

BEYOND MEDICAL CARE FACT SHEET

Preventing type 2 diabetes

An example of how Ohio can improve health value and health equity

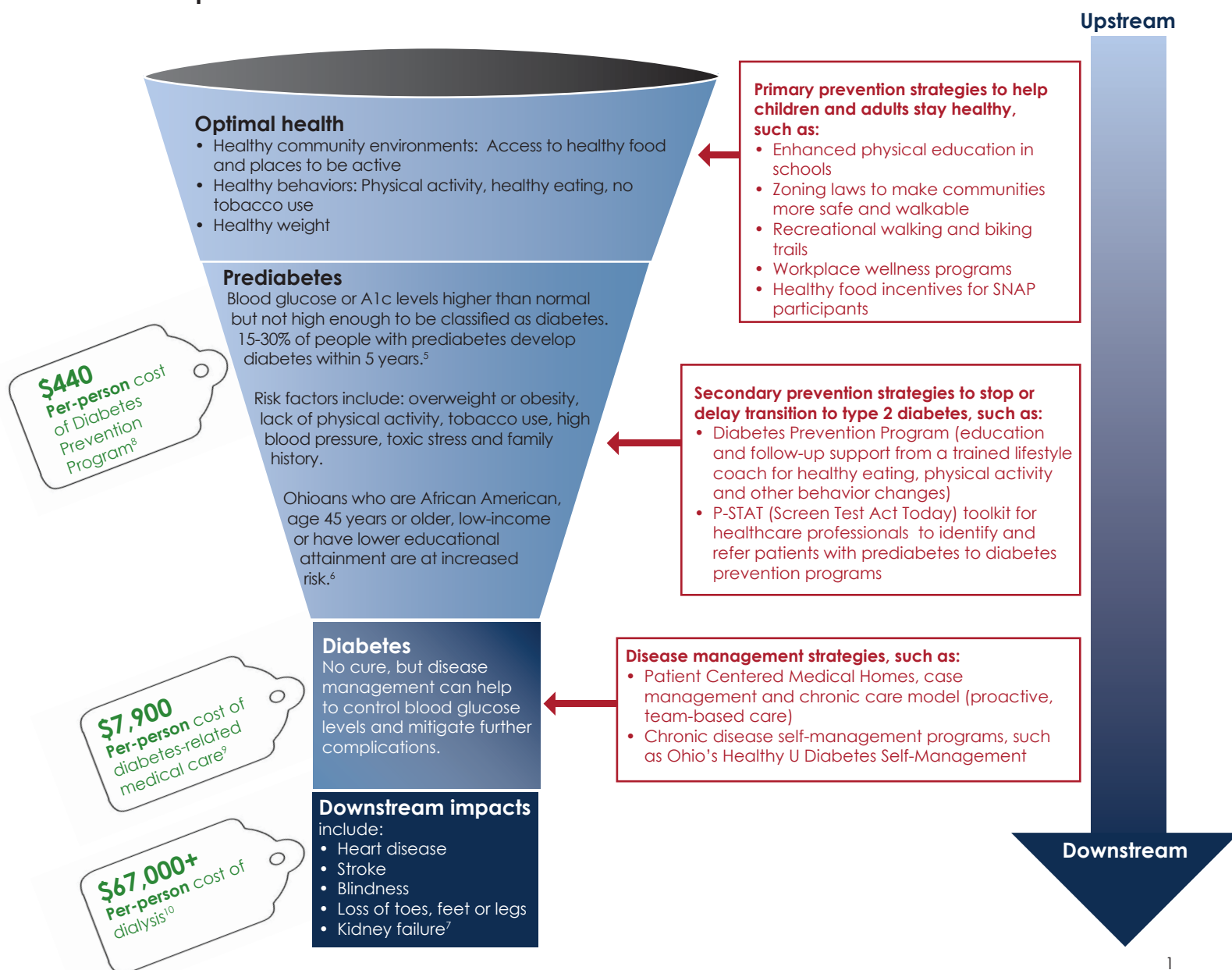
Although genes and aging play strong roles in the development of type 2 diabetes, environmental conditions and health behaviors also contribute. Many cases of type 2 diabetes, therefore, can be prevented.

As illustrated in the figure below, there are two primary opportunities for preventing type 2 diabetes. First, living in a community where it is easy to be physically active and eat healthy food on a regular basis helps children and adults to maintain a healthy weight and normal blood sugar levels. Primary prevention strategies,

such as healthy school lunches and walking trails, are therefore the first line of defense against type 2 diabetes.

Second, people who have been told by a healthcare provider that they have prediabetes¹ — a condition marked by blood glucose or hemoglobin A1c levels that are higher than normal — can take steps to stop or delay the transition to type 2 diabetes by, for example, participating in a Diabetes Prevention Program (DPP).

Diabetes prevention and treatment continuum



An excellent example of secondary prevention, DPP has been shown to reduce the incidence of type 2 diabetes by 58% over a three-year period.² Participants learn about healthy eating, physical activity, and other behavior changes from a trained lifestyle coach over the course of 16 one-hour sessions. Follow-up sessions provide added support to help participants maintain their progress over time. In Ohio, several YMCAs and other organizations now offer CDC-recognized DPPs.

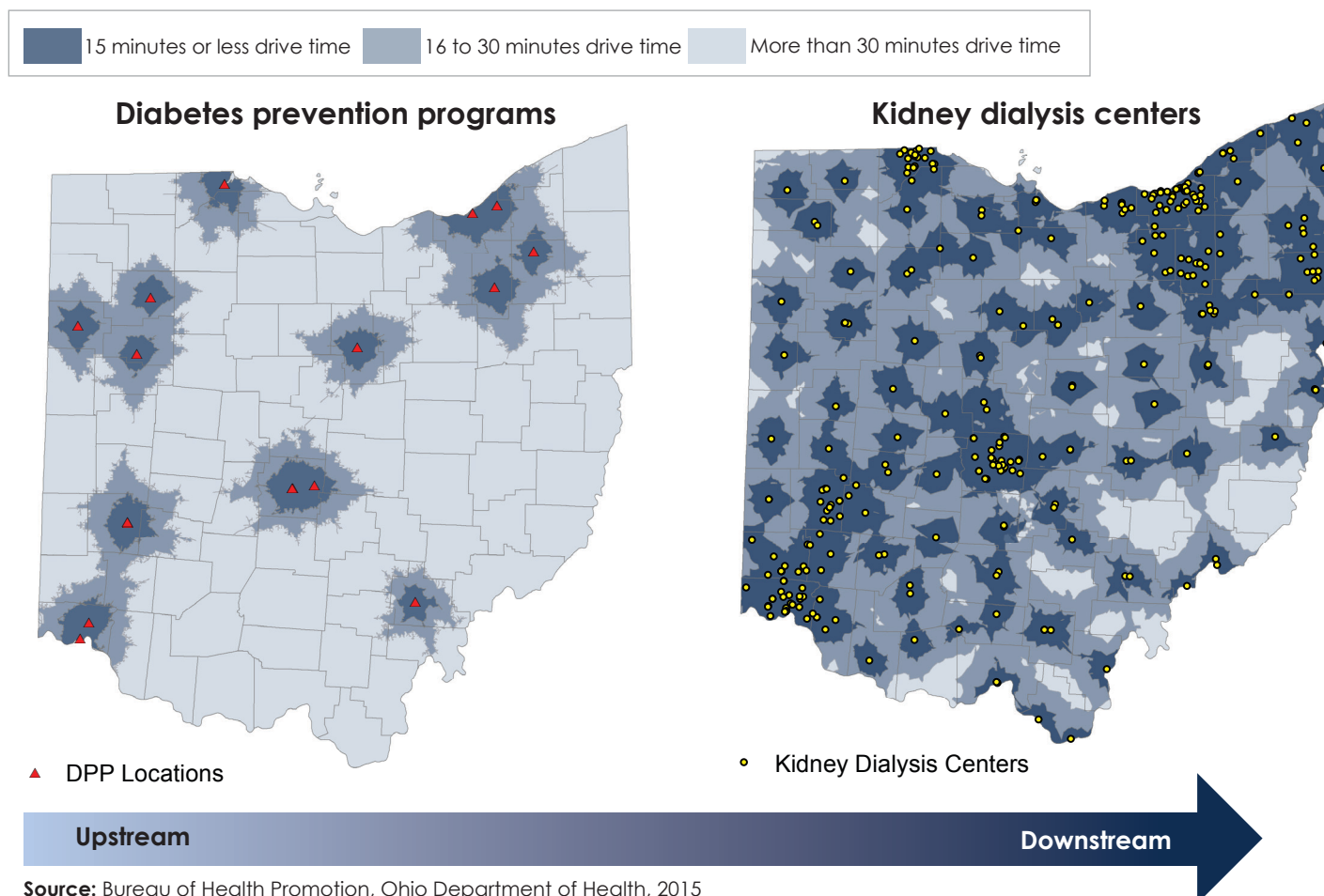
Once type 2 diabetes develops, there is no cure. Without appropriate control of blood sugar, many people with diabetes are at high risk for life-changing and life-threatening complications, including heart disease, kidney failure, blindness, limb amputation or stroke. Successful disease management, however, can help to control blood glucose levels and mitigate further downstream complications in nearly all people with diabetes.

Disparities: Ohioans at risk

Diabetes disproportionately affects African American and lower-income Ohioans, and black men in Ohio have much higher rates of diabetes mortality compared to other groups. Diabetes mortality also varies widely by county, with the highest rates in some rural communities. Harrison County in rural eastern Ohio had the highest age-adjusted diabetes death rate in 2012, which was nearly eight times higher than the county with the lowest rate, Wyandot.³

Culturally-competent prevention programs designed to reach high-risk groups, such as black men, and prevention resources available in rural and low-income areas are therefore critical strategies for improving health equity in Ohio.

Access to Diabetes Prevention Program sites vs. dialysis centers



Out of balance: Access to prevention vs. access to dialysis in Ohio

Kidney failure requiring dialysis represents one of the most costly “downstream” impacts of type 2 diabetes. One result of long-standing uncontrolled diabetes, kidney failure due to diabetes, is irreversible and often requires life-long treatment with dialysis to manage. A lifestyle change program such as a DPP can not only prevent or delay the development of diabetes, and its complications, but is also more cost-effective than using medications to control blood sugar. Therefore, comparing availability of CDC-recognized DPPs and kidney dialysis centers provides a snapshot of the resources available at both ends of the prevention spectrum, upstream and downstream, in Ohio

(see maps on page 3). Almost all Ohioans (98%) live within a 30-minute drive of an Ohio-based kidney dialysis center; 84% live within a 15-minute drive of a dialysis center. By comparison, 65% of Ohioans live within a 30-minute drive of a CDC-recognized Diabetes Prevention Program; 37% live within a 15-minute drive of a DPP.⁴

Regaining balance: Innovative approaches to invest in diabetes prevention

Many of the policy ideas presented in [Beyond medical care](#) are already being implemented in Ohio communities and in other states. The figure below summarizes examples of how these opportunities have been leveraged to prevent type 2 diabetes.

Examples of innovations to support primary and secondary prevention of type 2 diabetes

Policy opportunity	Examples
Change incentives within the healthcare system	<p>Insurance reimbursement for community-based prevention</p> <p>Traditionally, health insurance plans have not covered community-based programs such as Diabetes Prevention Programs at YMCAs (Y DPP). In recent years, however, two health insurance plans in Ohio (United Health Care [UHC] and HealthSpan) now include Y DPP as a covered benefit.</p> <p>Under the HealthSpan agreement brokered by the Ohio Alliance of YMCAs, medical providers refer patients to their local Y DPP. YMCA Program Coordinators work closely with HealthSpan medical professionals to ensure the referral system thrives and stays visible to the medical providers.</p> <p>UHC and HealthSpan recognize that the downstream costs of providing care for patients with type 2 diabetes are much greater than the \$400 annual per-person cost of Y DPP. UHC, for example, conducted a study of Y DPP that estimated that the savings from reduced medical spending would outweigh initial costs of widespread use of Y DPP within three years.¹¹</p>
Leverage new sources of funding	<p>Wellness trust</p> <p>The Massachusetts Prevention and Wellness Trust Fund included the Diabetes Prevention Program on its rigorously-selected list of evidence-based interventions eligible for funding. Local communities are now implementing DPP in a more widespread way thanks to grants from the Trust Fund.¹²</p>
Nurture cross-sector partnerships and perspectives	<p>Health and equity in all policies</p> <p>Frequent communication between public health, the zoning commission, and private developers is helping Columbus to become a more walkable and bikable city that promotes physical activity. Columbus Public Health has institutionalized a “rapid Health Impact Assessment” process to evaluate health impacts of zoning and development decisions. As a result, the zoning code now requires that new developments in the city feature safe pedestrian access and bike racks.</p>

Sources

1. Nine out of ten people with diabetes do not know that they have it. Centers for Disease Control and Prevention. "Prediabetes- Could It Be You?" 2014.
2. Diabetes Prevention Program Research Group. "Reduction in the Incidence of Type 2 Diabetes with Lifestyle Intervention or Metformin." New England Journal of Medicine. February 7, 2002.
3. Ohio Department of Health. "The Impact of Chronic Disease in Ohio: 2015." 2015.
4. Provided directly to HPIO, based on 2010 Census block group data. Bureau of Health Promotion, Ohio Department of Health. August, 2015.
5. Centers for Disease Control and Prevention. "Prediabetes: Could it be you?" 2014.
6. Ohio Department of Health. "The impact of chronic disease in Ohio." 2015.
7. Centers for Disease Control and Prevention. "Prediabetes: Could it be you?" 2014.
8. Refers to annual costs. Avalere, American Diabetes Association, The YMCA, and the American Medical Association. "Estimated impact of H.R. 962/S. 452, the Medicare diabetes prevention act." 2014.
9. Medical expenditures for people diagnosed with diabetes average about \$13,000 per year, of which about \$7,900 is attributed to diabetes. Medical expenditures for people with diabetes are approximately 2.3 times higher than for those without diabetes. Diabetes Care. "Economic costs of diabetes in the U.S. in 2012." 2013.
10. Per person per year Medicare ESRD costs were \$87,561 for hemodialysis and \$66,751 for peritoneal dialysis in 2010. U.S. Renal Data System 2014 Annual Data Report, Chapter 11: Costs of End State Renal Disease.
11. Vojta, D., et. al. "A Coordinated National Model for Diabetes Prevention." American Journal of Preventive Medicine. 2013.
12. Bureau of Community Health and Prevention, Massachusetts Department of Public Health. "The Massachusetts Prevention and Wellness Trust Fund 2014 Legislative Report." January, 2015.

To learn more

To view the complete publication "Beyond medical care: Emerging policy opportunities to advance prevention and improve health value in Ohio," as well as more fact sheets about the specific policy opportunities discussed in the report, visit:

www.hpio.net/beyond-medical-care/



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