <sup>39</sup>	59%	16%	19%
Coverage Required	Yes	Part B only	Yes
Cost Sharing	Varies by plan	Up to 20% copay Deductible	Varies
Limitations	Available only upon diabetes diagnosis or a significant change in symptoms or condition	10 hours within 12 months of initial referral 2 hours annual follow-up training Referral required	10 hours within 12 months of initial referral 2 hours annual follow-up training Referral required

## Private Insurance

Michigan requires private health insurance policies to provide coverage for outpatient DSME/T.<sup>40,41</sup> Private insurance covers DSME/T if the physician managing an individual's diabetes finds DSME/T medically necessary upon a diabetes diagnosis or upon a significant change in the individual's symptoms or condition.<sup>42,43</sup> When practicable, DSME/T should be provided in group settings.<sup>44,45</sup> DSME/T programs must be either certified to receive Medicaid or Medicare reimbursement or certified by the Michigan Department of Health and Human Services.<sup>44,45</sup> Insurers may impose cost-sharing requirements that do not exceed "those for physical illness generally."<sup>46,47</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>48,49</sup> Subject to limited exception,<sup>50</sup> recipients may receive 1 hour of private training and 9 hours of group training.<sup>51</sup> Recipients may qualify for up to 2 hours of follow-up training each year after they receive initial training.<sup>52</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>53,54</sup> and receive the training from an ADA- or AADE-accredited program.<sup>53,55</sup> Recipients may be responsible for any applicable deductible and a copay up to 20% of the total cost of DSME/T services.<sup>53,56</sup>

## Medicaid Coverage

Michigan's Medicaid program covers all individuals at or below 138% of the federal poverty level (approximately \$33,948 for a family of four in 2017)<sup>57</sup> as well as certain populations that do not otherwise meet the income eligibility requirements, such as some pregnant women.<sup>38,58</sup> The program covers DSME/T when ordered by a physician or a qualified non-physician medical practitioner responsible for a beneficiary's diabetic care.<sup>59</sup> DSME/T must be provided by diabetes educators in a Medicaid-enrolled outpatient hospital or Local Health Department that is: (1) certified as a DSME program by the Michigan Department of Health and Human Services Population Health Administration; (2) AADE-accredited; or (3) ADA-recognized.<sup>59</sup> The program follows Medicare billing guidelines and allows DSME/T by telemedicine.<sup>59</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

### Michigan Medicaid Information

[www.michigan.gov/mdhhs](http://www.michigan.gov/mdhhs)

### Medicare DSME/T Information

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

### Diabetes Information from the CDC

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

### LawAtlas Michigan DSME/T Website

<http://j.mp/2ccN4no>

## 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.
31. Michigan Department of Community Health. *Diabetes in Michigan Update - 2013.*; 2013. [https://www.michigan.gov/documents/mdch/Diabetes\\_in\\_Michigan\\_Update\\_2013\\_416620\\_7.pdf](https://www.michigan.gov/documents/mdch/Diabetes_in_Michigan_Update_2013_416620_7.pdf).
  32. American Diabetes Association. *The Burden of Diabetes in Michigan.*; 2015. <http://main.diabetes.org/dorg/PDFs/Advocacy/burden-of-diabetes/michigan.pdf>.
  33. Michigan Department of Health & Human Services. *Diabetes in Michigan Update - 2015.* [http://www.michigan.gov/documents/mdhhs/Diabetes-in-Michigan-Update-2015\\_516855\\_7.pdf](http://www.michigan.gov/documents/mdhhs/Diabetes-in-Michigan-Update-2015_516855_7.pdf).
  34. Diabetes State Burden Toolkit. Centers for Disease Control and Prevention website. <https://nccd.cdc.gov/Toolkit/DiabetesBurden/>.
  35. 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.
  36. 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.
  37. Centers for Medicare & Medicaid Services. Eligibility. Medicaid.gov website. <https://www.medicare.gov/medicaid/eligibility/index.html>. Accessed August 22, 2017.
  38. 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/>.
  39. 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.
  40. Mich. Comp. Laws § 500.3406p(3)(e).
  41. Mich. Comp. Laws § 550.1416b(3)(g).
  42. Mich. Comp. Laws § 500.3406p(5)(a).
  43. Mich. Comp. Laws § 550.1416b(5)(a).
  44. Mich. Comp. Laws § 500.3406p(5)(b).
  45. Mich. Comp. Laws § 550.1416b(5)(b).
  46. Mich. Comp. Laws § 500.3406p(6).
  47. Mich. Comp. Laws § 550.1416b(6).
  48. 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.
  49. 42 C.F.R. § 410.141(c)(1)(i)(B)-(C).
  50. 42 C.F.R. § 410.141(c)(1)(ii).
  51. 42 C.F.R. §§ 410.141(c)(1)(i)(D), (F).
  52. 42 C.F.R. § 410.141(c)(2)(i).
  53. 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>.
  54. 42 C.F.R. §§ 410.141(b)(1), (c)(2)(v).
  55. 42 C.F.R. § 410.142-.145.
  56. 42 C.F.R. § 410.152(b).
  57. U.S. Department of Health & Human Services. U.S. Federal Poverty Guidelines Used to Determine Financial Eligibility for Certain Federal Programs. Office of the Assistant Secretary for Planning and Evaluation website. <https://aspe.hhs.gov/poverty-guidelines>. Published 2017. Accessed August 24, 2017.
  58. Centers for Medicare & Medicaid Services. Medicaid & CHIP in Michigan. Medicaid website. <https://www.medicare.gov/medicaid/by-state/stateprofile.html?state=michigan>. Accessed September 21, 2017.
  59. Michigan Department of Health & Human Services. Medicaid Provider Manual. 2017:195, 232, 1599, 1648. <http://www.mdch.state.mi.us/dch-medicare/manuals/MedicaidProviderManual.pdf>.