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“EVERY 17 SECONDS, ANOTHER AMERICAN IS DIAGNOSED WITH DIABETES AND, IF CURRENT TRENDS CONTINUE, ONE IN THREE AMERICANS WILL HAVE DIABETES BY 2050.”

ABOUT THE AUTHORS

The Center for Health Law and Policy Innovation of Harvard Law School (CHLPI) advocates for legal, regulatory, and policy reforms to improve the health of underserved populations, with a focus on the needs of low-income people living with chronic illnesses. CHLPI works with consumers, advocates, community-based organizations, health and social services professionals, food providers and producers, government officials, and others to expand access to high-quality healthcare and nutritious, affordable food; to reduce health disparities; to develop community advocacy capacity; and to promote more equitable and effective healthcare and food systems. CHLPI is a clinical teaching program of Harvard Law School and mentors students to become skilled, innovative, and thoughtful practitioners as well as leaders in health, public health, and food law and policy. CHLPI includes the Health Law & Policy Clinic and the Food Law & Policy Clinic.

For the past four years, CHLPI has been deeply engaged in research and analysis on type 2 diabetes policy. This initiative is known as the PATHS Project (Providing Access to Healthy Solutions). Intensive state-based research and coalition-building culminated in two comprehensive diabetes policy reports in New Jersey and North Carolina, released in 2014. In 2015, CHLPI released *Beating Type 2 Diabetes: Recommendations for Federal Policy Reform* and conducted a series of roundtables with key stakeholders in Washington, D.C., to advocate for high-impact policy change at the federal level. In addition to state and federal policy reports, CHLPI has published resources and materials on specific issues within diabetes prevention and care, such as the economic case for eliminating cost-sharing for key services, model guidelines for credentialing community health workers, the role for collaboration among healthcare providers and food and nutrition service organizations, and how innovations in managed care can support care access and quality for people living with prediabetes or diabetes. *Beating Type 2 Diabetes: Best Practices for States* is the final publication of the PATHS project. All publications and presentations related to this work can be found on CHLPI’s website (chlpi.org) and on the project’s web portal at diabetespolicy.org.

This work has been generously supported by the Bristol-Myers Squibb Foundation’s *Together on Diabetes* initiative.

*Beating Type 2 Diabetes: Best Practices for States* is primarily authored by Sarah Downer, Katie Garfield, Emma Clippinger, Tess Peacock, Dorothy Hector, Wendy Teo, Steven Gonzalez, Hannah Nicholson, Kristen Hayashi, Victoria Powers, Meredith Fierro and Ike Lee. CHLPI thanks numerous type 2 diabetes advocates for providing feedback and critique throughout the drafting process, and the CHLPI Deputy Director and Director, Emily Broad Leib and Robert Greenwald for their wisdom and guidance.
# TABLE OF ACRONYMS

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<thead>
<tr>
<th>Acronym</th>
<th>Full Name</th>
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<tbody>
<tr>
<td>ACA</td>
<td>Affordable Care Act</td>
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<td>ADA</td>
<td>American Diabetes Association</td>
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<td>ADL</td>
<td>Activities of Daily Living</td>
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<td>CDC</td>
<td>Centers for Disease Control and Prevention</td>
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<tr>
<td>CEP</td>
<td>Community Eligibility Provision</td>
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<tr>
<td>CHLPI</td>
<td>Center for Health Law &amp; Policy Innovation of Harvard Law School</td>
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<tr>
<td>CHW</td>
<td>Community Health Worker</td>
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<td>CMMI</td>
<td>Center for Medicare &amp; Medicaid Innovation</td>
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<td>CMS</td>
<td>Centers for Medicare &amp; Medicaid Services</td>
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<td>CNR</td>
<td>Child Nutrition Reauthorization</td>
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<td>DAP</td>
<td>Diabetes Action Plan</td>
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<td>DPP</td>
<td>Diabetes Prevention Program</td>
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<td>DSME</td>
<td>Diabetes Self-Management Education</td>
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<td>EHB</td>
<td>Essential Health Benefits</td>
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<td>EHR</td>
<td>Electronic Health Record</td>
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<td>FDPIR</td>
<td>Food Distribution Program on Indian Reservations</td>
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<td>FINI</td>
<td>Food Insecurity Nutrition Incentive</td>
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<td>FPL</td>
<td>Federal Poverty Level</td>
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<td>HCBS</td>
<td>Home and Community-Based Services</td>
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<td>HFFI</td>
<td>Healthy Food Financing Initiative</td>
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<td>HHFKA</td>
<td>Healthy, Hunger Free Kids Act of 2010</td>
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<tr>
<td>HHS</td>
<td>U.S. Department of Health and Human Services</td>
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<td>IADL</td>
<td>Instrumental Activities of Daily Living</td>
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<td>MCO</td>
<td>Managed Care Organization</td>
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<td>MTM</td>
<td>Medically-Tailored Meal</td>
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<td>NP</td>
<td>Nurse Practitioner</td>
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<td>NPP</td>
<td>Non-Physician Provider</td>
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<td>NSLP</td>
<td>National School Lunch Program</td>
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<td>RBL</td>
<td>Recess Before Lunch</td>
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<td>SBP</td>
<td>School Breakfast Program</td>
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<td>SPA</td>
<td>State Plan Amendment</td>
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<td>TANF</td>
<td>Temporary Assistance for Needy Families</td>
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<td>USDA</td>
<td>United States Department of Agriculture</td>
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EXECUTIVE SUMMARY

Between 1980 and 2011, the number of diabetes cases in the United States more than tripled, imposing enormous psychosocial and financial costs on individuals living with the disease and straining public and private healthcare systems. All policymakers must take immediate action to reduce the burden of diabetes in our nation. With the right care and interventions, diabetes can be effectively managed or entirely prevented. State decision-makers can make a significant difference by implementing the following Best Practices:

1. Close the health insurance “coverage gap” by expanding Medicaid or adopting an alternative strategy for healthcare coverage completion.

The uninsured are less likely than those with insurance to seek and receive preventive care and services for major health conditions and chronic illnesses such as diabetes. People with diabetes who do not have health insurance are twice as likely to experience devastating and expensive complications associated with the disease. States should ensure that all citizens with incomes below 138% of the Federal Poverty Level (FPL) have access to healthcare by expanding Medicaid or by adopting alternative strategies to extend healthcare coverage to this population. Under the Affordable Care Act, the federal government will pay 90% of the costs of expanding Medicaid.


Coordination between various state players to utilize limited funds and resources within a state is crucial in addressing the diabetes epidemic effectively. A Diabetes Action Plan (DAP) promotes communication and collaboration across agencies, institutions, and public and private actors. States should convene stakeholders to develop Diabetes Action Plans that establish statewide strategies and set priorities for resource allocation for the prevention, management, and treatment of type 2 diabetes.

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<tr>
<th>DECISION-MAKER</th>
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<tr>
<td>State Legislators</td>
<td>Enact legislation calling for the convening of stakeholders to develop a Diabetes Action Plan.</td>
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<td>Governor and State Officials</td>
<td>Convene a Task Force or Working Group charged with developing a Diabetes Action Plan.</td>
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<th>DECISION-MAKER</th>
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<tr>
<td>State Legislators and/or Executive Officials</td>
<td>To best increase access to affordable healthcare coverage for low-income residents, expand Medicaid to cover all uninsured adults up to 138% FPL or, if necessary, develop an alternative strategy for expanding access to health insurance for all uninsured adults who fall into the coverage gap.</td>
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</table>
Many individuals with diabetes experience difficulty in accessing the primary care they need. In many states, non-physician providers (NPPs) such as nurse practitioners, physician assistants, and pharmacists who could step in to increase access to primary care are barred from doing so by scope of practice laws that limit the types of interactions they can have with patients. States should pursue efforts to amend the scope of practice for non-physician providers in order to broaden access to primary care and other health services and to ensure a continuum of care is available to effectively prevent, manage, and treat type 2 diabetes.

**DECISION-MAKER**

**REQUESTED ACTION**

State Legislators

- Enact legislation expanding the scope of practice for NPPs like nurse practitioners, physician assistants, and pharmacists, or delegate broad authority to define scope of practice to state boards or agencies.

State Regulators

- Broaden scope of practice for NPPs through regulation to increase access to primary care.

**DECISION-MAKER**

**REQUESTED ACTION**

State Legislators

- Enact legislation directing the appropriate state agency to develop a credentialing system for CHWs.

State Regulators

- Work with stakeholders to ensure that CHW credentialing will foster a strong workforce with close ties to the community.

Community Health Workers (CHWs), also known as lay health educators or promotores de salud, perform a range of tasks that help patients engage in care, from health education and healthy behavior coaching to care coordination. Incorporating CHWs into care teams has been shown to reduce rates of chronic illness, improve medication adherence, encourage patient empowerment, augment community health, and reduce healthcare costs. Despite the evidence demonstrating CHW effectiveness, barriers to full integration of CHWs into care teams continue to exist, such as lack of coverage by insurance. States should enact legislation that establishes a credentialing mechanism for certifying CHWs and/or the programs and institutions that employ CHWs. Formal credentialing will increase opportunities for integration of CHW services into diabetes and prediabetes care.
5. Include coverage of the National Diabetes Prevention Program and Diabetes Self-Management Education in Medicaid and State Essential Health Benefit benchmark plans.

The National Diabetes Prevention Program (National DPP) and Diabetes Self-Management Education (DSME) are evidence-based, cost-effective services that have the potential to reduce the incidence of diabetes and help individuals manage the disease effectively after diagnosis. Research shows that participation in the National DPP reduces the likelihood of developing diabetes by 58%, thus improving patient outcomes and decreasing the costs associated with diabetes care and complications. DSME has been shown to lower blood glucose levels in individuals diagnosed with diabetes, which translates into fewer diabetes complications and reduced medical costs. States should add the National DPP and DSME to the list of benefits covered under their Medicaid plans. States should also choose Essential Health Benefits (EHB) benchmark plans that include coverage of the National DPP and DSME in order to encourage increased coverage in the private insurance market.

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<th>DECISION-MAKER</th>
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<tr>
<td>State Legislators</td>
<td>Enact legislation requiring the National DPP and DSME to be covered benefits in Medicaid.</td>
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<tr>
<td>State Legislators</td>
<td>Enact legislation that requires private health insurers operating in the state to cover the National DPP and DSME.</td>
</tr>
<tr>
<td>State Regulators</td>
<td>Select a state benchmark plan that includes coverage of the National DPP and DSME in order to expand coverage for these critical services in the private market.</td>
</tr>
<tr>
<td>State Regulators</td>
<td>Add coverage for the National DPP and DSME to Medicaid through development of State Plan Amendments or waivers.</td>
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6. Develop bidirectional electronic communication systems that allow referrals and sharing of select patient information between clinical and community-based resource providers.

Clinical and community-based resource providers and people living with diabetes consistently cite lack of effective communication as a barrier to more efficient and effective diabetes care. Although robust resources such as diabetes prevention or management programs, nutrition classes, and exercise programs often exist in the community, providers are challenged by lack of awareness or by not knowing whether patients are able to make a successful connection with the resource or service. At the other end of the feedback loop, community-based providers have information about patients that would be useful to providers for creating or modifying treatment plans, like progress in weight loss and level of physical activity. States should invest in the creation of bidirectional electronic referral systems that enable clinical providers to easily refer patients to community-based resources and allow administrators of community-based resources to communicate key information about patient services and progress back to clinical providers.

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<th>DECISION-MAKER</th>
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<tr>
<td>State Legislators</td>
<td>Enact legislation calling for the development of a bidirectional communication system and appropriate funding for its development.</td>
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<tr>
<td>State Regulators</td>
<td>Convene stakeholders and develop a bidirectional communication system that clinical providers and community-based resource providers can use to enhance patient care.</td>
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Diet is a crucial component of diabetes prevention, management, and treatment, and food can and should be used as a medical intervention. For the average cost of a Medicaid hospital stay ($7,800), Medicaid could provide three healthy, medically-tailored meals per day (at $20 per day) to someone living with diabetes for more than one year. The impact of providing food to people with diabetes can be quite significant; for example, early results from a Medicaid Managed Care plan initiative that delivers medically-tailored meals to beneficiaries with diabetes showed that 85% of study participants lowered their A1Cs after receiving these meals, some by as much as 50%. States should add coverage of prescribed medically-tailored food to the list of Medicaid benefits for people at risk for or living with type 2 diabetes in order to improve health outcomes and reduce healthcare costs.

Among adults with diabetes, food insecurity is associated with increased rates of depression, diabetes distress, hospitalizations, and low medication adherence. Conversely, SNAP participation is associated with better glucose control among food-insecure adults living with diabetes. States should increase participation in SNAP among eligible households in order to (1) provide low-income individuals living with or at risk for type 2 diabetes the food they need to stay healthy and (2) increase participation in other nutrition programs, such as the National School Lunch Program, for which SNAP participants are categorically eligible. Increased participation in SNAP also means that more individuals can benefit from nutrition incentive programs that further subsidize the purchase of healthy food such as fruits and vegetables.

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<tr>
<td>State Legislators</td>
<td>Enact legislation that requires medically-tailored meals or prescribed healthy food to be a covered benefit in Medicaid.</td>
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<tr>
<td>State Legislators</td>
<td>Enact legislation calling for development of Medicaid waivers (HCBS 1915(c) or 1115) that include medically-tailored meals or prescribed healthy food as a benefit for appropriate populations.</td>
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<tr>
<td>State Regulators</td>
<td>Include medically-tailored meals or prescribed healthy food as a covered benefit in all waivers (HCBS 1915(c) and 1115) and in all demonstration projects.</td>
</tr>
<tr>
<td>State Regulators</td>
<td>Pursue opportunities to participate in CMMI demonstration projects that include or can include provision of medically-tailored meals or prescribed healthy food.</td>
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<th>DECISION-MAKER</th>
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<tr>
<td>State Legislators</td>
<td>Increase the gross income limit for SNAP eligibility to 200% FPL and eliminate the use of an asset test.</td>
</tr>
<tr>
<td>State Legislators</td>
<td>Appropriate money for a state nutrition incentive grant program.</td>
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<tr>
<td>State Regulators</td>
<td>Collaborate with local partners to apply for federal FINI grants.</td>
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Improving geographic access to healthy foods can contribute to both the prevention and management of type 2 diabetes. Greater proximity to healthy food retailers is associated with a reduced risk for obesity, even after controlling for other factors such as income, race and ethnicity, and physical activity.16 Relatedly, residents of neighborhoods with better geographic access to healthy food retailers have healthier food intakes.17 States should appropriate money for financing programs that bring supermarkets and other healthy food retailers into communities that lack adequate access to healthy food options.

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<tr>
<td>State Legislators</td>
<td>Enact legislation establishing a financing fund to bring healthy food retailers into underserved communities.</td>
</tr>
<tr>
<td>State Regulators</td>
<td>Collaborate with local partners and stakeholders to assess the healthy food retail needs of individual communities and determine how financing funds can be best used to meet those needs.</td>
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10. Improve school nutrition programs.

Many students consume over 50% of their daily calories at school.18 Increasing access to nutritious food in schools is critical to reversing rising rates of obesity and type 2 diabetes among children and future generations of adults, particularly those in low-income households. States should take steps to increase participation in, and improve the quality of, school lunch and breakfast programs.

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<tr>
<td>State Legislators</td>
<td>Enact legislation providing targeted funding and support for school breakfast.</td>
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<tr>
<td>State Legislators</td>
<td>Enact legislation requiring universal school breakfast to be served at schools in high poverty locations.</td>
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<tr>
<td>State Regulators</td>
<td>Implement direct certification for all programs that bestow categorical eligibility and conduct direct certification matches on a monthly basis.</td>
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<tr>
<td>State Regulators</td>
<td>Apply for federal Direct Certification Improvement grants to strengthen statewide matching systems.</td>
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<tr>
<td>State Regulators</td>
<td>Provide outreach, education, and training about the Community Eligibility Provision (CEP) and encourage its adoption among eligible schools and school districts.</td>
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<tr>
<td>State Regulators</td>
<td>Expand the scope of foods covered under the federal Smart Snacks Rule and eliminate the fundraiser exemption.</td>
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CONCLUSION

The diabetes epidemic requires urgent attention from all government actors, from federal to state to local policymakers. Implementation of the Best Practices detailed in this report would yield significant results for people living with or at risk for type 2 diabetes.
INTRODUCTION

Between 1980 and 2011, the number of diabetes cases in the United States more than tripled, imposing enormous psychosocial and financial costs on individuals living with the disease and straining public and private healthcare systems. All policymakers must take immediate action to reduce the burden of diabetes in our nation. While a unified and comprehensive federal strategy is crucial, state policy has enormous potential to transform the delivery of healthcare, improve access to healthy food, and affect other environmental factors that influence residents’ ability to adopt healthy behaviors and adhere to a medical treatment plan. State decision-makers can make a significant difference by implementing the Best Practices described in this report.

These Best Practices reflect independent research and hundreds of interviews with healthcare providers, state and federal health officials, national, state, and local advocacy organizations, community leaders, and people living with or at risk for type 2 diabetes. The recommendations were selected because their collective implementation has significant potential to transform the landscape for type 2 diabetes, from the healthcare setting to the food environment. They address the need to expand access to health insurance, healthcare providers, and evidence-based diabetes prevention and management tools. They also describe strategies that states can use to foster important clinical-community linkages and organize statewide efforts around diabetes in order to allocate resources most effectively. Finally, as CHLPI is an organization with a dual focus on health and food law and policy, this report advocates for increased access to crucial food and nutrition services and includes best practices around state implementation of federal food programs.
**Diabetes: A National Epidemic with Grave Implications for States**

Diabetes is the seventh-leading cause of death in the United States. Over 29 million people – 9.3% of the population – in our nation have diabetes. Ninety-five percent of these individuals have type 2 diabetes. Eight million are undiagnosed.

The percentage of people with diagnosed diabetes is growing rapidly in all states. In West Virginia and Mississippi, for example, the rate of diagnosed diabetes has doubled since 1994, from 5.0% and 5.8%, respectively, to 12.0% and 11.9% today. Even the states with the lowest rate of diabetes (Colorado and Vermont at 6.9% in 2014) have seen a significant increase of at least three percentage points over the past 20 years.

People with diabetes suffer at higher-than-average rates from heart disease, stroke, blindness, kidney failure, and lower-limb amputation. Diabetes also increases the risk of depression, pregnancy complications, non-alcoholic fatty liver disease, erectile dysfunction, hearing loss, and certain types of cancer. The increased prevalence of diabetes and severity of comorbid diseases and disability associated with the disease makes it imperative to address diabetes using every tool at our disposal.

---

**Diabetes – Age-Adjusted Percentage – Total, 2014**

The Cost of Diabetes

Caring for diabetes is extremely expensive. In 2013, per capita healthcare expenditures for a person with diabetes were on average 3.4 times higher than expenditures for individuals without diabetes ($14,999 vs. $4,305). Taxpayers fund a large percentage of diabetes care through Medicare and Medicaid. The United States spends a significant portion of its healthcare dollars on diabetes: one in five overall healthcare dollars and one in three Medicare dollars are used to treat diabetes and its complications.

In 2012, the American Diabetes Association (ADA) estimated the total cost of the disease at $245 billion, including direct and indirect medical costs. In 2014, researchers put the annual cost of diabetes even higher at $322 billion, based on analysis of claims data from commercially insured individuals and Medicare beneficiaries ($244 billion in excess medical costs and $78 billion in reduced productivity). Every state shoulders a significant economic burden related to diabetes. In Colorado, for example, where the rate of diabetes is the lowest of any state, researchers estimated the direct and indirect cost of diagnosed diabetes at approximately $2.5 billion in 2012.

That number jumps up to $3.6 billion when it includes the cost of undiagnosed diabetes, prediabetes, and gestational diabetes. In West Virginia, the state with the highest rate of diabetes, the total cost of diagnosed and undiagnosed diabetes, gestational diabetes, and prediabetes ($2.4 billion) is more than 19% of the state’s total revenue in 2016 ($12.6 billion).
**Prediabetes: A Precursor to the Disease**

More than one-third of Americans meet the criteria for prediabetes. Individuals with prediabetes have higher than normal blood glucose or hemoglobin A1C levels and have a 15% to 30% chance of developing type 2 diabetes within five years. People with prediabetes can cut their risk of developing diabetes by more than half through participation in evidence-based lifestyle interventions that aim to reduce body weight and increase physical activity. The high rate of prediabetes and existence of proven interventions make it imperative to increase prediabetes screening among appropriate individuals and expand access to successful intervention programs, such as the National Diabetes Prevention Program.

**Prediabetes – Age-Adjusted Percentage – Total, 2014**

![Map showing the age-adjusted percentage of prediabetes in total for the United States in 2014, with different colors representing different percentage ranges.](source: Prediabetes: Age-Adjusted Percentage, Adults – Total, 2014 (Bar Graph), Ctrs. for Disease Control & Prevention, available at http://gis.cdc.gov/grasp/diabetes/DiabetesAtlas.html (last visited May 17, 2016).)
Disparities in Diabetes

Certain population groups in the United States have a higher-than-average diabetes burden. For example, diabetes disproportionately affects racial and ethnic minorities. In 2014, every minority group in the U.S. had a higher incidence of diabetes than non-Hispanic whites. Additionally, older adults have a higher risk of developing type 2 diabetes. Over one in four (25.9%) Americans aged 65 or older has diabetes, compared to 9.3% of the general population, and over half (51%) of the same age group has prediabetes. Low-income populations are also more likely than the general population to develop diabetes. Significant disparities in the rate of diabetes exist based on geographic location, ranging from a low of 6.9% of the adult population in Colorado and Vermont to a high of 12.0% in West Virginia. States in the Southeast have the highest rates of diabetes, forming a region researchers call the “diabetes belt.”
BEATING TYPE 2 DIABETES: BEST PRACTICES FOR STATES

A Call to Action

State policymakers must act now to turn the tide on diabetes. With the right care and interventions, diabetes can be effectively managed or entirely prevented. States control the operation of key federal programs at the state level, such as Medicaid and the Supplemental Nutrition Assistance Program (SNAP). They also bear the ultimate cost of an unhealthy population, as individuals with severe health conditions drop out of the workforce and rely on state safety net programs. The Best Practices below explore measures that state governments should adopt to ensure that people living with or at risk for type 2 diabetes receive effective, efficient, and cost-effective healthcare while gaining the resources and skills to manage their own health.

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<th>Best Practice for States</th>
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</table>
1. Close the health insurance “coverage gap” by expanding Medicaid or adopting an alternative strategy for healthcare coverage completion.

States should ensure that all citizens with incomes below 100% of the Federal Poverty Level (FPL) have access to healthcare by expanding Medicaid or by adopting alternative strategies to extend healthcare coverage to this population.

A HEALTH INSURANCE “COVERAGE GAP” EXISTS IN STATES THAT HAVE NOT EXPANDED MEDICAID.

The Affordable Care Act (ACA) took several steps to help low-income Americans access health insurance. Cost-Sharing Reduction Subsidies (“subsidies”) limit out-of-pocket expenses (deductibles, co-pays, and coinsurance) for individuals at 100-250% FPL. For individuals with incomes between 100-400% FPL who purchase health insurance on the private market, the ACA authorized Advance Premium Tax Credits (“tax credits”) that reduce the monthly premiums of commercial insurance plans. To address lack of access to healthcare for the lowest-income individuals, states have the option of expanding eligibility for their Medicaid programs in order to cover individuals under the age of 65 with incomes up to 138% FPL.

In states that have not adopted Medicaid expansion, individuals with incomes of less than 100% FPL often cannot get Medicaid coverage because they do not meet the traditional Medicaid eligibility requirements (low-income disabled individuals, pregnant women, or children). These individuals also cannot qualify for tax credits or subsidies under the current law because their incomes are lower than 100% FPL. This results in a “coverage gap,” with over 3 million low-income adults that must go without health insurance because they cannot afford it.

LACK OF AFFORDABLE HEALTH INSURANCE IS ASSOCIATED WITH NEGATIVE HEALTH OUTCOMES.

Numerous studies have shown that the uninsured are less likely than those with insurance to seek and receive preventive care and services for major health conditions and chronic illnesses. In 2014, only 27% of

<table>
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<tr>
<th>FPL Percentage</th>
<th>Median Medicaid Eligibility Limits as of September 2015</th>
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<tbody>
<tr>
<td>0% FPL Childless adults</td>
<td>$8,840 for parents in a family of three</td>
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<tr>
<td>44% FPL</td>
<td>$11,770 for an individual</td>
</tr>
<tr>
<td>100% FPL</td>
<td>$47,080 for an individual</td>
</tr>
<tr>
<td>400% FPL</td>
<td>$84,800 for an individual</td>
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uninsured adults reported a preventive visit with a physician in the last year, compared to 47% of insured adults who obtained coverage in 2014 and 65% of adults who had coverage since before 2014. Consequently, the uninsured population has a higher risk of preventable hospitalizations and delayed or missed diagnoses of serious health conditions. The uninsured also have a significantly higher mortality rate.

Even after being diagnosed with a chronic disease, such as diabetes, the uninsured are less likely to receive follow-up care, which in turn results in worse health outcomes. Uninsured individuals with diabetes are significantly more likely to report problems accessing needed care and acquiring prescription drugs. They are five times more likely than Medicaid recipients with diabetes to delay needed care. For people with diabetes, the complications arising from lack of routine medical care can be devastating, including blindness, amputations and in some cases, death. People with diabetes who do not have health insurance are twice as likely to experience complications associated with the disease.

STATES SHOULD EXPAND MEDICAID OR TAKE STEPS TO ENSURE THAT PEOPLE IN THE “COVERAGE GAP” CAN ACCESS HEALTH INSURANCE.

States should ensure that people at risk for or living with type 2 diabetes have access to affordable health insurance by expanding Medicaid or otherwise extending access to coverage for individuals with incomes below 100% FPL (those who currently cannot access tax credits or subsidies to purchase insurance on the health insurance marketplace).

As of April 2016, 26 states (including Washington, D.C.) expanded their Medicaid programs to cover adults up to 138% FPL. Six additional states – Arkansas, Montana, Iowa, Indiana, Michigan, and New Hampshire – are covering this population through alternatives to traditional Medicaid expansion. For example, Arkansas uses Medicaid funds to provide premium assistance to individuals who purchase coverage on the state marketplace. Iowa also uses a premium assistance model to help individuals under 138% FPL purchase coverage, and has an alternative plan for those who are medically frail.
Early exploration of the impact of Medicaid expansion on state budgets noted savings in various areas, including in behavioral health programs and uncompensated care payments to hospitals. States that have expanded access to Medicaid have also experienced significantly lower rates of admission and discharge of uninsured patients.

Enabling access to necessary healthcare for those with few financial resources is the best way to ensure that people at risk for or living with diabetes get the healthcare they need. The foundation of any effort to address the diabetes epidemic must be affordable access to preventive and acute care for our lowest-income and often most vulnerable residents.

A Diabetes Action Plan (DAP) promotes communication and collaboration across agencies, institutions, and public and private actors. It provides an impetus to convene stakeholders from all backgrounds – from key staff in departments of health, human services, agriculture, and transportation to healthcare providers, public and private health insurers, grassroots advocates, and patients/consumers. It can serve as a vehicle for directing limited resources to priority areas.

DAPs have been created in a number of states in response to legislation. For example, Kentucky passed legislation in 2011 requiring the Department for Medicaid Services, Department for Public Health, Office of Health Policy, and Personnel Cabinet to collaborate to identify goals and develop entity plans to “reduce the incidence of diabetes in Kentucky, improve diabetes care, and control complications associated with diabetes.”

Governors and other state officials can also initiate the creation of DAPs through executive action, such as creating a multi-disciplinary Task Force or Working Group charged with developing the Plan.

To maximize effectiveness, a comprehensive Diabetes Action Plan should include a number of key provisions.

1. **Describe the magnitude of the epidemic.**
   Key statistics demonstrate the urgency of the problem and can assist with modeling future costs associated with diabetes and future resource needs. For example, the North Carolina DAP predicts that annual healthcare costs (roughly $8.3 billion due to medical costs and lost productivity in 2014) attributable to diabetes could grow to reach $17 billion by 2025.

2. **Identify key state players involved in addressing the epidemic and list services and programs that are available to people who have or are at risk for diabetes.**
   Assessing the landscape of services and programs currently available helps to identify gaps and opportunities for leveraging

### DECISION-MAKER | REQUESTED ACTION
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State Legislators and/or Executive Officials | To best increase access to affordable healthcare coverage for low-income residents, expand Medicaid to cover all uninsured adults up to 138% FPL or, if necessary, develop an alternative strategy for expanding access to health insurance for all uninsured adults who fall into the coverage gap.

### 2. Develop state Diabetes Action Plans.

States should convene stakeholders to develop Diabetes Action Plans that establish statewide strategies and set priorities for resource allocation for the prevention, management, and treatment of type 2 diabetes.

**DIABETES ACTION PLANS PROVIDE OPPORTUNITIES TO CONVENE IMPORTANT AND DIVERSE STAKEHOLDERS.**

Coordination between various state players to utilize limited funds and resources within a state is crucial in addressing the diabetes epidemic effectively. Diabetes is a complex disease and many different entities within states have an important role to play in a comprehensive response. In addition to the roles and responsibilities of public agencies, the private sector also contributes resources that can be leveraged to increase the impact of diabetes programs and services.
existing resources. For example, the Texas DAP incorporates an overview of the efforts of its Department of State Health Services, Department of Assistive and Rehabilitative Services, Department of Aging and Disability Services, and Health and Human Services Commission while the Louisiana DAP discusses the programs implemented by its Department of Health and Hospitals, Bureau of Health Services Financing, and the Office of Public Health. The Kentucky DAP includes the funding sources and expenditures for each of the programs it describes.

3. Improve access to prevention and management education. Increased access to diabetes prevention and self-management training lowers the likelihood of developing diabetes or having poorly-controlled diabetes and empowers patients to be engaged in their own care. DAPs in North Carolina, North Dakota, and Kentucky push for the implementation of evidence-based health programs such as the National Diabetes Prevention Program while Oregon, Louisiana, and Washington have all stressed the need to improve diabetes self-management education in individuals already diagnosed with diabetes.

4. Encourage environmental changes to increase access to healthy food and physical activity. To help citizens prevent and manage diabetes, states need to look beyond the clinical setting to the food and physical activity landscape and encourage an environment that facilitates making healthy lifestyle choices. North Carolina’s DAP describes ways that the community and employers can help change the food and physical activity environment. Oregon’s DAP includes promotion of a Healthy Schools Act that would require accommodations for walking and biking and increased physical education in designs for new schools. The Plan also recommends making health a priority consideration in land use and transportation policy. The Louisiana DAP highlights the state’s Well-Ahead Program, where state agencies work closely with restaurants, schools, worksites, local governments, hospitals, and universities to implement healthy lunch options or support workplace fitness programs.

5. Encourage clinical-community linkages. There is often a disconnect between care provided in a clinical setting and access to patient education and self-management resources in the community. Providers are frequently unaware of community-based diabetes programs or other support services that could help their patients maintain or improve health. Meanwhile, community-based programs and services have valuable information about patient engagement in healthy lifestyle and self-management efforts or barriers to such efforts that could inform more effective diabetes prevention or treatment plans. States should take steps to facilitate collaboration and communication between clinical and community resource providers. For example, the Illinois DAP describes action steps the state will take to establish a reimbursement mechanism for diabetes education provided in a community setting. It also highlights increasing provider awareness of community resources and referrals to those resources as a priority for the state.

6. Address underlying causes of health disparities such as food insecurity, education, jobs, and access to healthcare. States must adopt measures that address health inequities and ensure that everyone is able to have equal access to information and care. DAPs should include measures that address disparities in diabetes prevalence, access to care, and health outcomes. Oregon, for example, recommends legislation to create an Interagency Coordinating Council on Health Disparities charged with developing a plan to address social determinants of health. The Illinois DAP calls for the collection and analysis of data to identify populations in which to deploy interventions that reduce health inequity.

7. Include information about funding and costs. A DAP should include projected cost estimates for each recommended action step, identify existing sources of funding within the state, and make specific recommendations for investment of state resources for plan priorities. The Oregon DAP includes projected costs and current sources of funding, while the North Dakota DAP provides cost estimates for each initiative included in the Plan.
8. Establish metrics to evaluate progress.
DAPs should include timelines for plan implementation and metrics for measuring success. For instance, Illinois’ evaluation model proposes an online survey for state and local partners that will assess progress in meeting objectives outlined in the plan. Finally, as new trends and research in the field emerge, states should mandate periodic updates to the DAP. Kentucky, for example, requires the DAP to be updated every 2 years.

3. Amend scope of practice laws and regulations so that non-physician providers can provide more primary care.
States should pursue efforts to amend the scope of practice for non-physician providers (NPPs), such as nurse practitioners, physician assistants, and pharmacists, in order to broaden access to primary care and other health services and to ensure a continuum of care is available to effectively prevent, manage, and treat type 2 diabetes.

The primary care shortage creates substantial barriers for the prevention, management, and treatment of diabetes.
A primary care provider is the most frequent point of contact with the healthcare system for most people living with or at risk for type 2 diabetes. These individuals monitor blood glucose levels and blood pressure, screen for common diabetes complications, and talk with patients about how to stay healthy through diet and exercise. However, many individuals experience difficulty in accessing the primary care they need. With 86 million people in the United States estimated to have prediabetes, existing primary care providers are likely to face increased demand for diabetes care that they cannot meet. If current trends continue, the Association of American Medical Colleges estimates that by 2025 there may be a shortage of 31,100 primary care physicians in the U.S.

Nurse practitioners, physician assistants, and pharmacists, can perform crucial components of primary diabetes care, including medication management, education on healthy behaviors, and monitoring of clinical indicators like blood glucose and blood pressure.

States should reform scope of practice laws to enable NPPs to perform all duties consistent with their education and licensing.
The solution to a lack of primary care lies in the efficient use of all health professionals to provide diabetes care. Medical professionals have increasingly emphasized the use of non-physician providers (NPPs) such as nurse practitioners, physician assistants, and pharmacists to fill part of the gap in available care caused by the primary care physician.
shortage. The projected shortage in primary care access could be significantly offset by increasing the use of non-physician providers and expanding their responsibilities on treatment teams.

In many states, NPPs who could step in to increase access to primary care for people with diabetes are barred from doing so by laws that limit the types of interactions they can have with patients. These scope of practice laws and regulations govern the ability of licensed professionals to provide certain medical services, such as diagnosing conditions and prescribing medications. Scope of practice laws also determine the level of autonomy the provider has (e.g., whether NPPs must operate under physician supervision or use physician-designed protocols). These statutory requirements differ widely from state to state.

For example, in Maryland, nurse practitioners are allowed to perform physical assessments, sign death certificates, and refer patients to physicians, whereas Michigan does not permit them to conduct any of those activities. Scope of practice schemes have a profound influence on the level of care a patient is able to receive from an NPP.

**States can expand the scope of practice for key NPPs through legislation or regulatory action.**

Many states have already begun to address scope of practice laws to allow more care to be provided by NPPs, especially nurse practitioners (NPs). States should also review legislative and regulatory limits on scope of practice for physician assistants and pharmacists to ensure these providers are able to offer as much care as possible to people living with or at risk for diabetes.

States have expanded NPP scope of practice through legislation or agency regulation. For example, the Oregon State Board of Nursing issued regulations that allow NPs to practice at “the top of their license,” meaning they have the full ability to perform every task for which they are trained. Nebraska, in contrast, took legislative action to expand the role of NPs to grant them similar powers.

**Expanding Scope of Practice State Examples:**

**Expanding scope of practice through regulation: Oregon**

Oregon has designated the authority to define scope of practice for NPs to the State Board of Nursing. The Board enables what the American Association of Nurse Practitioners terms a “full practice environment” for NPs, which means they are able to “evaluate patients, diagnose, order and interpret diagnostic tests, initiate and manage treatments—including prescribe medications—under the exclusive licensure authority of the state board of nursing” without restrictive clinical limitations or supervisory requirements. NPs do not require physician supervision, as they are “independently responsible and accountable for the continuous and comprehensive management of a broad range of healthcare, [which includes] prevention of illness...and management of healthcare during acute and chronic phases of illness.” They are also granted privileges that many states give only to physicians, such as the ability to diagnose illnesses, admit patients to hospitals, issue referrals to specialists, and prescribe medications (including controlled substances).

**Expanding scope of practice through legislation: Nebraska**

Nebraska is also a state where NPs can exercise full practice rights. By statute, responsibilities of NPs include: “[H]ealth promotion, health supervision, illness prevention and diagnosis, treatment, and management of common health problems and acute and chronic conditions...Assessing patients, ordering diagnostic tests and therapeutic treatments...[and] Prescribing therapeutic measures and medications (including controlled substances) relating to health conditions...” In 2015, Nebraska eliminated the requirement for a nurse practitioner to have an integrated practice agreement with a collaborating physician, allowing NPs to operate more independently.

The state also allowed newer NPs to be...
supervised by experienced NPs (defined as those who have practiced at least 10,000 hours) instead of restricting supervisory responsibilities to physicians only.98

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<tr>
<td>State Legislators</td>
<td>Enact legislation expanding the scope of practice for NPPs like nurse practitioners, physician assistants, and pharmacists, or delegate broad authority to define scope of practice to state boards or agencies.</td>
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<tr>
<td>State Regulators</td>
<td>Broaden scope of practice for NPPs through regulation to increase access to primary care.</td>
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4. Develop a statewide credentialing or recognition system for Community Health Workers.

States should enact legislation that establishes a credentialing mechanism for certifying Community Health Workers (CHWs) and/or the programs and institutions that employ CHWs.99 CHWs can help individuals prevent and manage type 2 diabetes in a cost-effective way. Formal credentialing will increase opportunities for integration of CHW services into diabetes and prediabetes care.

**CHWs improve healthcare outcomes and reduce healthcare costs.**

Community Health Workers, also known as lay health educators or promotores de salud, are generally members of the communities they serve who have experience with the health conditions they address. They perform a range of tasks that help patients engage in care, from health education and healthy behavior coaching to care coordination.100 They are able to overcome language and cultural barriers due to their close community ties. CHWs are uniquely successful in improving patient outcomes because of these community ties and their understanding of the constraints patients often face.101 Incorporating CHWs into care teams has been shown to reduce rates of chronic illness, improve medication adherence, encourage patient empowerment, and augment community health.102

Numerous studies, including by the Centers for Disease Control and Prevention (CDC), demonstrate the positive impact of incorporating CHWs into diabetes care.103 Specifically, CHWs have been shown to help patients reduce their blood glucose levels,104 cholesterol levels,105 and blood pressure.106 For example, the integration of CHWs into clinical care teams at St. Luke’s Health Care Center in San Francisco helped high-risk patients with diabetes reduce blood glucose levels from 10.55 at baseline to 8.72, and helped low-risk patients successfully manage their blood glucose levels.107 In Baltimore, a CHW Outreach Program for Medicaid recipients with diabetes decreased the number of emergency room visits by 38% and reduced the number of hospitalizations by 30%.108 Amigos en Salud (Friends in Health), an intervention that integrated CHWs into existing care teams to deliver culturally relevant diabetes education, increased the proportion of individuals with diabetes who reported “very good” or “excellent” health from 5% to 57%.109

By improving healthcare outcomes, the use of CHWs can also significantly reduce healthcare costs.110 When hospitalizations and emergency room visits decrease, costs go down dramatically. For example, the CHW Outreach Program in Baltimore resulted in annual savings of $262,000 for 100 patients,111 a return on investment of more than two dollars for every dollar spent on program costs.112

**States should adopt a credentialing framework to encourage increased insurance coverage of CHW services.**

Despite the evidence demonstrating their effectiveness, barriers continue to exist to full integration of CHWs into care teams. Many stakeholders in the health system still do not understand the contribution that CHWs make in helping patients with complex needs manage their health conditions.113 This is exacerbated by lack of uniform training and level of qualifications of CHWs.114 The lack of coverage by most insurers, including Medicaid, for CHW services, is the most significant hurdle to integrating CHWs into the healthcare system.115 Without reimbursement, physician practices and other institutions and programs must use volunteers or employ limited operating or
grant funds to support CHW positions.

A CHW credentialing system will: (1) increase payer and provider awareness and trust in the value of CHW services by establishing a uniform definition of the profession and (2) increase the likelihood that public and private payers will reimburse for CHW services, thus providing a stable funding stream for CHWs.

Adopting a credentialing system for CHWs has led to reimbursement for CHW services in a number of states. For example, in New Mexico, legislation created a certification program in 2014 and the state subsequently agreed to cover CHW services in its Medicaid program. In Minnesota’s credentialing system for CHWs is also tied to payment for certified CHWs in Medicaid. Minnesota Medicaid pays for CHWs to assist patients with disease management and conduct patient education for the promotion of health. The credentialing framework should incorporate flexibility and be developed with input from CHWs and the communities they serve.

A credentialing program for CHWs or programs that employ CHWs should be rigorous enough in education and training to ensure skills in core areas. It should also incorporate enough flexibility to ensure that CHWs continue to be closely tied to the communities they serve. Finally, the development of any credentialing framework should include input from CHWs themselves. Massachusetts, for example, has undertaken an extensive consultation process with CHWs to craft regulations around CHW certification. The state also requires that the Board of Certification for CHWs include CHW representation. In order to preserve the unique impact that CHWs have on health outcomes because of their ties to the community, systems of recognition should minimize financial, legal, or other barriers that might exclude otherwise qualified individuals from entering the profession.

The American Academy of Family Physicians Foundation, the National Council of La Raza, and CHLPI have developed a set of Model Guidelines for Credentialing Community Health Worker Programs and Community Health Workers that states can use as a starting point for developing a credentialing system.

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<tr>
<td>State Legislators</td>
<td>Enact legislation directing the appropriate state agency to develop a credentialing system for CHWs.</td>
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<tr>
<td>State Regulators</td>
<td>Work with stakeholders to ensure that CHW credentialing will foster a strong workforce with close ties to the community.</td>
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5. Include coverage of the National Diabetes Prevention Program and Diabetes Self-Management Education in Medicaid and State Essential Health Benefits benchmark plans.

States should explicitly add the National Diabetes Prevention Program (National DPP) and Diabetes Self-Management Education (DSME) to the list of benefits covered under their Medicaid plans through State Plan Amendments (SPAs) or Medicaid waivers. States should also choose Essential Health Benefits (EHB) benchmark plans that include coverage of the National DPP and DSME in order to encourage increased coverage in the private market.

The National DPP and DSME are evidence-based, cost-effective services that have the potential to reduce incidence of diabetes and help individuals manage the disease effectively after diagnosis.

The National DPP is a multi-session, lifestyle-change program that engages individuals with prediabetes, healthcare professionals, community-based organizations, and other stakeholders in a joint effort to reduce the incidence of type 2 diabetes. The National DPP provides group classes, equipping participants with practical knowledge and skills to lead active, healthy lives.

For those already diagnosed with diabetes, DSME helps patients manage blood glucose levels, lower incidence of diabetes complications, and decrease overall healthcare costs. DSME aims to “support informed decision making, self-care behaviors, problem
solving, and active collaboration with the healthcare team” in order to improve health status and quality of life. Group sessions, one-on-one instructional classes, and other educational platforms offer participants the opportunity to gain fundamental diabetes management skills related to diet, exercise, and medication use.

Diabetes disproportionately affects low-income individuals, many of whom receive healthcare coverage through Medicaid. Adult Medicaid beneficiaries with diabetes have relatively high rates of emergency department visits, hospital stays, and prescriptions filled, which indicates the need for cost-effective approaches to prevent diabetes and improve care for this population. Given the success of the National DPP and DSME in preventing diabetes and helping individuals who have the disease to manage it successfully, including these services in Medicaid programs would not only help more people take control of their conditions but would also help curb overall healthcare costs.

**Medicaid coverage of the National DPP and DSME would improve health outcomes and reduce healthcare spending.**

Research shows that participation in the National DPP reduces the likelihood of developing diabetes, thus improving patient outcomes and decreasing the costs associated with diabetes care and complications. In a groundbreaking 2002 study, administration of the Diabetes Prevention Program reduced the incidence of diabetes in high-risk individuals by 58%, a figure that increased to 71% for participants over the age of 59. By reducing the number of individuals who develop type 2 diabetes, the National DPP can save thousands of dollars in healthcare expenses at a one-time cost of approximately $450 per participant. In March of 2016, the Centers for Medicare & Medicaid Services (CMS) announced that results from a large multi-site demonstration project showed that expanding access to the program for Medicare recipients would reduce net Medicare spending. The Department of Health and Human Services announced that CMS would immediately begin work on incorporating access to the National DPP for individuals with prediabetes enrolled in Medicare. However, no federal-level change was proposed for Medicaid, leaving individual state Medicaid programs to decide whether to provide coverage for this program.

Likewise, DSME is effective at improving health outcomes for people with diabetes and reducing healthcare spending. Studies have demonstrated that DSME can lower blood glucose levels in diabetes patients, which translates into fewer related complications and reduced medical costs. DSME has been shown to reduce blood glucose levels by 0.76%. A 1% reduction in glucose can lead to a 21% decrease in death, a 14% decrease in heart attack, and a 37% decrease in heart disease risk; this 1% reduction is also estimated to decrease annual healthcare costs by between $686 and $950 per person. Other analyses similarly conclude that DSME results in cost savings for diabetes patients and their providers.

Despite the evidence that the National DPP and DSME are effective at helping individuals to, respectively, prevent diabetes or manage diabetes, lack of National DPP and DSME coverage under both private and public plans prevents individuals who need these services from accessing them.

In spite of its proven efficacy, coverage for the National DPP in Medicaid remains scarce across the board. Although a handful of states and some private insurance providers, such as United Health Group, offer coverage of the National DPP through several of their plans, many more do not.

Coverage of DSME tends to be more prevalent—44 states have laws that require coverage of DSME in private plans and 38 states list DSME in their State EHB-benchmark plans—but substantial gaps in coverage still remain. In more than 15 states, DSME is still not a covered benefit under Medicaid.

**States should use State Plan Amendments or Medicaid waivers to cover the National DPP and DSME in Medicaid and promote coverage under private plans through selecting State EHB-benchmark plans that cover these services.**

States should add both the National DPP and DSME to the list of covered services in their Medicaid plans. In general, states make changes to Medicaid benefit packages by submitting a State Plan Amendment (SPA) to
CMS for review and approval of the desired changes—in this case, coverage of the National DPP and DSME for qualified beneficiaries. Some states, such as Connecticut, may be required to pass legislation to alter their Medicaid programs through an SPA. Others can forego authorizing legislation when developing an SPA. For example, in New Jersey, the legislature is not required to act in order for the Medicaid program to change its benefits package.

States can also use Medicaid waivers to add coverage of the National DPP and DSME. The New York State Medicaid program sought coverage of the National DPP for all beneficiaries in its application for a section 1115 waiver in 2012. CMS approved the waiver and the state has begun to phase in the National DPP program. Several states, such as Minnesota and Montana, are currently utilizing funding awards from the Center for Medicare & Medicaid Innovation (CMMI) to support access to the National DPP for Medicaid recipients.

In order to extend the reach of these fundamental services, states should also promote coverage of National DPP and DSME in the private insurance sector through choosing EHB-benchmark plans that include these services. The ACA requires non-grandfathered plans to cover 10 basic benefit categories, known as Essential Health Benefits. The specific services that fit into the ten categories of EHBs are defined according to the services covered by a state’s chosen representative plan, which serves as a “benchmark” plan. However, services covered by plans sold in the state’s marketplace may substitute benefits within EHB categories so long as the substitution is of equal value to the consumer. When choosing an EHB-benchmark plan or updating existing plans, we recommend that states choose one that covers both the National DPP and DSME to prompt coverage of these services by marketplace insurers. States may also enact legislation that mandates coverage of the National DPP and DSME within private commercial plans that operate in the state, as many states already do for DSME.

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<td>State Legislators</td>
<td>Enact legislation requiring the National DPP and DSME to be covered benefits in Medicaid.</td>
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<td>State Legislators</td>
<td>Enact legislation that requires private health insurers operating in the state to cover the National DPP and DSME.</td>
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<td>State Regulators</td>
<td>Select a state benchmark plan that includes coverage of the National DPP and DSME in order to expand coverage for these critical services in the private market.</td>
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<tr>
<td>State Regulators</td>
<td>Add coverage for the National DPP and DSME to Medicaid through development of State Plan Amendments or waivers.</td>
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6. Develop bidirectional electronic communication systems that allow referrals and sharing of select patient information between clinical and community-based resource providers.

States should invest in the creation of bidirectional electronic referral systems that enable clinical providers to easily refer patients to community-based resources and allow administrators of community-based resources to communicate key information about patient services and progress back to clinical providers.

Clinical providers and community-based resources lack the ability to easily communicate about patients and clients.

In extensive interviews, both clinical providers and community-based resource providers consistently cited lack of effective communication as a barrier to more efficient and effective patient care. Although robust resources such as diabetes prevention or management programs, nutrition classes, and exercise programs often exist in the community, providers are challenged by lack of awareness or by not knowing whether patients are able to make a successful
connection with the resource or service. At the other end of the feedback loop, community-based providers have information about patients that would be useful to providers when they create or modify treatment plans, like progress in weight loss and level of physical activity. The creation of bidirectional electronic referral systems responds to these challenges by establishing a pathway for permissible information to travel from the clinical setting to the community and back again. This makes it easy for providers to know what is available in the community and to be confident that they will know if and when a patient accesses the resource.

**Lessons learned from early innovators can help make the promise of bidirectional communication systems a reality.**

Oklahoma and Massachusetts are two examples of states that have invested in bidirectional electronic referral systems to better reach patients with necessary resources.

In Oklahoma in 2014, the Office of the Tribal Liaison and Center for Advancement of Wellness teamed up with the Oklahoma Tobacco Research Center and the University of Oklahoma to develop an e-referral system to connect patients to resources that would help them quit smoking. The ability to make an e-referral was embedded into the hospital and clinics’ Electronic Health Record (EHR) systems. Referrals from providers were encrypted and sent to the state’s Quitline, which was then able to reach out to the patient and offer services. Approximately one quarter of referred patients accepted Quitline services during the period of observation. The Quitline was able to report back to the provider on whether the patient accepted resources. Lessons learned include the importance of leadership, communication between clinical providers and EHR vendors, and anticipation of interoperability challenges for EHR and external resource provider data systems.

In 2012, Massachusetts received State Innovation Model federal funding from CMMI to develop a bidirectional e-referral system for providers and community-based organizations. Providers at pilot clinical sites could use the EHR system to refer patients to resources at the YMCA (for participation in the National DPP), Elder Services, or the state Quitline, and these entities could send relevant information back to the referring providers. While the initial rollout of bidirectional e-referrals was planned for just three sites, significant interest from providers and increased funding immediately expanded the number of participating sites to 15. Lessons learned include the importance of standardizing referral types in order to better enable data collection and evaluation and the difficulty of adopting new workflows as a barrier to utilization of e-referrals.

**Bidirectional e-referral systems will strengthen partnerships between healthcare providers and the community.**

As noted in both Oklahoma and Massachusetts, open communication is a key component in the development and operation of bidirectional systems. Diabetes is a complex disease that requires individuals to focus on adoption and maintenance of healthy behaviors in addition to adhering to treatment plans and attending regular appointments with healthcare providers. People at risk for or living with diabetes need support and resources that are best provided (and often only available) in a community setting. By establishing a concrete link between the clinic and the community, bidirectional systems help ensure that people receive the services they need with their healthcare providers’ full knowledge.

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<td>State Legislators</td>
<td>Enact legislation calling for the development of a bidirectional communication system and appropriate funding for its development</td>
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<tr>
<td>State Regulators</td>
<td>Convene stakeholders and develop a bidirectional communication system that clinical providers and community-based resource providers can use to enhance patient care</td>
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7. Cover prescribed medically-tailored food for individuals at risk for or living with type 2 diabetes enrolled in Medicaid who meet certain criteria.

States should add coverage of prescribed medically-tailored food to the list of Medicaid benefits for people at risk for or living with type 2 diabetes in order to improve health outcomes and reduce healthcare costs.

Medically-tailored food can help people at risk for diabetes improve their diet and enable people living with type 2 diabetes to lower their A1Cs and avoid hospitalization.

Diet is a crucial component of diabetes prevention, management, and treatment, and food can and should be used as a medical intervention. The provision of healthy food can play a significant role in ensuring that people with few financial resources can stay healthy, from enabling people with prediabetes to consume more fruits and vegetables to helping people with diabetes manage blood glucose levels and avoid hypoglycemic episodes and diabetes complications. The stakes are high, both with respect to quality of life and healthcare costs. For example, for the average cost of a Medicaid hospital stay ($7,800), Medicaid could provide three healthy meals per day (at $20 per day) to someone living with diabetes for more than one year.

The provision of healthy food as a Medicaid benefit reflects the close relationship between diet and diabetes and the pivotal role food plays in prevention, management, and treatment. Food insecurity, or lack of sufficient food to live an active life, is associated with poor glycemic control and episodes of hypoglycemia (a condition that often requires hospitalization) in people with low-income who have type 2 diabetes. Malnutrition and poor food intake are also major risk factors for prolonged hospital stay and readmission. States should require their Medicaid programs to proactively address the need for healthy food among their patient population in order to reduce incidence of diabetes, help Medicaid beneficiaries manage their diabetes, and reduce complications associated with the disease.

Medicaid programs can provide a spectrum of food-based interventions with the goal of improving health outcomes and significantly reducing healthcare costs.

For example, prescriptions for healthy produce that are redeemable at farmers markets or other retail locations have been shown to increase consumption of fruits and vegetables, important diet components for weight maintenance and reducing risk factors for diabetes. Similarly, supplying boxes of diabetes-appropriate food to low-income people living with diabetes in a food bank setting has been shown to help recipients improve glycemic control, increase fruit and vegetable intake, and take prescribed

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**Food is Medicine: A Spectrum of Services**

- Prescribed medically-tailored meals for those diagnosed with serious illness or disability who cannot shop or cook for themselves
- Prescribed medically-tailored food for those diagnosed with acute or chronic illness
- Prescribed medically-tailored food for those diagnosed as at risk for acute or chronic illness
- Healthy food for those who are malnourished or food insecure
BEATING TYPE 2 DIABETES: BEST PRACTICES FOR STATES

medications as directed. While the field of research around these types of food interventions is still evolving, there is strong evidence that providing medically-tailored meals (MTMs) to people with complex diabetes-related health conditions will significantly improve health outcomes and reduce costs. States should therefore focus initial efforts on expanding access through Medicaid to MTMs.

MTMs are meals that have been created by a registered dietitian to meet the particular health needs of an individual. For example, a meal appropriate for someone with diabetes would likely include whole grains, beans or peas, and a variety of fruits and vegetables. Any food can potentially be a component of an MTM, as long as the whole meal fits the nutrition profile established by a dietitian. MTMs are specific to an individual’s health status, comorbidities, and other factors. Someone with diabetes and high blood pressure, for example, might need a meal high in fiber and low in salt and Vitamin K. In the context of diabetes, healthful meals are important for blood glucose management, weight management, and quality of life. Studies have found provision of MTMs to people with diabetes decreases A1C levels. The impact can be quite significant; for example, early results from a Medicaid Managed Care plan initiative that delivers MTMs to beneficiaries with diabetes showed that 85% of study participants lowered their A1Cs after receiving MTMs, some by as much as 50%. People with diabetes who receive MTMs also achieve greater weight loss, and score higher on quality of life measures, showing improvements in mental health and ability to conduct daily activities.

MTMs should be provided to individuals with type 2 diabetes who meet certain health criteria.

Medicaid programs should cover MTMs or other food interventions for at least two groups of people living with type 2 diabetes. First, MTMs should be a covered benefit for Medicaid beneficiaries who meet the criteria for Medicare Advantage coverage for home-delivered meals (see below). Second, individuals who have diabetes and limitations on one or more activities of daily living (ADLs) or instrumental ADLs (IADLs) should also be able to receive MTMs.

Medicaid coverage for meals should be at least as broad as coverage in Medicare, which recognizes the value of covering meals for people who need them. Medicare Managed Care Organizations (MCOs) are able to cover meals for beneficiaries meet certain criteria – that is, for individuals with type 2 diabetes immediately following surgery or inpatient hospital stays for about 4 weeks, or for individuals with chronic conditions (such as diabetes) as part of a program to help the person make lifestyle changes, for about 2 weeks. States should provide coverage of meals or healthy food within Medicaid under the same conditions.

MTMs should also be covered under Medicaid for people who have type 2 diabetes and one or more ADL or IADL limitations. People with ADL and IADL limitations often cannot shop or cook for themselves, which makes it difficult to consume meals that conform to dietary recommendations given by medical providers. Food insecurity is a key driver of both increased rates of chronic illness and high healthcare costs. States should integrate food interventions into Medicaid to support the health of their most vulnerable residents.
States can cover MTMs or prescribed healthy food in Medicaid through traditional waivers, SPAs, or demonstration projects funded by the Center for Medicare & Medicaid Innovation (CMMI).

### STATE MEDICAID PROGRAMS CAN COVER MTMs FOR THE TARGET POPULATION IN ONE OF THE FOLLOWING FOUR WAYS:

1. **Section 1915(c) Home and Community-Based Services (HCBS) waivers**
   - Section 1915(c) HCBS waivers support in-home and community-based services in order to help states avoid institutionalizing individuals who would otherwise need to be placed in a nursing home. Many states already use 1915(c) waivers to cover general meal services. Almost all states have 1915(c) waivers, and 25 states cover home delivered meals. States can add MTMs or healthy food as a covered benefit in a 1915(c) waiver.

2. **Section 1115 Demonstration Waivers, to provide targeted services to specific populations**
   - States can apply for Section 1115 Demonstration Waivers to cover MTMs. For example, New York is using 1115 waivers to provide home and community-based services like MTMs to an expanded population of people as an alternative to care in institutional settings. Including MTMs or healthy food as a covered benefit in an 1115 waiver specifically for people with diabetes is one way to demonstrate the efficacy of MTMs as a health intervention.

3. **State Plan Amendments (SPAs)**
   - States can use SPAs to permanently add MTMs or healthy food as a covered benefit in their Medicaid programs. In general, states make changes to Medicaid benefit packages by submitting an SPA to CMS for review and approval of the desired changes—in this case, coverage of MTMs for qualified beneficiaries. The requirements for developing Medicaid SPAs differ across states; some states such as New Jersey can pursue SPAs at the agency level. Other states, such as Connecticut, require authorizing legislation to alter the Medicaid program through a SPA.

4. **Demonstration projects developed by the Center for Medicare & Medicaid Innovation (CMMI)**
   - Finally states can use funding awards from CMMI to test the efficacy of providing MTMs or healthy food to individuals with type 2 diabetes. Many CMMI awards are already being used by states for diabetes prevention and treatment. For example, Minnesota and Texas have both used CMMI dollars to, in part, test food-related interventions as part of a larger chronic disease demonstration model. CMMI demonstration projects provide an excellent vehicle for testing and evaluating the provision of MTMs to Medicaid beneficiaries who meet the health criteria outlined above.

### DECISION-MAKER REQUESTED ACTION

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<tbody>
<tr>
<td><strong>State Legislators</strong></td>
<td>Enact legislation that requires medically-tailored meals or prescribed healthy food to be a covered benefit in Medicaid.</td>
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<tr>
<td><strong>State Legislators</strong></td>
<td>Enact legislation calling for development of Medicaid waivers (HCBS 1915(c) or 1115) that include medically-tailored meals or prescribed healthy food as a benefit for appropriate populations.</td>
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<tr>
<td><strong>State Regulators</strong></td>
<td>Include medically-tailored meals or prescribed healthy food as a covered benefit in all waivers (HCBS 1915(c) and 1115) and in all demonstration projects.</td>
</tr>
<tr>
<td><strong>State Regulators</strong></td>
<td>Pursue opportunities to participate in CMMI demonstration projects that include or can include provision of MTMs or prescribed healthy food.</td>
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</table>
8. Remove barriers to SNAP participation and increase participants’ ability to purchase fruits and vegetables.

The Supplemental Nutrition Assistance Program (SNAP, formerly food stamps) is at the front lines of food and nutrition security for many low-income individuals who are living with or at risk for type 2 diabetes. States should adopt key policies to increase participation in SNAP in order to provide these individuals with the food they need to stay healthy and avoid hospitalizations. In addition, states should promote healthy diets for SNAP recipients by implementing nutrition incentive programs, which increase the value of SNAP dollars when they are used to purchase fruits and vegetables.

Food prices pose a significant barrier for low-income, at-risk individuals who want to consume a healthier diet.

The American Diabetes Association recommends a diet rich in fruits, vegetables, whole grains, low-fat and nonfat dairy products, and lean meats for individuals living with or at risk for type 2 diabetes. However, many cannot afford these foods. Type 2 diabetes is most prevalent among low-income and minority populations, and studies have confirmed poverty as a significant risk factor for the disease. Unfortunately, healthier diets are often more costly. A 2013 national cost analysis found that eating a healthier diet costs, on average, an additional $1.50 per day, or $550 per year. This amount is significant for many low-income Americans. Moreover, many live in communities where healthy food is not readily available or, when available, is more expensive than it would be in higher income communities.

Studies show that when low-income individuals are trying to stretch limited resources, healthier food is often the first to go. They will direct their resources toward energy-dense and nutritionally-poor food as these foods often offer the cheapest means to fill hungry stomachs. Decreased consumption of healthy food can have a devastating impact on those with type 2 diabetes. Among adults with diabetes, food insecurity is associated with increased rates of depression, diabetes distress, hospitalizations, and low medication adherence. These problems are not purely a function of food quantity, but are closely tied to quality as improved diet quality assists with glycemic control.

Programs that increase the affordability and accessibility of healthy foods can yield lasting nutrition and health improvements for low-income, at-risk individuals.

While low-income individuals living with or at risk for type 2 diabetes face the greatest risk for food insecurity, they may also be eligible for food assistance programs that help to mitigate this risk. SNAP is the largest of the federally-funded food assistance programs; it serves an average of 46.5 million people, or 15% of the population, per month. SNAP provides low-income households with additional resources for purchasing food and, especially when used in conjunction with incentive programs, can significantly increase an individual’s ability and willingness to purchase healthy foods.

With SNAP benefits, participants receive a monthly transfer of funds onto an Electronic Benefit Transfer card (EBT) to purchase eligible items at authorized food retailers. SNAP benefits can be used to buy most food items, but cannot be used for nonfood items, alcoholic beverages, vitamins, food that will be eaten in the store, or hot food. More than 80% of benefits are redeemed at supermarkets or superstores. SNAP benefits increase the total amount households can spend on food while relieving the pressure experienced by many low-income Americans to make impossible decisions between food and other necessities, such as medication or medical care.

For individuals living with or at risk for type 2 diabetes, food assistance programs can directly improve health outcomes. Studies have found that SNAP participation is associated with better glucose control among food-insecure adults living with diabetes. Conversely, doctors report increased hospitalizations among low-income adults living with diabetes towards the end of the month, as paychecks and public benefits, most notably SNAP, run out. SNAP also mitigates key risk factors for children; long-term participation is associated with lower BMI and a reduced likelihood of being overweight and obese.
States should increase participation in SNAP by expanding state eligibility requirements and waiving restrictions.

States should increase participation in SNAP among eligible households in order to (1) provide low-income individuals living with or at risk for type 2 diabetes the food they need to stay healthy and (2) increase participation in other nutrition programs, such as the National School Lunch Program, for which SNAP participants are categorically eligible (see Best Practice 10). Increased participation in SNAP also means that more individuals can benefit from nutrition incentive programs (see next page).

While the federal government provides all of the funding for SNAP benefits, it splits administrative costs and duties with states, giving states the opportunity to implement their own policies for some aspects of SNAP. The federal government sets the baseline income eligibility criteria for SNAP. In order to qualify for SNAP, a household must have gross monthly income at or below 130% FPL and net monthly income at or below 100% FPL. The federal government also establishes a basic asset limit, or an asset test, of $2,250. For a household of four, this means that their monthly total income, before deductions, cannot exceed $2,628 and the total value of their available assets, including bank accounts and cash on-hand, cannot exceed $2,250.

However, as the administrators of SNAP, states have the authority to expand key eligibility criteria. We recommend that states both increase income limits and eliminate asset tests in order to increase participation. States should raise the income limit above the federal threshold of 130% to the federally-mandated limit of 200% FPL. Currently, 15 states have gross income limits of 200% and an additional 14 states have income limits between 160 and 185%. States should also raise the asset test significantly above $2,250 or eliminate the use of the asset test altogether as it can prevent otherwise income-eligible individuals from enrolling in SNAP. To date, 36 states have eliminated asset tests for SNAP.

Establish nutrition incentive programs to make SNAP benefits go further toward the purchase of healthy, nutritious food.

By investing in nutrition incentive programs, states can directly address some of the challenges that low-income individuals face when trying to purchase and consume more healthy foods. Nutrition incentive programs provide SNAP participants with additional funds when they purchase fruits and vegetables at farmers markets, community supported agriculture programs, and other retailers authorized to receive SNAP benefits. While most programs double the value of the SNAP benefits up to a certain limit (typically $20/day), newer programs are experimenting with a range of incentive models.

With the passage of the 2014 Farm Bill, Congress authorized the Food Insecurity and Nutrition Incentive (FINI) program. This new federal program provides grants to state and local programs that provide point-of-sale incentives for SNAP participants to purchase more fruits and vegetables. In order to be eligible for funding, a program must: 1) have the support of the state agency responsible for the administration of SNAP, 2) increase the purchase of fruits and vegetables by low-income consumers using their SNAP benefits, and 3) operate through authorized SNAP retailers. In addition, a program must match all federal contributions on a dollar-for-dollar basis; this funding can come from state government, local government, or private sources. FINI will provide $100 million in grants over 5 years, with an additional $5 million authorized per year through 2018.

There is no single template for FINI-eligible programs; one of the goals of FINI is to test innovative and promising approaches. Nevertheless, existing programs, such as Michigan’s pioneering Double Up Food Bucks, can offer compelling examples and outcomes. Launched in 2009, Double Up matches SNAP benefits dollar-for-dollar, up to $20 per day, on locally grown fruits and vegetables at participating farmers markets and independent grocery stores. Double Up now operates in 150 sites across Michigan and Northern Ohio: 106 markets, two food-share programs, two mobile food trucks, three full-service grocery stores, and a network of farm stands. It has been overwhelmingly effective in increasing...
consumption of healthy foods among SNAP participants: 93% report eating a greater quantity and variety of fruits and vegetables and 83% report buying fewer high-fat, low-nutrition snacks. The program has also yielded economic benefits: 85% of participating farmers report making more money.

States can promote nutrition incentive programs by raising awareness about FINI, collaborating with local partners to apply for FINI grants, and highlighting successful programs. California’s Market Match program, for example, has provided local fruit and vegetable incentives for low-income individuals since 2009 and is primarily funded by the state’s Department of Food and Agriculture.

Nutrition incentive programs have a proven track record of making healthy eating more affordable, both for those who are managing type 2 diabetes and those who are most at risk for the disease.

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<tr>
<td>State Legislators and/or Executive Officials</td>
<td>Increase the gross income limit for SNAP eligibility to 200% FPL and eliminate the use of an asset test.</td>
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<tr>
<td>State Legislators</td>
<td>Appropriate money for a state nutrition incentive grant program.</td>
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<tr>
<td>State Regulators</td>
<td>Collaborate with local partners to apply for federal FINI grants.</td>
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States should create financing programs that bring supermarkets and other healthy food retailers into communities that lack adequate access to healthy food options.

Many low-income communities have limited options for healthy foods, putting residents at greater risk for obesity and type 2 diabetes.

Nationwide, an estimated 29.7 million people – nearly 10% of the population – live in what the USDA has termed “food deserts.” The USDA defines these areas as low-income census tracts (with a poverty rate of at least 20%) where at least 500 people (or 33% of the population) are located over one mile away from a grocery store in urban areas, and over 10 miles away in rural areas. While there are many ways to conceptualize and measure healthy food access, the USDA – and much of the available data – emphasizes geographic proximity to full-service grocery stores and supermarkets.

Increased geographic access to healthy food retailers is associated with better eating habits and decreased risk for obesity.

Improving geographic access to healthy foods can contribute to both the prevention and management of type 2 diabetes. Greater proximity to healthy food retailers is associated with a reduced risk for obesity, even after controlling for other factors such as income, race and ethnicity, and physical activity. Residents of neighborhoods with better geographic access to healthy food retailers have healthier food intakes.

Supermarkets, in particular, tend to offer a better variety of high-quality, healthy foods at lower prices. One study estimated that each additional supermarket in the study area was associated with an 11%-32% increase, depending on the population, in fruit and vegetables consumption by residents.

However, it is important to note that the types of retailers that are most effective for increasing access to healthy food will vary by community. There is no one-size-fits-all solution. The community-level factors that influence healthy eating, such as distance to the store or the prevalence of fast-food outlets, have different degrees of influence across different communities.

One study observed that while decreased distance to a supermarket was associated with a decreased obesity within urban communities, distance had no association with obesity in rural areas and small towns.

States should provide funding and technical assistance to bring grocery stores and other healthy food retailers into underserved communities.

“Healthy food financing” is a term that describes various state and federal programs that work to increase access by providing loans and grants to healthy food retailers to incentivize locating in underserved communities.
Over the past 10 years, numerous state and local governments have enacted legislation and policies to support healthy food financing initiatives. Currently, 10 states have passed legislation establishing healthy food financing programs.227 A handful of other states have active policy efforts underway and, in some cases, pending legislation.228 With most programs,229 the state provided seed funding; however, private foundations can also take on this role.230 Programs then leveraged this capital to attract additional investors, whether foundations, banks, or community development financial institutions. Some state programs have also received grants from the federal Healthy Food Financing Initiative (HFFI).231

Most of the state programs, along with the federal HFFI, are modeled on Pennsylvania’s Fresh Food Financing Initiative (FFFI). Pennsylvania launched the FFFI in 2004 with $30 million in state funds and an additional $145 million from The Reinvestment Fund (TRF), a community development financial institution. Over the course of six years, the FFFI approved over $85 million in grants and loans, supporting 88 projects. It ultimately created over 5,000 jobs and 1.67 million square feet of new food retail space in underserved communities.232 Though the original FFFI funds were expended by the end of 2010, TRF continues to administer a healthy food revolving loan fund using its own capital, an HFFI grant, and loan repayment revenue.233 The FFFI and Pennsylvania’s ongoing efforts have significantly increased access to healthy foods in previously underserved communities. Between 2005 and 2013, the number of Philadelphia residents living with limited access to healthy foods more than halved and Pennsylvania experienced a 38% net increase in grocery stores.234

The federal HFFI was launched in 2010 as an interagency effort by First Lady Michelle Obama’s Let’s Move campaign and the Treasury Department (Treasury), the Department of Health and Human Services (HHS), and the USDA.235 The HFFI provides one-time grants and loans to bring healthy food retailers – including supermarkets, grocery stores, farmers markets, corner stores, and food hubs – into underserved communities.236 Since 2011, the HFFI has awarded over $169 million in grants to state and local healthy food initiatives.237 These funds have been used to leverage an additional $1 billion in grants, loans, tax incentives, and investments, supporting over 200 projects.238 Currently, grants are available through Treasury and the Community Development Corporation under HHS.239 Although the 2014 Farm Bill authorizes $125 million for a USDA HFFI program, these funds have not been appropriated.240

While the factors that contribute to healthy food access vary by state, region, and locality, the fact remains that, throughout the U.S., low-income communities and rural communities face the greatest challenges in achieving greater access to healthy food. Many of these communities are also most at risk for type 2 diabetes. We therefore recommend that states establish healthy food financing programs to incentivize healthy food retail development in underserved areas. States can apply for federal HFFI funds directly, or help to identify local partners who may be eligible and encourage them to apply. States now have a number of excellent models from which to gain inspiration and guidance. Both the CDC and The Food Trust have published guides to promote and support state healthy food financing programs.241 Healthy food financing programs provide flexibility, allowing local advocates to identify the solutions that are best suited to their communities. Moreover, they provide an impressive return on the state’s investment – leveraging millions, even billions, of dollars to bring healthy food, jobs, and economic growth to underserved communities.

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<tr>
<td>State Legislators</td>
<td>Enact legislation establishing a financing fund to bring healthy food retailers into underserved communities.</td>
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<tr>
<td>State Regulators</td>
<td>Collaborate with local partners and stakeholders to assess the healthy food retail needs of individual communities and determine how financing funds can be best used to meet those needs. Collaborate with local partners to apply for federal HFFI grants and also raise awareness about the grants.</td>
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<td>State Regulators</td>
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Increasing access to nutritious food in schools is critical to reversing rising rates of obesity and type 2 diabetes among children and future generations of adults, particularly those in low-income households. States should take steps to increase participation in, and improve the quality of, school lunch and breakfast programs.

**Type 2 diabetes is a growing epidemic among children, particularly those from low-income and minority households.**

Once called “adult-onset diabetes,” type 2 diabetes is now increasingly prevalent among adolescents and children. Each year, an estimated 5,000 children and teens are diagnosed with type 2 diabetes. In addition, type 2 diabetes disproportionately affects low-income and minority children. These children are more likely to face food insecurity and obesity, putting them at greater risk for type 2 diabetes.

**School meals can play a significant role in reducing a child’s lifetime risk for developing type 2 diabetes.**

In 2014, nearly 31 million children participated in the National School Lunch Program (NSLP) and nearly 14 million participated in the School Breakfast Program (SBP). Many of these students consume over 50% of their daily calories at school. As a result, school meals can have a significant impact on children’s nutrition and health. One study found that states with stricter school nutrition standards had lower obesity rates. In addition, what children eat in school can have a lifetime impact on their health, as eating habits and preferences are formed early in life.

School meals also directly serve low-income children, who are most at-risk for type 2 diabetes. Overall, children from low-income households account for a significant majority of those consuming school meals: 73% in the NSLP and 85% in the SBP during Fiscal Year 2015. Children from low-income households are not only more likely to consume school meals but also receive more of their total food and nutrient intake from these meals. While unhealthy school meals can exacerbate income-based health disparities, healthy school meals are particularly effective at increasing fruit and vegetable consumption among children from low-income households.

Every five years, the federal government establishes the policies and funding for the NSLP and SBP, along with other key child nutrition programs through the Child Nutrition Reauthorization (CNR). The 2010 CNR, the Healthy, Hunger-Free Kids Act (HHFKA), brought some transformative, positive changes: among other things, it updated nutrition standards for the first time in 15 years and improved eligible schools’ ability to offer universal free meals. The HHFKA also regulated “competitive foods” for the first time; these are any food or beverage sold or distributed outside of the NSLP and SBP, including a la carte items in the cafeteria and food from vending machines, school stores, snack bars, fundraisers, and after-school programs.

Despite these improvements, the federal framework still leaves room for state action that can have a significant impact towards improving school food access and quality. States should help boost NSLP and SBP participation rates in order to provide more children with healthy, nutritious, and delicious meals.

Increased participation in the NSLP and SBP achieves a number of important goals. First, it provides more at-risk children with healthy meals that can lower their risk for obesity and type 2 diabetes. Increased participation also initiates a virtuous cycle wherein schools receive more federal revenue from reimbursable meals and are therefore able to invest more in providing healthy, nutritious, and delicious meals, increasing children’s enjoyment and further increasing participation. The more revenue schools receive through increased participation, the more they can achieve economies of scale and reduce the cost per meal.

**States can boost participation in the following three ways:**

1. Strengthen direct certification.
2. Promote use of the Community Eligibility Provision (CEP).
3. Provide financial incentives for schools to implement alternative breakfast models.
1. Strengthen direct certification.

Traditionally, students were certified as eligible for free and reduced-price meals using paper applications. However, in recent years, efforts have been made to simplify the certification process for students, families, and schools. Direct certification is the process by which students are certified as eligible for free meals by matching certain means-tested program records against school enrollment lists. Students are categorically eligible for free school meals if they live in households that receive Supplemental Nutrition Assistance Program (SNAP), Temporary Assistance for Needy Families (TANF), or Food Distribution Program on Indian Reservations (FDPIR) benefits. However, under current law, SNAP is the only means-tested program that states and school districts are required to use for direct certification.

Under the HHFKA, states must hit annual benchmarks for direct certification of children from households receiving SNAP. However, in 2013-2014, only 12 States met the benchmark (95% of households). A 2013 USDA state performance study identified best practices among states with high SNAP direct certification rates. Conducting matches more frequently and using probabilistic matching software emerged as some of the most effective. States should apply for USDA Direct Certification Improvement Grants to implement some of these proven best practices and, overall, improve their technological infrastructure for direct certification.

States should also implement direct certification for categorically eligible children in programs other than SNAP. While 90% of states conduct direct certification using data from at least one program in addition to SNAP, states should be using data from all programs that would qualify children for categorical eligibility.

2. Promote use of the Community Eligibility Provision.

Improvements in direct certification also make it easier for schools to implement the Community Eligibility Provision (CEP). Created under the 2010 HHFKA, CEP makes it possible for schools in high-poverty areas to provide free breakfast and lunch to all students and eliminates the administrative burden of processing individual applications for free and reduced-price meals. Initial results are overwhelmingly positive. One analysis of CEP schools in Illinois, Kentucky, and Michigan found a combined 47% higher NSLP participation rate and 184% higher SBP participation rate when compared with non-CEP schools.

States should encourage eligible schools to adopt CEP and, further, provide technical and financial support to assist them with the transition.

3. Provide financial incentives for schools to implement alternative breakfast models.

The SBP is a critical component of school nutrition, but it faces a unique set of challenges around participation. States should support schools in implementing both proven and innovative approaches to drive participation in the SBP. The SBP has long suffered from low participation rates. In 2014, only 53% of students who participated in the NSLP also participated in the SBP. While there are a number of factors that may be contributing to low SBP participation rates, the most commonly cited is the stigma of participating in a program primarily intended for low-income students and the challenge of making it to school in time to eat breakfast in the cafeteria before the first bell.

Research and experience have demonstrated that two strategies, in particular, can be enormously successful in overcoming these barriers and increasing overall SBP participation: 1) providing universal breakfast and 2) serving breakfast after the bell through programs such as “grab and go breakfast,” “second chance breakfast,” “breakfast in the classroom.” Evidence suggests that a combination of the two programs – serving universal free breakfast after the bell – has the most significant impact on participation. Other benefits of SBP participation include improved student behavior and attentiveness, increased test scores, and reduced tardiness, absenteeism, and suspensions.

States should provide financial incentives for schools to initiate these proven strategies. Fourteen states currently supplement
the federal per meal reimbursement rate for SBP meals.\textsuperscript{276} This approach provides additional funding to schools to incentivize SBP promotion, while allowing them broad discretion on how to allocate the funding for improvements.

In addition, states can further demonstrate their commitment to the SBP by requiring schools in high-poverty areas to provide breakfast after the bell. For example, Colorado recently passed a law that phased in universal breakfast for schools with high percentages of students eligible for free and reduced-price meals – during 2014-2015, schools with 80% or more eligible students were required to provide universal breakfast after the bell and, for 2015-2016, this requirement was extended to schools with 70% or more eligible students.\textsuperscript{279}

State should impose strict nutrition standards on competitive foods in order to further support participation in the NSLP and limit access to unhealthy foods.

Competitive foods are incredibly prevalent in schools;\textsuperscript{280} one study found that 40% of children consumed at least one competitive food on a typical school day.\textsuperscript{281} Moreover, these foods tend to be junk food, which not only lacks nutritional value, but also displaces the consumption of healthier school meals.\textsuperscript{282}

The 2010 HHFKA required that USDA create, for the first time, nutrition standards for competitive foods.\textsuperscript{283} The resulting regulation, Smart Snacks in School, places limits on total fats, saturated fats, trans fats, sugars, sodium, and calories.\textsuperscript{284} States may, nevertheless, go beyond what is required under the federal level and we recommend that states use this discretion. Limiting access to and improving the nutritional quality of competitive foods can lead to improved student health and lower BMI.\textsuperscript{285} One study found that students living in states with consistently strong laws regulating competitive foods gained, on average, fewer .44 BMI units and were less likely to remain overweight or obese as compared to students living in states with weaker laws.\textsuperscript{286}

Where the Smart Snacks in School rule leaves discretion to the states, states should interpret the standards broadly and eliminate any exceptions. Massachusetts, for example, expanded the definition of competitive foods to include not just those sold, but also those provided at school, including foods offered at celebrations and other school events.\textsuperscript{287} Similarly, while the federal regulation exempts foods sold at “infrequent” school-sponsored fundraisers, it is up to states to establish the maximum number of “infrequent,” exempt fundraisers that they will allow.\textsuperscript{288} We recommend that states set that number at zero (as 29 states have),\textsuperscript{289} thereby eliminating the fundraiser exemption; the foods sold at these events tend to be some of the lowest nutritional quality foods available in schools.\textsuperscript{290}

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<tr>
<td><strong>State Legislators</strong></td>
<td>Enact legislation providing targeted funding and support for school breakfast.</td>
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<td><strong>State Legislators</strong></td>
<td>Enact legislation requiring universal school breakfast to be served at schools in high poverty locations.</td>
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<tr>
<td><strong>State Regulators</strong></td>
<td>Implement direct certification for all programs that bestow categorical eligibility and conduct direct certification matches on a monthly basis.</td>
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<tr>
<td><strong>State Regulators</strong></td>
<td>Apply for federal Direct Certification Improvement grants to strengthen statewide matching systems.</td>
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<tr>
<td><strong>State Regulators</strong></td>
<td>Provide outreach, education, and training about the Community Eligibility Provision (CEP) and encourage its adoption among eligible schools and school districts.</td>
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<tr>
<td><strong>State Regulators</strong></td>
<td>Expand the scope of foods covered under the federal Smart Snacks Rule and eliminate the fundraiser exemption.</td>
</tr>
</tbody>
</table>
CONCLUSION

The diabetes epidemic requires urgent attention from all government actors, from federal to state to local policymakers. States in particular have a powerful role to play in addressing the diabetes epidemic, as they control the structure and operation of state Medicaid programs and have the power to convene stakeholders and allocate resources to crucial areas. Implementation of the Best Practices detailed in this report would yield significant results for people living with or at risk for type 2 diabetes. As a nation, we cannot afford to ignore the toll diabetes is taking on all segments of society, from our seniors to our youth. Ensuring access to vital prevention and treatment services while transforming our food environment through strategic program operation and funding choices will give our citizens an opportunity to take informed control of their health, and ultimately, to beat type 2 diabetes.
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14. Among adults, the association between SNAP and weight gain has been more difficult to define. While some studies have found that SNAP participation is associated with higher BMI and rates of obesity, others have found that SNAP participation, particularly among those with low or very low food security, is associated with lower BMI. Compare Leung et al., Dietary intake and dietary quality of low-income adults in the Supplemental Nutrition Assistance Program, 96 AM. J CLINICAL NUTRITION 977 (2012) with Binh Nguyen et al., The Supplemental Nutrition Assistance Program, Food Insecurity, Dietary Quality, and Obesity Among US Adults, 105 AM. J. PUB. HEALTH 1453 (2015).
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37. Incidence rates for American Indians and Alaska natives (15.9%), Hispanics (12.8%), non-Hispanic blacks (13.2%), and Asian Americans (9.0%) are much higher than rates for non-Hispanic whites (7.6%). National Diabetes Statistics Report, 2014, CTRLS FOR DISEASE CONTROL & PREVENTION.


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62. KY. REV. STAT. ANN. §§ 211.751-753 (West 2011).


65. MD. CODE REGS. 10.27.07.02(1)-(14).


67. OR. ADMIN. R. 851-050-0005(4)(a)-(e).


69. OR. REV. STAT. 9678.380.


77. This term Community Health Worker is used to encompass all forms of peer support and includes promotores de salud, patient navigators, health coaches, and lay health advisers.


79. The American Public Health Association defines a CHW as: A community health worker is a frontline public health worker who is a trusted member of and/or has an unusually close understanding of the community served. This trusting relationship enables the worker to serve as a liaison/link/intermediary between health/social services and the community to facilitate access to services and improve the quality and cultural competence of service delivery. A community health worker also builds individual and community capacity by increasing health knowledge and self-sufficiency through a range of activities such as outreach, community education, informal counselling, social support and advocacy. See American Public Health Association, COMMUNITY HEALTH WORKERS, http://www.apha.org/apha-communities/member-sections/community-health-workers (2015).


104. Rafael Pérez-Escamilla et al., Impact of a Community Health Workers-Led Structured Program on Blood Glucose Control among Latinos with Type 2 Diabetes: The DIALBEST Trial, 38 DIABETES CARE 197, 200 (2015). See also Jon Liebman and Dawn Heffernan, Quality Improvement in Diabetes Care Using Community Health Workers, 26 CLINICAL DIABETES 75, 76 (2008) (where the data suggests that identified improvements could partially be attributed to CHWs but that the specific impact of CHWs could not be isolated).

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256. Other programs covered by the Child Nutrition Reauthorization include the Summer Food Service Program (SFSP), the Supplemental Nutrition Program for Women, Infants, and Children (WIC), and the Child and Adult Care Food Program (CACFP).


268. In order to qualify for CEP, a school must meet a minimum level (40%) of students who are identified as eligible for free meals through means other than individual applications. These “identified students” are largely students who are directly certified. The percentage of identified students is then multiplied by a factor of 1.6 to determine the percentage of meals reimbursed at the federal free rate (between $3.07 and $3.15), with the remaining percentage reimbursed at the federal paid rate (between $0.29 and $0.37). Once a school reaches 62.5% identified students, it is reimbursed at the federal paid rate (between $0.29 and $0.37).

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