JOINT STATE GOVERNMENT COMMISSION

General Assembly of the Commonwealth of Pennsylvania

DIABETES IN PENNSYLVANIA:

Prevention and Maintenance Programs

Seventh Biennial Report

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Serving the General Assembly of the Commonwealth of Pennsylvania Since 1937

REPORT

House Resolution 936 of 2014
Diabetes In Pennsylvania:
Prevention and Maintenance Programs

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The report is also available at http://jsg.legis.state.pa.us

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The Joint State Government Commission was created in 1937 as the primary and central non-partisan, bicameral research and policy development agency for the General Assembly of Pennsylvania.[1]

A fourteen-member Executive Committee composed of the leadership of both the House of Representatives and the Senate oversees the Commission. The seven Executive Committee members from the House of Representatives are the Speaker, the Majority and Minority Leaders, the Majority and Minority Whips, and the Majority and Minority Caucus Chairs. The seven Executive Committee members from the Senate are the President Pro Tempore, the Majority and Minority Leaders, the Majority and Minority Whips, and the Majority and Minority Caucus Chairs. By statute, the Executive Committee selects a chairman of the Commission from among the members of the General Assembly. Historically, the Executive Committee has also selected a Vice-Chair or Treasurer, or both, for the Commission.

The studies conducted by the Commission are authorized by statute or by a simple or joint resolution. In general, the Commission has the power to conduct investigations, study issues, and gather information as directed by the General Assembly. The Commission provides in-depth research on a variety of topics, crafts recommendations to improve public policy and statutory law, and works closely with legislators and their staff.

A Commission study may involve the appointment of a legislative task force, composed of a specified number of legislators from the House of Representatives or the Senate, or both, as set forth in the enabling statute or resolution. In addition to following the progress of a particular study, the principal role of a task force is to determine whether to authorize the publication of any report resulting from the study and the introduction of any proposed legislation contained in the report. However, task force authorization does not necessarily reflect endorsement of all the findings and recommendations contained in a report.

Some studies involve an appointed advisory committee of professionals or interested parties from across the Commonwealth with expertise in a particular topic; others are managed exclusively by Commission staff with the informal involvement of representatives of those entities that can provide insight and information regarding the particular topic. When a study involves an advisory committee, the Commission seeks consensus among the members.[2] Although an advisory committee member may represent a particular department, agency, association, or group, such representation does not necessarily reflect the endorsement of the department, agency, association, or group of all the findings and recommendations contained in a study report.

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[1] Act of July 1, 1937 (P.L.2460, No.459); 46 P.S. §§ 65–69.

[2] Consensus does not necessarily reflect unanimity among the advisory committee members on each individual policy or legislative recommendation. At a minimum, it reflects the views of a substantial majority of the advisory committee, gained after lengthy review and discussion.

Over the years, nearly one thousand individuals from across the Commonwealth have served as members of the Commission's numerous advisory committees or have assisted the Commission with its studies. Members of advisory committees bring a wide range of knowledge and experience to deliberations involving a particular study. Individuals from countless backgrounds have contributed to the work of the Commission, such as attorneys, judges, professors and other educators, state and local officials, physicians and other health care professionals, business and community leaders, service providers, administrators and other professionals, law enforcement personnel, and concerned citizens. In addition, members of advisory committees donate their time to serve the public good; they are not compensated for their service as members. Consequently, the Commonwealth receives the financial benefit of such volunteerism, along with their shared expertise in developing statutory language and public policy recommendations to improve the law in Pennsylvania.

The Commission periodically reports its findings and recommendations, along with any proposed legislation, to the General Assembly. Certain studies have specific timelines for the publication of a report, as in the case of a discrete or timely topic; other studies, given their complex or considerable nature, are ongoing and involve the publication of periodic reports. Completion of a study, or a particular aspect of an ongoing study, generally results in the publication of a report setting forth background material, policy recommendations, and proposed legislation. However, the release of a report by the Commission does not necessarily reflect the endorsement by the members of the Executive Committee, or the Chair or Vice-Chair of the Commission, of all the findings, recommendations, or conclusions contained in the report. A report containing proposed legislation may also contain official comments, which may be used to construe or apply its provisions.[3]

Since its inception, the Commission has published over 450 reports on a sweeping range of topics, including administrative law and procedure; agriculture; athletics and sports; banks and banking; commerce and trade; the commercial code; crimes and offenses; decedents, estates, and fiduciaries; detectives and private police; domestic relations; education; elections; eminent domain; environmental resources; escheats; fish; forests, waters, and state parks; game; health and safety; historical sites and museums; insolvency and assignments; insurance; the judiciary and judicial procedure; labor; law and justice; the legislature; liquor; mechanics' liens; mental health; military affairs; mines and mining; municipalities; prisons and parole; procurement; state-licensed professions and occupations; public utilities; public welfare; real and personal property; state government; taxation and fiscal affairs; transportation; vehicles; and workers' compensation.

Following the completion of a report, subsequent action on the part of the Commission may be required, and, as necessary, the Commission will draft legislation and statutory amendments, update research, track legislation through the legislative process, attend hearings, and answer questions from legislators, legislative staff, interest groups, and constituents.

[3] 1 Pa.C.S. § 1939.

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To the Members of the General Assembly of Pennsylvania:

This is the seventh in a series of reports authorized by 2014 House Resolution 936 (Pr.'s No. 4098), which provides for an ongoing study of the public health problem posed by diabetes in Pennsylvania. The Commission's task is to describe, evaluate, and make recommendations to improve the Commonwealth's diabetes response.

This report contains the latest data and describes government and non-government programs working to help people prevent and manage diabetes. It includes updated guidance on the use of GLP-1s and a caution against compounded GLP-1s, information about possible new treatment methods for type 1 diabetes such as inhaled insulin and stem cell-derived islet-cell therapy, and summaries of other new research on diabetes including the impact of state diabetes programs and the effects of social determinants of health.

Twelve recommendations developed by Commission staff are included in this report. First is a recommendation to amend Section 2156 of the Act of May 17, 1921 (P.L.682, No.284), known as The Insurance Company Act of 1921, as added by the act of November 3, 2022 (P.L.2068, No, 146); 40 P.S.§991.2156, to specifically address diabetes and other chronic diseases. The second is to expand caps on out-of-pocket payment for insulin and other essential diabetes medications. Third is a recommendation to require that healthcare plans treat insulin and essential equipment necessary for diabetes maintenance as preventive coverage so that they would require no copay. Additional best practices are recommended based on the *ADA's Diabetes Standards of Care—2025.*

The full report is available at http://jsg.legis.state.pa.us

Respectfully submitted,

Glenn J. Pasewicz
Executive Director

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INTRODUCTION

This is the seventh in a series of reports by the Joint State Government Commission (JSGC) in response to the mandate of 2014 House Resolution 936, which provides for an ongoing study of the public health problem posed by diabetes in Pennsylvania. The resolution directs the JSGC, in collaboration with several other state departments and agencies, to "assess the financial impact and reach diabetes has on the residents of this Commonwealth and the State departments and agencies collaborating on the report"; to conduct "an assessment of the benefits of implemented programs and activities aimed at controlling diabetes and preventing the disease"; and to provide recommendations "for the control and prevention of diabetes for consideration by the General Assembly," with the goal of reducing the impact of diabetes, pre-diabetes, and diabetes complications.[4]

Prevalence and Incidence of Diabetes and its Economic Burden in Pennsylvania and Nationwide

The Centers for Disease Control and Prevention (CDC) continually tracks the prevalence of diabetes and other chronic diseases throughout the United States. CDC's Division of Diabetes Translation (DDT) focuses on preventing type 2 diabetes and reducing complications and disability associated with diabetes; it also strives to reduce diabetes-related disparities, which are differences in health across geographic, racial, ethnic, and socioeconomic groups.

The Pennsylvania Diabetes Profile, as outlined by the CDC, includes the following key metrics:

- Total Diabetes Cases (Prevalence): 1,182,955
- New Diabetes Cases (Incidence): 91,000
- Prediabetes: 851,000
- Per Year in Direct Medical Costs Attributed to Diabetes: $16.2 billion
- Division of Diabetes Translation (DDT) Funding October 2022-September 2023: $2,679,816[5]

Pennsylvania has a Diabetes Action Plan. The State Health Improvement Plan (SHIP) for 2023-2028 was developed by the Pennsylvania Department of Health (DOH) in collaboration with the Healthy Pennsylvania Partnership (HPP). This multi-year strategic plan focuses on health

[4] HR 936, P.N. 4098 (2014).
[5] "Pennsylvania – Diabetes Profile," *CDC*, accessed January 10, 2025, https://www.cdc.gov/diabetes-state-local/php/state-profiles/index.html#PA.

equity, chronic disease prevention, and whole person care. Statewide data indicate that chronic diseases remain a priority for most communities in the Commonwealth, and, accordingly, this issue has been identified as a priority in the State Health Improvement Plan. SHIP contains specific targets for decreasing diabetes-related hospitalization and for reducing adult and childhood obesity in Pennsylvania, including introducing educational programs that promote healthy living and eating, increasing diabetes screenings, promoting the use of nutrition therapy for people with diabetes, and reducing the cost of diabetes medication and supplies.[6]

The CDC periodically publishes the *National Diabetes Statistics Report*, which provides information on the prevalence and incidence of diabetes and prediabetes as well as risk factors for complications, acute and long-term complications, death, and costs. These data are intended to focus efforts on prevention and control diabetes across the United States. The 2024 edition of the *National Diabetes Statistics Report* contains the following crude estimates for 2021 for the U.S. population overall:

Diabetes

- Total: 38.4 million people have diabetes (11.6% of the U.S. population)
- Diagnosed: 29.7 million people, including 29.4 million adults
- Undiagnosed: 8.7 million adults (22.8% of adults are undiagnosed)

Prediabetes

- Total: 97.6 million people aged 18 or older have prediabetes (38.0% of the adult U.S. population).
- 65 years or older: 27.2 million people aged 65 years or older (48.8% of those 65 years or older) have prediabetes.[7]

While the percentage of people with diabetes in the total U.S. population in 2021 was estimated to be 11.6 percent (38.4 million people), the percentage is even higher if calculated for the adult U.S. population only (people aged 18 years or older): 14.7 percent (38.1 million people). The percentage of adults with diabetes increased with age, reaching 29.2 percent among those aged 65 years or older.[8]

Prevalence of diabetes varied significantly in various race/ethnic groups, with the highest diabetes percentage in the Black/non-Hispanic group (17.4 percent), followed by the Asian/non-Hispanic group (16.7 percent), the Hispanic group (15.5 percent), and the White group/non-Hispanic group (13.6 percent). It is worth noting that differences in undiagnosed diabetes percentages were even more pronounced: from the smallest percentage of 2.7 percent in the White/non-Hispanic group to 4.4 percent in the Hispanic group, to 4.7 percent in the Black/non-

[6] Pennsylvania Department of Health, *State Health Improvement Plan 2023-2028,* https://www.pa.gov/content/dam/copapwp-pagov/en/health/documents/topics/documents/ship/SHIP_2023-2028.pdf.
[77] "National Diabetes Statistics Report," *CDC*, accessed January 10, 2025, https://www.cdc.gov/diabetes/php/data-research/index.html.
[8] "National Diabetes Statistics Report," *CDC*.

Hispanic group, and the highest percentage – 5.4 percent – in the Asian/non-Hispanic group.[9] The prevalence of undiagnosed diabetes is clinically important as when diabetes remains untreated for a longer period of time, it tends to become more severe and create complications earlier.

The analysis of trends in prevalence of diabetes in the United States demonstrates that during 2001-2020, the age-adjusted prevalence of total diabetes significantly increased among adults aged 18 or older. Prevalence estimates for total diabetes were 10.3 percent in 2001-2004 and 13.2 percent in 2017-2020.[10]

Incidence of newly diagnosed diabetes among the U.S. adults aged 18 years or older is reflected in the following crude estimates for 2021, with no significant variance by race/ethnicity:

- 1.2 million new cases of diabetes – or 5.9 per 1,000 persons – were diagnosed.

- Compared to adults aged 18 to 44 years, incidence rates of diagnosed diabetes were higher among adults aged 45 to 64 years (10.1 per 1,000 persons) and those aged 65 years and older (6.8 per 1,000 persons).[11]

The analysis of trends in incidence of diabetes among adults shows that it was similar in 2000 (6.2 per 1,000 adults) and 2021 (5.8 per 1,000 adults). A promising and significant decreasing trend in incidence was detected after 2008 (8.4 per 1,000 adults) through 2021.[12]

Trends of incidence of diabetes among children and adolescents are concerning as data show continuous increases in both diabetes type 1 and type 2.

Type 1

Among the U.S. children and adolescents aged less than 20,

- For the period 2002-2018, overall incidence of type 1 diabetes significantly increased.

- Non-Hispanic Asian or Pacific Islander children and adolescents had the largest significant increases in incidence of type 1 diabetes, followed by Hispanic and non-Hispanic Black children and adolescents.

- Non-Hispanic White children and adolescents had the highest incidence of type 1 diabetes across all years.[13]

[9] "National Diabetes Statistics Report," *CDC.*
[10] "National Diabetes Statistics Report," *CDC*.
[11] "National Diabetes Statistics Report," *CDC*.
[12] "National Diabetes Statistics Report," *CDC.*
[13] "National Diabetes Statistics Report," *CDC.*

Type 2

Among the U.S. children and adolescents aged 10 to 19 years,

- For the entire period 2002-2018, overall incidence of type 2 diabetes significantly increased.

- Incidence of type 2 diabetes significantly increased for all racial and ethnic groups, especially Asian or Pacific Islander, Hispanic, and non-Hispanic Black children and adolescents.

- Non-Hispanic Black children and adolescents had the highest incidence of type 2 diabetes across all years.[14]

It has been observed that rates of some chronic conditions worsened since 2019:

> Nationally, between 2020 and 2021, the prevalence of multiple chronic conditions – the percentage of adults who had three or more of the following chronic health conditions: arthritis, asthma, chronic kidney disease, chronic obstructive pulmonary disease, cardiovascular disease, cancer (excluding skin), depression and diabetes – increased 5%, from 9.1% to 9.6%.[15]

Public health experts attribute this rise to several factors. They speculate that "because many Americans delayed receiving care during the pandemic, it is possible that some cases of chronic conditions went undiagnosed as screenings for diseases like cancer were delayed or foregone."[16] Then, Americans caught up on their care and could have received new diagnoses. In addition, it became clear that COVID-19 infection increased the risk of some of these diseases, including diabetes, which means that the pandemic itself could have led to new cases.[17]

The COVID pandemic may continue to have a deleterious impact on diabetes incidence trends in the near future. By now, it is well-known that infection with SARS-CoV-2 can not only cause acute, and often severe, disease, but also lead to long-term consequences. It has been shown that it can trigger or accelerate debilitating and costly chronic diseases, including diabetes. Comparatively early in the course of the COVID pandemic, clinicians and researchers discovered multi-faceted two-way interactions between COVID-19 and diabetes: "the two-way interaction between COVID-19 and diabetes mellitus sets up a vicious cycle wherein COVID-19 leads to worsening of dysglycemia and diabetes mellitus, in turn, exacerbates the severity of COVID-19."[18] In addition to the increased severity of COVID-19 in patients with diabetes, it has been observed that exposure to COVID-19 can precipitate diabetes onset.

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[14] "National Diabetes Statistics Report," *CDC.*

[15] The United Health Foundation, the American Public Health Association. *America's Health Rankings: Annual Report 2022*, https://assets.americashealthrankings.org/app/uploads/ahr_2022annualreport_executivebrief.pdf.

[16] Ibid.

[17] Ibid.

[18] Rimesh Pal and Bhadada K. Sanjay, "COVID-19 and Diabetes Mellitus: An Unholy Interaction of Two Pandemics." *Diabetes & Metabolic Syndrome* 14, no. 4 (July-August 2020), DOI: 10.1016/j.dsx.2020.04.049.

Presently, there are multiple international reports of increased occurrence of diabetes following SARS-CoV-2 infection. Summarizing the findings of numerous investigations, a recent commentary in *JAMA* states:

> A meta-analysis of reports from the US, Norway, the UK, Germany, and multisite consortia found an overall 66% increase in the incidence of new-onset diabetes following SARS-CoV-2 infection. Another review showed that 12 of 14 population-based studies found significantly increased incidence of diabetes following COVID-19, with excess cases ranging from 11% to 276% above control.[19]

An extensive cohort study conducted in British Columbia, Canada from January 1, 2020, to December 31, 2021, using a surveillance platform that integrates COVID-19 data with population-based registries and administrative data sets, found that

> SARS-VoV-2 infection was associated with a higher risk of incident diabetes overall and among males and that severe disease was associated with a higher risk of diabetes among males and females. These results suggest that infection with SARS-CoV-2 may have contributed to a 3% to 5% excess burden of diabetes, which may be associated with a substantial number of diabetes cases with bearing on health care needs for the management of diabetes and its complications.[20]

Based on their findings, the authors conclude that health care providers need to be prepared for the increase in incidence of diabetes caused by COVID: "Our study highlights the importance of health agencies and clinicians being aware of the potential long-term consequences of COVID-19 and monitoring people after COVID-19 infection for new-onset diabetes for timely diagnosis and treatment."[21] Commenting on this Canadian study, a U.S. public health expert observes:

> If this proportion is similar in the US, it will represent a substantial financial burden. In 2017, the cost of diabetes care was estimated at $237 billion, not including lost productivity, so a 5% increase would cost an additional $12 billion per year. Now, 6 years later, the cost is probably much greater. In addition, Naveen et al studied only adults, but US children also had an increased incidence of diabetes following COVID-19, so the length of time that these increased costs will accumulate will be even greater. [22]

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[19] Pamela B. Davis, "COVID-19 and Incident Diabetes – Recovery Is Not So Sweet After All," *JAMA Network Open* 6, no. 4 (April 18, 2023), DOI: 10.1001/jamanetworkopen.2023.8872.
[20] Zaeema Naveed *et al*., "Association of COVID-19 Infection With Incident Diabetes." *JAMA Network Open* 6, no. 4 (2023), DOI:10.1001/jamahetworkopen.2023.8866.
[21] Ibid.
[22] Davis, "COVID-19 and Incident Diabetes."

Research continues to link COVID-19 infections with increased likelihood of diabetes diagnosis, including among children. One study analyzed the type 1 diabetes prevalence rate in children in Bavaria, Germany, diagnosed with COVID-19 between January 2020 and December 2021. This study found that children with a COVID-19 diagnosis had increased incidence of type 1 diabetes.[23] Another study of children from Germany who had presymptomatic type 1 diabetes and reported COVID-19 infection after 2020 found that COVID-19 infection was associated with progression to clinical disease.[24] A cohort study among US youth demonstrated a significant increase in type 2 diabetes after the beginning of the COVID-19 pandemic, with the greatest increases being among Black and Hispanic children.[25]

A study of pediatric patients from age 10-19 with data from 2020 to 2022 found that children with a COVID-19 diagnosis were significantly more likely to receive a type 2 diabetes diagnosis within 6 months of the COVID-19 infection than those with other respiratory infections within the first three years of the COVID-19 pandemic. The research suggests multiple explanations for such a correlation: the metabolic stress bringing out already present disease in some adolescents, the development of anti-β cell antibodies after a COVID-19 infection, or the ability of COVID-19 to target pancreatic β cells, which can lower the pancreas' ability to secrete insulin.[26]

Diabetes' Economic Burden

Significant healthcare spending cuts are coming due to the One Big Beautiful Bill (OBBB) signed into law by President Trump on July 4, 2025. A decrease in funding available through Medicare and Medicaid will lower the reimbursement rates and force local hospitals to cover the difference, causing strain on the healthcare system. Rural hospitals are especially likely to suffer, as they already operate with very small margins. When patients lose their Medicaid coverage, hospitals will be forced to cover an increasing amount of uncompensated care costs and will pass these increases on to other consumers with private insurance.[27] With the changes in the OBBB, the Pennsylvania Health Access Network estimates that around 270,000 patients will lose access to Pennie, Pennsylvania's Affordable Care Act (ACA) insurance marketplace, and 323,400 patients will lose access to Medicaid, totaling 593,400 newly uninsured Pennsylvanians. This will lead to an increased uncompensated care spending of $707 million annually, 2,630 preventable deaths due to the policies, and put 47 hospitals at risk of closing. New medical debt for

[23] Andreas Weiss, Ewan Donnachie, Andreas Beyerlein, *et al*., "Type 1 Diabetes Incidence and Risk in Children With a Diagnosis of COVID-19," *JAMA* 329, no. 23 (2023): 2089-2091, DOI:10.1001/jama.2023.8674.
[24] Nadine Friedl, Melanie Sporreiter, Christiane Winkler, *et al*., "Progression From Presymptomatic to Clinical Type 1 Diabetes After COVID-19 Infection," *JAMA* 332, no. 6 (2024):501-502, DOI:10.1001/jama.2024.11174.
[25] Matthew T. Mefford, Rong Wei, Eva Lustigova, et al., "Incidence of Diabetes Among Youth Before and During the COVID-19 Pandemic," *JAMA Network Open* 6, no. 9 (2023): 1-11, DOI:10.1001/jamanetworkopen.2023.34953.
[26] Margaret G. Miller, Pauline Terebuh, David C. Kaelber, "SARS-CoV-2 Infection and New-Onset Type 2 Diabetes Among Pediatric Patients, 2020 to 2022," *JAMA Network Open* 7, no. 10 (2024), DOI: 10.1001/jamanetworkopen.2024.39444.
[27] Cameron Brown, "Five Fast Facts: Big Beautiful Bill Comes at a High Cost for Pennsylvanians' Health Care and the Economy," *The Hospital and Healthsystem Association of Pennsylvania*, last modified July 1, 2025, https://www.haponline.org/News/HAP-News-Articles/Latest-News/five-fast-facts-big-beautiful-bill-comes-at-a-high-cost-for-pennsylvanians-health-care-and-the-economy.

Pennsylvania patients is projected to reach about $173 million.[28] As mentioned previously, proper preventative care for those with overweight or obesity can be beneficial in reducing diabetes prevalence. Reduced coverage for Pennsylvanians will reduce patients' ability to receive proper preventative care. President Trump's Budget Proposal also eliminates the Division of Chronic Disease, which will have a significant impact on public health nationwide.[29]

OBBB does not affect the sources for diabetes program funding in the Commonwealth because the Strategic Approach to Advancing Health Equity funding initiative and Preventative Health and Health Services Grant will not be affected by the spending cuts.[30] However, OBBB also removes SNAP benefits from those who are not working or volunteering who are over the age of 17 and under the age of 65, as well as removing benefits from noncitizens, asylum seekers, and refugees, though there are some exceptions in these categories. Nationwide, the Urban Institute has estimated that 2.7 million families will be affected by the changes in the OBBB, with 1.5 million families losing access altogether. Governor Shapiro's office estimates that around 140,000 to 144,000 people in Pennsylvania will lose SNAP coverage due to the changes. As SNAP programs have been demonstrated to lower diabetes rates, the loss of this benefit is likely to contribute to a rise in diabetes rates in Pennsylvania.[31] Another federal funding program, SNAP Nutrition Education and Obesity Prevention Grant Program (SNAP-Ed), which offers funding for school nutrition education across the country, will end September 2026. These changes will detract from the Pennsylvania Department of Health's (DOH) vision statement: A Healthy Pennsylvania For All. Many other community programs that promote healthy lifestyles use SNAP eligibility to determine eligibility for their programs. This would mean individuals would lose access to other services besides SNAP as well.[32]

A 2024 study building off previous research that found that participation in the National Diabetes Prevention Program (NDPP) lowered participants' risk of getting diabetes by 2.8 percent over two years set out to calculate the cost-effectiveness of participation in this program for "adult employees, dependents, and retirees with prediabetes and employer-sponsored health insurance from a U.S. health care sector perspective."[33] The study focused on 7,846 adults with prediabetes, with 9.6 percent of them enrolled in the NDPP. Those that were enrolled in the program received a decrease in medical costs of around $4,600 in the two years of the study because of a reduction in hospitalizations, outpatient visits, and ER visits.[34]

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[28] "Impacts to PA Congressional Districts of the One Big Beautiful Bill Act," *Pennsylvania Health Access Network*, last modified July 8, 2025, https://www.pahealthaccess.org/resource/impacts-to-pa-congressional-districts-of-the-one-big-beautiful-bill-act/.

[29] Presentation by Barbara Orwan, Public Health Program Manager, Department of Health | Bureau of Health Promotion & Risk Reduction and Tiffany S. Bransteitter, MSW, Obesity Prevention & Wellness Section Chief, Department of Health | Bureau of Health Promotion & Risk Reduction, Diabetes Action Network Meeting, August 27, 2025.

[30] Presentation by Barbara Orwan and Tiffany S. Bransteitter.

[31] "SNAP Changes Under H.R. 1: What Pennsylvania Faces, and How It Can Respond," *Bellevue Strategies*, last modified July 23, 2025, https://www.bellevuestrategies.com/thebellevuecompass/snap-changes-pennsylvania-hr1-impact.

[32] Presentation by Barbara Orwan and Tiffany S. Bransteitter.

[33] Shihchen Kuo, Wen Ye, Di Wang, et al., "Cost-Effectiveness of the National Diabetes Prevention Program: A Real-World, 2-Year Prospective Study," Diabetes Care 48, no. 00 (2025), DOI: 10.2337/dc24-1110, 4-6.

[34] "Cost-Effectiveness," 6-7.

As GLP-1s grow in popularity as a treatment for type 2 diabetes, the costly nature of these drugs begins to play a role in access. As GLP-1s become more popular, demand continues to outpace supply, causing prices for the drugs to be high. The high price of this care means that it is undoubtedly being unequally distributed among populations of differing socioeconomic levels. GLP-1s cost on average around $1,400 a month, and insurance coverage of these drugs vary.[35] A 2024 report by the U.S. Senate Health, Education, Labor, and Pensions Committee estimated that annual spending on weight loss drugs could reach $411 billion if half of current adults with obesity took the drugs, using the price of Wegovy for its calculation. The report estimated a $809 cost per month which included a 40 percent rebate from Wegovy's list price of $1,349. Medicare and Medicaid spending would account for $166 billion of this total.[36]

Prevalence of Obesity in Pennsylvania and New Developments in Treating Obesity in Children and Adolescents

One of the major risks factors for diabetes is obesity. Both obesity and diabetes type 2 can "substantially decrease life expectancy, diminish quality of life and increase healthcare costs."[37] For individuals of all ages, the risk of type 2 diabetes rises with increasing body weight. Citing the data from the National Institutes of Health, National Institute of Diabetes, Digestive and Kidney Diseases, the Obesity Action Coalition cautions that "the prevalence of type 2 diabetes is three to seven times higher in those who are obese than in normal weight adults, and is 20 times more likely in those with a body mass index (BMI) greater than 35 kg/m."[38]

An adult is considered obese if he or she has "a body mass index of 30.0 or higher based on reported height and weight."[39] Pennsylvania's rank among other states in 2022 was 22nd for lowest obesity, with a rate of 33.3 percent, which is close to the U.S. average.[40] As of 2025, more recent data on Pennsylvania's obesity rate or ranking was not available through the United Health Foundation.

A 2024 study analyzed the healthcare costs of individuals on private healthcare and individuals on Medicare with a BMI of 25 percent or higher. After reviewing the healthcare costs of 3,774 Medicare patients and 13,435 patients with employer-sponsored insurance, the authors determined that a weight loss of 5 percent led to an average of 8 percent savings, or $670, on healthcare spending. A weight loss of 25 percent amounted to an average savings of $2,849, or 34

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[35] Margaret A. Stefater-Richards, Grace Jhe, and Yanjia Jason Zhang, "GLP-1 Receptor Agonists in Pediatric and Adolescent Obesity," Pediatrics 155, no. 4 (April 2025, DOI: 10.1542/peds.2024-068119, 6.
[36] United States Senate, Health, Education, Labor, and Pensions Committee Majority Report, *Breaking Point: How Weight Loss Drugs Could Bankrupt American Health Care* (May 15, 2024), https://www.sanders.senate.gov/wp-content/uploads/Wegovy-report-FINAL.pdf
[37] Rogers, Joanne Z. and Christopher D. Still, "Obesity and Type 2 Diabetes," *Obesity Action Coalition*, accessed September 8, 2025, https://www.obesityaction.org/community/article-library/obesity-and-type-2-diabetes/.
[38] Ibid.
[39] United Health Foundation, *America's Health Rankings Analysis of CDC Behavioral Risk Factor Surveillance System: Annual Report*, 2022, accessed August 1, 2023, https://www.americashealthrankings.org/explore/annual/measure/Diabetes/state/PA.
[40] United Health Foundation, *America's Health Rankings Analysis.*

percent. For patients with comorbidities, the impact of weight loss was even clearer, with a 5 percent weight loss saving around $1,262, or 7 percent. A 25 percent weight loss for a patient with comorbidities saved an average of $5,442, or 31 percent of costs. Research continues to indicate the cost-effectiveness of lowering obesity among U.S. adults.[41]

Overweight in children is defined as a BMI at or above the 85th percentile and below the 95th percentile for children and teens of the same age and sex, and childhood obesity is typically defined as a BMI at or above the 95th percentile for children and teens of the same age and sex.[42] The percentage of Pennsylvania children ages 10-17 who are overweight or obese for their age based on reported height and weight (two-year estimate) in 2022 was 30.1 percent, which is slightly below the United States average of 33.5 percent.[43] As of 2025, updated obesity data was not available for Pennsylvania.

Adolescent obesity has been recognized as a critical public health issue affecting 26 percent of American adolescents.[44] A study analyzing U.S. obesity prevalence rates from 1990-2021 estimates that by 2050, the obesity rate in children ages 5-14 will be 22.6 percent and the rate in adolescents aged 14-25 will be 34.2 percent. Adolescent females are projected to have an over 7 percent higher obesity prevalence than adolescent males by 2050.[45] This study projected that rather than stabilize as many had suspected, rates of child and adolescent obesity will continue to grow, resulting in one in five children with obesity and one in three adolescents with obesity by 2050.[46] As the number of children and adolescents affected by obesity has increased, while the environment has become increasingly obesogenic, and as new treatment options have become available, the AAP issued its clinical practice guideline in 2023 for the evaluation and treatment of children and adolescents with obesity. This extensive document includes an in-depth analysis of obesity as a complex, multifactorial condition that has become one of the most common pediatric chronic diseases. The AAP guideline describes obesity as a long-lasting condition that has "persistent and negative health effects, attributable morbidity and mortality, and social and economic consequences that can impact a child's quality of life" and recommends that "a life course approach to identification and treatment should begin as early as possible and continue longitudinally through childhood, adolescence, and young adulthood, with transition into adult care."[47]

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[41] Kenneth E. Thorpe, PhD and Peter J. Joski, MSPH, "Estimated Reduction in Health Care Spending Associated With Weight Loss in Adults," *JAMA Network Open* 7, no. 12 (December 5, 2024), DOI:10.1001/jamanetworkopen.2024.49200, 1.

[42] American Academy of Pediatrics. "Clinical Practice Guideline for the Evaluation and Treatment of Children and Adolescents with Obesity," *Pediatrics* 151, no. 2 (February 2023), http://publications.aap.org/pediatrics/article-pdf/151/2/e2022060640/1451060/peds_20220640640.pdf.

[43] United Health Foundation, *America's Health Rankings Analysis.*

[44] Hu, K. and A.E. Staiano, "Trends in Obesity Prevalence Among Children and Adolescents Aged 2 to 19 years in the US from 2011 to 2020," *JAMA Pediatric* 176, no. 1039 (2022), DOI: 10.1001/jamapediatrics.2022.2052.

[45] "National-Level and State-Level Prevalence of Overweight and Obesity Among Children, Adolescents, and Adults in the USA, 1990–2021, and Forecasts up to 2050," *Lancet* 404 (2024), DOI: 10.1016/S0140-6736(24)01548-4, 2289.

[46] "National-Level and State-Level Prevalence," 2290.

[47] Sarah E. Hampl, Sandra G. Hassink, Asheley C. Skinner, *et al*., "Clinical Practice Guideline for the Evaluation and Treatment of Children and Adolescents with Obesity," *Pediatrics* 151, no. 2 (2023), DOI: 10.1542/peds.2022-060640, 3.

Preventing and treating obesity may decrease children's risk of diabetes and help adults who are at high risk for diabetes to prevent or delay its development; it may also improve glycemic control in individuals who already have diabetes. Obesity can be treated by lifestyle changes; in certain cases, medications or bariatric surgery may be appropriate.

Two GLP-1RAs have been approved by the FDA for treating adolescents with severe obesity: liraglutide, approved by the FDA in 2020 for use in adolescents, and a semaglutide called Wegovy, approved for adolescents by the FDA in 2022.[48] A new GLP-1RA called tirzepatide has the additional benefit of agonizing gastric inhibitory peptide (DIP), which also activates hormones to lower appetite. The two appetite-lowering reactions together may multiply the weight loss, with early trials indicating greater weight loss than semaglutide. Pediatric trials for this drug are still underway, though it is currently FDA-approved for those over the age of 18.[49] It should be noted that the FDA has cautioned against the use of compounded versions of semaglutide and tirzepatide that are not FDA approved.[50] This will be addressed in depth later in the report.

It is important to remember that GLP-1s are used in conjunction with a healthy diet and an active lifestyle. Diets that have been found to be beneficial include "low-glycemic-index, Mediterranean, plant-based, and protein-rich diets."[51] Those on GLP-1s should also reduce their intake of sweetened drinks and ultra-processed foods. Because those on the medication will have a reduced appetite, they should be reminded not to skip meals and eat appropriate portions at each meal. Adolescents with neurodiversity are at an increased risk for micronutrient deficiency, therefore this population must monitored when using a GLP-1 to ensure that they are receiving all of the necessary nutrients. GLP-1s have been shown in elderly people to increase sarcopenia (loss of muscle mass), so those taking GLP-1s should attempt weight-bearing exercise if possible.[52]

Adolescents' mental health continues to be a concern for children on GLP-1s, with experts emphasizing the risk of children with obesity developing eating disorders. Children with obesity are at a higher risk for disordered eating behaviors (DEBs), which could include "restricting food intake to control weight/shape, not responding to hunger/fullness cues, eating to regulate feelings, and following rigid dietary rules."[53] These are "subclinical presentations of EDs (anorexia nervosa, bulimia nervosa, binge eating disorder, other EDs)…," which is a step below a fully symptomatic eating disorder.[54] These behaviors are more common in adolescent girls than boys, though the prevalence is significant for both. Adolescents with obesity should be screened for DEBs and avoidant/restrictive food intake disorder (ARFID) before being prescribed a GLP-1. Additionally, because GLP-1s affect satiety (feeling full) and can have side effects including nausea or vomiting, this could lead to food avoidance for adolescents who did not previously have DEBs or an ED. Psychological evaluation for adolescents to determine if GLP-1s are the right treatment for them

[48] Margaret A. Stefater-Richards, Grace Jhe, Yanjia Jason Zhang, "GLP-1 Receptor Agonists in Pediatric and Adolescent Obesity," *Pediatrics* 155, no. 4 (2025), DOI:10.1542/peds.2024-068119, 2.
[49] "GLP-1 Receptor Agonists," 4.
[50] "FDA's Concerns with Unapproved GLP-1 Drugs Used for Weight Loss," *U.S. Food and Drug Administration*, accessed August 7, 2025, https://www.fda.gov/drugs/postmarket-drug-safety-information-patients-and-providers/fdas-concerns-unapproved-glp-1-drugs-used-weight-loss.
[51] "GLP-1 Receptor Agonists," 4.
[52] "GLP-1 Receptor Agonists," 4.
[53] "GLP-1 Receptor Agonists," 4.
[54] "GLP-1 Receptor Agonists," 4.

may be a helpful protection for children. Children should also be treated with a focus on meeting overall health goals rather than specifically achieving weight loss, as harmful stereotypes about GLP-1s being a "shortcut to weight loss" can be damaging stigma for a child to experience.[55]

Clinicians, policymakers and healthcare payers must be aware of the new developments in obesity treatment and take into account their potential long-term impacts on both patients' health status and health care expenditures.

[55] "GLP-1 Receptor Agonists," 4.

DIAGNOSIS AND CLASSIFICATION OF DIABETES MELLITUS

Definition and Description

Diabetes mellitus is defined as "a group of metabolic disorders of carbohydrate metabolism in which glucose is both underutilized as an energy source and overproduced due to inappropriate gluconeogenesis and glycogenosis, resulting in hyperglycemia."[56]

Diabetes develops because of several pathogenic processes, ranging from autoimmune destruction of the beta-cells of the pancreas with consequent insulin deficiency to abnormalities that result in resistance to insulin action. Both type 1 diabetes and type 2 diabetes are "heterogeneous diseases in which clinical presentation and disease progression may vary considerably."[57] In both type 1 and type 2 diabetes, "various genetic and environmental factors can result in the progressive loss of β-cell mass and/or function that manifests clinically as hyperglycemia. Once hyperglycemia occurs, people with all forms of diabetes are at risk for developing the same chronic complications, although rates of progression may differ. The identification of individual therapies for diabetes in the future will be informed by better characterization of the many paths to β-cell demise or dysfunction."[58]

Acute, life-threatening consequences of uncontrolled diabetes are hyperglycemia with ketoacidosis or the nonketonic hyperosmolar syndrome. Hypoglycemia (abnormally low level of blood sugar), which is often associated with diabetes and its treatment, can also lead to severe consequences and can sometimes be life-threatening as it is a potential cause of acute cardiovascular events.

The chronic hyperglycemia of diabetes (abnormally high level of blood sugar) is associated with long-term damage, dysfunction, and failure of different organs, especially the eyes, kidneys, nerves, heart, and blood vessels. Long-term complications of diabetes include retinopathy with potential loss of vision; nephropathy leading to renal failure; peripheral neuropathy with risk of foot ulcers and amputations; and autonomic neuropathy causing gastrointestinal, genitourinary, and cardiovascular symptoms and sexual dysfunction. Patients with diabetes have an increased incidence of atherosclerotic cardiovascular, peripheral arterial, and cerebrovascular disease.

[56] American Diabetes Association. "Classification and Diagnosis of Diabetes: Standards of Care in Diabetes –2025," *Diabetes Care* Vol. 48. Suppl. 1, (January 2025): S27, DOI: 10.2337/dc25-S002.
[57] "Classification and Diagnosis of Diabetes," *Diabetes Care*, S30.
[58] "Classification and Diagnosis of Diabetes," *Diabetes Care*, S30.

Classification

Diabetes is currently classified into the following general categories:

1. Type 1 diabetes (due to autoimmune β-cell destruction, usually leading to absolute insulin deficiency, including latent autoimmune diabetes in adults)

2. Type 2 diabetes (due to a non-autoimmune progressive loss of adequate β-cell insulin secretion, frequently on the background of insulin resistance)

3. Specific types of diabetes due to other causes, e.g., monogenic diabetes syndromes (such as neonatal diabetes and maturity-onset diabetes of the young), diseases of the exocrine pancreas (such as cystic fibrosis and pancreatitis) and drug - or chemical - induced diabetes (such as with glucocorticoid use, in the treatment of HIV/AIDS, or after organ transplantation)

4. Gestational diabetes mellitus (diabetes diagnosed in the second or third trimester of pregnancy that was not clearly overt diabetes prior to gestation or other types of diabetes occurring throughout pregnancy, such as type 1 diabetes)[59]

Classification is important for determining therapy. At the same time, one of the current trends in understanding diabetes and approaches to treatment is the acknowledgement of significant overlap across the spectrum of diabetes. More precise definition of the diabetes subsets remains an important area of research, with the goal of optimizing treatment approaches for various subsets of diabetes.

The most common forms of diabetes are type 1 and type 2 diabetes.

Type 1 Diabetes

Type 1 diabetes, or immune-mediated diabetes, previously called "insulin-dependent diabetes" or "juvenile-onset diabetes," accounts for 5-10 percent of diabetes and is due to cellular mediated-autoimmune destruction of the pancreatic β-cells; it is identified by the presence of one or more specific autoimmune markers.[60] This form of diabetes commonly occurs in childhood and adolescence, but, as has been recently acknowledged, it may occur at any age. As most of the mutations that cause type 1 diabetes are dominantly inherited, it leads to important genetic considerations. Genetic screening has been used to identify high-risk populations. To be useful, genetic testing must be followed by genetic counseling. Islet autoantibody testing of individuals genetically at risk for type 1 diabetes (for example, relatives of those with type 1 diabetes or individuals from the general population with type 1 diabetes-associated genetic factors) identifies individuals who may develop type 1 diabetes. When such testing is coupled with education about

[59] "Classification and Diagnosis of Diabetes," *Diabetes Care*: S30.
[60] "Classification and Diagnosis of Diabetes," *Diabetes Care*: S33.

diabetes symptoms and close follow-up of these individuals, it may enable earlier identification of type 1 diabetes onset.[61]

Recently, there has been a call for expanded screening, not limited to individuals who have family members with type 1 diabetes. It is estimated that approximately 90 percent of those who develop type 1 diabetes do not have a family history.[62] Though the Diabetes Standards of Care 2025 still only recommend screening for those with a family history or any other elevated genetic risk, researchers are investigating the most optimal times to screen for type 1 diabetes in the general population. Recent research indicates that ages two and six are appropriate times to screen children, as well as any time between the ages of 10 to 18 if a provider feels a patient would be a good candidate. Adults should also be screened if they present any of the following risk factors: "family history of type 1 diabetes and personal or family history of another autoimmune disease, such as autoimmune thyroiditis, Addison's disease, celiac disease, autoimmune gastritis, and pernicious anemia."[63]

The consideration of the need for and feasibility of population screening to identify those at increased risk was triggered by recent successes in disease-modifying therapies to impact the course of early-stage disease. In November 2022, the U.S. Food and Drug Administration (FDA) approved the first treatment to delay the onset of stage 3 type 1 diabetes: Tzield (teplizumab). This injectable drug is approved for individuals 8 years and older who are considered to be in stage 2 of type 1 diabetes. The agency based its approval on data from a 2019 randomized, double-blind, placebo-controlled trial with 76 patients who had stage 2 type 1 diabetes. The study showed that patients with stage 2 type 1 diabetes who received Tzield took longer to develop stage 3 diabetes than those who took placebo. Stage 3 occurs when patients develop overt hyperglycemia, typically with multiple symptoms of diabetes. Delaying the onset of stage 3 is a significant achievement that can make a big difference in the lives of those who have type 1 diabetes and their families. More recent research appears to indicate that Tzield could slow progression of diabetes in newly diagnosed children and adolescents as well, widening the range of the possible use of this treatment beyond those with stage 2 type 1 diabetes. More data will need to be collected to confirm these findings.[64]

Tzield cannot prevent or cure diabetes. However, it can slow the disease progression and thus, "delay the need for exogenous insulin therapy and its associated risks and intensive regimen." The American Association of Pediatrics (AAP) pronounced the delay "clinically meaningful, particularly because type 1 diabetes often presents in patients younger than 10 years who may face challenges with complex disease management."[65]

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[61] "Classification and Diagnosis of Diabetes," *Diabetes Care*: S33-34.

[62] Emily K. Sims, "Screening for Type 1 Diabetes in the General Population: A Status Report and Perspectives," *Diabetes* 71 (April 2022), https://doi.org /10.2337/dbi20-004.

[63] Daniel J Moore, Natasha I Leibel, William Polonsky, et al., "Recommendations for Screening and Monitoring the Stages of Type 1 Diabetes in the Immune Therapy Era," *International Journal of General Medicine* 17 (2024), DOI:10.2147/IJGM.S438009.

[64] April Hopcroft, "Could Tzield Help Children Newly Diagnosed with Diabetes?" *diaTribe*, accessed July 31, 2025, https://diatribe.org/diabetes-medications/could-tzield-help-children-newly-diagnosed-diabetes.

[65] American Association of Pediatrics, "FDA Approved First Drug That Can Delay Onset of Type 1 Diabetes." *AAP News*, January 1, 2023, https://www.fda.gov/media/164864/download.

Type 1 experts and advocates are encouraged by the newly acquired possibility "to identify the majority of children and adults who will develop type 1 diabetes and to take action to delay or prevent the disease prior to needing insulin."[66] It is important to realize that changing screening and treatment practices will require further studies and thoughtful, well-coordinated implementation policies.

The ability to intervene in the disease course during a presymptomatic phase is a key tenet of population screening, but likewise, identifying effective therapies and applying them in clinical settings depends on identifying those at risk who are most likely to benefit from them. Collaborations between groups involved in screening and therapeutics will be needed to fulfill this objective.[67]

Experts believe that screening for type 1 diabetes "has entered a new phase" and that, when it is combined with the availability of new therapies, "the opportunity for dramatically changing the future of this disease is enormous." [68]

A possible new treatment for type 1 diabetes that was recently trialed is an inhaled insulin given in conjunction with degludec insulin. Those receiving the inhaled treatment were compared to those receiving a typical insulin treatment regimen. The results indicated that "more participants using the inhaled insulin regimen experienced significant improvements in Hemoglobin A1c (HbA1c) levels compared to those on usual care."[69] Twenty-one percent of those using the inhaled insulin regimen had HbA1c improvements of more than 0.5 percent compared to only 5 percent of those on usual care. However, 26 percent of those using inhaled insulin had a worsening of HbA1c of more than 0.5 percent, while only 3 percent of those on usual care had worsening to this level. More than half of the participants were interested in continuing on the inhaled insulin regimen after the study. More research should be conducted on the topic of inhaled insulin to demonstrate its effectiveness as an alternative insulin treatment option.[70]

Shortly before the publishing of this report, in June 2025, results were released from a trial of a stem cell-derived islet-cell therapy called zimislecel. The first study was conducted with 12 participants who received a single full dose of the zimislecel infusion coupled with glucocorticoid-free immunosuppressive therapy. For these participants, none had severe hypoglycemic events during the course of the following year and their glycated hemoglobin level remained less than 7 percent. Eighty-three percent of participants achieved insulin independence after one year. Zimislecel has not yet been approved by the FDA as more data must be collected to determine the safety and efficacy of the therapy. However, this treatment could have a profound impact on diabetes treatment if it is determined to be safe and effective.[71]

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[66] Sims, "Screening for Type 1 Diabetes in the General Population."
[67] Ibid.
[68] Ibid.
[69] "Study Shows Promising Results for Inhaled Insulin as Treatment for Type 1 Diabetes," American Diabetes Association, Press Release, June 24, 2024, https://diabetes.org/newsroom/press-releases/study-shows-promising-results-inhaled-insulin-treatment-type-1-diabetes.
[70] "Inhaled Insulin."
[71] Trevor W. Reichman, M.D., James F. Markmann, M.D., Ph.D., Jon Odorico, M.D., et al., "Stem Cell–Derived, Fully Differentiated Islets for Type 1 Diabetes," *The New England Journal of Medicine* (June 20, 2025), DOI:10.1056/NEJMoa2506549.

Type 2 Diabetes

Type 2 diabetes, previously referred to as "non-insulin-dependent diabetes" or "adult-onset diabetes," accounts for 90-95 percent of all diabetes; this form "encompasses individuals who generally have relative (rather than absolute) insulin deficiency and have insulin resistance (i.e., decreased biological responses to insulin)."[72] At least initially, and often throughout their lifetimes, these patients may not need insulin treatment to survive. There are various causes of type 2 diabetes. Its specific etiologies remain unknown, but autoimmune destruction of β-cells does not occur, and many patients do not have any of the other known causes of diabetes. It is often associated with a strong genetic predisposition, and the risk of developing this form of diabetes increases with age, obesity, and lack of physical activity. There are also other known risk factors. Type 2 diabetes occurs more frequently in people with prediabetes, prior gestational diabetes mellitus or polycystic ovary syndrome, and in individuals with a history of hypertension or dyslipidemia. Type 2 diabetes is more common in certain racial/ethnic subgroups such as African American, Native American, Hispanic/Latino, and Asian Americans. Awareness of these facts can facilitate early testing and patient education, which, in turn, can prevent or delay the development of diabetes or, at least, ensure early diagnosis and timely treatment.[73]

Type 2 diabetes often remains undiagnosed for many years because hyperglycemia develops gradually and, at earlier stages, is not severe enough for the patient to recognize the classic diabetes symptoms. Even undiagnosed patients are at increased risk of developing macrovascular and microvascular complications, and the duration of glycemic burden is a strong predictor of adverse outcomes, so the American Diabetes Association strongly recommends early detection and early intervention, underscoring the availability of simple tests to detect preclinical disease and the existence of effective interventions that prevent progression from prediabetes to diabetes and reduce the risk of diabetes complications. The *ADA Standards of Care in Diabetes – 2025* contain an extensive discussion of various approaches to screening and testing for prediabetes and type 2 diabetes in asymptomatic adults, children, and adolescents.[74]

Gestational Diabetes

Gestational diabetes mellitus (GDM) has been gaining more attention in the past few years. This form of diabetes was traditionally defined as "any degree of glucose intolerance that was first recognized during pregnancy, regardless of the degree of hyperglycemia."[75] Today, many experts acknowledge that though this definition served as the basis for detection and treatment of GDM, it has several limitations. Ample evidence indicates that many cases of GDM represent preexisting hyperglycemia that is detected by routine screening in pregnancy, as routine screening is not widely performed in nonpregnant individuals of reproductive age. As the prevalence of obesity and diabetes in people of reproductive age has increased significantly, more women are diagnosed with preexisting type 2 diabetes in early pregnancy. The ADA points out that "ideally, undiagnosed diabetes should be identified preconception in individuals with risk factors or in high-risk populations" because it has been shown that "the preconception care of people with preexisting

[72] "Classification and Diagnosis of Diabetes," *Diabetes Care*: S36.
[73] "Classification and Diagnosis of Diabetes," *Diabetes Care*: S36.
[74] "Classification and Diagnosis of Diabetes," *Diabetes Care*: S38.
[75] "Classification and Diagnosis of Diabetes," *Diabetes Care*: S42.

diabetes results in lower A1C and reduced risk of birth defects, preterm delivery, perinatal mortality, small-for-gestational-age birth weight, and neonatal intensive care unit admission."[76] If individuals are not screened prior to pregnancy, universal early screening at 15 weeks of gestation or earlier may be preferable to selective screening, especially in populations with high prevalence of risk factors and undiagnosed diabetes in people of child-bearing age. Strong racial and ethnic disparities exist in the prevalence of undiagnosed diabetes and "early screening provides an initial step to identify these health disparities so that they can begin to address them."[77] If early screening is negative, pregnant women should be rescreened for GDM between 24 and 28 weeks of gestation. As GDM is often indicative of underlying β-cell dysfunction, which confers marked increased risk for later development of glucose intolerance and diabetes in the mother after delivery," the ADA recommends that "individuals diagnosed with GDM should receive lifelong screening for prediabetes to allow interventions to reduce diabetes risk and for type 2 diabetes to allow treatment at the earliest possible time."[78]

It is well-known that gestational diabetes is associated with short - and long-term adverse effects and risks for women and offspring. Mothers who had GDM are several times more likely to develop diabetes later in life (this correlation is especially pronounced in certain racial and ethnic groups); women who had GDM are also at higher relative risk for future cardiovascular disease.[79] In offspring, fetal exposure to gestational diabetes in utero has been linked to macrosomia (growth beyond a specific threshold) and adiposity (severe overweight) in newborns as well as impaired glucose tolerance and obesity in childhood, which, in turn, increase "risks for adverse cardiometabolic outcomes for offspring across the lifespan."[80] The Hyperglycemia and Adverse Pregnancy Outcome (HAPO), a ground-breaking large-scale, multinational cohort study convincingly demonstrated that risk of adverse maternal, fetal, and neonatal outcomes continuously increased as a function of maternal glycemia even if maternal glucose levels were below those diagnostic of diabetes.[81] Based on their "findings of significant associations between adverse outcomes and higher levels of maternal glucose" within what was considered a non-diabetic range, the investigators argued for the "need to reconsider current criteria for diagnosing and treating hyperglycemia during pregnancy."[82] That foundational study led to reconsideration of the diagnostic criteria for GDM and its management.[83] A follow-up to HAPO called HAPOFUS found "a significant correlation between maternal hyperglycemia and childhood glucose levels and insulin resistance, which was independent of family history of diabetes and childhood BMI."[84] Experts are still working to implement standardized diagnostic criteria, as they do not yet exist. The criteria most widely used are those of International Association of Diabetes and Pregnancy Study Groups (IADPSG). The criteria have a lower threshold than the World Health Organization

[76] "Classification and Diagnosis of Diabetes," *Diabetes Care*: S42.
[77] "Classification and Diagnosis of Diabetes," *Diabetes Care*: S42.
[78] "Classification and Diagnosis of Diabetes," *Diabetes Care*: S43.
[79] Nilay S Shah *et al*., "Trends in Gestational Diabetes at First Live Birth by Race and Ethnicity in the US, 2011-2019." *JAMA* 326, no. 7 (August 2021), DOI: 10.1001/jama.2021.7217.
[80] Ibid.
[81] The HAPO Study Cooperative Research Group, "Hyperglycemia and Adverse Pregnancy Outcomes," *The New England Journal of Medicine* 358, no. 19 (May 8, 2008), https://www.nejm.org/doi/pdf/10.1056/nejmoa0707943.
[82] Ibid.
[83] American Diabetes Association. "Classification and Diagnosis of Diabetes: Standards of Care in Diabetes –2023." *Diabetes Care*. Vol. 46. Suppl. 1, January 2023, https://doi.org/10.2337/dc23-S002.
[84] Jiyu Luo, Ling Tong, Ao Xu, *et al*., "Gestational Diabetes Mellitus: New Thinking on Diagnostic Criteria," *Life* 14, no. 1665 (2024), DOI:10.3390/ life14121665, 4.

(WHO), leading countries that use the criteria to have higher prevalence rates of GDM. This has raised questions over whether it is the proper criteria to be used globally, when a positive diagnosis increases the burden on the healthcare system. Though the diagnostic criteria would lead to higher healthcare costs by identifying more women with GDM, studies have found that identification is cost-effective due to beneficial outcomes for maternal and neonatal health.[85] Many have recommended universal screening for GDM, as selective screening could miss around 23 percent of cases that do not have risk factors.[86]

[85] Gestational Diabetes Mellitus: New Thinking on Diagnostic Criteria, 9.
[86] Gestational Diabetes Mellitus: New Thinking on Diagnostic Criteria, 11.

NEW DEVELOPMENTS IN DIABETES RESEARCH AND THERAPEUTIC APPROACHES

The field of diabetes care keeps changing with the emergence of new research, technology, and treatments that have the potential to improve the health and well-being of people with diabetes. The two leading world organizations – the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD) – closely follow the latest developments and devise recommendations for clinicians, based on the newly acquired knowledge and accumulated evidence. This section discusses the current standards of care suggested by these two organizations as well as some of the latest discoveries and trends in diabetes treatment and management.

The ADA Standards of Care in Diabetes - 2024 and the ADA Standards of Care in Diabetes - 2025

To achieve its mission to prevent and treat diabetes and keep abreast of the latest developments in the scientific and clinical fields, the ADA issues its *Standards of Care in Diabetes* annually, updating its recommendations to reflect new discoveries. "The latest ADA guidelines combine comprehensive, evidence-based recommendations for diabetes care with actionable guidance to enable health care professionals provide the best care possible for those living with diabetes," said Nuha El Sayed, MD, MMSc, the ADA's senior vice president of health care improvement.[87]

Standards of Care in Diabetes are regularly reviewed and updated by the Professional Practice Committee (PPC) of the American Diabetes Association. The PPC is a multidisciplinary committee comprised of physicians, diabetes educators, and others who have expertise in a range of relevant areas, including adult and pediatric endocrinology, public health, hypertension, lipid research, and pregnancy care.[88]

Notable updates to the *Standards of Care in Diabetes─2024* include:

- New updates in managing obesity in people with diabetes, including approaches to reduce therapeutic inertia, support more personalization, and incorporate additional obesity measurements beyond body mass index (i.e., waist circumference, waist-to-hip ratio, and/or waist-to-height ratio).

[87] American Diabetes Association, "The American Diabetes Association Releases Standards of Care in Diabetes—2025," Press Release, December 9, 2024, https://diabetes.org/newsroom/press-releases/american-diabetes-association-releases-standards-care-diabetes-2025.
[88] "The American Diabetes Association Releases Standards of Care in Diabetes—2025," Press Release.

- New screening recommendations for heart failure in people with diabetes.

- Updated recommendations for peripheral arterial disease (PAD) screening in people with diabetes.

- Guidance on screening and the use of teplizumab, approved to delay the onset of type 1 diabetes.

- More guidance on the use of new obesity medications, glucagon-like peptide 1 (GLP-1) agonists or dual glucose-dependent insulinotropic polypeptide (GIP) receptor agonists, to reach sustained weight management goals.

- Updates in guidance on the diagnosis and classification of diabetes.

- A focus on hypoglycemia prevention and management.

- Emphasis on screening people with diabetes for nonalcoholic fatty liver disease (NAFLD) and nonalcoholic steatohepatitis at primary care and diabetes clinics.

- New emphasis on the evaluation and treatment of bone health and added attention to diabetes-specific risk factors for fracture.

- A focus on screening and management of people with diabetes and disability.

- Emphasis on enabling health care providers to master diabetes technology, using artificial intelligence for retinal screenings with necessary referrals, and embracing telehealth and digital tools for diabetes self-management education.

- New information on the possible association between COVID-19 infections and new onset of type 1 diabetes.[89]

Other noteworthy changes to the *Standards of Care in Diabetes—2024* include:

- Updated immunization guidance to include newly approved RSV vaccines in adults over 60 years of age with diabetes.

- New emphasis on cultural sensitivity in diabetes self-management education, with considerations for changing reimbursement policies.

- More detail and emphasis on psychosocial screening protocols to better identify diabetes distress.

[89] American Diabetes Association, "The American Diabetes Association Releases Standards of Care in Diabetes—2024," Press Release, December 11, 2023, https://diabetes.org/newsroom/press-releases/american-diabetes-association-releases-standards-care-diabetes-2024.

- The importance of diabetes technology, with an emphasis on continuous glucose monitors (CGMs) and automated insulin delivery (AID) systems.

- Continued emphasis on inclusion and person-centered care.[90]

Notable updates to the *Standards of Care in Diabetes—2025* include:

- Consideration of continuous glucose monitor (CGM) use for adults with type 2 diabetes on glucose-lowering agents other than insulin.

- Guidance on actions to take during circumstances of medication unavailability, such as medication shortages.

- Additional guidance on the use of GLP-1 receptor agonists beyond weight loss for heart and kidney health benefits.

- Guidance on continuation of weight management pharmacotherapy beyond reaching weight loss goals.

- Guidance for treatment of metabolic dysfunction-associated steatotic liver disease (MASLD) with moderate or advanced liver fibrosis using a thyroid hormone receptor-beta agonist.

- Emphasis on the use of antibody-based screening for presymptomatic type 1 diabetes in those who have a family history or known genetic risk.

- Guidance on the use of recreational cannabis for type 1 diabetes and those with other forms of diabetes at risk for diabetic ketoacidosis (DKA).

- Key updates highlighting potentially harmful medications in pregnancy and guidance for appropriately modifying the care plan.

- Expanded nutrition guidance to encourage evidence-based eating patterns, including those incorporating plant-based proteins and fiber, that keep nutrient quality, total calories, and metabolic goals in mind.[91]

Other noteworthy changes include:

- Emphasis on water intake over nutritive and nonnutritive sweetened beverages; and the use of nonnutritive sweeteners over sugar-sweetened products in moderation and for the short term to reduce overall calorie and carbohydrate intake.

[90] "The American Diabetes Association Releases Standards of Care in Diabetes—2024," Press Release.
[91] American Diabetes Association, "The American Diabetes Association Releases Standards of Care in Diabetes—2024," Press Release, December 9, 2024, https://diabetes.org/newsroom/press-releases/american-diabetes-association-releases-standards-care-diabetes-2025.

- Importance of meeting resistance training guidelines for those treated with weight management pharmacotherapy or metabolic surgery.

- Guidance for DKA and hyperglycemic hyperosmolar state (HHS) in the outpatient and inpatient settings.

- Screening updates for fear of hypoglycemia, diabetes distress, and anxiety.

- Improved approach for diabetes care delivery for older adults.

- Guidance on the use of GLP-1 receptor agonists and dual GIP and GLP-1 receptor agonists in the perioperative care setting.[92]

The ADA, EASD, the Joint British Diabetes Societies for Inpatient Care (JBDS), the American Association of Clinical Endocrinology (AACE), and the Diabetes Technology Society (DTS) released a Consensus Report in 2024 to update the ADA's consensus statement on hyperglycemic crises in adults with diabetes, which had been last updated in 2009.

The consensus report opens with updated trends in epidemiology regarding diabetic ketoacidosis (DKA) and hyperglycemic hyperosmolar state (HHS), the two most common hyperglycemic crises in those with type 1 or 2 diabetes. DKA is due to severe insulin deficiency, which causes "the release of free fatty acids from adipose tissues (lipolysis), leading to unrestrained hepatic fatty acid oxidation and the production of excess ketone bodies with resulting ketonemia and metabolic acidosis."[93] HHS is caused by less severe insulin deficiency, which allows the body to prevent ketogenesis but not hyperglycemia. DKA and HHS can be treated with insulin therapy and rehydration.[94]

DKA and HHS are most commonly caused by urinary tract infections, pneumonia, and the lack of insulin therapy. The incidence rates of these crises rose during the spread of COVID-19. In the United States, DKA was the more common hyperglycemic crisis with 38 percent of hyperglycemic crisis hospitalization compared to HHS's 35 percent. Twenty-seven percent of admissions were for mixed DKA and HHS. DKA was more common in 18–44-year-olds, but HHS was more common in 45–64-year-olds. Rates of hyperglycemic crises have risen in the 2000s, though there was progress in lowering the rates between 2000 and 2009. From 2000 to 2010, the rates ranged from zero to 56 events per 1,000 person-years.[95] More recent studies find rates of around 45 to 83 events per 1,000 person-years for those with type 1 diabetes.[96]

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[92] "The American Diabetes Association Releases Standards of Care in Diabetes—2024," Press Release.
[93] Guillermo E. Umpierrez, Georgia M. Davis, Nuha A. ElSayed, *et al*., "Hyperglycemic Crises in Adults With Diabetes: A Consensus Report," *Diabetes Care* 47 (August 2024), 1261.
[94] "Hyperglycemic Crises," 1261.
[95] A person-year is used to "escribe the incidence of a medical event, meaning the rate of new cases or events over a specified period for the population at risk for the cases or events." 1,000 person-years means 1,000 people were monitored over the course of a year to derive this statistic. "Person-Years," *Association of Healthcare Journalists*, accessed September 4, 2025, https://healthjournalism.org/glossary-terms/person-years/.
[96] "Hyperglycemic Crises," 2158-1259.

In the U.S., patients experiencing hyperglycemic crises stay in the hospital for three days on average for those with type 1 diabetes and 3.7 days for those with type 2 diabetes. These hospital stays cost on average between $21,215 to $36,600 per admission. Mortality from hyperglycemic crises ranges from 0.20 percent for DKA in those with type 1 diabetes, to 0.77 percent for HHS. In low-income countries, the mortality rates can be as high as 41.3 percent.

As mentioned previously, the most common causes for DKA are infection and the lack of adherence to proper insulin therapy. A recent study found that as many as two-thirds of DKA hospitalizations in minority populations were due to the discontinuation of insulin therapy. For those with type 1 diabetes, the most common risk factors are "younger age, prior history of hyperglycemic and hypoglycemic crises, presence of kidney disease, neuropathy, depression, smoking, alcohol and substance abuse, high HbA1c, and social determinants of health (SDOH)."[97] For type 2 diabetes, the common risk factors are "younger age, prior history of hyperglycemic or hypoglycemic crises, presence of comorbidities (both diabetes-related and unrelated), and elevated HbA1c and SDOH."[98] Newer research also highlights the link between low-income communities and high DKA and HSS prevalence rates, showing the importance of social determinants of health in reducing DKA and HSS. Those with a history of DKA also have higher rates of mental health disorders like "depression, diabetes distress, substance abuse, psychoses, and bipolar disorder."[99] Those with a history of DKA also are at increased risk for suicide, so doctors should screen patients' hyperglycemic crises for mental health concerns.

The updated diagnostic criteria for DKA and HHS are pictured below. All three criteria must be present for a DKA diagnosis, and all four must be present for an HHS diagnosis. The recommended updated treatment pathways are pictured below. In essence, treatment for DKA or HHS consists of intravenous fluids, insulin, and electrolytes. Isotonic saline has been the typical fluid therapy of choice, but recent research suggests that balanced crystalloid solutions result in lower hospitalization durations for patients. For treatment of DKA, insulin therapy should begin as soon as possible. Though in more severe cases intravenous infusion is recommended, mild cases of DKA can be treated with subcutaneous rapid-acting insulin analogs every one to two hours. This treatment option should not be used for HHS patients.[100]

[97] "Hyperglycemic Crises," 1259.
[98] "Hyperglycemic Crises," 1259.
[99] "Hyperglycemic Crises," 1259.
[100] "Hyperglycemic Crises," 1265.

Figure 1

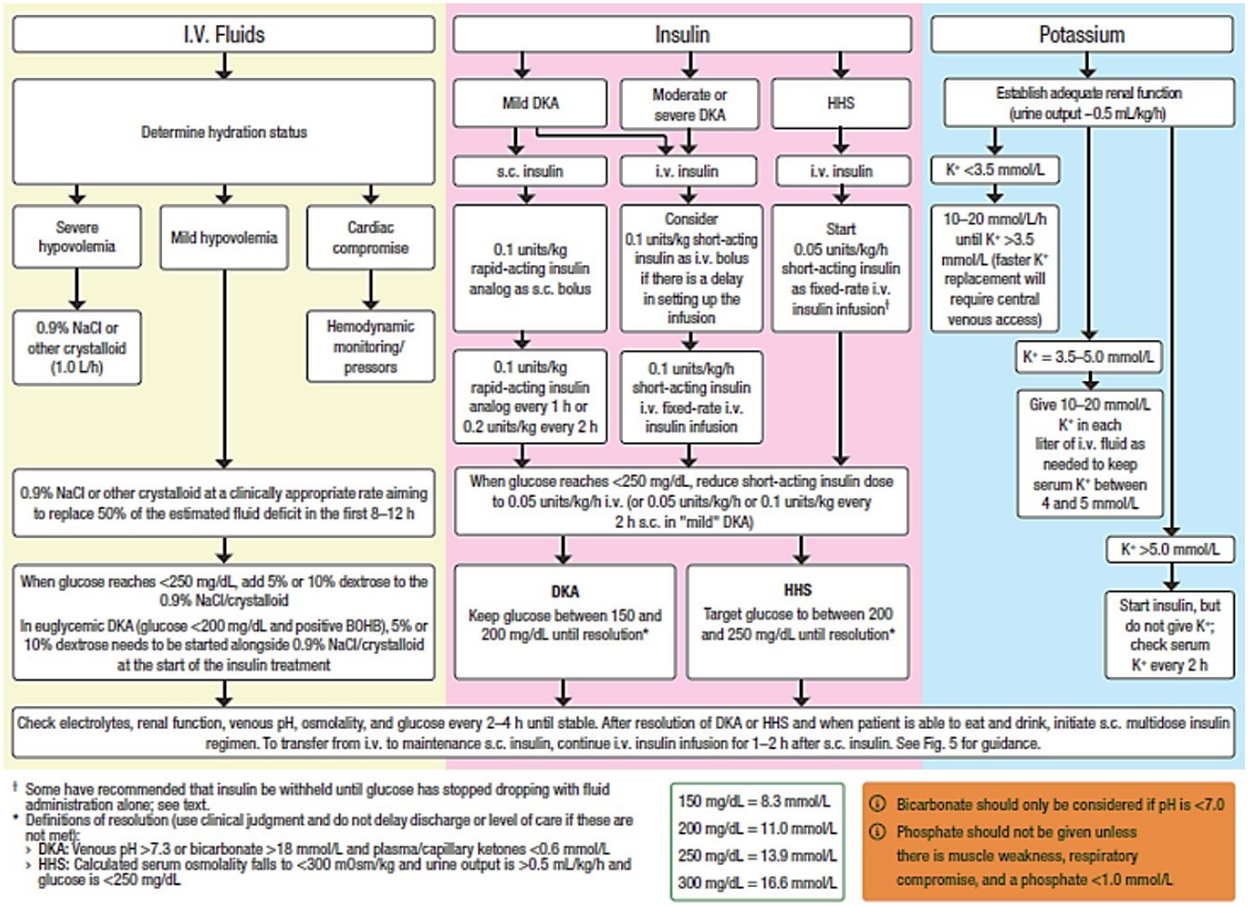
Updated Diagnostic Criteria for DKA and HHS
2024

DKA	A. DKA Diagnostic Criteria	
	Diabetes/hyperglycemia	Glucose ≥200 mg/dL (11.1 mmol/L) OR prior history of diabetes
	Ketosis	β-Hydroxybutyrate concentration ≥3.0 mmol/L OR urine ketone strip 2+ or greater
	Metabolic Acidosis	pH <7.3 and/or bicarbonate concentration <18 mmol/L
HHS	B. HHS Diagnostic Criteria	
	Hyperglycemia	Plasma glucose ≥600 mg/dL (33.3 mmol/L)
	Hyperosmolarity	Calculated effective serum osmolality >300 mOsm/kg (calculated as [2xNa^+ (mmol/L) + glucose (mmol/L)]), OR total serum osmolality >320 mOsm/kg [(2xNa^+ (mmol/L) + glucose (mmol/L) + urea (mmol/L)]
	AbSence of significant ketonemia	β-Hydroxybutyrate concentration <3.0 mmol/L OR urine ketone strip less than 2+
	Absence of acidosis	pH ≥7.3 and bicarbonate concentration ≥15 mmol/L

Source: Guillermo E. Umpierrez, Georgia M. Davis, Nuha A. ElSayed, et al., "Hyperglycemic Crises in Adults With Diabetes: A Consensus Report," *Diabetes Care* 47 (August 2024), 1262.

Figure 2

Recommended Updated Treatment Pathways for DKA and HHS
2024



Source: Guillermo E. Umpierrez, Georgia M. Davis, Nuha A. ElSayed, et al., "Hyperglycemic Crises in Adults With Diabetes: A Consensus Report," *Diabetes Care* 47 (August 2024), 1264.

During hospitalization for a hyperglycemic crisis, patients should be carefully transitioned from intravenous insulin therapy to subcutaneous insulin therapy. The daily dose can be determined through three methods: weight, pre-admission insulin regimen, or intravenous insulin requirements. Patients showing low potassium should receive potassium replacement until their levels are greater than 3.5 mmol/L before beginning insulin therapy. Bicarbonate administration has not been found to provide any advantages in outcomes for hyperglycemic patients, and it could have "increased risk of hypokalemia, decreased tissue oxygen uptake, cerebral edema, and development of paradoxical central nervous system acidosis."[101] Physicians must weigh these risks against the potential effects of a severe acidosis. Phosphate replacement is another potential treatment that has not been proven to improve outcomes for patients except in the case of clear muscle weakness in the patient.[102]

[101] "Hyperglycemic Crises," 1266.
[102] "Hyperglycemic Crises," 1266-67.

The consensus report highlighted some methods to reduce occurrence of DKA and HHS. First, a large portion of DKA hospitalizations were recurrent hospitalizations, many within only a matter of weeks or months after a previous hospitalization. A close examination of the factors leading to the DKA and checking in with families for a few weeks after a hospitalization may lower the rate of recurrence. Another recommendation was the inclusion of mental health screening for patients with diabetes, as mental health disorders can lead to mismanagement of glycemic control in some patients. The report also pointed out the link between socioeconomic factors and DKA admissions, including "low income, homelessness, lack of health insurance or underinsurance, food insecurity, and low educational attainment," and noted that U.S. policy decisions that lower these rates would inadvertently lower DKA admissions.[103] When discharged from the hospital, patients should receive education on how to administer insulin including "reviewing injection techniques (including sites), glucose monitoring, and urine or blood ketone testing. Each patient and their family need to review the appropriate glucose and ketone monitoring and when to call for assistance."[104] Continuous Glucose Monitoring (GCM) was named as the most effective blood monitoring technology and has been found to decrease DKA hospitalizations by 53 percent in those with type 1 diabetes and 47 percent in those with type 2 diabetes. Multidisciplinary responses have been found to reduce risk in patients with recurrent DKA, as well as access to telemedicine.[105]

The ADA collaborated with the American College of Cardiology to create a consensus report on heart failure (HF) as an underappreciated complication of diabetes. Internationally, diabetes is known to increase the risk of HF by up to four times more than those without diabetes. This effect persists even with those who have only recently been diagnosed with diabetes, though longer duration of diabetes does heighten the risk of HF. This association exists in the opposite direction as well, with less than 60 percent of those with HF having insulin resistance. Minority populations with HF have a higher prevalence of diabetes as well.[106]

The consensus report offers three key points about HF epidemiology:

- Both [type 1 diabetes] and [type 2 diabetes] increase the risk of developing HF across the entire range of glucose levels, but HF may be more prevalent in people with [type 1 diabetes] compared with [type 2 diabetes].

- There is increased incidence rate of HF among people with diabetes even after adjustment for age and comorbidities.

- HF may be the first presenting cardiovascular complication in individuals with diabetes.[107]

[103] "Hyperglycemic Crises," 1269.
[104] "Hyperglycemic Crises," 1269.
[105] "Hyperglycemic Crises," 1269.
[106] Rodica Pop-Busui, James L. Januzzi, Dennis Bruemmer, *et al*., "Heart Failure: An Underappreciated Complication of Diabetes. A Consensus Report of the American Diabetes Association Heart Failure," *Diabetes Care* 45 (July 2022), 1671.
[107] "Heart Failure," 1671.

The report identifies the common risk factors as "diabetes duration, poor glycemic control, uncontrolled hypertension, hyperlipidemia, higher BMI, microalbuminuria, renal dysfunction, ischemic heart disease, and peripheral artery disease."[108]

It is difficult to identify asymptomatic HF before it becomes advanced. Echocardiograms could detect it, but they are not considered cost-effective for asymptomatic individuals at increased risk. Biomarker tests to reveal natriuretic peptides or troponin could be a more cost-effective solution to identify patients who could benefit from preventative measures. Any person with diabetes should be considered high risk for HF and thus in Clinical Stage A HF and should be given a biomarker test. A person with elevated natriuretic peptide levels or cardiac troponin levels should be considered Stage B HF, as well as those with evidence of structural heart disease or abnormal cardiac function. The consensus report recommends testing these levels once a year in individuals with diabetes, so that early HF can be identified and targeted with specific interventions.[109] Individuals with stages C or D HF have already experienced symptoms of HF, which include "exertional dyspnea, orthopnea, paroxysmal nocturnal dyspnea, weakness/fatigue, and weight gain."[110] Individuals with suspected HF should undergo laboratory testing and electrocardiograms to determine what treatment strategies will work best.[111]

Diabetes patients can manage HF by minimizing alcohol and smoking, monitoring potassium and modifying habits to avoid heightening potassium levels in the body, eliminating trans fat from their diet, aerobic exercise, and general weight loss. Other SDOH should be assessed and addressed in specific patient cases. For those with Stage A or B HF, ACEi and ARB are the preferred pharmaceutical options, and for those with Stage C or D HF, preferred options are Sacubitril/valsartan, ARNI, ACEi, d b-blockers, MRA, and SGLT2i.[112] SGLT2i are recommended for all diabetic individuals with HF and heart risk. A GLP-1RA or metformin can be used for additional glycemic control for those with type 2 diabetes. Those with Stage B, C, and D HF should not use DDP-4 inhibitors.[113] Cardiac rehabilitation can also reduce mortality in diabetic patients with HF, but this is not a heavily used treatment option and should be considered more often. Metabolic surgery can improve HF outcomes for many patients. The use of CGM is also recommended for diabetes patients at risk for HF. Hospitalized diabetes patients with HF and HF risk should be assessed for the root cause of their HF and given outpatient guideline-directed medical therapy (GDMT). In the case of acute HF and diabetes, patients can be given SGLT2i. Patients with diabetes and HF should also be educated on the effects of diabetes on heart failure, as it can worsen heart disease outcomes.[114]

[108] "Heart Failure," 1672.
[109] "Heart Failure," 1673.
[110] "Heart Failure," 1673.
[111] "Heart Failure," 1675.
[112] "Heart Failure," 1679.
[113] "Heart Failure," 1682.
[114] "Heart Failure," 1682-1683.

The consensus report states that diabetic patients with Stage A HF should consult with a cardiovascular specialist to manage the possible risk factors. In Stage B, a cardiovascular specialist can help with identifying causes of HF and recommending therapies for treatment. For Stage C and D HF, a cardiovascular specialist should be involved in the patient's case, performing the same duties for Stage A and B as well as more specialized management of care for the specific needs of the patient.[115]

Compounded GLP-1 Drugs

With the popularity of GLP-1 drugs over the past few years, the FDA determined in 2022 that there was a shortage of tirzepatide and semaglutide drugs, two GLP-1s mentioned earlier in the report. When a drug is added to the FDA shortage list, special exemptions allow patients and health care professionals to use what are called compounded drugs, which means a "customized medication that healthcare professionals formulate for [one's] specific needs."[116] These can be made by licensed pharmacists, licensed doctors, or someone operating under the supervision of a licensed pharmacist. Compounded drugs are not approved by the FDA and are not ordinarily permitted unless a specific patient is allergic or reacts negatively to the commercially available alternative. During a shortage of a particular drug, use of compounded drugs may be permitted if the drug is essentially a copy of an FDA approved drug.[117] In October 2024, the tirzepatide shortage was considered resolved. In February 2025, the FDA determined that the shortage of semaglutide drugs was also resolved.[118] The FDA has banned the use of compounded GLP-1s, leading to a sharp decrease in the availability of affordable GLP-1s, causing some patients to be unable to continue taking a GLP-1. This highlights the importance of accessible and affordable medication for those in communities predisposed to obesity and diabetes. However, the FDA maintains that the affordability of these compounded drugs does not offset the amount of risk patients are exposed to by taking unapproved medications.[119]

The FDA released a statement specifically on its concerns with unapproved GLP-1s, noting among other concerns the occurrence of adverse effects from dosing errors. These errors were often made by the patient measuring and administering their own medication, but some errors were made by health care professionals as well. Patients are also experiencing adverse effects from receiving higher or more frequent doses than recommended for the FDA approved drugs. The FDA also stated that it is aware of the use of compounded semaglutide drugs using salt forms, which

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[115] "Heart Failure," 1684.
[116] Jill Seladi-Schulman, "What are Compounded Medications?" *Healthline*, last modified February 7, 2024, https://www.healthline.com/health/compounded-medications.
[117] "Compounding when Drugs are on FDA's Drug Shortages List," *U.S. Food & Drug Administration*, accessed August 11, 2025, https://www.fda.gov/drugs/human-drug-compounding/compounding-when-drugs-are-fdas-drug-shortages-list.
[118] "FDA Clarifies Policies for Compounders as National GLP-1 Supply Begins to Stabilize," *U.S. Food & Drug Administration*, accessed August 11, 2025, https://www.fda.gov/drugs/drug-safety-and-availability/fda-clarifies-policies-compounders-national-glp-1-supply-begins-stabilize.
[119] Becky Upham, "FDA Says No More Compounded GLP-1s Like Ozempic or Wegovy," Everyday Health, last modified May 23, 2025, https://www.everydayhealth.com/weight-management/fda-ban-glp1-semaglutide-tirzepatide/.

are different active ingredients than those used in the FDA approved drugs. These salt forms are not lawfully able to be used for compounded drugs. The FDA reported as of April 2025 that it had received notice of 520 adverse reactions to compounded semaglutide drugs and 480 adverse reactions to compounded terzepatide drugs. The FDA is also monitoring the market for counterfeit and illegal versions of Ozempic that may not be properly made and present serious health risks. In order to avoid these illegal and possibly dangerous unapproved GLP-1s, consumers are advised to exercise caution using online drug sellers to ensure that they are purchasing from state-licensed pharmacies.[120]

State Coverage of Diabetes Programs

New research demonstrates that state-level regulations can have a significant effect on diabetes patients who rely on health plans for life-saving medications and care. A study by Giannouchos et al. focused on Colorado's 2020 insulin copayment cap and examines its impact on medication adherence and health care service use among patients with type 1 diabetes. The study found that "the policy targeting and imposing caps on out-of-pocket spending for insulin was associated with declines in out-of-pocket spending and improved treatment adherence and health outcomes, but mostly for individuals with prepolicy spending levels above the cap."[121] Essentially, copayment caps only help patients who were previously spending more on medication than the amount of the new cap. Copayment caps, when set too high, may not have their intended benefits. The study by Giannouchos et al. prompted Rebecca Myerson to do a further investigation of state-level insulin copayment caps. Myerson identified the significance of insulin costs, indicating that high costs of insulin have caused some patients to ration it, whether that looks like skipping doses, delaying purchasing, or taking less insulin than is needed. Such rationing is dangerous for diabetes patients, but as of 2021, over one million insulin users rationed it in some form.[122] Despite the benefits of policies creating insulin copayment caps, there are very few with protections for insulin users without health insurance.[123] Further, uninsured insulin users are more likely to ration it, and in 2019, the average out-of-pocket cost per insulin fill for uninsured patients was more than double the national average.[124] While state-level insulin copayment caps have benefits, groups such as uninsured insulin users may not benefit, or may even be negatively affected by these policies.

Antiobesity medications are another growing topic within the world of diabetes care. Despite their benefits, the high cost of antiobesity medications is a concern, specifically related to state Medicaid programs. Currently, the Medicaid Drug Rebate Program requires states to cover

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[120] "FDA's Concerns with Unapproved GLP-1 Drugs Used for Weight Loss," *U.S. Food & Drug Administration*, accessed August 11, 2025, https://www.fda.gov/drugs/postmarket-drug-safety-information-patients-and-providers/fdas-concerns-unapproved-glp-1-drugs-used-weight-loss.

[121] Giannouchos, Theodoros V. et al., "Health Outcome Changes in Individuals With Type 1 Diabetes After a State-Level Insulin Copayment Cap," *JAMA Network Open* 7, no. 8 (2024): 1-15, DOI:10.1001/jamanetworkopen.2024.25280.

[122] Myerson, Rebecca, "State-Level Insulin Copayment Caps – Who Benefits, and What is Next?" *JAMA Network Open* 7, no. 8 (2024): 1-2, DOI:10.1001/jamanetworkopen.2024.25234.

[123] Ibid.

[124] Ibid.

almost all approved medications, but exempts antiobesity medications.[125] However, with growing research demonstrating that GLP-1RAs are effective for weight loss and managing cardiovascular diseases, states are facing additional pressure to cover antiobesity medications under their Medicaid programs. Still, high obesity rates along with the high cost of GLP-1RAs create budget concerns and may require that states or the federal government negotiate lower prices to increase their accessibility. State coverage of antiobesity medication is growing, with a 1,300 percent increase in the number of prescriptions reimbursed by state Medicaid programs from 2011 to 2022.[126] Pennsylvania is one of the states whose Medicaid program covers weight loss drugs. However, patients must meet certain criteria to be eligible.[127] In April 2025, the Trump Administration announced that in 2026 Medicare and Medicaid will not cover anti-obesity drugs, though these drugs will be accepted for use for those with Type 2 diabetes, sleep apnea, and heart complications.[128]

One area in which state action may be helpful to diabetes patients is in limiting employer-required switches to high-deductible health plans (HDHPs). In a study examining the association between an employer-required switch to an HDHP and the resulting complications of diabetes, McCoy et al. found that a "required transition to an HDHP was associated with increased odds of experiencing all examined microvascular and macrovascular complications of diabetes."[129] Further, the study identified a cumulative impact, noting increased issues with each additional year of HDHP enrollment.[130] Policy solutions must consider how employer-required health plans may negatively affect people with diabetes. Though HDHPs may save money for employers, they have demonstrated adverse effects on people with diabetes.

Another important topic to consider at the policy level is access to specialty care, especially for youth with diabetes. Youth with diabetes are recommended to see a specialist at least every three months; however, some patients and their families may have difficulty in meeting this goal due to barriers surrounding specialty care. In a cross-sectional study examining access to specialty care for youths with type 1 diabetes and type 2 diabetes, authors March et al. found that those with type 2 diabetes, despite insurance coverage, had an estimated 40% fewer claims with a diabetes specialist when compared to their peers with type 1 diabetes.[131] These findings are suggestive of barriers to care outside of insurance coverage that disproportionately affect youth with type 2 diabetes, such as not having a usual source of care, being an extended distance from a specialist, and the presence of medical complexity. Improving adherence to the recommended visit frequency

[125] Liu, Benjamin Y. and Rome, Benjamin N. "State Coverage and Reimbursement of Antiobesity Medications in Medicaid," *JAMA* 331, no. 14 (2024): 1230-1232, DOI:10.1001/jama.2024.3073.
[126] Ibid.
[127] Lowenstein, Amy E. "Pennsylvania Medicaid Covers Newer Weight Loss Drugs," *Pennsylvania Health Law Project*, 2024, accessed July 23, 2025, https://www.phlp.org/en/news/pennsylvania-medicaid-covers-newer-weight-loss-drugs.
[128] "Anti-Obesity Drugs Will Not be Covered by Medicare and Medicaid in 2026," *American College of Gastroenterology*, last modified April 17, 2025, https://gi.org/2025/04/17/anti-obesity-drugs-will-not-be-covered-by-medicare-and-medicaid-in-2026/.
[129] Rozalina G. McCoy, *et al*., "Enrollment in High-Deductible Health Plans and Incident Diabetes Complications," *JAMA Network Open* 7, no. 3 (2024): 1-13, DOI:10.1001/jamanetworkopen.2024.3394.
[130] Ibid.
[131] Christine A. March, et al., "Access to Specialty Care for Commercially Insured Youths With Type 1 and Type 2 Diabetes," *JAMA Network Open* 7, no. 4 (2024): 1-11, DOI:10.1001/jamanetworkopen.2024.5656.

for youth with type 2 diabetes is important for their continued health, and it is important to examine the barriers that may be preventing their regular care.

Social Determinants of Health (SDOH)

Social determinants of health (SDOH) are an important factor impacting the health outcomes of diabetes patients, especially patients with type 2 diabetes. Research indicates that SDOH are associated with higher prediabetes prevalence among adolescents. Some clinical practice guidelines advise race- and ethnicity-based screening to identify youth-onset type 2 diabetes due to the higher prevalence of diabetes among certain populations; however, Harrison et al. hypothesized that the high prevalence of diabetes among certain racial and ethnic groups is more a reflection of SDOH rather than some unique biological risk.[132] The researchers conducted a cross-sectional study of a nationally-representative sample of 1,563 adolescents with obesity between the ages of 12-18, using food insecurity, lack of private health insurance, and lower household income as categories of SDOH.[133] The study led to an interesting finding: adverse SDOH were associated with a higher prevalence of prediabetes across and within racial and ethnic categories; however, prediabetes prevalence was still high for Asian, Black, and Hispanic youth with favorable SDOH.[134] These findings indicate the complexity of explaining differences in type 2 diabetes risk. The authors urge further research to investigate other social and structural determinants of health that may contribute to the remaining differences in prediabetes prevalence across racial and ethnic groups. Still, SDOH may be an important component to include in screening processes. With the demonstrated connection between adverse SDOH and prediabetes prevalence, including SDOH in health screening may allow for earlier identification and treatment for individuals at risk for type 2 diabetes.

In another study examining SDOH and its association with clinical outcomes for adults already diagnosed with type 2 diabetes, authors Walker et al. investigated social risk and clinical outcomes with the specific objective of finding whether there are social risk profiles that are associated with certain clinical outcomes in adults with type 2 diabetes.[135] The questionnaires incorporated 26 social risk factors that were categorized under five domains of SDOH: socioeconomic, neighborhood, education, food, and social and community context.[136] Also, questions assessed psychological and behavioral risk. Among the five latent class profiles, the authors noted various patterns:

- Group 1, the lowest risk group, accounted for 36 percent of the sample, and had limited risk but indicated some concerns about their neighborhood. This group had significantly higher mental health quality of life than those with higher neighborhood risk.

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[132] Harrison, Caleb et al. "Prediabetes Prevalence by Adverse Social Determinants of Health in Adolescents," *JAMA Network Open* 7, no. 6 (2024): 1-11, DOI:10.1001/jamanetworkopen.2024.16088.
[133] Ibid.
[134] Ibid.
[135] Rebekah J. Walker, *et al*., "Social Risk and Clinical Outcomes Among Adults With Type 2 Diabetes," *JAMA Network Open* 7, no. 8 (2024): 1-12, DOI:10.1001/jamanetworkopen.2024.25996.
[136] Ibid.

- Group 2 accounted for 34 percent of the sample, and, although overall their risk was low, they considered their neighborhoods to have low aesthetics, low food access, and high social isolation.

- Group 3 accounted for 6 percent of the sample and had high social risk in terms of neighborhood crime, violence, and financial instability, but low psychological and behavioral risk. This group had significantly higher blood pressure than those with lower economic risk.

- Group 4, which accounted for 14 percent of the sample, had high psychological and behavioral risk, but low socioeconomic and neighborhood risks. This group had significantly higher glycemic control (nearly 0.5 percent) and worse mental health–related quality of life compared with those with neighborhood risk.

- Finally, group 5 was the highest risk group, indicating high risk in all domains, and accounted for 8 percent of the sample. This group had significantly worse glycemic control (1 percent higher) and the lowest mental health–related quality of life.[137]

These findings can help create a clearer process for organizing social risks to inform social risk screening and intervention development. The knowledge of social risk profiles can help improve health outcomes for certain subgroups of adults with type 2 diabetes. Further, interventions targeting different domains of risk, or multiple risk factors simultaneously, are worth implementing. The authors suggest the importance of capturing these different domains of risk within screening tools. Currently, health literacy is often prioritized in screening, followed by trauma history, social support, food insecurity, and housing.[138] These new results suggest a need for more extensive screening for economic and neighborhood risk, as well as psychological and behavioral risks.[139] Health screening tools should ask questions to assess SDOH and social risk factors as a whole in order to best identify and care for individuals at risk for type 2 diabetes.

A recent commentary on the previous study praises Walker et al. for "More fully characterizing the combined risk that individual-level and neighborhood-level social risk factors…confer on diabetes and other health outcomes."[140] Understanding SDOH is important to understanding its true impact on diabetes patients, and the social risk clusters created by Walker et al. are an important step in identifying clinically relevant information that can be used for diabetes care and prevention.

[137] Ibid.
[138] Ibid.
[139] Ibid.
[140] Brita Roy, "Combination of Social Determinants and Improvements in Population Health Outcomes," *JAMA Network Open* 7, no. 8 (2024): 1-2, DOI:10.1001/jamanetworkopen.2024.25957.

The Pennsylvania Department of Health (DOH) is the lead agency in supervising programs aimed at prevention and management of diabetes. Most of the Commonwealth's diabetes programs are centralized within DOH to ensure that statewide efforts are coordinated. DOH works through Pennsylvania's healthcare system and coordinates its work with the other state departments, in particular the Office of Administration, to ensure diabetes prevention and management programs' coverage by the Pennsylvania Employees Benefit Trust Fund (PEBTF); the Department of Human Services Office of Medical Assistance Programs (OMAP) and Medicaid Managed Care Organizations, to collaborate in the Diabetes Self-Management Education and Support Program (DSMES); with the Department of Aging, to promote prediabetes awareness and participation in the Diabetes Prevention Program (DPP) among older Pennsylvanians; and with the Department of Education, to offer recommendations and resources for the School Nurses Program.

This report will focus on two major programs currently administered by DOH: DPP and Diabetes Self-Management Education and Support Program (DSMES). The report also contains an update on type 1 diabetes activity and funding allocation as well as an overview of obesity as a significant risk factor of type 2 diabetes.

Diabetes Prevention Program (DPP)

The Diabetes Prevention Program (DPP) is an evidence-based lifestyle change intervention program for preventing or delaying type 2 diabetes among people of high risk. DPP is a yearlong structured program led by a specially trained lifestyle coach who helps participants who have prediabetes or are at risk of developing type 2 diabetes change certain lifestyle habits, like eating healthier, reducing stress, and getting more physical activity. In order to accommodate various lifestyles, to respond to various clients' preference, and to improve attrition, DPP has lately utilized four delivery modes: in-person, distance learning (live), in-person with a distance learning component, online (not live), and a combination with an online component. At a national level, the CDC Diabetes Prevention Recognition Program Standards and Operating Procedures (DPRP) require that the goals "should focus on moderate changes in both diet and physical activity to achieve one or more of the following outcomes: 1) weight loss in the range of 5-7% of baseline body weight; 2) a combination of a loss of 4% of baseline body weight and at least 8 sessions associated with an average of 150 minutes/week of physical activity; 3) a combination of a loss of 4% of baseline body weight and at least 17 sessions attended; or 4) a modest reduction in HbA1c of 0.2%."[141]

[141] *Centers for Disease Control and Prevention Diabetes Prevention Recognition Program: Standards and Operating Procedures*, June 1, 2024, https://www.cdc.gov/diabetes-prevention/media/pdfs/legacy/dprp-standards.pdf, 10.

The CDC established the DPRP as part of the National Diabetes Prevention Program (National DPP) with the purpose of recognizing organizations that have demonstrated their ability to effectively deliver this evidence-based lifestyle change program (LCP). The recognition program "helps assure that decisions about participant eligibility, program content, and data collection and reporting that could lead to health insurance benefits are based on accurate, reliable, and trustworthy information."[142] The DPRP ascertains the quality of recognized organizations and provides standardized reporting on their performance. A revised edition of the DPRP Standards was issued in 2024. The revision incorporates innovations from translational studies published since the original *Standards* release, best practices, and 12 years of program evaluation and DPRD data analysis as well as expert opinion.[143]

The DPRP has three key objectives:

1. Assure program quality, fidelity to scientific evidence, and broad use of the National DPP LCP throughout the U.S..

2. Develop and maintain a registry of organizations that are recognized for their ability to deliver an effective type 2 diabetes prevention National DPP LCP to people at high risk.

3. Provide technical assistance to organizations to assist staff in effective program delivery and in problem-solving to achieve and maintain recognition status.[144]

Lifestyle changes have been shown to lower the risk for developing diabetes, as confirmed by several authoritative long-term studies. A 10-year follow-up Diabetes Prevention Program Outcomes Study (DPPOS) findings were that "participants who took part in the DPP Lifestyle Change Program continued to have a delay in the development of diabetes by 34 percent – and developed diabetes about 4 years later – compared with participants who took a placebo," and the impact among program participants ages 60 and older was even more pronounced: they had a delay in the development of diabetes by 49 percent.[145] In addition, participants in the DPP Lifestyle Change Program also improved their risk factors for cardiovascular diseases, such as high blood pressure and high cholesterol, and they achieved this goal with fewer blood pressure and cholesterol-lowering medications than study participants who took metformin or a placebo.[146, 147] A 15-year DPPOS follow-up has found that "lifestyle interventions or metformin significantly reduced diabetes development over 15 years"; specifically, during a mean follow-up of 15 years, diabetes incidence was reduced by 27 percent in the lifestyle intervention group and by 18 percent in the metformin group, compared with the placebo group, with declining between-group

[142] Ibid., 3.
[143] Translational studies take knowledge from studies performed in laboratories into the clinical setting and evaluate interventions being used in practice. "Translational Science," *National Center for Advancing Translational Sciences*, accessed September 3, 2025, https://ncats.nih.gov/about/about-translational-science.
[144] Ibid., 3.
[145] "Diabetes Prevention Program (DPP)," National Institute of Diabetes and Digestive and Kidney Diseases, accessed September 8, 2025, https://www.niddk.nih.gov/about-niddk/research-areas/diabetes/diabetes-prevention-program-dpp.
[146] Ibid.
[147] Metaformin is a medication used to treat type 2 diabetes.

difference over time.[148] A 21-year DPPOS follow-up found that participation in the program continued to delay development of diabetes for up to 15 years.[149] The results, thus, unequivocally support the importance of diabetes prevention and the effectiveness of lifestyle intervention in achieving this goal.

CDC's Division of Diabetes Translation (DDT) funds state and local health departments to support programs and activities aimed at preventing or delaying the onset of type 2 diabetes and improving outcomes for people diagnosed with diabetes. The Pennsylvania Department of Health is supporting the implementation of the CDC National Diabetes Prevention Program by facilitating grant application submissions and working to increase the number of eligible Pennsylvania adults enrolled and retained in the program through increasing program availability, awareness and promotion, coverage and reimbursement, along with screening, testing, and referrals for program eligibility and enrollment, as well as for the social determinants of health (SDOH).[150]

Increasing availability is attested to by the following achievements:

- Of Pennsylvania's 76 CDC-recognized organizations listed in the Diabetes Prevention Recognition Program (DPRP) Registry, 35 achieved full-plus recognition, 5 achieved full recognition, 19 achieved preliminary recognition, and 17 have pending recognition.

- 23,714 cumulative number of enrolled participants since 2018.

- Seven Pennsylvania-based National DPP providers enrolled in Health Promotion Council's (HPC's) Umbrella Hub Organization (UHO), an arrangement that supports DPP suppliers with administrative functions including data collection, management, and submission, as well as access to HPC's billing and claims platform. The Pennsylvania Pharmacists Association (PPA) is also preparing to submit an application to CDC for an Umbrella Hub Arrangement, with the Pennsylvania Pharmacists Care Network (PPCN) serving as a UHO.

Prediabetes and National DPP awareness:

- The Department of Health collaborated with Feeding Pennsylvania to conduct, through a regional food bank, the Commission on Economic Opportunity (CEO)/Weinberg in Northeastern Pennsylvania, an online and on-site awareness initiative to promote participation in the National DPP among food bank clients. Two National DPP cohorts composed of food bank clients have resulted from this collaboration.

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[148] Diabetes Prevention Program Research Group, "Long-Term Effects of Lifestyle Intervention or Metformin on Diabetes Development and Microvascular Complications over 15-year Follow-up: The Diabetes Prevention Program Outcomes Study," *The Lancet Diabetes and Endocrinology* 3, no. 11 (November 2015), DOI:10.1016/S2213-8587(15)00291-0.

[149] American Heart Association, "Lifestyle Changes, Meds Effective to Prevent or Delay Type 2 Diabetes; No Change in CVD," *Science Daily*, last modified May 23, 2022, https://www.sciencedaily.com/releases/2022/05/220523093353.htm.

[150] The following three subsections of the report are largely based on the information provided to the Joint State Government Commission by the Pennsylvania Department of Health in the personal e-mails from Ms. Barbara Orwan, Public Health Program Manager, DOH Bureau of Health Promotion and Risk Reduction, sent August 1, 2025.

- The Department collaborated with the Pennsylvania Department of Aging (PDA) subcontractor Alosa Health to increase awareness about prediabetes and the National DPP among the Pharmaceutical Assistance Contract for the Elderly (PACE) enrolled prescribers through educational outreach ("academic detailing") and to increase prediabetes screening and prevention activities among older Pennsylvanians.[151] During State Fiscal Year 2024-2025, detailers have completed a total of 507 visits with physicians, office staff, and other care providers. During these visits, they shared information about the National DPP's objectives, benefits, and local sites.

Gains in screening, testing, and referrals include the following:

- Quality Insights (QI) recruited and assisted 20 practices to implement systems to identify people with prediabetes.[152] As of June 2025, three practices serving 42,560 patients were referring their eligible patients to the National DPP. QI also engaged the Wright Center, a Federally Qualified Health Center (FQHC) look-alike located in Scranton, PA, in a multidirectional referral system. The Wright Center implemented Electronic Health Records (EHR)-structured referrals to a National DPP, as well as a Social Determinants of Health (SDOH) patient assessment that flows into the patient's EHR notes. To remove barriers to program participation, patients identified as in need of assistance are referred via PA Navigate or paper resources to services such as transportation, clothing, application for health insurance, food, General Education Degree (GED) assistance, application for housing, etc.

- HPC developed a referral hub in partnership with four referring health care organizations to strengthen bidirectional cohort pathways. Pottstown Medical Specialties, Inc. (PMSI) is one of the four organizations and also a National DPP provider that receives referrals from health care providers within the network and regularly starts new cohorts of participants every four to six weeks. To screen for the SDOH, HPC also incorporated into the referral workflow a SurveyMonkey version of the PRAPARE (Protocol for Responding to and Assessing Patients' Assets, Risks and Experiences) tool, as well as a fillable PDF form. Individuals with identified needs are referred to appropriate providers via PA Navigate.

[151] Academic detailing is when trained clinical educators share new updates on evidence-based research with health care professionals. "What is Academic Detailing," *Alosa Health*, accessed September 3, 2025, https://alosahealth.org/academic-detailing/academic-detailing-programs/.

[152] Quality Insights is a consulting group that uses "quality improvement science, workforce development, education, and collaboration to develop and bring best practices to health care settings and communities." "What We Do," *Quality Insights*, accessed September 3, 2025, https://www.qualityinsights.org/.

National DPP Coverage and Reimbursement:

- The National DPP continues to be covered for state employees and for Medicaid recipients under the HealthChoices agreement between Pennsylvania Medicaid and Pennsylvania Medicaid MCOs as a required program. The Department also works to increase the number of Medicare Diabetes Program Prevention (MDPP) providers in Pennsylvania by offering non-monetary support and technical assistance to existing National DPP providers. Of the 76 CDC-recognized organizations, 23 were also MDPP providers as of July 2025.

In its implementation of the National DPP lifestyle change program, Pennsylvania addresses the following priority populations: rural population, Medicare and Medicaid beneficiaries, noninstitutionalized people with visual impairments or physical disabilities, African Americans, and Hispanics.

In Pennsylvania, Diabetes Prevention Program (DPP) work is completed under three funding sources:

1. Strategic Approach to Advancing Health Equity for Priority Populations with or at Risk for Diabetes (CDC-RFA-DP23-0020).
2. Preventative Health and Health Services Block Grant.
3. State Funding.

<u>Strategic Approach to Advancing Health Equity for Priority Populations with or at Risk for Diabetes (CDC-RFA-DP23-0020)</u>

The funding for this five-year contract began June 30, 2023 with $281,000 allocated for SFY 2023-2024, $268,000 for SFY 2024-2025, and $275,000 for SFY 2025-2026.

- Grantees and partners: Health Promotion Council (HPC), Quality Insights (QI), Pennsylvania Pharmacists Association (PPA), Pennsylvania Department of Aging, ProVention Health Foundation, Adagio Health, Inc. (Adagio), American Lung Association (ALA). Funding also supports a portion of 23-0020 evaluation efforts provided by Public Health Management Corporation (PHMC).

- HPC activities: conduct community-clinical engagement and promotion activities; implement screening and referral systems, including SDOH screenings and referrals; assist National DPP organizations to become MDPP suppliers; establish billing and reimbursement pathways, including through an Umbrella Hub Arrangement (UHA); and assess current retention rates and implement retention strategies at National DPP and MDPP partner sites.

- QI activities: implement multidirectional referrals; conduct Workflow Assessments (WFA); implement a text or patient portal message campaign; implement closed-loop referrals; promote the National DPP or MDPP among referral resources; and track patient enrollment and retention in the program.

- Pennsylvania Department of Aging activities: collaborate with Alosa Health to provide educational outreach (academic detailing) to at least 400 practitioners to increase screening and prevention for prediabetes among the PACE-enrolled prescribers; survey PACE prescribers and DPP sites; and develop an educational brochure to support increased referrals, enrollments, and retention.[153]

- Adagio and ALA activities: provide resources and technical assistance to CDC-recognized National DPP providers to support enrollment as MDPP suppliers; and support five Lifestyle Coaches to participate in the Virtual Group Coaching Certificate Program.

- DOH allocated grant funds to purchase a license of the Health and Lifestyle Training (HALT) diabetes software platform from the ProVention Health Foundation to deliver the National DPP online and is working on increasing the number of enrolled and retained program participants, in collaboration with providers enrolled to use the platform.

Preventive Health and Health Services Block Grant

- One of the *Healthy People 2030* objectives (D-D01) is to "increase the proportion of eligible persons completing Centers for Disease Control and Prevention (CDC)-recognized lifestyle change programs."[154] The grant is targeted towards this goal.

- Grantees and partners: Adagio, ALA, Feeding Pennsylvania, HPC, PPA.

- Adagio and ALA: provide project management services for CDC-recognized National DPP organizations to deliver DPP across five health district areas; and provide organizations with technical assistance around enrollment as Medicare and Medicaid providers, as well as to engage with other public and private payers of the National DPP.

[153] The Pennsylvania Department of Aging activities are covered in detail in a separate chapter of this report. See page 53.

[154] "Increase the Proportion of Eligible People Completing CDC-Recognized Type 2 Diabetes Prevention Programs — D-D01," *Healthy People 2030*, accessed September 8, 2025, https://health.gov/healthypeople/objectives-and-data/browse-objectives/diabetes/increase-proportion-eligible-people-completing-cdc-recognized-type-2-diabetes-prevention-programs-d-d01.
This objective currently has developmental status, meaning it is a high-priority public health issue that has evidence-based interventions to address it, but doesn't yet have reliable baseline data. Once baseline data are available, this objective may be considered to become a core *Healthy People 2030* objective.

- HPC: provides project management services for CDC-recognized National DPP organizations to deliver DPP at 14 cohorts across the Southeastern area of the state; and provides National DPP organizations with technical assistance around enrollment as Medicare and Medicaid providers.

- Pennsylvania Pharmacists Association: increases capacity for the CDC National DPP by assisting pharmacies with technical assistance and trainings and resources. Pharmacies use this to become National DPP and MDPP providers, and deliver and maintain the program. PPA also assists up to four Master Trainers to achieve and maintain certification; and, has developed and implemented a UHA to offer the National DPP lifestyle intervention to priority populations, particularly Medicaid and Medicare beneficiaries.

- Feeding Pennsylvania: promotes awareness of prediabetes and participation in the National DPP among the low-income populations served by The Commission on Economic Opportunity (CEO) and Weinberg Regional Food Bank. CEO has received CDC recognition in 2021 as an in-person and online National DPP provider.

State Funding

Beginning in State FY 2024-2025, the state funding allocated for diabetes became a part of the DOH's Special Grant Program with oversight from the DOH Budget Office. The DPCP staff are no longer responsible for work completed with these funds.

Diabetes Self-Management Education and Support (DSMES)

The Department of Health DSMES initiatives encourage people with diabetes to receive diabetes self-management education accredited by the Association of Diabetes Care and Education Specialists (ADCES) and/or recognized by the American Diabetes Association (ADA). DSMES is a collaborative process through which people with diabetes gain the knowledge and skills needed to modify their behavior and successfully self-manage the disease and its related conditions. The process incorporates the needs, goals, and life experiences of the person with diabetes and is guided by evidence-based standards. Effective DSMES, based on a personalized and holistic approach, becomes a significant contributor to clinical improvement and long-term positive health outcomes.

In Pennsylvania, Diabetes Self-Management Education and Support (DSMES) work is completed through two funding sources:

1. A Strategic Approach to Advancing Health Equity for Priority Populations with or at Risk for Diabetes (CDC-RFA-DP23-0020)
2. Preventive Health and Health Services Block Grant.

A Strategic Approach to Advancing Health Equity for Priority Populations with or at Risk for Diabetes (CDC-RFA-DP23-0020)

- Five-year cooperative agreement, beginning June 30, 2023 and ending June 29, 2028
- Funding for DSMES Contractors:
  - SFY 2023-2024 - $187,000
  - SFY 2024-2025 - $174,000
  - SFY 2025-2026 - $182,000
- Contractors for DSMES:
  - Health Promotion Council (HPC)
  - Pennsylvania Pharmacists Association (PPA)
  - Quality Insights (QI)
  - Funding also supports a portion of 23-0020 evaluation efforts provided by Public Health Management Corporation (PHMC)
- Activities:

The DOH is implementing evidence-based strategies to contribute to the management of diabetes in high-burden populations in Pennsylvania. Strategies strengthen self-care practices by improving access, appropriateness, and feasibility of DSMES services, improve acceptability and quality of care and increase and sustain DSMES delivery sites within pharmacy networks and chain pharmacies to improve reach to priority populations.

Through A Strategic Approach to Advancing Health Equity for Priority Populations with or at Risk for Diabetes (6 NU58DP007413-02-02) (23-0020) cooperative agreement from the CDC, the Diabetes Prevention and Control Program (DPCP) is seeking to decrease risk for type 2 diabetes among adults with prediabetes and improve self-care practices, quality of care, and early detection of complications among people with diabetes.

PA DOH is collaborating with HPC to increase access to and participation in DSMES programs and complementary diabetes support programs in high-need counties and populations. HPC is working to integrate community-based partners and DSMES and diabetes self-management program (DSMP) delivery partners into the HPC Health Referral Hub workflow to secure bidirectional referrals. HPC provides technical assistance to build culturally inclusive, tailored outreach and programming, bidirectional referrals, communication practices, and social determinants of health (SDOH) referrals.

PA DOH is also working with PPA to enhance team-based care for priority populations with diabetes. PPA works with existing statewide DSMES programs to implement business plan strategies that will support sustainable billing services, strengthen reimbursement systems and processes and train pharmacy personnel on SDOH. PPA provides technical assistance to pharmacies and supports documentation of DSMES services in electronic health records.

Through work with QI, PA DOH is working to promote and increase referrals to DSMES programs and complementary diabetes support programs near recruited healthcare practices and other clinical and community partners in high-need counties. DOH partners with QI to increase

adoption and use of clinical systems and care practices by providing technical assistance. QI updates and disseminates educational materials to support team-based care for people with diabetes in high need counties.

Preventive Health and Health Services Block Grant

- Funding for DSMES Contractors:
  - SFY 2024-2025 - $149,000
  - SFY 2025-2026 - $154,000
- Contractors for DSMES:
  - HPC
  - PPA
- Activities:

Funding from the Preventive Health and Health Services Block Grant (PHHSBG) supports a comprehensive approach, integrating community-level efforts to strengthen foundational activities from 23-0020.

The DOH will work with HPC to establish DSMES delivery under HPC's Umbrella Hub that supports populations disproportionately impacted by type 2 diabetes. Work includes submitting claims for reimbursement of DSMES using the Umbrella Hub model and identifying additional partners to become Umbrella Hub subsidiaries to deliver DSMES.

PPA will provide support of ongoing pharmacy technology resources in patient monitoring and/or pharmacy workflow management technology. PPA will also provide support to pharmacies for medical billing software and/or use of the emerging PPA/Pennsylvania Pharmacists Care Network (PPCN) Umbrella Hub for billing of DSMES pharmacy-based services. PPA will assist community pharmacies to locate resources for patients who need services after completing an SDOH screening.

Juvenile Diabetes Research Donation (JDRD) Tax Check-Off Program

The Juvenile Diabetes Research Donation (JDRD) Tax Check-off Program was created in September 2004 with the passage of Act 133.[155] The Act created a state income tax check-off option for individuals to contribute a portion of their state tax refund to support research for juvenile diabetes. Per the Act, funds for research shall focus on restoring normal blood levels, preventing and reversing complications of juvenile diabetes, or preventing juvenile diabetes.

[155] Section 315.7 of the act of March 4, 1971 (P.L.6, No.2), known as the Tax Reform Code of 1971, as added by the act of November 23, 2004 (P.L.935, No.133); 72 P.S. §7315.7.

In October 2018, the Secretary of Health transferred administration of the JDRD program from the Bureau of Health Promotion and Risk Reduction Bureau to the Health Research Office (HRO). When the Bureau administered the JDRD, the Bureau issued one Request for Applications (RFA) with a balance of $125,505 which resulted in no applications. Annual donations dwindled since the program's creation in 2004 and have remained minimal since program reassignment to HRO. To help assure interest in applying for available grant funds, the Department of Health decided to allow revenue to accumulate to a $200,000 minimum threshold prior to issuance of further RFA opportunities.

Table 1
Bureau of Health Promotion and Risk Reduction Bureau
Juvenile Diabetes Research Donation Tax Check-Off Program (JDRD)
Health Research Office (HRO), Donation Fund Contributions
2017-2023

Balance transferred to HRO	**Donation Funds**						
2017	2018	2019	2020	2021	2022	2023	Account Total
$181,007.93	11,502.66	9,277.11	10,839.82	9,515.64	8,846.06	6,878.64	237,867.86

Source: information provided to the Joint State Government Commission by the Pennsylvania Department of Health in the personal e-mails from Ms. Barbara Orwan, Public Health Program Manager, DOH Bureau of Health Promotion and Risk Reduction, sent August 1, 2025.

Funds have accumulated since 2018 to a grant total of $237,867.86 at the end of 2023. Funds were not awarded in 2023, but $230,000 is earmarked for RFA development and posting in State FY 2024-2025.

Family Healthy Weight Program (FHWP) Activities Overview

The Family Healthy Weight Program work is completed under one funding source:

1. Strategic Approach to Advancing Health Equity for Priority Populations with or at Risk for Diabetes (CDC-RFA-DP23-0020).

<u>Strategic Approach to Advancing Health Equity for Priority Populations with or at Risk for Diabetes (CDC-RFA-DP23-0020)</u>

- Five-year cooperative agreement, beginning June 30, 2023, and ending June 29, 2028
- Funding for FHWP Contractor:
  - SFY 2023-2024 - $98,000
  - SFY 2024-2025 - $98,000
  - SFY 2025-2026 - $98,000

- Contractor for FHWP:
  - YMCA
  - Funding also supports a portion of 23-0020 evaluation efforts provided by Public Health Management Corporation.

- Activities:

The YMCA of Harrisburg Pennsylvania is providing project management services to increase capacity for evidence-based approaches to Type 2 diabetes prevention and risk reduction by implementing, spreading and sustaining the Family Healthy Weight Program titled Healthy Weight and Your Child (HWYC) a childhood obesity intervention, program. The YMCA is utilizing the branches in the Harrisburg Area YMCA association to reach out to the community of potential participants, as well as working with health care practitioners to provide program referrals to their patients. The grantee is looking to expand HWYC into additional counties and communities.

Social Determinants of Health (SDOH) Activities Overview

The SDOH work is completed under one funding source:

1. Strategic Approach to Advancing Health Equity for Priority Populations with or at Risk for Diabetes (CDC-RFA-DP23-0020).

Strategic Approach to Advancing Health Equity for Priority Populations with or at Risk for Diabetes (CDC-RFA-DP23-0020)

- Five-year cooperative agreement, beginning June 30, 2023, and ending June 29, 2028
- Funding for SDOH Contractors:
  - SFY 2023-2024 - $213,000
  - SFY 2024-2025 - $157,000
  - SFY 2025-2026 - $160,000
- Contractors for DSMES:
  - PHMC
  - HPC
  - PPA
  - Hospital and Healthsystem Association of Pennsylvania (HAP)
  - Pennsylvania Downtown Cetner (PDC)
- Activities:

This funding requires a focus on understanding and addressing social determinants of health (SDOH) to advance health equity for priority populations with or at risk for diabetes. Activities are being implemented by several partners.

PHMC completed a SDOH landscape assessment. The landscape assessment provided the groundwork to understand the priority populations, system stakeholders and interconnections, healthcare access and quality, diabetes workforce barriers, and available and needed resources within the state.

Building on the landscape assessment, HPC is facilitating a SDOH taskforce for policy and systems-level strategic planning to identify and prioritize strategies to build capacity of the diabetes workforce to address SDOH factors that impact health outcomes for priority population with and at-risk for diabetes. The taskforce has been initiated with partner organizations and will be expanded to include members of the diabetes workforce, community members from priority populations, and organization champions.

PPA is providing training and ongoing technical assistance to pharmacy personnel to increase the capacity of providers to address SDOHs for patients with and at risk for diabetes. PPA is using a tool kit and training sessions to complete this work.

HAP is supporting the Collaborative Opportunity to Advance Community Health (COACH) initiative. This initiative brings together hospitals, health systems, and community partners to address community health needs in southeastern Pennsylvania. The participants in the collaborative address the top social drivers of health identified in their three-year community health needs assessments through collective impact strategies. Current SDOH priorities include food and nutrition insecurity and trauma-informed, healing-centered care and practice. COACH will expand its scope to focus on increasing awareness of DSMES, National DPP, diabetes support programs and referral processes among COACH member organizations.

HAP is also supporting the Good Food, Healthy Hospitals (GFHH) Initiative, an innovative program to improve health through interventions in hospital food environments. Good Food, Healthy Hospitals transforms Pennsylvania's hospital food environments – patient meals, cafeteria service, catering, vending and purchasing - through the implementation of food service standards that bring healthier options to thousands of employees, visitors, and patients every day. Currently, 12 health systems, representing 64 hospitals, serving 28 counties participate in GFHH. GFHH is implemented in partnership by the PA Department of Health, Obesity Prevention and Wellness Section and The Hospital and Healthsystem Association of Pennsylvania. In 2024, GFHH expanded its scope to provide nutrition security innovation grants to expand the capacity of hospitals to offer services and programs that distribute, promote, or support healthy food access in the communities they serve, beyond the physical boundaries of the hospital. Grant guidelines require applicants to have a community-informed proposal that targets people with and at-risk for Type 2 diabetes, engaged in evidence-based diabetes care and services.

PDC will address access to transportation by supporting priority communities to implement Active Transportation Plans. WalkWorks, an initiative of the PA Department of Health, Obesity Prevention and Wellness Section in partnership with the PA Downtown Center, provides priority communities funding and technical assistance to support the development of Active Transportation Plans (ATPs). ATPs guide the establishment of safe, accessible, activity-friendly routes connecting everyday destinations and increase access to and opportunities for active transportation, such as walking, biking, using a wheelchair or other micromobility device, and riding public transit. ATPs

are informed by community members and engage policymakers. WalkWorks has helped 60 communities develop and adopt 57 plans to date.

Prevalence of Obesity in Pennsylvania and Current Trends

Having obesity is a risk factor for several additional diseases or health conditions. These include type 2 diabetes, cardiovascular disease, obstructive sleep apnea, non-alcoholic fatty liver disease, arthritis, infertility, and many types of cancer. The risk of developing many of these conditions – and the severity of many weight-related complications – can be reduced with weight loss, even if obesity remains. Most medical organizations recognize a 5-10 percent weight loss as "clinically significant," meaning that a weight loss of this size may be sufficient to show a meaningful improvement in health.

Obesity is a complex chronic metabolic disease that results from a combination of causes and contributing factors. Effective strategies to prevent and address obesity include policy, systems, and environment changes to support healthy behaviors. These may include increasing access to healthy foods, reducing health disparities, and developing communities that support safe and accessible physical activity and active transportation.

Evidence-based guidelines recommend three categories of evidence-based options to treat obesity: lifestyle-based treatments, like the National Diabetes Prevention Program or Healthy Weight and Your Child; medications; and bariatric surgery.

Obesity Prevention and Wellness Activities

The DOH Bureau of Health Promotion and Risk Reduction has an Obesity Prevention and Wellness Section, dedicated to the coordination of various evidence-based strategies aimed at reducing chronic disease-risk by facilitating access to nutritious foods and safe physical activity, including active transportation across the lifespan. Obesity Prevention & Wellness strategies are supported by two funding sources:

1. Preventive Health and Health Services Block Grant -- $1,835,238 (State FY 2024-2025).
2. School-Based Interventions to Promote Equity and Improve Health, Academic Achievement and Well-Being of Students (CDC-RFA-DP-23-0002) -- $390,000.

PA Healthy Pantry Initiative (HPI)

- Grantees and partners: Feeding Pennsylvania; Philabundance; Greater Pittsburgh Community Food Bank; Second Harvest Food Bank of Northwest Pennsylvania; Central PA Food Bank; Helping Harvest Fresh Food Bank; Second Harvest Food Bank of the Lehigh Valley and Northeast PA; and, Public Health Management Corporation.

- Strategy: The PA Department of Health partners with Feeding Pennsylvania (PA) to increase access to nutritious food and beverage options, via the PA Healthy Pantry Initiative (HPI). Feeding PA and its member food banks increase healthy inventory available to food pantries. A registered dietitian with Feeding PA supports nutrition educators in participating food banks to guide pantries through phases, which include assessing pantries to determine needs, using marketing materials and layout changes to nudge clients toward healthier choices, increasing nutritious inventory, upgrading or adding materials to display and store healthier options, and offering nutrition education with pantry clients. Feeding PA and participating food banks maintain nutrition policies to guide procurement of nutritious food and demonstrate their commitment to nutrition security. Currently, the PHHSBG supports three food banks (Philabundance, Greater Pittsburgh Community Food Bank, Second Harvest Food Bank of Northwest PA) implementing HPI. Feeding PA secured a SNAP-Ed grant in 2020 to support implementation of HPI in an additional three food banks (Central PA Food Bank, Helping Harvest Fresh Food Bank and Second Harvest Food Bank of the Lehigh Valley and Northeast PA). A total of 180 food pantries are participating in the program. The Public Health Management Corporation provides evaluation support for this strategy.

In 2022, PA HPI established the Health Equity Food Sourcing Task Force, which includes representation from all nine Feeding Pennsylvania member food banks, to achieve common goals of increasing cultural competence and identifying strategies for procuring culturally familiar foods. The task force continues to meet quarterly. The program aims to meet the Healthy People 2030 Objective NSW-03: Reduce the proportion of adults with obesity.

- Funding: Preventive Health and Health Services Block Grant from the Centers for Disease Control and Prevention; State FY 2024-2025: $423,200.

Good Food Healthy Hospitals (GFHH)

- Grantees and partners: The Hospital and Healthsystem Association of PA (HAP); Philadelphia Department of Public Health (PDPH); Public Health Management Corporation.

- Strategy: Good Food, Healthy Hospitals (GFHH) is an initiative transforming Pennsylvania's hospital food environments by bringing healthier options to thousands of employees, visitors, and patients every day. The DOH partners with HAP and PDPH to increase the availability of and access to nutritious food options by encouraging hospitals to adopt food service standards. The DOH and partners have scaled this initiative to hospitals and health systems across the Commonwealth. Under the guidance of a healthy food in healthcare specialist (who is a registered dietician), participating hospitals and health systems pledge to increase the availability of healthy foods across five different food domains: purchased foods and beverages, cafeteria meals, patient meals, catering, and vending. As a hospital continues to adopt standards, its GFHH designation increases from Participant (one domain) up to Platinum (all five domains). Participating hospitals and health systems receive technical assistance on nutrition, menu planning, and food service guidelines (FSG) implementation.

Participating food service stakeholders then adopt food service guidelines to create healthier food environments and attend task force meetings to collaborate with other participating hospitals. GFHH is implemented in 68 hospitals, representing 13 health systems located in 31 counties across Pennsylvania. Participating hospitals are able to apply for a grant to implement innovative nutrition security strategies that serve their community. The Public Health Management Corporation provides evaluation support for this strategy. The program aims to meet the Healthy People 2030 Objective NWS-03: Reduce the proportion of adults with obesity.

- Funding: Preventive Health and Health Services Block Grant from the Centers for Disease Control and Prevention; 2024/2025 state fiscal year: $218,000.

Physical Activity Access

- Grantees and partners: Pennsylvania Downtown Center; Pennsylvania Department of Transportation (PennDOT); Pennsylvania Department of Conservation and Natural Resources (DCNR); Public Health Management Corporation.

- Strategy: The DOH partners with the Pennsylvania Downtown Center (PDC) to connect activity-friendly routes to everyday destinations that make it safe and convenient for people of all abilities to walk, run, bike, skate, or use wheelchairs. Through the WalkWorks program, a competitive application is released to municipalities to apply to receive funding and technical assistance for the development of an active transportation plan that will guide the establishment of activity-friendly routes that connect to everyday destinations and encourage safe and accessible active transportation. PDC provides ongoing technical assistance, resources, and other requested information, as needed, throughout the duration of the funding period. To date, the program has supported the development and adoption of 65 Active Transportation Plans or policies. The Public Health Management Corporation provides evaluation support for this strategy. The program aims to meet the Healthy People 2030 Objective NWS-03: Reduce the proportion of adults with obesity.

- Funding: Preventive Health and Health Services Block Grant from the Centers for Disease Control and Prevention; 2024/2025 state fiscal year: $430,000.

Early Care and Education

- Grantees and partners: Tuscarora Intermediate Unit (TIU); PA AAP Early Childhood Education Linkage System (ECELS); University of North Carolina (UNC); Pennsylvania Departments of Education and Human Services; Office of Childhood Development and Early Learning; Keystone Kids Go; Public Health Management Corporation.

- Strategy: The Pennsylvania Nutrition and Physical Activity Self-Assessment for Child Care (NAPSACC) mini-grant program is a continuous quality improvement (CQI) process that is focused on obesity prevention practices and policies in early childhood

education (ECE) settings. The DOH partners with TIU and ECELS to implement PA NAPSACC with a cohort of 50 licensed early childhood education (ECE) programs annually. The PA NAPSACC CQI process uses the nationally recognized Go NAPSACC tool, developed by UNC to guide participating ECE programs through self-assessment, action planning, implementation, policy development, re-assessment, and reflection.

DOH supports the Keystone Kids Go (KKG) stakeholder group and efforts to embed high-impact obesity prevention standards into state ECE systems and system supports. KKG is one of the longest running statewide ECE partner networks in the country - 23 years strong. Members represent state agencies such as the Pennsylvania Departments of Education (PDE) and Human Services (DHS), PA AAP Early Childhood Education Linkage System (ECELS), Office of Child Development and Early Learning (OCDEL), Penn State Better Kid Care (BKC), Penn State Cooperative Extension and Tuscarora Intermediate Unit (TIU) as well as many other organizations with an interest in early childhood health and well-being. KKG utilizes the CDC's Spectrum of Opportunities Framework, Quick Start Action Guide to develop a results-oriented and equity-driven action plan. Activities harness the diversity of stakeholder expertise and ensure equitable access to obesity prevention resources and opportunities. The Public Health Management Corporation provides evaluation support for this strategy. The program aims to meet the Healthy People 2030 Objective NWS-04: Reduce the proportion of children and adolescents with obesity.

Outcomes of this work include:

- Tools for Promoting High-Impact Obesity Prevention Practices in Early Childhood Education: An Integrated Approach to Coaching.
- PA CACFP Story Map.

- Funding: Preventive Health and Health Services Block Grant from the Centers for Disease Control and Prevention; 2024/2025 state fiscal year: $427,568.

School-Based Initiatives

- Grantees and partners: PA School Wellness; Slippery Rock University; University of Pittsburgh Office of Child Development; Erie's Public Schools; Pennsylvania Society of Health and Physical Educators (SHAPE PA); Intermediate Units (IUs); PA Departments of Education (PDE); Pennsylvania Farm to School Network

- Strategy: Implementing the Whole School, Whole Community, Whole Child (WSCC) framework in Pennsylvania at a statewide level by offering professional development, training and technical assistance to school staff on a variety of school health topics and convening a school health coalition through collaboration with the Pennsylvania Department of Education. The WSCC model is CDC's framework for addressing health in schools. The WSCC model is student-centered and emphasizes the role of the community in supporting the school, the connections between health and academic achievement, and the importance of evidence-based school policies and practices. Using the WSCC model in schools provides all students equitable opportunity to attain

the knowledge, skills, and services needed to achieve the highest level of health and academic success. WSCC is implemented at the local level in partnership with Erie's Public Schools and supports a district Wellness Coordinator to oversee assessment, planning and implementation of system changes related to nutrition, comprehensive school physical activity programs and management of chronic health conditions among students. The DOH also participates in the Pennsylvania Farm to School Network Leadership Team and supports strategic planning efforts to grow network capacity by expanding membership and collaborating with partners to promote and implement Farm to School initiatives. The University of Pittsburgh, Office of Child Development provides evaluation support for this strategy. University of Pittsburgh, Office of Child Development provides evaluation support for this strategy. The program aims to meet the Healthy People 2030 Objective NWS-04: Reduce the proportion of children and adolescents with obesity.

- Funding: Preventive Health and Health Services Block Grant from the Centers for Disease Control and Prevention; 2024-2025 state fiscal year: $275,970. School-Based Interventions to Promote Equity and Improve Health, Academic Achievement and Well-Being of Students (CDC-RFA-DP-23-0002), 2025-2026: $390,000.

DEPARTMENT OF AGING

The mission of the Pennsylvania Department of Aging (PDA) is to promote independence, purpose, and well-being in the lives of older adults through advocacy, service, and protection.[156]

PDA's Aging Our Way, PA 10-Year Master Plan will strategically focus its efforts on the following five overarching priorities in order to position Pennsylvania to meet the needs of and enhance services for older adults:

Priority One:

Unlocking Access: We will design and offer equitable, affordable, and available options and opportunities that older adults may choose from for healthy and engaged lives, regardless of ability; socioeconomic status; racial, ethnic, linguistic, or cultural backgrounds; or geographical location.

Priority Two:

We will remediate barriers that prevent older adults from remaining in their own homes, maintaining familiar surroundings, staying connected to their communities, and living in secure dwellings.

Priority Three:

Gateways to Independence: We will promote unhindered mobility by designing transportation systems that allow older adults' safe, convenient, and autonomous use of transportation services.

Priority Four:

Caregiver Supports: We will build a comprehensive catalogue of supports and enhancements that provide caregivers with help at home, respite, training, and navigation tools.

Priority Five:

Education & Navigation: We will lead a coordinated network of community and partners to raise public awareness of services for older adults, provide information that reaches everyone and is understandable by all, ensure timely and streamlined connection to assistance with any need, and resolve the challenging problems that older adults face in their daily lives.[157]

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[156] "Department of Aging," *Commonwealth of Pennsylvania*, accessed September 8, 2025, https://www.pa.gov/agencies/aging.html.

[157] Pennsylvania Department of Aging, *Aging our Way, PA: A Plan for Lifelong Independence*, https://www.pa.gov/content/dam/copapwp-pagov/en/aging/documents/aging-our-way/documents/AOW%20Final%20PDF%20online%20version%20with%20signature.pdf.

The Health & Wellness Program operates under the auspice of the PDA's Education and Outreach Office (EOO). The EOO oversees health and consumer education programs initiated by PDA, including the Pennsylvania Medicare Education and Decision Insight, or PA MEDI, and the Health & Wellness Program.[158]

The role of PDA's Health & Wellness Program is to:

- Research and interpret federal guidelines regarding the Older Americans Act (OAA) Title IIID funding for disease prevention and health promotion services;
- Coordinate efforts among community resources;
- Act as a catalyst for the Area Agencies of Aging (AAA) and PDA's Health & Wellness initiatives; and
- Provide training, technical assistance, and materials, as appropriate, for any of the PDA-endorsed evidence-based programs.

The goals of PDA's Health & Wellness program are to:

- Abolish the myth that inevitable functional decline comes with age;
- Empower older adults with the information they need to age well;
- Support older adults in making lifestyle changes to improve their overall health; and
- Reduce the utilization of the healthcare system.

PDA receives federal funding from the Administration for Community Living (ACL), through the OAA Reauthorization 2020 Title IIID, to provide evidence-based disease prevention and health promotion services through the Health & Wellness Program. Under Title IIID of the OAA, funding has been provided since 1987 to states and territories based on their share of the population aged 60 and over the programs that support healthy lifestyles and promote healthy behaviors.

PDA issued Aging Program Directive (APD)# 19-04-01: Older Americans Act Title IIID Funding for Evidence-Based Programs and Health & Wellness Program. APD# 19-04-01 outlines the roles, responsibilities, and directives between PDA's Health & Wellness Program and the 52 AAA's Health & Wellness Programs serving Pennsylvania's 67 counties.

[158] This chapter of the report is largely based on the information provided to the Joint State Government Commission by the Pennsylvania Department of Aging in the personal e-mail from Ms. Katrina Kyle, Health & Wellness Statewide Coordinator of the Department of Aging Education and Outreach Office, on August 7, 2025.

The AAA network utilizes 34 health & wellness evidence-based programs that address areas such as injury and disease prevention, exercise, chronic conditions, nutrition, mental health, medication management, and substance use. These programs are provided at no charge to those 60 years old and older. The AAA network provides health & wellness evidence-based programs to over 12,000 older adult participants per year across Pennsylvania. Diabetes is the fourth most common chronic condition reported of those that participate in these programs. In addition, 88 percent of those who reported they had diabetes also had at least one other chronic condition.

Chronic Disease Self-Management Program (CDSMP) and Diabetes Self-Management Program (DSMP) are two of the PDA-endorsed evidence-based programs that the AAAs may choose to conduct in their service areas that address diabetes.

Chronic Disease Self-Management Program

The Chronic Disease Self-Management Program (CDSMP) was developed by the Stanford University Patient Education Research Center as a collaborative research project with the Northern California Kaiser Permanente Medical Care Program. This program teaches older adults practical skills for managing chronic health conditions such as diabetes, hypertension, heart disease, and stroke. The objective is for participants to gain the confidence and motivation needed to manage the challenges of living with chronic health conditions. Certified CDSMP Lay Leaders or CDSMP Master Trainers conduct workshops, which consist of 2.5-hour weekly sessions held over six weeks. Workshops are held at senior community centers, senior housing facilities, faith-based organizations, libraries, health centers, and various other community sites.

Beginning in 2010, PDA purchased a multi-agency license for CDSMP from Stanford University. Since 2010, PDA has supported the delivery of CDSMP to over 9,000 Pennsylvania residents.

The licensing entity of CDSMP has since moved from Stanford University to the Self-Management Resource Center (SMRC). Under PDA's license with the Self-Management Resource Center, as of July 1, 2025, there are 18 CDSMP Master Trainers and 138 CDSMP Lay Leaders trained to conduct CDSMP workshops reaching Pennsylvanians in 67 counties.

In state fiscal years 2023-2024 and 2024-2025 there were 700 CDSMP participants across 32 counties in 27 AAA service areas. Completion rate averaged 80.6 percent, which is above the national average of 74 percent according to the National Council on Aging database. Of these 700 CDSMP participants, 32 percent reported they had been diagnosed with diabetes. After completing a CDSMP workshop 87 percent of participants reported a score of seven or above on a scale of one to ten on their confidence in managing their own chronic condition(s).

Map 1

CDSMP Workshops in Pennsylvania
SFYS 2023-2024 and 2024-2025

Source: Map provided by Pennsylvania Department of Aging.

The challenges of COVID-19 provided the opportunity for ACL and the State Units of Aging to introduce virtual programing for outreach to older adults who may not normally leave their home to attend an in-person workshop due to physical challenges, access to transportation, or caregiver responsibilities.[159] When the Federal Public Health Declaration ended in the Spring of 2023, ACL continued to permit State Units of Aging to utilize virtual programs. The PDA will continue to monitor the effectiveness of the virtual programs as well as maintaining fidelity. Of the 79 CDSMP workshops conducted during SFYS 2023-2024 and 2024-2025 there were 13 CDSMP workshops conducted virtually.

CDSMP has received favorable reviews nationwide and in other countries and is available in many different languages. According to the National Council on Aging, a national study from 2010-2011 found that participants who took the program demonstrated the following outcomes:

- Improved self-reported health.
- Improved health status in six indicators: fatigue, shortness of breath, depression, pain, stress, and sleep problems.

[159] States Unit of Aging are "Designated state-level agencies that are responsible for developing and administering multi-year state plans that advocate for and provide assistance to older residents, their families, and, in many states, for adults with physical disabilities." "State Units on Aging," *Administration for Community Living*, accessed September 3, 2025, https://acl.gov/programs/aging-and-disability-networks/state-units-aging.

- Improved health-related quality of life, unhealthy physical days, and unhealthy mental days.

- Improved communication with doctors, medication compliance, and health literacy.

In addition, CDSMP results in significant cost savings, realizing an average of:

- $714 per person savings in emergency room visits and hospital utilization.

- $364 per person net savings after considering program costs of $350 per participant.

- Potential savings of $6.6 billion by reaching 10 percent of Americans with one or more chronic disease.[160]

Blair Senior Services, Inc. CDSMP participant testimonial:

"I plan to keep using the action-planning tool on a weekly basis, to help me focus on being more positive and to let go of things I can't control. I looked forward to the meetings each week. There's an underlying feeling of connection, like a support group, as we talked things out. Post-Pandemic, post-retirement, you can lose yourself. I took a lot out of this workshop, and I'm happy I did it. Just a note – I would have liked to see it be 1-2 weeks longer."

Diabetes Self-Management Program

The Diabetes Self-Management Program (DSMP) was developed by Stanford University as a complement to the CDSMP and was added to PDA's SMRC license. Similar to CDSMP, DSMP uses certified Lay Leaders and/or Master Trainers to conduct workshops to teach older adults who have diabetes how to manage their condition. Workshops take place in senior community centers, senior housing facilities, faith- based organizations, libraries, health centers, and various other community sites. COVID-19 also provided the opportunity for DSMP to be available virtually by either video conference or with a DSMP toolkit mailed to the consumer with weekly conference calls. In state fiscal year 2023-2024 and 2024-2025 there were 64 DSMP workshops across the state with 14 of them conducted virtually.

When PDA Master Trainers are cross trained in DSMP, they are able to train new DSMP Lay Leaders. As of July 1, 2025, there are 15 DSMP active Master Trainers and 74 DSMP Lay Leaders serving 30 counties.

[160] "National Study of the Chronic Disease Self-Management Program: A Brief Overview," *National Council on Aging*, accessed September 8, 2025, https://www.ncoa.org/article/national-study-of-the-chronic-disease-self-management-program-a-brief-overview.

In state fiscal year 2023-2024 and 2024-2025, there were 457 DSMP participants across 20 counties in 18 AAA service areas. Of these 457 DSMP participants, 54.3 percent reported they had been diagnosed with hypertension and 30 percent reported obesity as a health care concern. Completion rate averaged 83.7 percent which is above the national average of 75 percent according to the National Council on Aging database. After completing a DSMP workshop 80 percent of participants reported a seven or above on a scale of one to ten on their confidence in managing their own chronic condition(s).

Map 2

DSMP Workshops in Pennsylvania
SFYS 2023-2024 and 2024-2025

Source: Map provided by Pennsylvania Department of Aging.

Note from a Berks County Area Agency on Aging DSMP Participant:

"I recently had my blood sugar and A1C rechecked after the spike that was noted in later August. My blood sugar and my A1C have decreased to which my family doctor said, "You are on the right track. Keep doing what you are doing." I have your class to thank for helping me to rethink my management. The use of High and Low Carbs is so much easier than counting carbs at each meal and for snacks and always running short! The plate image and size also have been very helpful. Thank you both for a very educational and fun class with so much class interaction."

Schuylkill County Area Agency on Aging DSMP participant telephone interview with the Health & Wellness Coordinator:

> "Very soon after he retired at age of 65, a very pleasant man participated in our Diabetes Self-Management Program in April and May of 2023. He had been recently diagnosed with Type II diabetes and wanted to learn as much about managing it as he could. At the time he was mainly sedentary and overweight. After attending this program, he continued making weekly action plans for himself and he began walking 1-2 times per week at one of our local volunteer-led walking clubs. At the time he struggled to complete 12 laps around the gym. Over the course of the last year, he has increased his walking frequency to a total of 5 days a week at two of our walking clubs and is now comfortably completing a minimum of 18 laps around the gym per session. In addition to starting a regular exercise program, he has decreased portion sizes at his meals and has greatly reduced his soda intake. He also began to take insulin to control his blood sugar levels. Since attending the program, he stated that he has received the following health benefits as a result of his lifestyle behavior changes: 1) weight loss of 25 pounds, 2) stabilized A1C, 3) blood glucose levels that are no longer spiking, 4) increased energy, 5) increased stamina (he can do more before needing a rest), 6) the social benefits of participating in the walking clubs and 7) he can keep up better with his college-age son. He is an excellent example of how taking small steps to behavior change over time can lead to established positive behaviors and the health benefits that go with them. I mentioned to him that his weight loss was like he no longer has to carry around the equivalent of about 2, 10-pounds dumbbells with him anymore and he joked that he was the dumbbell who gained the weight in the first place. He said he couldn't resist the joke….."

PACE

Along with facilitating health and wellness programs which teach older adults practical skills that can help maintain good health, preventing illness and injury, and successfully managing their chronic conditions, the Department of Aging is also responsible for programs assisting eligible older Pennsylvanians in paying for their prescription medications. Taking the necessary medications is an essential part of disease management. It is especially critical for chronic conditions, such as diabetes.

The Pharmaceutical Assistance Contract for the Elderly (PACE) program and the PACE Needs Enhancement Tier (PACENET) program assist qualified older adults aged 65 years or older in paying for their prescription medications. PACE covers all medications requiring a prescription in the Commonwealth, as well as insulin, insulin syringes, and insulin needles, unless a manufacturer does not participate in the Manufacturers' Rebate Program.[161]PACE pays the cost

[161] Pennsylvania Department of Aging, *PACE (Pharmaceutical Assistance Contract for the Elderly) Annual Report to the Pennsylvania General Assembly* (January 1 - December 31, 2023), https://www.pa.gov/content/dam/copapwp-pagov/en/aging/documents/publications/annual-reports/2023%20annual%20pace%20report.pdf.

of prescription drugs and insulin supplies over a copay. PACENET pays the cost of prescription drugs and insulin supplies after a cardholder meets the premium requirement and pays a copayment. PACE pays Medicare premiums for Part D for PACE and PACENET cardholders. PACENET cardholders repay the Part D premiums. With the goal of providing seamless coverage, the PACE and PACENET programs provide benefits when Medicare Part D does not. For example, benefits are paid during the deductible phase, for drugs excluded by Part D or for drugs not in a plan's formulary, and for copayment differentials between the Part D plan coverage and the PACE and PACENET copayments. In 2024, 215,900 older adults were enrolled in the PACE and PACENET programs, 43,100 of whom received antidiabetic pharmaceutical assistance.

The PACE Clearinghouse provides the expertise necessary to secure enrollment for eligible persons of all ages who seek assistance from manufacturers' medication discount programs. In 2024, 23,700 people received medication assistance, including diabetic agents, by contacting the Clearinghouse. The Clearinghouse connects persons with other social service resources, enrolls persons in benefits that are the result of Attorney General lawsuit settlements, and assists Medicare Part D- enrolled cardholders with obtaining the Low-Income Subsidy benefit ("Extra Help").

Since 2018, PACE, through the Department of Health, received funds under the Preventive Health and Health Services Block Grant. This ongoing project, continued into 2025, promotes awareness of prediabetes and the Diabetes Prevention Program to older Pennsylvanians by distributing information to prescribing clinicians. The PACE Academic Detailing Program developed a teaching tool to educate 500 clinicians each year about screening, testing and referring their eligible patients to local, no or low-cost Diabetes Prevention Programs.

An important component of the PACE program is updating physicians about changing therapies in complicated disease states. Type 2 diabetes is a common chronic condition with projected increases in prevalence for Pennsylvania that will continue to challenge health care providers. In April 2016, the program released an updated diabetes education module as part of its long-standing physician education program. In April 2019 and again in May 2022, the diabetes module was updated to reflect the new clinical trials and treatment guidelines that led to changes in diabetes medication utilization. From May 2022 through March 2025, 1,323 clinicians received one-on-one diabetes education.

The 2022 module includes:

- Written evidence reports (print monograph);
- Summary document of top four to five key messages;
- Academic detailing education sessions in physicians' offices delivered by trained outreach educators (pharmacists, nurses, physicians) who present the material face-to-face;
- Reference cards for easy access to key materials; and
- Patient education brochures and tear-off sheets.

The goals for the diabetes educational program are to help practitioners:

- Define an HbA1c target based on a patient's health status and response to treatments; 7 percent for most patients and modifying the goal for many frail older patients with diabetes;

- Select initial treatment based on relevant comorbidities and HbA1c lowering need;

- Identify patients who are 1.5 percent or more above their goal to initiate treatment with two medications, within weeks of diagnosis;

- Revise treatment, add insulin when other agents are not sufficient to achieve HbA1c goal; and

- Plan to continuously promote weight control, exercise, and adherence to medications.

Educational modules are found at www.alosahealth.org, under Clinical Modules. PACE Academic Detailing Modules are designated for *AMA PRA Category 1 Credits* by the Harvard Medical School.

To evaluate the effectiveness of its academic detailing, the program conducted a collaborative research and evaluation project with Wilkes University, Wilkes-Barre, PA. This program evaluation study specifically examined prescribing patterns before and after prescribers participated in the program's 2013 diabetes management module. The module provided information on the comparative effectiveness and safety of diabetes medications, presented evidence regarding appropriate therapy strategies, and weighed the benefits, risks, and value of treatment options with the intent to improve the quality of prescribing and patient care. This interrupted time series evaluation focused on the third diabetes educational outreach intervention that was presented to 704 prescribers in 2013-14. In addition to the group of prescribers who received diabetes management training, the evaluation analysis also includes a comparison group of prescribers who did not receive the training.

The quality metrics identified for this study included:

- Prescribing metformin in older patients with diabetes;

- Prescribing of HMG-CoA reductase inhibitors (statins) in diabetic patients;

- Prescribing either an angiotensin-converting-enzyme (ACE) inhibitor or an angiotensin II receptor blocker (ARB) for patients who have both diabetes and hypertension; and

- Avoidance of long-acting sulfonylureas (chlorpropamide, glyburide) in older patients with diabetes.

The results did not demonstrate differences between the intervention and comparison groups with respect to the four metrics. However, most prescribers in the detailed group had been exposed to more than one wave of diabetes training since 2007, and the quality metrics have become the standard of care. The findings are consistent with a ceiling effect in the metrics. Most prescribers were following treatment guidelines during the evaluation period. These results were published in *American Health & Drug Benefits* in 2019.

Medical Assistance (Medicaid)

In state fiscal year 2023-24 – the latest period for which data are available – there were 297,637 total Medicaid recipients identified with diabetes.[162]

The Department of Human Services' (DHS) Office of Medical Assistance Programs oversees the Physical Health component of the HealthChoices Program. The HealthChoices Program is the name of Pennsylvania's mandatory managed care program for Medical Assistance (MA, or Medicaid) recipients. Medicaid recipients gain access to medical care and appropriate physical health services through Physical Health Managed Care Organizations (MCOs).

Regular screenings are a key to successful diabetes management, prevention, early detection and prompt treatment of dangerous and expensive complications. As reflected in the table below, the number of these critically important screenings for Medicaid patients in the Commonwealth was impacted by the COVID-19 public health emergency but returned to prepandemic levels over time.

Table 2
HealthChoices Performance Areas
Medical Assistance Recipients with Diabetes
Average Annual Screenings by Type, Reporting Year 2022-2024*
Pennsylvania

Type of Screening or Exam	Percentages of Recipients		
	2022	2023	2024
BP Control (<140/90 mmHg)	67.0%	71.2%	72.7%
Eye	55.2	57.9	58.0
A1c**	85.2	n/a	n/a
A1c Good Control (<8.0%)	54.07	58.06	59.54
A1c Poor Control***(>9.0%)	36.05	32.32	31.20
Kidney Health Evaluation	41.5	45.9	48.1

*Reporting Year 2022 includes data related to dates of service in Calendar Year 2021, Reporting Year 2023 includes data related to dates of service in Calendar Year 2022, and so on.
** The steward of the A1c quality measure retired this measure. The last available data is from Reporting Year 2022.
***A lower rate represents better performance.

[162] The following section of the report is largely based on the information provided to the Joint State Government Commission by Kendrick Fischer, Deputy Director, Office of Legislative Affairs, PA Department of Human Services, in personal e-mail July 31, 2025.

Education and outreach are an important part of improving diabetes control and maintenance.

All of the HealthChoices MCOs offer education and outreach to both providers and members concerning diabetes. Some of the information offered to providers describes best practices, how to code to identify diabetic members, care gap reports, home lab testing and retesting protocols for members with abnormal results, and provider pay-for-performance incentives for achieving benchmarks. Examples of member education offered are diabetes disease specific education, instructions for obtaining screening and follow-up testing, and medication adherence coaching by pharmacists. Examples of member outreach include diabetes text messages to members needing an A1c screening, tele-monitoring, tele-retinal in-home screening, community and paramedicine events, which offer HbA1c screenings and diabetic eye exams. Other member-focused outreach includes diabetic-friendly meal services, A1c consumer incentives, and case management.

The MCOs have made some adjustments due to the new requirements in the HealthChoices program. The community-based care management (CBCM) model of care now requires MCO's to partner with Community Based Organizations (CBOs) who will coordinate care of members in the community. The concept of meeting members in the community where they live is still the mainstay of the CBCM program. CBO staff consist of licensed and non-licensed staff such as registered nurses, social workers, community health workers, or pharmacists depending on the need of the MCO's population. CBO staff meet diabetic members face-to-face in their community or home to assist with filling out health care forms, making calls to the member's doctor's office to schedule an appointment, arranging transportation to the doctor's office or obtaining a referral for a specialist. CBOs assist provider practices with their diabetic Medicaid members, using community health workers, pharmacists, diabetic navigators and/or social workers to assist with members who require higher touch interactions to ensure medical services that are needed are obtained. Diabetic navigators alert providers about their members who are due or overdue for diabetic screenings and HbA1c testing. These navigators also educate members on diabetes, screenings and re-testing, medication adherence, scheduling appointments and ensuring appointments are kept, and assisting with any barriers that the member may have. These interactions are mostly face-to-face; however, they can also occur telephonically. The MCOs and CBOs have also taken advantage of virtual technology as a communication tool to interact with members. When a member is not able to have a care coordinator in their home or attend an appointment at the physician's office for face-to-face meeting, virtual video communication has made an impact on members receiving the vital care they need from providers.

MCO CBO partners now administer the Medication Therapy Management (MTM) program for diabetic members. MTM involves a pharmacist who interacts with an MCO's diabetic member at the pharmacy to review the types, amounts, and duration of medications prescribed by the member's physician. Registered nurses or community health workers will also conduct home visits and review medications with the pharmacists by phone to ensure the member has the correct prescriptions and is taking them as prescribed.

In addition, some of the MCOs' partner CBOs offer Food as Medicine programs through partnerships with the Metropolitan Area Neighborhood Nutrition Alliance (MANNA) in Philadelphia, Geisinger's Fresh Food Farmacy (FFF), and Family Food (FF) programs. These programs provide diabetes education, along with meals for members and their families.

In October 2018, DHS and the Department of Health (DOH) began participation in the Centers for Disease Control and Prevention (CDC) 6 | 18 Initiative to implement the coverage of CDC recognized Diabetes Prevention Programs (DPP) in the MA program. Starting in calendar year 2019, the MCOs were contractually required to implement a DPP pilot consistent with the CDC's DPP guidelines. DPP is an evidence-based lifestyle change program that requires a participant to complete all 22 sessions of the yearlong program (16 weekly sessions during the first six months and six-monthly sessions during the second six months). The program is designed for individuals 18 years or older who have prediabetes or are at-risk for type 2 diabetes, but who do not already have diabetes. The year-long program is delivered in-person, online, or through a combination approach using group support. The goal of the program is to increase prediabetic individuals' knowledge of proper nutrition and eating habits, leading to weight loss, decreased HbA1c levels and decrease likelihood of becoming a type 2 insulin dependent diabetic in the future.

On July 1, 2019, DHS began enrolling CDC recognized DPP providers in the MA program so that they could begin to contract with the MCOs as in-network providers. As MCO network providers, these DPP providers will play an integral role in the MCOs' Diabetes Prevention Programs required within their Community Based Care Management (CBCM) programs. To date, a total of eight DPP providers are enrolled in Pennsylvania's MA Program. There are also DPP providers who are not enrolled in the MA Program but who provide services through the MCOs' CBCM programs. There is a total of 18 such providers, including community-based organizations.

In 2020, DPP programming with MA continued to evolve along two parallel tracks, with focus on provider capacity development as well as increased outreach to MCO members. The CDC 6|18 initiative offered states with a second round of DPP technical assistance for 2020. The National Association of Chronic Disease Directors (NACDD) provided DPP technical assistance to the DOH and DHS. The collaborative efforts between DOH and DHS continue to provide lifestyle change services to recipients with type 2 diabetes under the DPP. During the second year of technical assistance, DOH and DHS met monthly with NACDD. These meetings and discussions led to an increase in DPP provider capacity. On October 7, 2020, DOH hosted an educational workshop with NCADD for CDC recognized DPP organizations who wish to enroll in the MA program. The workshop allowed MA provider enrollment staff to educate DPP providers on the process of applying to enroll in the MA program.

Due to the success of the DPP pilots implemented by the MCOs during 2019, the MCOs were contractually required to implement the programs on an ongoing basis beginning in 2020. MCOs were also required to refer members who are identified as pre-diabetic to CDC recognized or Medicare enrolled Diabetes Prevention Programs. As a result, 689 HealthChoices beneficiaries have been enrolled in Diabetes Prevention Programs. Throughout the year, MCOs expanded and sustained their pilot programs, developing unique DPP strategies based on population demographics within the regions they serve. This work has continued since 2020, with a focus on offering virtual classes and using technology to make attendance as easy as possible for members

due to the duration of the program, which can be a deterrent to participation. All MCOs are now offering virtual options and are seeing success. MCOs have also been exploring the use of member incentives to reward participation in the program with things like complimentary Weight Watchers memberships. MCOs also continue to develop approaches to serve members with Limited English Proficiency that may benefit from this programming. Some MCOs are leveraging opportunities to share best practices by participating in the Health Promotion Council (HPC) and Pennsylvania Community Living Initiative (PA CLI) Leadership Sustainability Group and the National Diabetes Prevention Program Virtual Learning Collaborative Statewide Engagement.[163]

[163] Information on HealthChoices education and outreach was reported by each individual MCO in July 2025.

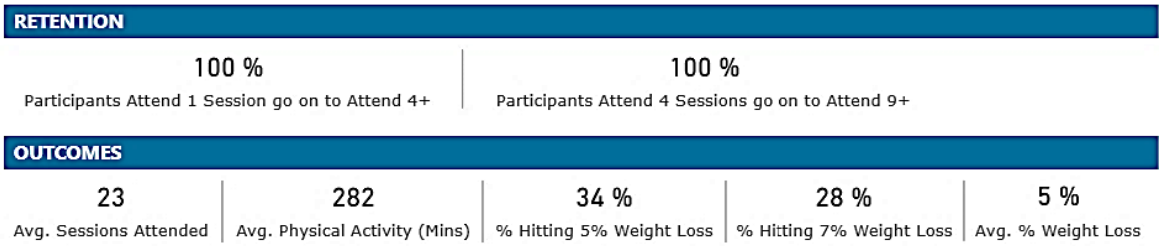
YMCA'S
DIABETES PREVENTION PROGRAM

YMCAs play an important part in chronic disease prevention. Pennsylvania YMCAs in particular work hard to increase awareness of type 2 diabetes and prediabetes and to offer people tools to reduce their risk for developing this disease and for improving their health outcome when they have it. [164]

The YMCA's Diabetes Prevention Program is a community-based lifestyle change initiative designed to help individuals at high risk for type 2 diabetes make lasting improvements in their health. Grounded in research and approved by the CDC, the program focuses on encouraging healthier eating habits, increasing physical activity, and providing group support to help participants achieve and maintain a moderate weight loss. Led by trained lifestyle coaches, the year-long program includes weekly sessions followed by monthly meetings to reinforce healthy habits and support continued progress. The ultimate goal is to empower individuals to take control of their health and reduce their risk of developing type 2 diabetes.

In 2024, Pennsylvania YMCA's saw 63 new enrollees take part in the year long program. These YMCA's include Carbondale YMCA, Greater Scranton YMCA, Greater Wyoming Valley YMCA, Harrisburg Area YMCA, and YMCA of Greater Erie.

The data below highlights the strong engagement and effectiveness of the YMCA's Diabetes Prevention Program. It shows a 100 percent retention rate, with all participants who attend the first session continuing to attend four or more sessions, and those who attend four sessions going on to attend nine or more. On average, participants attend 23 sessions, log 282 minutes of physical activity, and achieve an average 5 percent weight loss. Additionally, 34 percent of participants reach a 5 percent weight loss, and 28 percent achieve a 7 percent weight loss, demonstrating meaningful health outcomes.



[164] The following section of the report is largely based on the information provided to the Joint State Government Commission by Ms. Megan Maurer, Director of Administrative Services, Harrisburg Area YMCA, in an e-mail July 30, 2025.

HEALTH PROMOTION COUNCIL

Health Promotion Council of Southeastern Pennsylvania, Inc. (HPC) is a non-profit corporation established in 1981. HPC's mission is to promote health and prevent and manage chronic diseases, especially among vulnerable populations, through community-based outreach, education, and advocacy. HPC provides evidence-based disease prevention and self-management education, case management, and resource navigation programs designed to improve health outcomes through healthy behaviors and ameliorate modifiable Social Determinants of Health (SDOH). HPC's Training and Capacity Building Department has expertise in implementing programs that focus on chronic disease, diabetes prevention and management. HPC's direct services primarily serve low-income and racial and ethnic minority communities in the Greater Philadelphia region of Pennsylvania, with some programs serving the eastern half of the Commonwealth; however, partnerships have a statewide reach.[165]

HPC is positioned to contract with Medicare Advantage, Medicaid Managed Care Organizations, Community Health Choices for dual eligible populations and aging and disability populations, commercial and employer payers, Accountable Care Organizations, healthcare providers and systems to offer value-based and fee-for-service evidence-based disease management and prevention programs and identification and navigation for Social Determinants of Health to impact health outcomes and HEDIS measures to demonstrate high-quality, cost-saving, HIPAA compliant health care delivery through a network of community-based organizations.

National Diabetes Prevention Program (National DPP)

HPC has supported capacity building and sustainability of the National DPP in Pennsylvania since 2014 through a variety of funding sources, noting significant support from the PA DOH and National Association of Chronic Disease Directors that began with offering lifestyle coach trainings through the state, funding and technical assistance to organizations to establish their National DPP through the *Preventive Health and Health Services Block Grant (PHHSBG).*

Since 2014, HPC has supported capacity building across Southeastern Pennsylvania in establishing and operating National Diabetes Prevention Programs (National DPP) cohorts every year. HPC currently supports six organizations to deliver 14 National DPP cohorts on an annual basis with Preventive Health and Health Services Block Grant (PHHSBG) funding to deliver National Diabetes Prevention Programs in their communities.

[165] The following section is based on information provided to the Joint State Government Commission by Ms. Joani Schmeling, HPC Program Manager, Training and Capacity Building, in an e-mail message to Commission staff, August 1, 2025.

The six subcontracted organizations include Accessible Pharmacy Services, Main Line Health, Montgomery County Office of Aging Services, Mi Salud Wellness Center, Penn Medicine Chester County Hospital, and Pottstown Medical Specialists Inc. Over the past 10 years, HPC has previously supported organizations including: 4-F Lifestyles (Mannette Richardson, RD, CDCES), Episcopal Community Services, No Longer Bound, YMCA Freedom Valley, Visiting Nurses Association of Philadelphia, La Communidad Hispana, Delaware Valley Health Solutions, Delaware Valley Accountable Care Organization-Employer Program, Harrisburg YMCA, YMCA Greater Brandywine, West Chester University, Latino Connection, Viora Health, and Adagio Health.

During FY25, subcontracted organizations delivered 16 National DPP cohorts with 112 individuals completing the program.

Technical assistance is also provided to subcontracted organizations to maintain CDC recognition and implement sustainability plans, including efforts to enroll them as Medicare DPP, Medicare Advantage, and Pennsylvania Medicaid DPP providers through HPC's Umbrella Hub Arrangement.

In addition to the six organizations, HPC is working to support potential new partners interested in implementing the National DPP.

National DPP – Umbrella Hub Organization (UHO)
and *Umbrella Hub Arrangement* (UHA)

HPC achieved Diabetes Prevention Recognition Program (DPRP) Full-Plus Recognition from the CDC, became a certified National Diabetes Prevention Program Umbrella Hub Organization (UHO) in 2020 and became a Medicare Diabetes Prevention Program (MDPP) Supplier in 2021.

HPC's Umbrella Hub has seven active subsidiary organizations throughout Pennsylvania. The seven subsidiaries are: Mi Salud Wellness Center, Accessible Pharmacy, Jefferson Collaborative for Health Equity, Pottstown Medical Specialists, Montgomery County Office of Aging Services, and Episcopal Community Services.

Across its seven subsidiaries, HPC's Umbrella Hub has supported 20 cohorts serving 183 enrolled participants in the National DPP.

Average weight loss for enrolled participants in the National DPP Umbrella Hub was 3.1 percent.

HPC has submitted claims totaling $13,647 to Medicare and Medicare Advantage plans to date.

HPC has been an approved Pennsylvania Medical Assistance Medicaid provider for the National DPP since July 2021.

HPC has a contract with a Medicaid MCO, Jefferson Health Plans, for coverage of the National DPP.

Through the Umbrella Hub, HPC provides SDOH screenings and social needs referrals for participants enrolled in the Umbrella Hub.

HPC is actively recruiting additional Umbrella Hub Subsidiaries to support delivery and sustainability of organizations delivering the National DPP. More information can be found by emailing programinfo@phmc.org.

Community Care Hub (CCH)

In 2024, HPC was awarded a two-year competitive grant from USAging's Center of Excellence to expand its National DPP Umbrella Hub operations into a Community Care Hub (CCH). The grant was established in partnership with the Pennsylvania Association of Area Agencies on Aging (P4A) and two Area Agencies on Aging (AAA), Montgomery County Office of Aging Services (MOCAS) and Berks County AAA.

The grant is focused on expanding National DPP offerings to AAAs as well as adding more billable services including DSMES, MNT and other evidence-based programs and services to enhance sustainability. This work will include additional efforts around Social Determinants of Health (SDOH) screening and resource referrals using PA Navigate and other referral systems.

Diabetes Self-Management Education and Support (DSMES)

Since 2013, HPC has supported expansion, access, and sustainability of DSMES across Pennsylvania in collaboration with PA DOH through CDC and Block Grant funding. HPC is working to strengthen self-care practices by improving access, appropriateness, and feasibility of diabetes self-management education and support (DSMES) services for priority populations, including Hispanic, Black, LGBTQ+, individuals living with disabilities, Medicare, and Medicaid populations. This includes providing ongoing technical assistance for organizations seeking to connect individuals to eligible DSMES and complementary diabetes support programs, including the diabetes self-management program (DSMP) in their communities if they themselves do not have the organizational capacity to deliver DSMES.

Since 2015, HPC has been a licensed provider of the evidence-based Diabetes Self-Management Program (DSMP) through Self-Management Resource Center (SMRC) with Administration for Community Living funding.

In February 2025, HPC became an accredited DSMES provider through the Association of Diabetes Care and Education Specialists' (ADCES) Diabetes Education Accreditation Program. This accreditation continues for four years requiring annual reporting on quality improvement measures, including annual HbA1c measurements and incorporation of identified self-care behaviors outlined in the DSMES standards of care via HIPAA secure reporting platforms.

DSMES Umbrella Hub Model: Through funding from the Preventive Health and Health Services Block Grant (PHHSBG), HPC is exploring the feasibility of a DSMES Umbrella structure, like HPC's existing National DPP Umbrella Hub. This model would allow HPC to take on the administrative responsibilities associated with DSMES programs, including payer contracting and claims submission, alleviating the burden on smaller organizations. It would also help to increase the access and availability of DSMES programs in underserved areas by bringing DSMES to smaller health care organizations, community-based organizations, Area Agencies on Aging (AAAs), and other non-traditional health care settings.

As part of a cooperative agreement for Improving the Health of Americans Through Prevention and Management of Diabetes, Heart Disease, and Stroke, (DP18-1815,) HPC compiled quarterly assessments of Pennsylvania DSMES certified sites from the ADA and the ADCES to help strategically visualize and target areas across Pennsylvania that did not have adequate access to DSMES services. Through regular connection with the ADA and the ADCES, HPC has been able to manage a list of active DSMES programs across Pennsylvania. Maintaining these lists have allowed HPC to reach out to DSMES providers across the Commonwealth to learn more about their programming, including referral pathways and capacity. This has been essential in HPC's work in building out the Health Referral Hub to ensure that individuals who are seeking DSMES are connected with a program that has the capacity to receive their referral. This includes identifying programs that are seeking more referrals and utilization and leveraging those relationships into pilot project initiatives. Quarterly analysis of the certified sites also highlighted the continued impacts of the COVID-19 pandemic, including staffing turnover and changing priorities within organizations represented through fluctuations in the number of accredited and recognized programs.

Through Quality Insights, the Pennsylvania Department of Health is working to increase participation in recognized/accredited DSMES programs by educating providers, promoting DSMES within communities, and improving referral processes and networks. Quality Insights will engage health systems, independent practices, and electronic health record (EHR) vendors to assist in completing this work.

HPC conducted a pilot initiative in collaboration with HealthShare Exchange (HSX), Southeastern Pennsylvania's Health Information Exchange (HIE) to utilize Encounter Notification System to identify individuals within a health care system who would be eligible for DSMES. Through an existing relationship with the Jefferson Health System's Einstein Hospital, HSX created Smart Alerts that would flag individuals who met outlined criteria set forth by HPC for DSMES eligibility, including recent discharge from the hospital or emergency room, type 2 diabetes diagnosis, HbA1c not at goal, and documentation of other existing comorbidities. Details about these individuals was then securely sent to an inbox monitored by Einstein staff who would either enroll them into Einstein's DSMES program or refer them out to an identified DSMES partner, Integrated Diabetes Services. Patients would then be enrolled into DSMES and information regarding their referral status and participation would be sent back to their provider. The overall goal of this pilot was to demonstrate the utilization of a platform and system, like HSX's Encounter Notification System, to efficiently identify and refer individuals to DSMES.

Medical Nutrition Therapy (MNT)

HPC became an approved Medicare Medical Nutrition Therapy (MNT) provider in Pennsylvania in 2025. With Registered Dietitians on staff, HPC will be able to provide this service and submit claims to Medicare for services provided to referred participants.

Submission of MNT claims to Medicare will pave the way for HPC to submit claims for Diabetes Self-Management Training (DSMT) to Medicare, allowing for further opportunities to provide sustainable services to individuals and partner organizations. Both MNT and DSMT are Medicare Part B services. HPC's ability to deliver this service helps to support health care providers and systems that may not have the capacity to offer and deliver MNT or DSMT services within their health care facility.

Once successful claims are submitted to Medicare, HPC will continue to explore expansion of MNT and DSMT services and explore contracting and credentialing with other health care payers, including Medicare Advantage, Medicaid, and Medicaid Managed Care Organizations.

Health Referral Hub, Marketing, and Outreach

HPC operates the Health Referral Hub, a community-focused resource and communication center that connects community members with health resources in their area. Organizations and individuals can use the Health Referral Hub to learn more about available health programs in their community and make a referral to a program. In 2025, HPC rebranded its type 2 diabetes prevention campaign, *Make A Choice for a Healthier Life*, to serve as a recruitment tool that supports awareness and referral to its growing portfolio of chronic disease prevention and management programs. Through its redesigned website and updated social media strategy, the *Make A Choice* brand connects organizations and individuals to HPC's Health Referral Hub via telephone, email, website, and social media channels. More information is available at https://www.makeachoice.org/.

As part of continued work in collaboration with PA DOH to increase access, awareness, and availability of National DPP and DSMES programs to underserved communities, HPC has continued to work with key stakeholder organizations in the identified counties of Berks, Lebanon, Montgomery, and Philadelphia to engage and enroll organizations into the Health Referral Hub network. This allows organizations to not only send referrals for programs through HPC but also allows enrolled organizations to receive referrals for programs and services they offer.

HPC is active on PA Navigate, with program cards that can receive referrals from individuals and enrolled organizations for: National Diabetes Prevention Program (National DPP); Diabetes Self-Management Education and Support (DSMES); Chronic Disease Self-Management (CDSMP); Diabetes Self-Management (DSMP); Chronic Pain Self-Management (CPSMP); Walk With Ease; Medical Nutrition Therapy.

Other Related Work

In July 2024, HPC was awarded funding through Preventive Health and Health Services Block Grant (PHHSBG) heart disease and Stroke Program to implement and deliver the Healthy Heart Ambassador Blood Pressure Self-Monitoring Program to address increased rates of hypertension in Black Pennsylvanians. This four-month long program, which combines individual blood pressure monitoring and education sessions, along with monthly group nutrition education sessions, provide enrolled participants with the tools and supports to manage their blood pressure at home, thus decreasing their risk of a cardiovascular episode and other cardiovascular related complications and comorbidities.

Since 2020, HPC has been licensed to offer Self-Management Resource Center's suite of evidence-based self-management programs, including Chronic Disease Self-Management (CDSMP), and Chronic Pain Self-Management (CPSMP), as well as Arthritis Foundation's Walk With Ease (WWE) program through its network of service delivery partners. In addition to connecting eligible individuals to programs, HPC also has the capacity to support workforce development by connecting individuals and organizations to training opportunities to be able to offer and deliver these programs within their organization for increased opportunities for organizational sustainability.

HPC convened eight Lifestyle Coach Gatherings between 2021 and 2023:

- March 2021: 25 attendees; presentation and panel discussion on inclusion and nutrition in honor of National Nutrition Month; objective was to educate individuals about inclusion and the barriers and challenges that people with disabilities encounter on a daily basis.

- June 2021: 25 attendees; presented on inclusive fitness as it pertains to health promotion programs such as the National Diabetes Prevention Program.

- November 2021: 30 attendees; centered on Diabetes Awareness Month; including cooking demo and healthy holiday cooking presentation.

- February 2022: 30-35 attendees; presented on "Preparing for After the Public Health Emergency: Modality of Delivery Techniques"; spotlight speaker Manette Richardson from PHMC.

- May 2022: 25 attendees; spotlight speaker Pottstown Medical Specialists who presented on Expanding and Sustaining Diabetes Prevention Programming.

- November 2022: 30 attendees; spotlight speaker Mi Salud.

- April 2023: 10 attendees; focused on DPP & Walk With Ease coupling.

- June 2023: 25 attendees; focused on sustainability and featured a panel of program delivery organizations. The panel discussed and answered questions about topics ranging

from establishing sustainable programming systems and referral pathways, successes and challenges around staffing, communication, screening/testing/referring eligible patients, and cultivating lasting relationships with donors.

The Health Promotion Council joined with the National Association of Chronic Disease Directors, Perry Media Group, and Welltok to pilot "Text TODAY - Make a Choice for a Healthier Life", a multi-channel public health outreach campaign promoting the use of text messages to prevent type 2 diabetes among Black and Hispanic Pennsylvanians. The campaign generated over 2.2 million impressions through digital, radio, streaming, and in-store digital advertisements, assisted by a network of 46 promotional partners to reach over 379,000 individuals. Participants who responded via text or phone were connected to the HPC Referral Hub, a new cloud-based call center operated by the Health Promotion Council for participant outreach, diabetes risk assessment, and referrals to DPP providers.

Legislative Recommendations

To facilitate the timely, appropriate, and continuous treatment of diabetes and to prevent complications that can be devastating for patients and their families and expensive for the insurance companies, the General Assembly should consider the following changes in insurance practices:

1. Require that health plans policies significantly limit step therapy regulations for patients with diabetes and other chronic diseases. Therapy regulations should rely only on current clinical data, be transparent, and offer clear and concise exceptions to step therapy protocols based on medical necessity. A patient's switching from one health plan to another should not involve a restart of step therapy. Section 2156 of the Act of May 17, 1921 (P.L.682, No.284), known as The Insurance Company Act of 1921, as added by the act of November 3, 2022 (P.L.2068, No. 146); 40 P.S.§ 991.2156, allows requests for exceptions for individuals who have previously completed step therapy with a different insurance, but does not specifically address diabetes and other chronic diseases.

2. Expand caps on out-of-pocket payment for insulin and other essential diabetes medications. Limit healthcare plans' ability to eliminate the protected medications from their formulary. Medicare beneficiaries with Part B and Part D plans receive an out-of-pocket cap of $35 a month.

3. Require that healthcare plans treat insulin and essential equipment necessary for diabetes maintenance (glucometers, strips, *et cetera*) as preventive coverage so that it would require no copay.

Other Recommendations

Some of these recommendations are pre-existing and persisting best practices for health care professionals when treating diabetes, while others are new additions based largely on the *Summary of Revisions: Standards of Care in Diabetes—2025*.[166]

[166] "Summary of Revisions: Standards of Care in Diabetes—2025," Diabetes Care 48, Suppl. 1 (2025), DOI: 10.2337/dc25-SREV.

4. Providers, healthcare systems and payers should prioritize the delivery of patient-centered care, which is care that considers individual patient comorbidities and prognoses; is respectful of and responsive to patient preferences, needs and values; and ensures that patient values guide all clinical decisions.

5. Providers should use the Chronic Care model as well as the Patient-Centered Medical Home model, Accountable Care Organizations, and value-based payment models, descriptions of which are found in the *Standards of Care in Diabetes – 2025*.

6. Clinicians should thoughtfully select glycemic treatment targets based on an individual's age, life expectancy, hypoglycemia, or other adverse treatment effects as well as his or her personal preferences.

7. All individuals who have diabetes should have access to ongoing Diabetes Self-Management Education and Support (DSMES) programs. These programs should be offered in a variety of formats to meet patients' specific needs and preferences. Enrollment of eligible Pennsylvania adults in DSMES programs should be increased through enhancing program availability, awareness and promotion, coverage and reimbursement, along with screening, testing, and referrals. Patients should be screened for behavioral health concerns when providers are considering DSMES programs. Providers should consider social determinants of health in their design of DSMES programs.

8. The DHS should consider including a DPP network adequacy requirement in the MCO contracts. It has been suggested that similar to the network adequacy requirements for primary care and specialty medical care, there should be a standard established by DHS regarding the number of DPP providers required in geographic proximity to their membership to ensure that there is adequate access and coverage. This could include the availability of both online and distance-learning options within the MCO network. To support this endeavor, it would be important that adequate funding for the training of DPP lifestyle coaches be provided to the DPP supplier community.

9. Emphasis should be put on early detection and management of type 1 and type 2 diabetes among children, adolescents, and young adults.

10. Healthcare providers should increase attention to gestational diabetes screening and maintenance as well as follow-up after childbirth.

11. Diabetes screening should be increased among all populations, not just those with a family history or other genetic predisposition to diabetes.

12. Effectiveness and cost-effectiveness of all programs and pharmacotherapy aimed at obesity treatment should be thoroughly analyzed and continuously evaluated.

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THE GENERAL ASSEMBLY OF PENNSYLVANIA

HOUSE RESOLUTION

No. 936 Session of 2014

INTRODUCED BY OBERLANDER, LONGIETTI, BAKER, BOBACK, V. BROWN, CALTAGIRONE, CAUSER, COHEN, D. COSTA, DONATUCCI, FLECK, GIBBONS, GINGRICH, GODSHALL, GRELL, GROVE, HARHART, HEFFLEY, KAUFFMAN, KILLION, KIRKLAND, KOTIK, KULA, LUCAS, MAJOR, MENTZER, MILLARD, MURT, MUSTIO, O'BRIEN, READSHAW, SONNEY, SWANGER, TALLMAN, THOMAS, TOBASH, WHITE, YOUNGBLOOD, SCHLEGEL CULVER, JAMES, BENNINGHOFF, BRIGGS, PICKETT, WATSON, McCARTER, PYLE AND QUINN, JULY 1, 2014

AS REPORTED FROM COMMITTEE ON HEALTH, HOUSE OF REPRESENTATIVES, AS AMENDED, SEPTEMBER 17, 2014

A RESOLUTION

Directing the Joint State Government Commission, in collaboration with certain other State departments and agencies, to develop a report on diabetes and to issue the report to the House of Representatives.

WHEREAS, More than 990,000 adults in this Commonwealth have been diagnosed with diabetes; and

WHEREAS, An estimated 517,000 Pennsylvanians are undiagnosed; and

WHEREAS, An estimated 3.27 million Pennsylvanians are at risk of developing diabetes; and

WHEREAS, Diabetes and its complications are the seventh leading cause of death in this Commonwealth; and

WHEREAS, Diabetes will cost Pennsylvanians an estimated ~~$1.7~~ <-- $14.7 billion in 2015 and an estimated $18.4 billion by the year <-- 2025; and

WHEREAS, Statistics show that with appropriate management and early identification, costs related to diabetes can be significantly reduced; therefore be it

RESOLVED, That the House of Representatives direct the Joint State Government Commission to submit a report on diabetes that identifies goals and benchmarks and includes plans to reduce the incidence of diabetes, improve diabetes care and control complications associated with diabetes; and be it further

RESOLVED, That the Joint State Government Commission develop the report on diabetes in collaboration with all of the following:

(1) The Department of Health.

(2) The Department of Public Welfare.

(3) The Department of Education.

(4) The State Employees' Retirement System.

(5) The Health Care Containment Council.

(6) Any additional State departments or agencies the commission deems appropriate to develop, research and prepare the report;

and be it further

RESOLVED, That the Joint State Government Commission assess the financial impact and reach diabetes has on the residents of this Commonwealth and the State departments and agencies collaborating on the report, and that the assessment include all of the following:

(1) The number of individuals with diabetes impacted or covered by the State department or agency.

(2) The number of individuals with diabetes and family members impacted by prevention and diabetes control programs implemented by the State department or agency.

(3) The financial toll or impact diabetes and its complications placed on State department or agency programs.

(4) The financial toll or impact diabetes and its complications placed on the State department or agency programs in comparison to other chronic diseases and conditions;

and be it further

RESOLVED, That the Joint State Government Commission conduct an assessment of the benefits of implemented programs and activities aimed at controlling diabetes and preventing the disease, and that the assessment include the amount and source for any funding from the Federal Government and the General Assembly for programs and activities aimed at reaching those with diabetes; and be it further

RESOLVED, That the Joint State Government Commission provide a description of the level of coordination existing between State departments and agencies on activities, programmatic activities and messaging on managing, treating or preventing all forms of diabetes and its complications; and be it further

RESOLVED, That the Joint State Government Commission provide detailed plans and recommendations for the control and prevention of diabetes for consideration by the General Assembly, and that the plans and recommendations do all of the following:

(1) Identify proposed action steps to reduce the impact of diabetes, pre-diabetes and related diabetes complications.

(2) Identify expected outcomes of the action steps proposed in the following biennium.

(3) Establish benchmarks for controlling and preventing relevant forms of diabetes; and be it further

RESOLVED, That the Joint State Government Commission develop a detailed budget blueprint identifying needs, costs and resources required to implement the plans and recommendations of each department or agency, and that the blueprint include a budget range for all options presented in the recommendations identified by each department or agency for consideration by the General Assembly; and be it further

RESOLVED, That the Joint State Government Commission provide the initial report on the estimated number of individuals with diabetes, pre-diabetes or related diabetes ~~within~~ WHO ARE SERVED <-- BY each department or agency and any additional information the commission deems appropriate to the General Assembly by March 1, 2015; and be it further

RESOLVED, That the Joint State Government Commission submit a ~~final~~ COMPREHENSIVE report on the items listed in this <-- resolution to the Diabetes Caucus of the House of Representatives and the Human Services Committee AND THE HEALTH <-- COMMITTEE of the House of Representatives by September 15, 2015, and by September 15 of each odd-numbered year thereafter following the release of the initial report.