

Kentucky Department
for Public Health

2025

Diabetes Report



KDPH's mission is to improve the health and safety of people in Kentucky through prevention, promotion and protection.

TEAM 
KENTUCKY

CABINET FOR HEALTH
AND FAMILY SERVICES

TEAM 
KENTUCKY

PERSONNEL CABINET



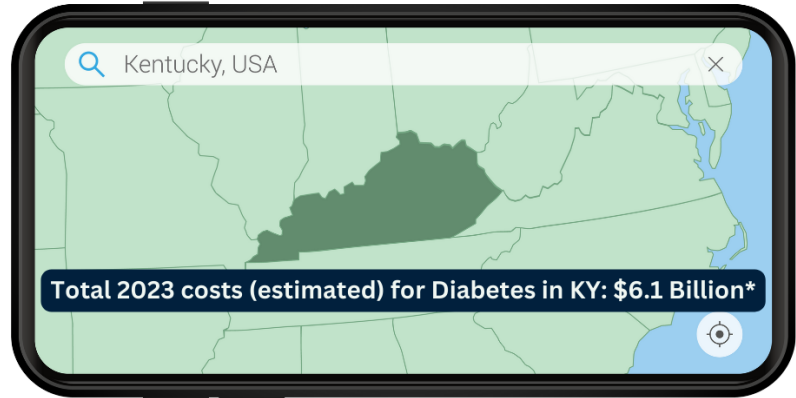
Contents

Acknowledgments.....	5
Legislation	5
Information	5
Citation.....	5
Executive Summary.....	6
Scope of Diabetes in Kentucky.....	7
Mortality	7
Figure 1. Kentucky resident diabetes mortality rate	7
Figure 2. Longitudinal trend lines of diabetes death rates, Kentucky vs. USA	8
Figure 3. Kentucky resident diabetes deaths categorized by race	8
Behavioral Risk Factor Survey	9
Table 1. KyBRFS diabetes prevalence in 2023 across demographic and socioeconomic groups	9
Figure 4. Diabetes prevalence by race, 2023	9
Kentucky Employees’ Health Plan (KEHP).....	10
Figure 5. Diabetes prevalence among KEHP members.....	10
Table 2. Comparison of episodes of chronic conditions within the KEHP population, 2023.....	10
Kentucky Department for Medicaid Services (DMS)	11
Figure 6. A comprehensive breakdown of diabetes risk factors by population segment	11
Table 3. Diabetes in Medicaid mothers, 2023	12
Figure 7. Understanding the burden of diabetes: insights across age groups and costs	12
Office of Data Analytics (ODA)	13
Table 4. Kentucky inpatient discharges for common chronic diseases, 2023	13
Table 5. Specific diabetes complication as principal diagnosis, 2023.....	13
Table 6. Maternal diabetes status and type of delivery; Kentucky hospital deliveries and live births, 2023	14
Table 7. Cardiovascular diseases hospitalization for those with vs. without diabetes, 2023.....	14
Goals and Actions to Improve Diabetes Outcomes	15
Measuring Progress	17
Figure 8. Five years of diabetes screening rates among diagnosed adults and youth	17
Table 8. Diabetes self-management education participation trends among adults and youth (2019–2023).....	17
Appendix A: Kentucky Statewide Diabetes Strategic Plan.....	18
Appendix B: Medicaid diabetes prevalence by county.....	19
Appendix C: KDPCP DSMES and NDPP Maps	20

Scope of Diabetes in Kentucky

13.7% of Adults
 Nearly **482,202**
 Kentuckians
 had Diabetes in 2023

Another **14%** HAVE
 PREDIABETES and are at risk
 for developing Diabetes.



**The projection of the total cost of diabetes in Kentucky from \$5.1 billion in 2017 to \$6.09 billion in 2023 was calculated using a compound annual growth rate (CAGR) formula with an assumed inflation rate of 3% per year for medical and productivity costs. This rate was applied uniformly over the six-year period.*



Medicaid
 adult*
 members had
 a diagnosis of
 diabetes in
 2023



KEHP
 adult*
 members had
 a diagnosis of
 diabetes in
 2023

*This difference in prevalence suggests a health disparity due to income.

*Adults are defined as individuals over the age of 19 for Medicaid and individuals 18 years and older for Kentucky Employees' Health Plan (KEHP)

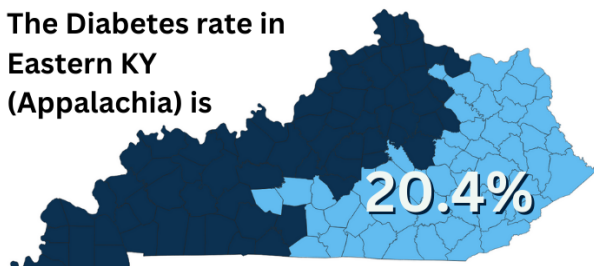
3,042 Children under the age of 19 covered by Medicaid

313 Children 17 years and younger covered by Kentucky's Employees' Health Plan.

HAVE A DIABETES DIAGNOSIS

WHERE YOU LIVE MATTERS.

The Diabetes rate in Eastern KY (Appalachia) is



Compared to 11.5% in non-Appalachia Kentucky

Data Sources: Kentucky Department for Public Health; Kentucky Employees' Health Plan; Kentucky Department for Medicaid Services; Kentucky Office of Data Analytics; American Diabetes Association Economic Costs Report

DIABETES IS COMMON DURING PREGNANCY

for pregnant women in 2023

12% of Medicaid beneficiaries

6.9% of KEHP Members

10.5% of all Kentuckians



Diabetes is SERIOUS.

Kentucky Has The **9th Highest** Mortality Rate From Diabetes in the U.S

2023 USA vs. KY Diabetes Mortality Rate: 29.3 vs. 22.6



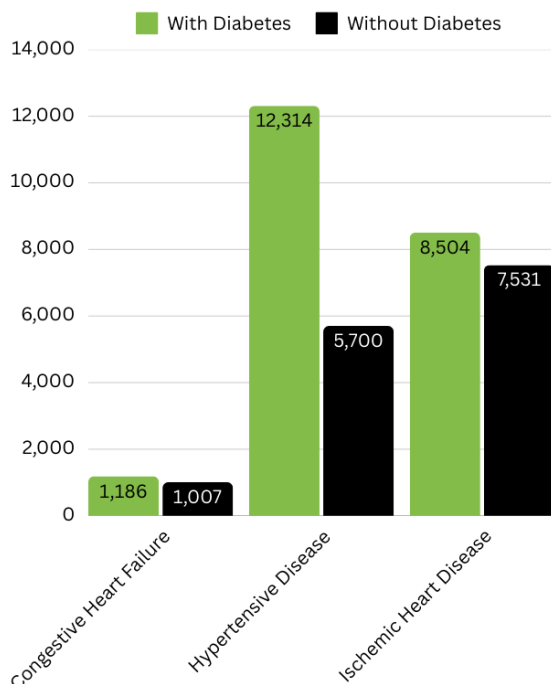
12,421 Kentuckians

visited the emergency department a total of **15,864 times** for Diabetes in 2023.

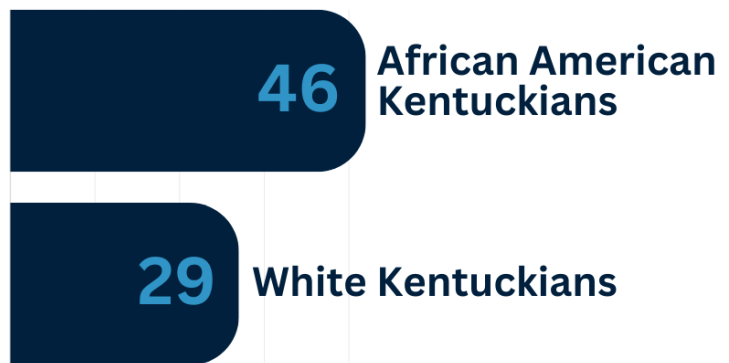
KENTUCKY INPATIENT HOSPITALIZATIONS TOTALLED \$672,929,148 IN 2023 FOR DIABETES COMPLICATIONS



CARDIOVASCULAR DISEASE RELATED HOSPITALIZATIONS (CHARGES) FOR THOSE WITH VS. WITHOUT DIABETES IN 2023



DEATH RATES ARE SUBSTANTIALLY HIGHER FOR AFRICAN AMERICANS



Age Adjusted Per 100,000 Population (2022 CDC data)

Data Sources: Kentucky Department for Public Health; Kentucky Employees' Health Plan; Kentucky Department for Medicaid Services; Kentucky Office of Data Analytics; Centers for Disease Control and Prevention

Acknowledgments

The following Team Kentucky organizations contributed to this report. Others not mentioned here include public health professionals who developed reports and compiled data for the source documents and reference materials used to compile this assessment.

CABINET FOR HEALTH AND FAMILY SERVICES

- Department for Medicaid Services (DMS)
- Department for Public Health (DPH)
- Office of Data Analytics (ODA)

PERSONNEL CABINET

- Department of Employee Insurance (Kentucky Employees' Health Plan [KEHP])

Legislation

KRS 211.752 requires that in odd numbered years, the Department for Public Health (DPH), the Department for Medicaid Services (DMS), the Office of Data Analytics (ODA), and the Personnel Cabinet – Department of Employee Insurance, Kentucky Employees' Health Plan (KEHP), collaborate in developing a report addressing the impact of diabetes on the commonwealth and plans to address the epidemic.

Information

The purpose of this biannual report is to summarize the collaborative efforts of the Department for Public Health (DPH), the Department for Medicaid Services (DMS), the Office of Data Analytics (ODA), and the Personnel Cabinet, Department of Employee Insurance, Kentucky Employees' Health Plan (KEHP), as we collectively strive to address the impact of diabetes on the citizens of the commonwealth of Kentucky.

It is the aim of stakeholders within these agencies to provide information to policy makers, communities, professional organizations, and anyone interested in the health of Kentuckians that will help to further our vision of equipping, empowering, and engaging all people in Kentucky to prevent and manage diabetes.

To access or download copies of this report, visit:

<https://chfs.ky.gov/agencies/dph/dpqi/cdpb/Pages/diabetes.aspx>

To request print copies of this report, please email the Kentucky Diabetes Prevention and Control Program at diabetes@ky.gov. For more information about the legislation requiring the Diabetes Report, visit <https://legislature.ky.gov>.

Citation

Suggested Citation: Kentucky Cabinet for Health and Family Services and Kentucky Personnel Cabinet. Kentucky Diabetes Report. Frankfort, KY: KY Cabinet for Health and Family Services, Department for Medicaid Services, Department for Public Health, Office of Data Analytics, and Kentucky Personnel Cabinet, Department of Employee Insurance, 2025.

Executive Summary

The 2025 Diabetes Report is a requirement of KRS 211.752, required in odd numbered years, that the Department for Public Health (DPH), the Department for Medicaid Services (DMS), the Office of Data Analytics (ODA) and the Personnel Cabinet – Department of Employee Insurance, Kentucky Employees’ Health Plan (KEHP), collaborate in developing a report addressing the impact on the commonwealth and plans to address the epidemic.

This seventh report was developed by a committee with representatives from each of the entities named above. While the information in this report discusses activities and plans specific to state government agencies, it is anticipated that policy makers, communities, professional organizations and anyone interested in the health of Kentuckians will use this information to improve diabetes outcomes in the commonwealth. Included in appendices is more information on data summarized in the report and strategies for diabetes self-management education and support.

GOALS AND ACTIONS FOR ADDRESSING DIABETES

The Beshear Administration and the Kentucky Department for Public Health have collaborated with multiple healthcare agencies, local health departments, state health department offices/programs, universities, organizations representing disadvantaged populations, and people with diabetes, to create the Kentucky Statewide Diabetes Strategic Plan (2024-2028). This strategic plan is a resource for healthcare and community leaders to engage in collective action that can have a larger impact than any single organization could achieve. It provides both broad and specific actions that can be taken in the areas of health equity, diabetes prevention, diabetes management, and system level quality improvement.

Goals include:

1. **Eliminate disparities** among individuals who have systematically experienced greater obstacles to health.
2. **Prevent or delay** the onset of prediabetes and type 2 diabetes.
3. **Improve health outcomes and quality of life** among all people with diabetes.
4. **Improve quality of care** for people with prediabetes and diabetes.

Furthermore, this plan takes a health-equity-in-all-policies approach that guides the goals and activities recommended. This is aided by specifically identifying priority populations that broadly experience greater health inequities/social determinants of health and are disproportionately affected by type 2 diabetes. Social determinants of health are factors that not only negatively affect the ability of certain population groups to access healthcare, but also seriously limit their ability to live a healthy lifestyle and make lifestyle changes. These include education level, income and the ability to earn a living wage, lack of social support, chronic stress, racial discrimination, transportation access, adequate housing, access to affordable and nutritious food and access to safe spaces for physical activity. Affecting these social determinants of health will require efforts by a wide variety of community, business, and political leaders across the commonwealth.

Goals and actions are consistent with current standards of care and scientific evidence, national and state guidelines and initiatives, chronic disease state planning efforts and federal grant guidance from the Centers for Disease Control and Prevention (CDC).

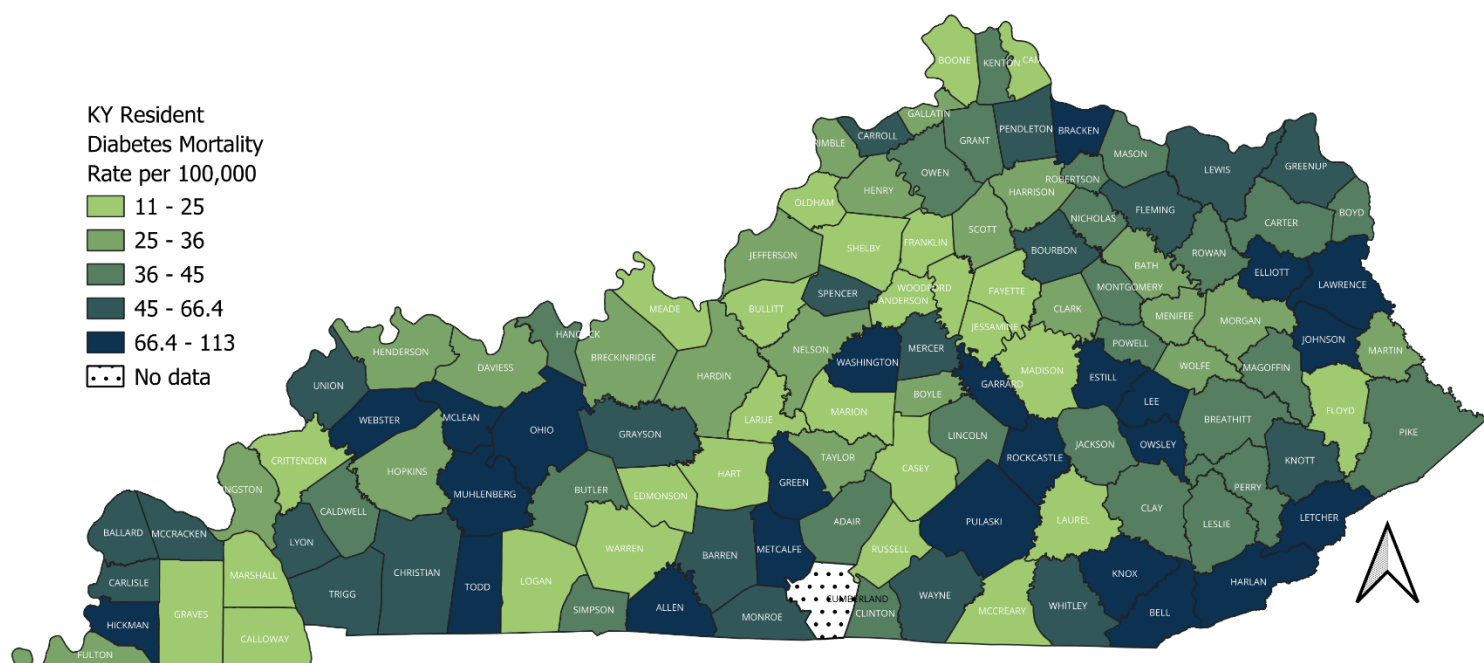
Scope of Diabetes in Kentucky

Mortality

The 2025 Diabetes Report is a collaborative effort by various state agencies to address the diabetes epidemic in Kentucky. This report highlights both the state's strategic response and the critical impact of diabetes across the Commonwealth. The state's health data indicates that diabetes is not only common but also a leading cause of death, primarily due to its complications like heart disease, stroke, kidney failure, and lower limb amputations. Thus, Kentucky faces a significant challenge with diabetes mortality, reflecting both a high prevalence of the disease and its severe, comorbid health consequences. **In 2023, diabetes was the 6th leading cause of death among Kentucky residents.**

Figure 1. Kentucky resident diabetes mortality rate

Note: Zero residents of Cumberland County had diabetes as their leading cause of death in 2023



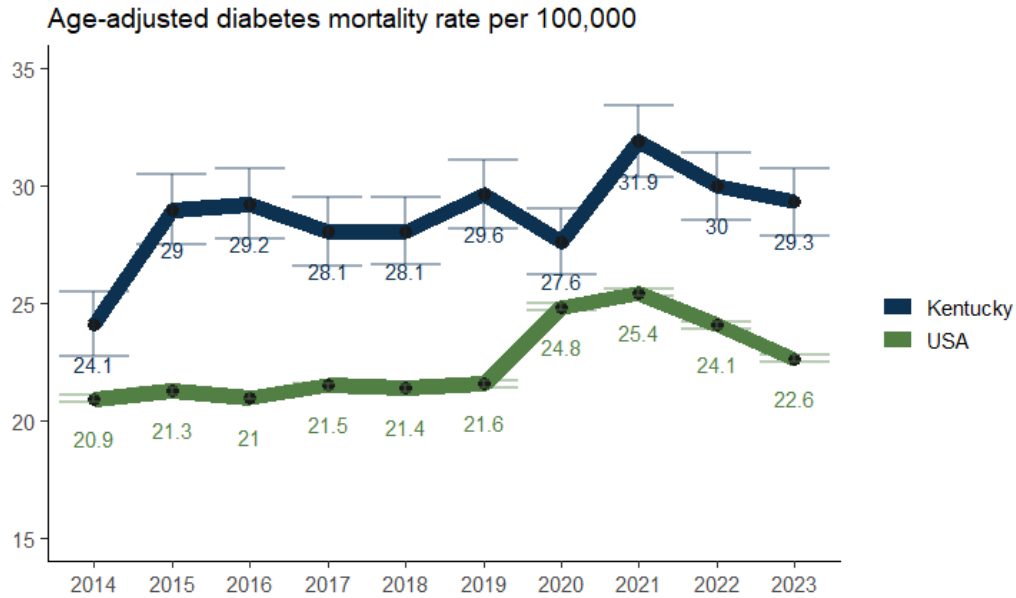
Data Source: Kentucky Office of Vital Statistics, 2023; ICD10 Codes for leading (underlying) cause of death: E10-E14

In 2023, the median diabetes mortality rate across Kentucky statewide was **40.7 per 100,000**. Within the state, there was a notable disparity between regions; the median diabetes mortality rate for Appalachian counties in Kentucky was higher at **44.2 per 100,000**, while for non-Appalachian counties, it was lower at **35.5 per 100,000**.

In Appalachia, diabetes mortality rates are significantly higher compared to both state and national averages, reflecting broader health disparities unique within this region. **Additionally, Appalachia has approximately 25% higher mortality rates than in non-Appalachian counties.** These elevated mortality rates highlight the urgent need for targeted interventions and resources in Appalachian communities. Factors contributing to this disparity include limited access to healthcare, higher rates of poverty, and lower levels of health literacy. Addressing these challenges requires a comprehensive strategy that focuses on prevention, early diagnosis, and improved management of diabetes, alongside efforts to reduce socioeconomic and geographic barriers to care.

Figure 2. Longitudinal trend lines of diabetes death rates, Kentucky vs. USA

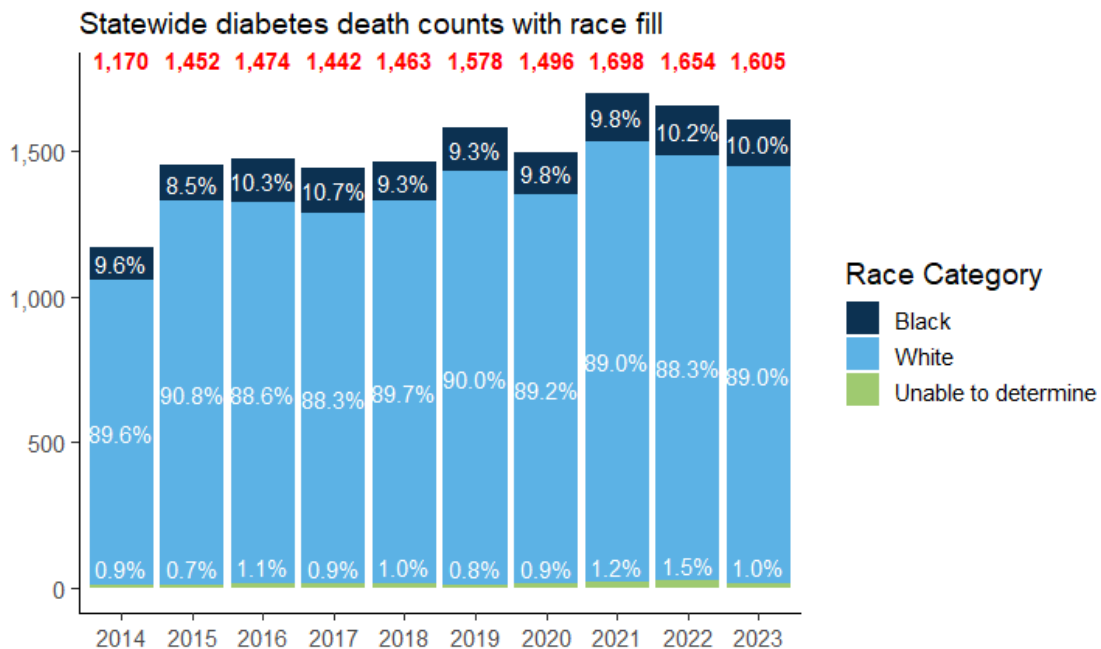
Note: Error bars show 95% confidence intervals. Data Sources: Kentucky Office of Vital Statistics, US Census, CDC Wonder. ICD10 Codes E10-E14 for leading (underlying) cause of death.



Over the last 10 years in Kentucky (2014 to 2023), the statewide vs. national diabetes mortality rate (age-adjusted), ranged from 11.4% to 39.2% greater. In 2023, Kentucky’s diabetes mortality rate was 29.7% greater than the national average.

Figure 3. Kentucky resident diabetes deaths categorized by race

Data Sources: Kentucky Office of Vital Statistics, 2014 to 2023



Behavioral Risk Factor Survey

The Kentucky Behavioral Risk Factor Survey (KyBRFS) is a critical public health tool designed to gather data on the health behaviors, chronic conditions, and preventative health practices of Kentucky residents through self-reported surveys. This state-specific survey provides valuable insights into health trends and disparities across diverse populations.

Table 1. KyBRFS diabetes prevalence in 2023 across demographic and socioeconomic groups

Category	Subcategory	% Has Diabetes	% Has Prediabetes	Estimated Count with Diabetes	Estimated Count with Prediabetes
Kentucky Adults		13.65%	14.10%	482,202	380,916
Sex	Male	12.11%	13.00%	207,746	170,344
	Female	15.11%	15.20%	274,457	210,572
Age	18-44	2.65%	8.34%	41,179	104,231
	45-54	18.80%	14.93%	102,798	62,152
	55-64	21.56%	19.60%	125,476	83,948
	65+	25.01%	21.50%	212,749	130,586
Education	<High School	23.50%	10.86%	100,875	32,196
	HS Grad	14.30%	15.50%	168,483	139,387
	Some post HS	11.09%	13.80%	117,410	115,095
	College Grad	11.14%	14.31%	94,913	94,238
Income	<\$25,000	17.90%	16.30%	105,705	72,123
	\$25,000-49,999	18.30%	17.10%	150,794	105,864
	\$50,000+	11.20%	14.90%	90,848	90,109

One notable focus of the KyBRFS is diabetes prevalence, a key metric reflecting the burden of this chronic disease in Kentucky communities. Diabetes prevalence affects a substantial proportion of the population and is often linked with risk factors such as obesity, physical inactivity and socioeconomic conditions.

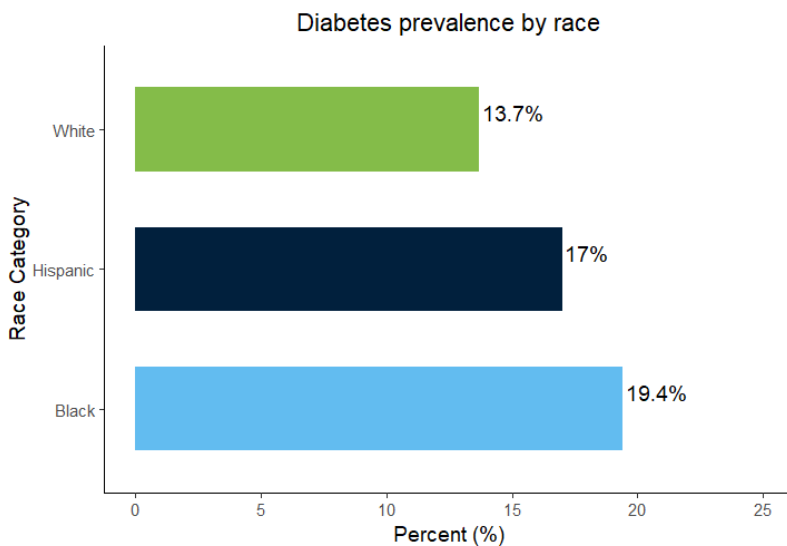


Figure 4. Diabetes prevalence by race, 2023

In Kentucky, significant health disparities exist between Black and White populations, often influenced by socioeconomic, environmental, and systemic factors. Additionally, Black Kentuckians face higher rates of chronic conditions, including diabetes and hypertension, compared to their White counterparts.

Prevalence of diabetes is the highest among Black Kentuckians at 19.4%, highlighting a significant health disparity.

In comparison, the prevalence rate is approximately 42% higher than that of White Kentuckians.

Kentucky Employees' Health Plan (KEHP)

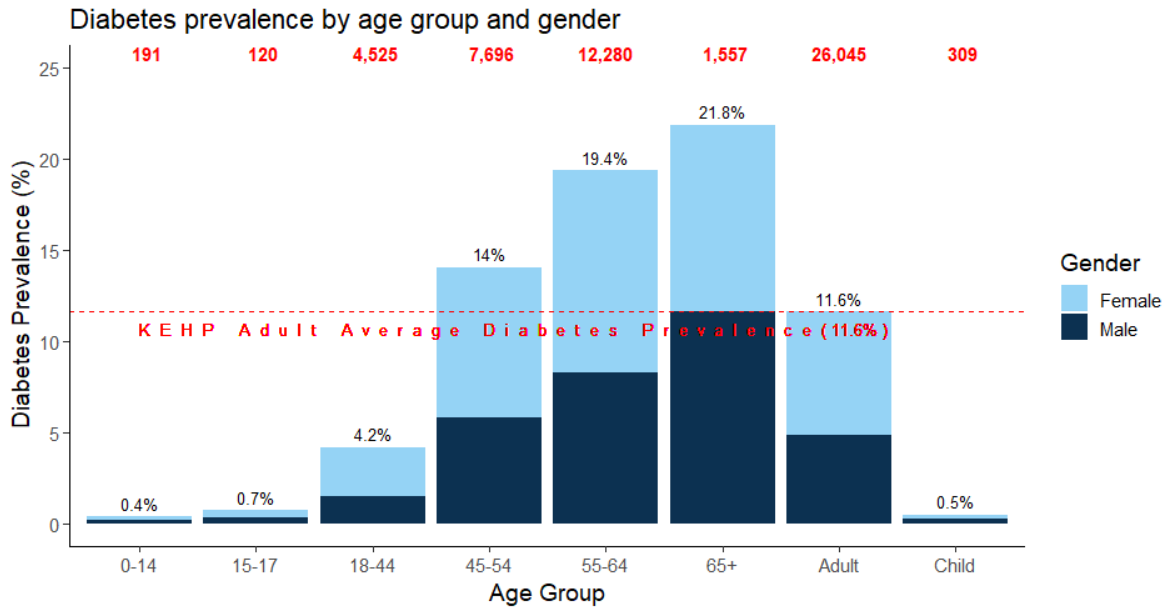


Figure 5. Diabetes prevalence among KEHP members

In Figure 5, across all age groups, there are significantly more female patients diagnosed with diabetes compared with male patients (ie KEHP members), potentially indicating a higher utilization rate among females.

Adults in the 55-64 years category represent the highest healthcare engagement for diabetes, as aggregate patients and members are the highest across all age groups (N=12,280), likely coalescing with the onset of chronic diseases and more frequent healthcare needs that are typical in late middle adulthood.

Table 2. Comparison of episodes of chronic conditions within the KEHP population, 2023

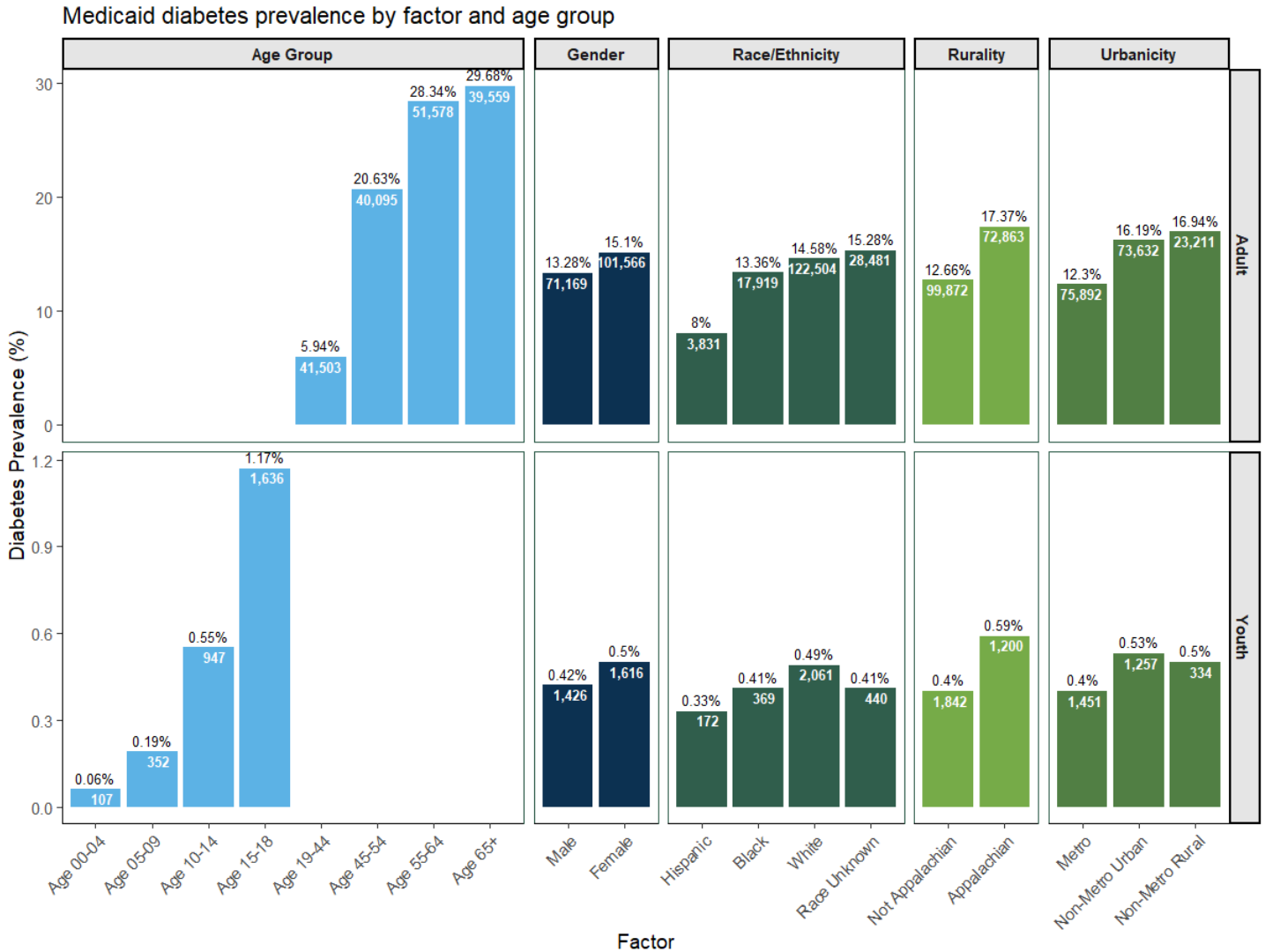
This comparison highlights not just the prevalence but also the economic implications of managing diabetes alongside other chronic conditions. The data suggests that within the KEHP population, there's a significant burden of chronic disease management, with diabetes being a central concern due to its widespread presence among both children and adults, coupled with its high treatment costs.

Children (total members: 65,083)				
Episode Summary Group	Patients	Net Payment	Net Pay Med	Net Pay Rx
Diabetes	309	\$2,411,175.36	\$791,720.54	\$1,619,454.82
Asthma	1,703	\$2,694,906.13	\$926,019.00	\$1,768,887.13
Chronic Back Pain	3,430	\$844,663.97	\$828,222.66	\$16,441.31
Cancer	163	\$5,487,510.05	\$5,083,635.59	\$403,874.46
COPD	20	\$28,867.79	\$25,873.72	\$2,994.07
Coronary Artery Disease	2	\$1,171.18	\$939.88	\$231.30
Hypertension, Essential	85	\$380,308.58	\$374,960.70	\$5,347.88
Osteoarthritis	51	\$147,668.77	\$145,292.54	\$2,376.23
Overweight/Obesity	261	\$483,984.19	\$276,718.66	\$207,265.53
Adults (total members: 224,322)				
Episode Summary Group	Patients	Net Payment	Net Pay Med	Net Pay Rx
Diabetes	26,064	\$178,841,274.53	\$28,253,130.34	\$150,588,144.19
Asthma	4,783	\$16,360,452.39	\$3,742,390.18	\$12,618,062.21
Chronic Back Pain	39,624	\$47,197,710.69	\$46,148,203.39	\$1,049,507.30
Cancer	16,272	\$165,471,877.64	\$134,757,242.16	\$30,714,635.48
COPD	1,655	\$5,532,560.15	\$2,752,605.02	\$2,779,955.13
Congestive Heart Failure	471	\$2,970,869.13	\$1,003,872.69	\$1,966,996.44
Coronary Artery Disease	4,803	\$47,178,664.71	\$42,443,524.85	\$4,735,139.86
Hypertension, Essential	36,291	\$37,677,611.58	\$25,169,092.84	\$12,508,518.74
Osteoarthritis	14,904	\$68,322,630.89	\$64,719,783.18	\$3,602,847.71
Overweight/Obesity	16,217	\$61,689,976.63	\$17,099,153.94	\$44,590,822.69

Kentucky Department for Medicaid Services (DMS)

Gaining a comprehensive understanding of diabetes within Kentucky's population is vital for shaping effective health policies and ensuring appropriate resource distribution. This understanding becomes particularly important when considering the impact of diabetes on different age groups within the Medicaid system. In 2023, among the Medicaid enrolled members, there were 1,208,565 adults, of which 172,735 had diabetes, representing a prevalence of 14.29%, and 667,695 youth Medicaid members, of which 3,042 had diabetes, indicating a prevalence of 0.46% for non-gestational diabetes.

Figure 6. A comprehensive breakdown of diabetes risk factors by population segment



Among adults, diabetes prevalence is slightly higher among females (15.10%) compared to males (13.28%), despite a smaller overall enrollment for males; prevalence is highest in non-metro rural areas (16.94%), followed by non-metro urban areas (16.19%), and lowest in metro areas (12.30%). The highest absolute number of enrollees with diabetes occurs among the 55–64 age group (51,578 individuals). Black individuals, while comprising a smaller total enrollment (134,114), still show a significant number of diabetes cases (17,919). Diabetes prevalence is highest in non-metro rural areas (16.94%), followed by non-metro urban areas (16.19%), and lowest in metro areas (12.30%).

Table 3. Diabetes in Medicaid mothers, 2023

Data Source: Medicaid Data, Department for Medicaid Services. Medicaid Beneficiaries who have a claim using the live birth DRG codes. Gestational diabetes is determined based on look back period of 39 weeks from live birth and pre-existing diabetes is determined based on look back period of 2 years from live birth.

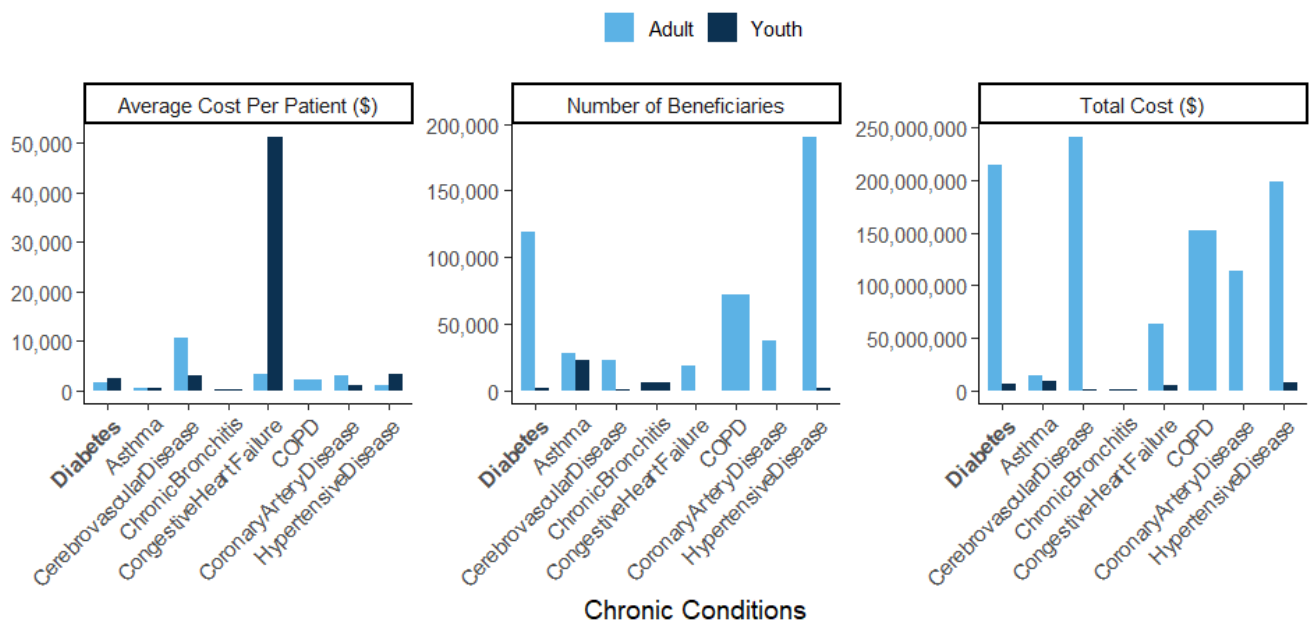
Type of Delivery	Pre-existing Diabetes	Gestational Diabetes	No Diabetes Diagnosis Indicated	Total Delivery Stays
Number of Delivery Stays	820	3,233	23,163	27,216
(% of all delivery stays by type)	3%	12%	85%	100%
Vaginal	315	1,744	15,710	17,769
(% of deliveries by type)	38%	54%	68%	65%
C-Section	505	1,489	7,453	9,447
(% of deliveries by type)	62%	46%	32%	35%

Deliveries involving pre-existing diabetes make up 3% of all stays. Gestational diabetes accounts for 12%, while 85% of deliveries involve no diabetes diagnosis. Regarding delivery volume, most delivery stays are from patients without a diabetes diagnosis (23,163 out of 27,216 total stays). Patients with gestational diabetes represent the second-largest group, with over 3,200 delivery stays. C-section rates are significantly higher for pre-existing diabetes (62%) compared to gestational diabetes (46%) and no diabetes (32%). Vaginal deliveries are more common across all groups but are proportionally lower among patients with pre-existing diabetes (38%).

Figure 7. Understanding the burden of diabetes: insights across age groups and costs

Source: Medicaid Data, Department for Medicaid Services Beneficiaries often have multiple diagnosis codes on the same claim, costs are assigned to the disease indicated in the first position on each claim. There is no "total" line because individual beneficiaries are counted more than once in this table if they have any of the conditions listed. Prescription costs are not included in this table. Congestive Heart failure and Coronary Artery Disease are not included in this table due to low prevalence among children.

Comparison of chronic conditions between adults and youth



Diabetes in adults incurs a total cost of \$213.5M, while in youth, the total cost is \$6.2M.

Office of Data Analytics (ODA)

To illustrate the burden of diabetes on Kentucky's healthcare system, the Health Facility and Services Data (HFSD) from ODA helps to provide a more comprehensive picture. In addition to being a leading cause of mortality, diabetes imposes a heavy strain on healthcare systems due to frequent hospitalizations, high treatment expenses, and associated complications.

Table 4. Kentucky inpatient discharges for common chronic diseases, 2023

Note: Charges are higher than the final cost negotiated with insurers

Primary Diagnosis	Discharges	Individuals	Average Charges*	Total Charges*
Asthma (Adult)	545	500	\$32,361	\$17,636,499
Asthma (Childhood)	476	442	\$21,401	\$10,186,808
Heart Failure	2,193	1,934	\$55,873	\$122,528,846
COPD	6,591	5,494	\$37,949	\$250,121,196
Diabetes	13,588	10,961	\$49,524	\$672,929,148
Coronary Artery Disease	14,615	13,196	\$122,360	\$1,788,288,500
Hypertension	19,229	14,899	\$59,328	\$1,140,825,545

The health burden of diabetes is reflected not only in the number of discharges, but also in its impact on healthcare utilization and costs. For example, diabetes accounted for 13,588 discharges and 10,961 unique individuals, making it the second-highest condition in terms of discharges and individuals after hypertension. Diabetes incurs a total cost of \$672.9 million, making it the third-highest total expenditure after coronary artery disease and hypertension. This highlights the substantial economic impact of managing diabetes compared to other chronic conditions like asthma and COPD. At \$49,524 per discharge, diabetes ranks in the mid-tier of average costs compared to other conditions. It is higher than asthma (adult: \$32,361; childhood: \$21,401) and COPD (\$37,949). However, it is lower than coronary artery disease (\$122,360), hypertension (\$59,328), and heart failure (\$55,873).

Table 5. Specific diabetes complication as principal diagnosis, 2023

Note: Codes: ICD-10 E10.x-E13.x; ICD-9 250.x, 648.8x, 648.0x

Primary Diagnosis	Total Discharges	Total Individuals	Percent of Discharges	Avg. Length of Stay (days)	Avg. Charge	Total Charges
Other Specified Manifestations	6,859	6103	50.5%	5.5	\$44,003	\$301,818,975
Ketoacidosis (DKA)	3,675	2667	27.0%	3.8	\$36,102	\$132,673,343
With Peripheral Circulatory Disorders	1,745	1536	12.8%	8.9	\$107,646	\$187,842,867
With Neurological Manifestations	481	408	3.5%	4.8	\$48,102	\$23,137,054
Unspecified Complications	406	404	3.0%	2.6	\$20,751	\$8,425,040
Hyperosmolarity	291	283	2.1%	4.4	\$41,205	\$11,990,698
With Renal Manifestations	111	109	0.8%	4.8	\$58,823	\$6,529,313
Without Mention of Complication	12	12	0.1%	3.2	\$15,397	\$184,766
With Ophthalmic Manifestations	*	*	*	5.6	\$40,886	\$327,092
Total	*	*	100.0%	4.8	\$45,880	\$672,929,148

"Other specified manifestations" of diabetes refers to a broad range of complications that can arise from diabetes but do not fall under more specific categories such as ketoacidosis, circulatory disorders, or neurological and renal manifestations. It includes hypoglycemia, arthropathy, skin condition and oral complications. This category accounted for total billed charges of \$301,818,975 – the most significant contributor to the overall financial burden statewide for principally diagnosed diabetes.

The following data provides an in-depth look at the intersection of diabetes with maternal health and cardiovascular diseases in Kentucky, offering insights into the healthcare challenges and economic impacts associated with these conditions.

Table 6. Maternal diabetes status and type of delivery; Kentucky hospital deliveries and live births, 2023

Note(s): Maternal Diabetes Status: Gestational Diabetes ICD-10 Codes O244x; Pre-Existing Diabetes ICD-10 Codes O240x-O243x

Type of Delivery	Pre-existing Diabetes	Gestational Diabetes	Deliveries without Diabetes	Total Deliveries
All Deliveries	128	4,982	42,420	47,530
(% of all deliveries)	0.3%	10.5%	89.2%	100.0%
Vaginal Deliveries	48	2,681	28,152	30,881
(% of deliveries by diabetes type)	37.5%	53.8%	66.4%	65.0%
C-Section Deliveries	80	2,301	14,268	16,649
(% of deliveries by diabetes type)	62.5%	46.2%	33.6%	35.0%

The elevated C-section rates for both pre-existing and gestational diabetes reflect the challenges in managing these pregnancies. Pre-existing diabetes is particularly associated with more severe risks, which may lead to higher surgical intervention rates. Approximately 10%, or 4,982 deliveries, occurred where the maternal diabetes status was “gestational diabetes.” Regarding the importance of effective gestational diabetes management during pregnancy, it can help reduce the need for C-sections and improve outcomes. Last, pre-existing diabetes has a low prevalence (0.3% of all deliveries), but its high C-section rate underscores the complexity of managing this condition during pregnancy.

Table 7. Cardiovascular diseases hospitalization for those with vs. without diabetes, 2023

Primary Diagnosis	With Diabetes			Without Diabetes			% of Discharges w/ diabetes
	Total Discharges	Total Individuals	Total Charges	Total Discharges	Total Individuals	Total Charges	
Cerebrovascular Disease	7,899	6,158	\$660,371,482	8,448	6,875	\$771,725,629	48%
Congestive Heart Failure	1,186	1,034	\$67,503,190	1,007	900	\$55,025,656	54%
Hypertensive Disease	12,314	9,199	\$745,806,301	6,915	5,700	\$395,019,244	64%
Ischemic Heart Disease	8,504	7,496	\$1,050,143,294	7,531	7,000	\$846,444,304	53%
Total	29,903	23,887	\$2,523,824,267	23,901	20,475	\$2,068,214,833	56%

The above data sheds light on the significant relationship between diabetes and cardiovascular health in Kentucky, illustrating how diabetes exacerbates the risk and cost of heart-related conditions. For example, the most common complication of uncontrolled diabetes is cardiovascular disease. Thus, the combination of diabetes with high blood pressure and/or high cholesterol is tied to increased rates of cardiovascular diseases such as heart attacks and stroke. In 2023, hospitalizations due to cardiovascular and cerebrovascular diseases resulted in total charges greater than \$2 billion in Kentucky. Further, more than half of all hospitalizations for a primary diagnosis of hypertensive disease (64%) include a secondary diagnosis of diabetes. Total charges for patients with diabetes (\$2.52 billion) are 22% higher than for those without diabetes (\$2.07 billion), emphasizing the financial burden associated with diabetes-related care. Across all primary diagnoses, patients with diabetes account for **56% of total discharges**, highlighting the significant impact of diabetes as a comorbidity.

Goals and Actions to Improve Diabetes Outcomes

The **National Diabetes Prevention Program (NDPP)**, developed by the CDC, is an evidence-based lifestyle intervention designed to prevent or delay type 2 diabetes through healthy eating, physical activity, and weight loss. In Kentucky, participation in the NDPP has grown significantly, with enrollment increasing from 18,725 in October 2022 to 21,148 by January 2024. Kentucky ranks 12th nationally for NDPP participation in 2024. The program is offered in multiple formats, including in-person, distance learning, online (non-live), and hybrid models, providing flexibility to participants. Comprehensive resources, including schedules and provider details, are available on the Kentucky Diabetes Prevention and Control Program (KDPCP) website.

The **Diabetes Self-Management Education and Support (DSMES)** program empowers individuals with diabetes to effectively manage their condition and reduce the risk of serious complications such as cardiovascular disease, kidney failure, and amputations. Kentucky's Healthy Living with Diabetes (HLWD) DSMES program participants often cite multiple social determinants of health (SDOH) problems, such as food insecurity, housing, transportation, and caregiver support, which often act as barriers to care. Diabetes educators work to overcome these barriers, resulting in an average A1C reduction of 0.8% between October 2023 and September 2024. Participants during this same time frame also achieved between 40-79% (median=71%) of behavioral outcome goals (nutrition, physical activity, medication taking, monitoring, problem solving, reducing risks, and healthy coping). DSMES is offered through a variety of modalities, including in-person, telehealth, telephonic sessions, and facilitated remote groups, ensuring accessibility to participants statewide. Information on HLWD DSMES classes and schedules can also be found on the KDPCP website.

Kentucky Diabetes Prevention and Control Program strives to provide resources on its website, aimed at both the public and healthcare providers. An example of this is informative booklets that provide evidence-based but plain language information around diabetes basics, prediabetes basics, nutrition basics, diabetes in pregnancy, and more. KDPCP provides an up-to-date schedule of series for both DSMES and NDPP, along with modalities and contact information for meeting organizers (See Appendix C). This is a wonderful resource for both people looking for help with their diabetes or prediabetes, but also for healthcare and community leaders that are seeking information.

<https://www.chfs.ky.gov/agencies/dph/dpqi/cdpb/Pages/diabetes.aspx>

Kentucky has made strides in improving care delivery through Learning Collaboratives, which focus on enhancing clinical practices and health outcomes. The **Prediabetes Learning Collaborative (PLC)** worked with 38 providers across nine locations to improve prediabetes screening and referrals, identifying over 300 individuals with prediabetes and referring 122 to the NDPP. Similarly, the **Diabetes Learning Collaborative (DLC)** engaged 62 providers across 13 locations, improving A1C control by 34 points in 2023 and 51 points by mid-2024. These initiatives underscore Kentucky's commitment to using data-driven approaches and community partnerships to enhance diabetes prevention and care.

Medicaid and the Kentucky Employees' Health Plan (KEHP) also play vital roles in expanding access to diabetes-related services. Medicaid covers DSMES services for eligible members, offering value-added benefits such as remote monitoring devices, blood pressure cuffs, and healthy meal assistance. In July 2024, Medicaid, in collaboration with the Kentucky Department for Public Health, expanded eligibility for Continuous Glucose Monitors (CGMs) to include members with gestational diabetes and severe hypoglycemia through an initiative called the Continuous Glucose Monitor Accelerator Grant. This project aimed to address health inequities around utilization of CGMs in Medicaid beneficiaries and ensure that licensed diabetes educators were able to provide the necessary training around diabetes management for members. KYNECT is another resource that can help people access a wide range of resources, benefits, and assistance programs (kynect.ky.gov/resources).

Kentucky Medicaid initiated a Value Based Purchasing Plan with the Managed Care Organizations (MCO) in 2024, with one of the measures related to diabetes. This measure holds the MCOs accountable to increase members in their enrollment who have HbA1c < 8. The MCOs have a portion of their capitation rate withheld and it is only paid when a core set of measures are met by the Managed Care Organization.

KEHP, in partnership with Anthem, offers Lark, a diabetes prevention program at no cost to members. Lark provides 24/7 coaching for weight loss, stress management, and healthy lifestyle habits. DSMES services are also provided to KEHP members with diabetes at no additional cost, along with reduced costs for diabetes prescriptions and supplies. KEHP members can access a wide variety of programs (health, dental, vision, and life insurance plan options; wellness support opportunities, disease management care planning, and more), in multiple ways. The Benefit Selection Guide lists contact information for all KEHP vendors. Additionally, members can access this material through the website kehp.ky.gov. Castlight is the Kentucky Employees' Health Plan new wellness partner. Members earn insurance premium discounts and other wellness rewards by completing a LivingWell Health Assessment and participating in health and wellness activities.

Collaboration remains at the heart of Kentucky's diabetes prevention efforts. The Kentucky Diabetes Network (KDN), celebrating 25 years in 2023, fosters connections among healthcare providers, community organizations, and industry leaders to improve diabetes care statewide. Appalshop has expanded outreach to underserved populations in Appalachian Kentucky through a story telling approach and has shared information around diabetes prevention and management. The Kentuckiana Health Collaborative (KHC) utilizes a multi-sector collaboration approach amongst healthcare providers, healthcare purchasers (employers), and healthcare payers (insurers) to create opportunities for innovative workable solutions to improve healthcare quality, cost and experience. KHC has convened its stakeholders in recent years to discuss ways to improve the quality of care for people with diabetes. The Diabetes Training and Technical Assistance Center (DTTAC) at Emory University provides strategic technical assistance and support for diabetes prevention and control activities through the DPH. This includes training for National Diabetes Prevention Program lifestyle coaches, health equity trainings, facilitation of statewide strategic planning work, and other advanced custom trainings.

Looking ahead, Kentucky is poised to make further progress through the Kentucky Diabetes Collaborative (2024–2028). This initiative engages healthcare leaders, universities, and organizations to implement strategies from the Kentucky Statewide Diabetes Strategic Plan. Goal areas include diabetes prevention, diabetes management, health equity, and system level quality of care improvements (see Appendix A). In 2024-2026 KDPH will work with Appalshop and KHC to create increased awareness and quality improvement around diabetes-related eye and kidney health. Future goals include expanding team-based care models, integrating Certified Community Health Workers (CCHWs) into diabetes care, and leveraging bi-directional e-referral systems to improve care coordination.

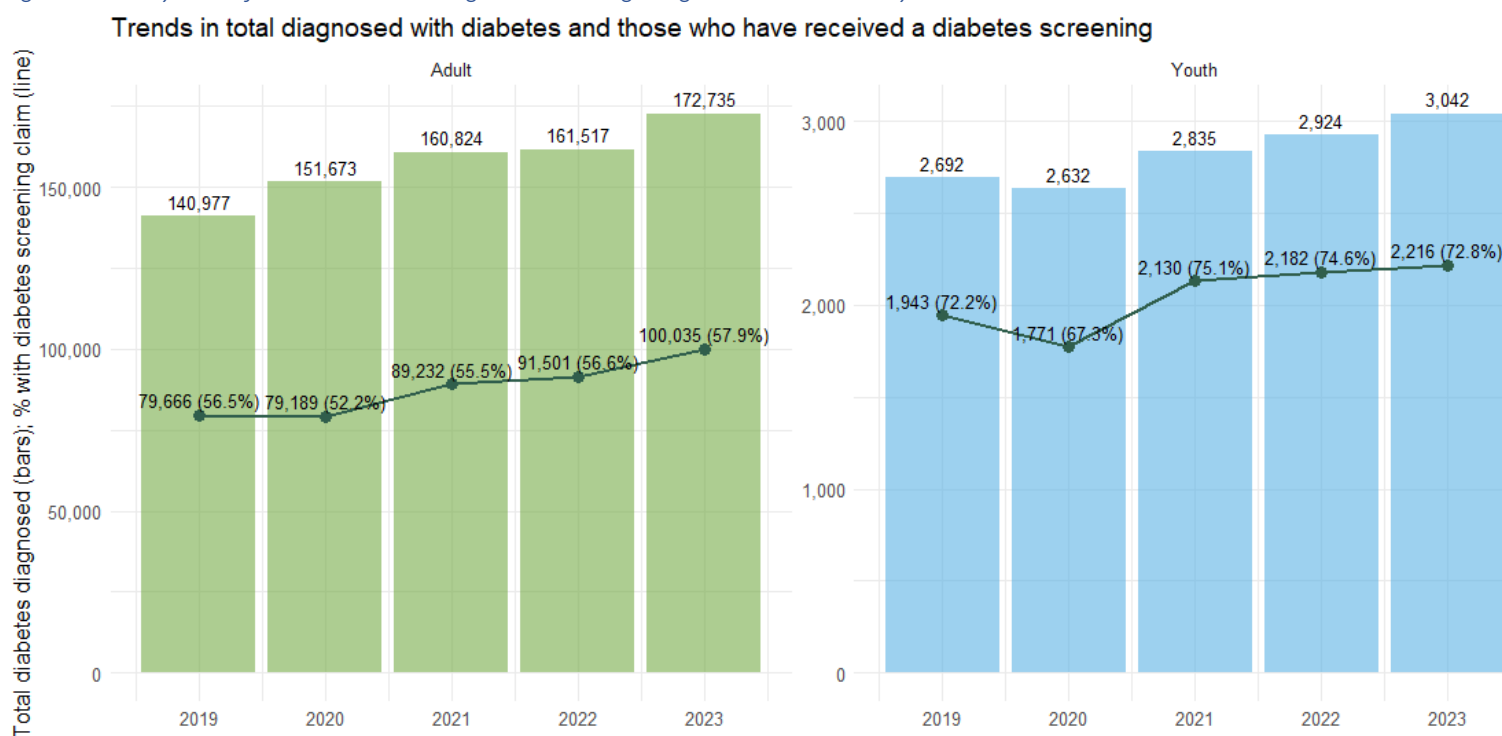
With these efforts, Team Kentucky continues to demonstrate its commitment to reducing the burden of diabetes and improving the health of its residents.

Measuring Progress

The below data provides a snapshot of the diabetes landscape in Kentucky, highlighting both progress in screening and the ongoing challenge of managing an increasing number of diabetes cases.

Increasing Diagnoses: From 2019 to 2023, the number of adults diagnosed with diabetes increased from 140,977 to 172,735, marking a significant rise. The youth consistently have a higher screening rate compared to adults. This might be due to mandatory health checks in schools or pediatric clinics being more vigilant about early detection.

Figure 8. Five years of diabetes screening rates among diagnosed adults and youth



For adults, the total diagnosed cases increased steadily from 140,977 in 2019 to 172,735 in 2023—a 22.5% increase over five years. Among youth, diagnosed cases also grew from 2,692 in 2019 to 3,042 in 2023—a 13% increase, indicating a slower but significant rise. The number of individuals screened has increased for both groups, in adults from 79,666 in 2019 to 100,035 in 2023—an overall increase of 25.5%, and in youth, from 1,943 in 2019 to 2,216 in 2023, a 14% increase.

Table 8. Diabetes self-management education participation trends among adults and youth (2019–2023)

	# w/ Diabetes (Adult)	# Participating in DSME (Adult)	# Participating in DSME (Adult)	# w/ Diabetes (Youth)	# Participating in DSME (Youth)	% of Total (Youth)
2019	140,977	647	0.46%	2,692	142	5.27%
2020	151,673	505	0.33%	2,632	127	4.83%
2021	160,824	710	0.44%	2,835	232	8.18%
2022	161,517	881	0.55%	2,924	250	8.55%
2023	172,735	718	0.42%	3,042	208	6.84%

Appendix A: Kentucky Statewide Diabetes Strategic Plan

Kentucky Statewide Diabetes Strategic Plan, 2024-2028



Kentucky Public Health
PROTECT. PROMOTE. PREVENT.

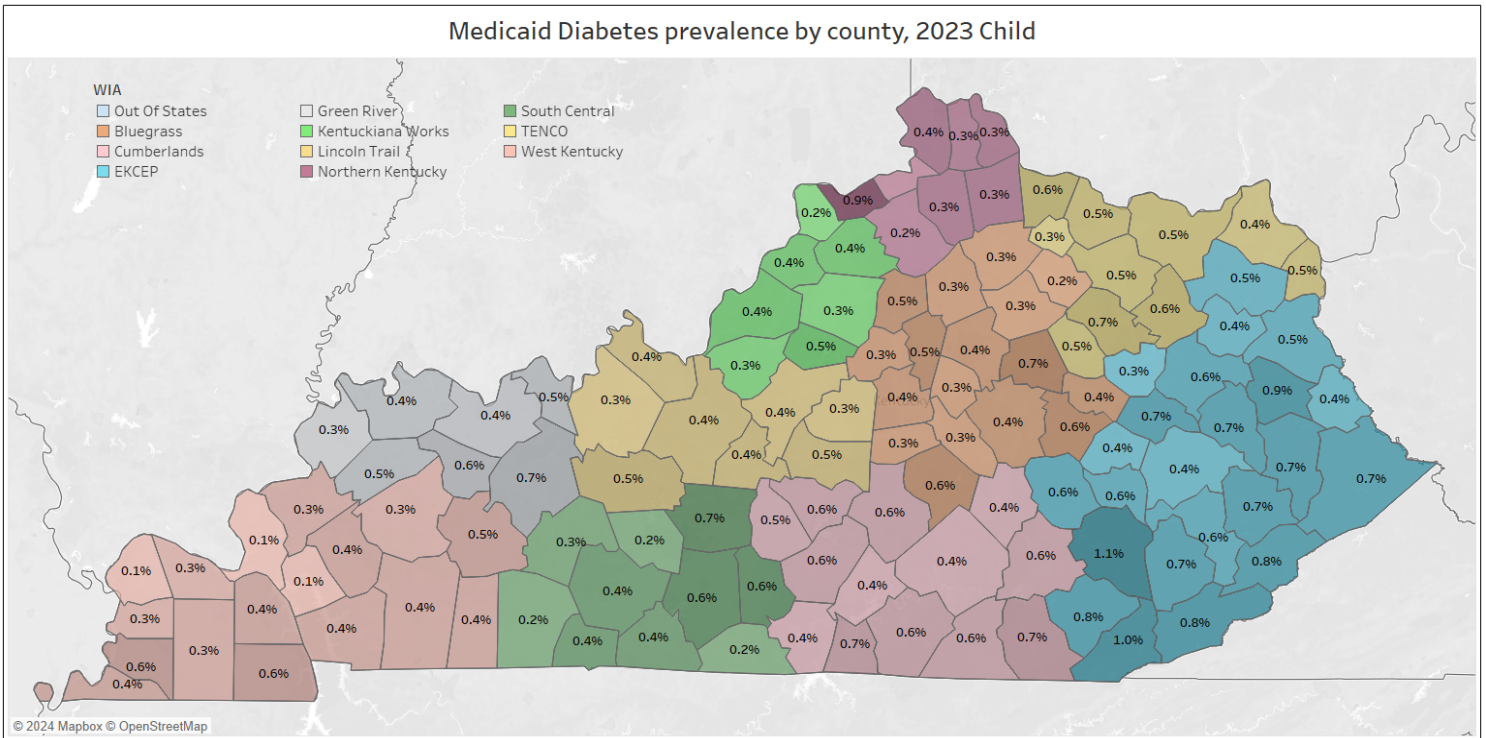
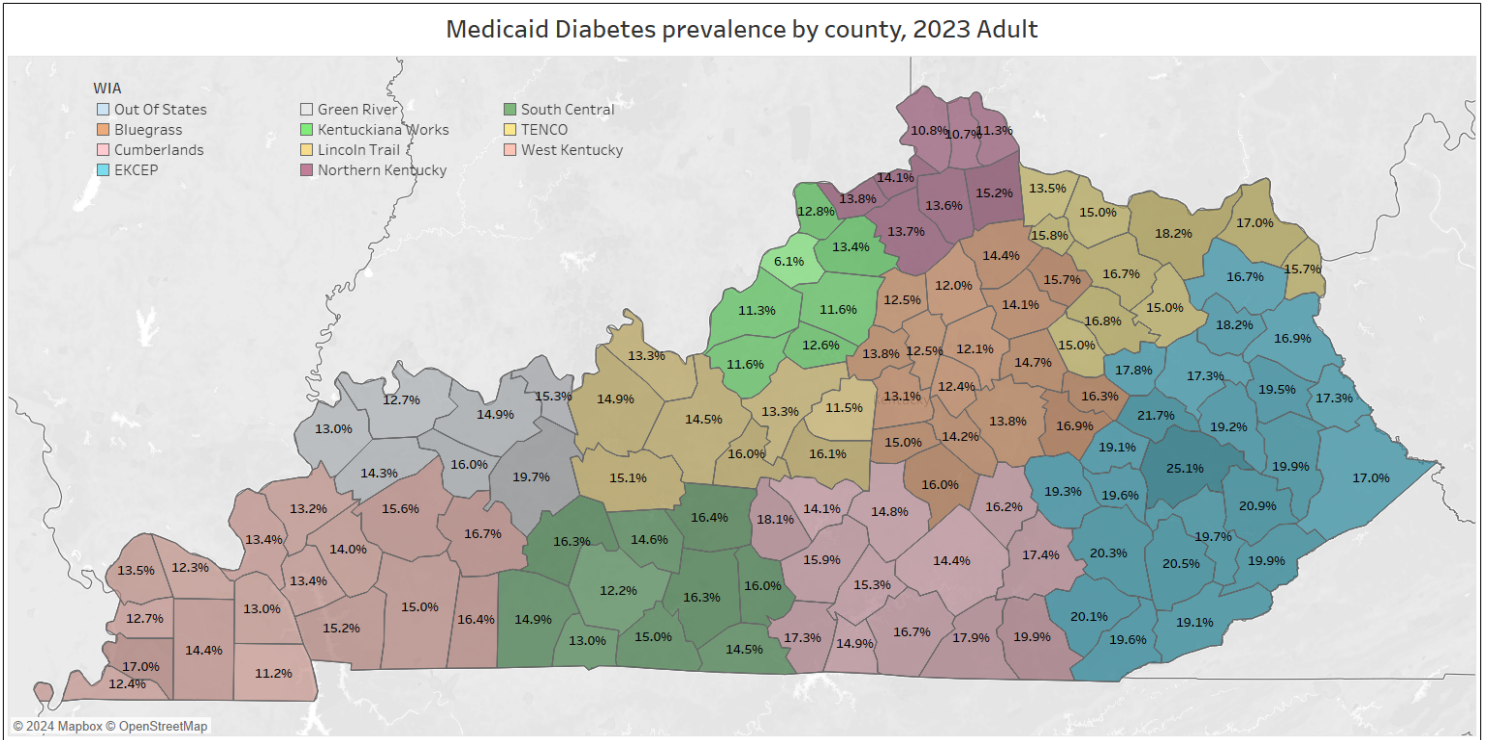
VISION: All people in Kentucky are equipped, empowered, and engaged to prevent and manage diabetes.

MISSION: To improve health for people living with, or at risk for, diabetes through community engagement, education, capacity building, policy, advocacy, and collaboration.

GUIDING PRINCIPLES: Focus on health equity • Intentionally engage with communities • Pursue a collaborative approach • Use data to drive decision-making • Choose evidence-based strategies

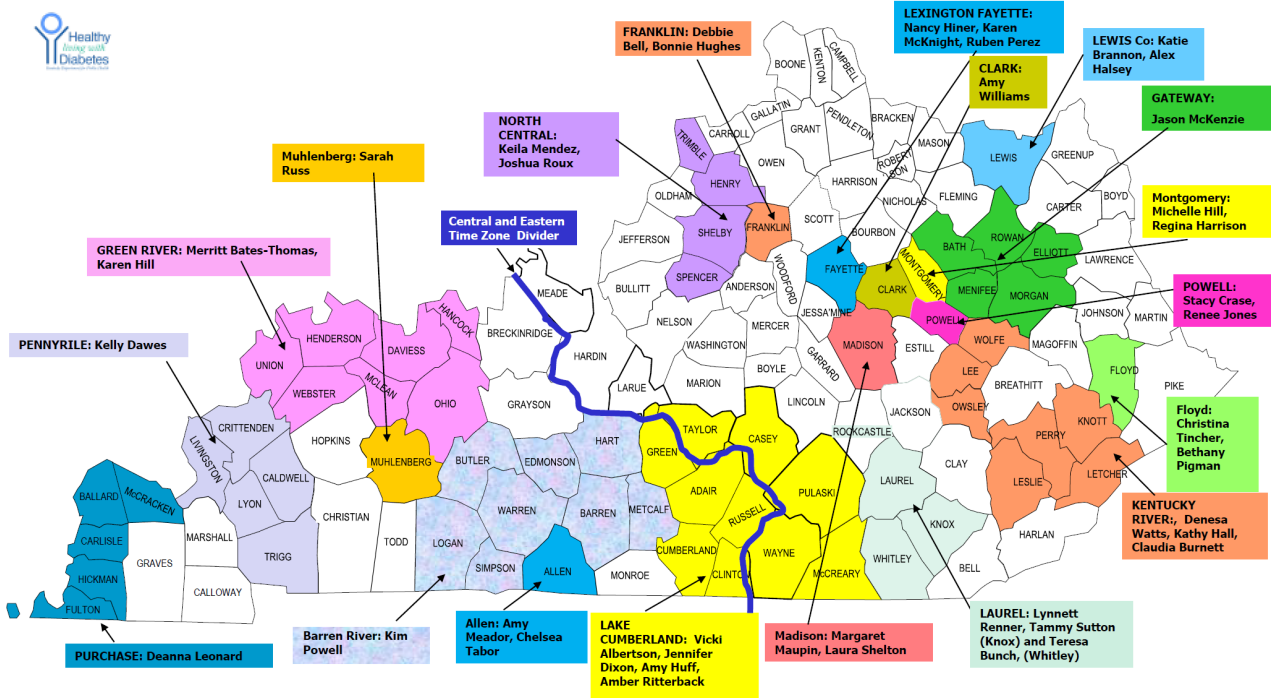
GOALS (FOCUS ON)	Eliminate disparities among individuals who have systemically experienced greater obstacles to health	Prevent or delay the onset of prediabetes and type 2 diabetes	Improve health outcomes and quality of life among all people with diabetes	Improve quality of care for people with prediabetes and diabetes
OBJECTIVES (MEASURE)	<ul style="list-style-type: none"> 1 Maintain or decrease the percentage of adults living in Eastern Kentucky who have diabetes at 16.2%. 2 Maintain or decrease the percentage of adults with disabilities who have diabetes at 18%. 3 Create or modify at least 5 Diabetes Self-Management Education and Support (DSMES) programs that are tailored to priority populations. 4 Identify at least 3 gaps in health equity data. 5 Increase the average Food Environment Index score in the Appalachian counties from 6.55 to 7.11. 	<ul style="list-style-type: none"> 1 Increase percentage of Black/African American adults who are aware they have prediabetes from 15.2% to Y%. 2 Increase the number of participants enrolled in Diabetes Prevention Program (DPP) from 1334 to 3500, with at least X% of participants identifying as Black/African American. 3 Increase the number of CDC-recognized DPP cohorts in Kentucky from X to Y. 4 Adopt at least 2 new statewide policies related to physical activity and nutrition. 	<ul style="list-style-type: none"> 1 Increase the statewide average percentage of adults enrolled in a Medicaid MCO plan who have blood pressure control from 57.31% to Y%. 2 Decrease the statewide average percentage of adults enrolled in a Medicaid MCO plan who have poorly controlled A1C scores from 44.6% to Y. 3 Increase the number of DSMES programs provided from 350 to Y. 4 Increase the percentage of adult Medicaid beneficiaries who use DSMES benefit from 0.4% to Y. 5 Increase the number of individuals with diabetes participating in accredited or recognized DSMES programs annually from X to Y, with at least X% of participants identifying as Black/African American. 	<ul style="list-style-type: none"> 1 Increase the number of referrals to the DPP among people living in Appalachia from 375 to Y. 2 Increase the number of referrals to DSMES among people living in Appalachia from 630 to Y. 3 Provide diabetes prevention and management training to at least 150 Community Health Workers. 4 Disseminate at least 3 best practice alerts. 5 Develop at least 3 quality improvement recommendations.
STRATEGIES (WORK ON)	<ul style="list-style-type: none"> A. Review existing sources to identify gaps in health equity-related data B. Promote diabetes programs, services, and resources tailored to underserved populations C. Recruit workers in healthcare and community that represent the populations they serve D. Provide equity and diversity training for healthcare and public health workforce E. Evaluate and advocate for policy, systems, and environmental changes that address social determinants of health impacting diabetes 	<ul style="list-style-type: none"> A. Increase referrals to DPP and other lifestyle change programs B. Expand program offerings for DPP and other lifestyle change programs C. Increase access to nutritious foods and safe accessible physical activity opportunities 	<ul style="list-style-type: none"> A. Increase referrals to DSMES programs B. Expand offerings of diabetes management programs and services C. Equip people with diabetes and their support networks with resources for diabetes self-management 	<ul style="list-style-type: none"> A. Share best and promising practices related to diabetes and prediabetes B. Improve capacity for, and use of, diabetes surveillance systems and Health Information (HIT) systems C. Promote interdisciplinary patient care across community and healthcare sectors D. Expand the diabetes workforce
<p>PRIORITY POPULATIONS: <i>People who live in:</i> Appalachia/Eastern Kentucky; Rural Areas • <i>People who have:</i> Lower incomes; Lower education levels; Disabilities • <i>People who are:</i> Black/African American; Native American; Hispanic/Latino; Asian American; Multiracial; LGBTQ+; Pregnant; Aged 65+; Youth at risk for diabetes</p>				

Appendix B: Medicaid diabetes prevalence by county



Appendix C: KDPCP DSMES and NDPP Maps

Healthy Living With Diabetes FY25



NDPP Providers 2024-2025

NDPP Providers offering in-person, distance, or combination delivery. All counties have access to online or distance delivery only.

