

Report Prepared in Response to House Resolution Number 292 of the 2025 Regular Session

*Cost of Expanded Access to Continuous Glucose Monitoring for
Gestational Diabetes*

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Background

Gestational diabetes mellitus (GDM) is a type of diabetes that can affect pregnant women who do not have a prior diabetes diagnosis. Each year, an estimated 5% to 9% of pregnancies in the U.S. develop GDM.¹ This condition can have short-term negative effects on pregnancy and birth outcomes, as well as long-term impacts for both the mother and child.

Women with GDM are at increased risk for pregnancy-related health conditions, including high blood pressure, preeclampsia, miscarriage or stillbirth, preterm delivery, and cesarean section (C-section).² They are also at higher risk of developing type 2 diabetes (T2D) after pregnancy.³ At birth, infants born to women with GDM are at increased risk of low glucose levels, jaundice, breathing problems, and mineral imbalances. Later in life, these children are at increased risk of developing T2D and obesity.⁴ However, most pregnancies affected by GDM result in healthy outcomes when the condition is identified early and managed appropriately through lifestyle changes, glucose monitoring, and medical treatment, if necessary.⁵

In the U.S., the percentage of pregnant women diagnosed with GDM increased. Specifically, it rose from 6.0% in 2016 to 8.3% in 2021⁶. Furthermore, rates of GDM increased as maternal age rose.⁷ Among pregnant women enrolled in Louisiana Medicaid, the incidence of GDM in first-time pregnancies increased significantly from 2016 (10.2%) to 2021 (14.0%).⁸ The direct costs of GDM in the U.S. are estimated at \$1.6 billion.⁹

Treatment for GDM typically includes monitoring and controlling glucose levels, engaging in regular exercise, eating healthy foods, and maintaining a healthy weight.¹⁰ The two main options for monitoring glucose levels at home include: 1) blood glucose monitors (BGMs), or 2) continuous glucose monitors (CGMs). BGMs are small, portable devices that measure blood glucose levels using a small sample of blood, usually from a fingertip. BGMs display blood glucose levels within seconds but require users to

¹ Centers for Disease Control and Prevention. Gestational Diabetes. Available at: [cdc.gov/diabetes/about/gestational-diabetes.html](https://www.cdc.gov/diabetes/about/gestational-diabetes.html). Accessed on: Sept 12, 2025.

² National Institutes of Health. Am I at risk for gestational diabetes? Available at: [nichd.nih.gov/sites/default/files/publications/pubs/Documents/gestational_diabetes_2012.pdf](https://www.nichd.nih.gov/sites/default/files/publications/pubs/Documents/gestational_diabetes_2012.pdf). Accessed on: Sept 12, 2025.

³ Wicklow B, Retnakaran R. Gestational Diabetes Mellitus and Its Implications Across the Life Span. *Diabetes & Metabolism Journal*. 2023. Accessed on: Oct 31, 2025.

⁴ National Institutes of Health. Am I at risk for gestational diabetes? Available at: [nichd.nih.gov/sites/default/files/publications/pubs/Documents/gestational_diabetes_2012.pdf](https://www.nichd.nih.gov/sites/default/files/publications/pubs/Documents/gestational_diabetes_2012.pdf). Accessed on: Sept 12, 2025.

⁵ Simmons, D., Immanuel, J., Hague, W.M., et al. (2023). *Treatment of Gestational Diabetes Mellitus Diagnosed Early in Pregnancy*. *New England Journal of Medicine*, 388, 2132–2144.

⁶ Centers for Disease Control and Prevention. *QuickStats: Percentage of Mothers with Gestational Diabetes, by Maternal Age*. Available at: [cdc.gov/mmwr/volumes/72/wr/mm7201a4.htm](https://www.cdc.gov/mmwr/volumes/72/wr/mm7201a4.htm). Accessed on: Oct 8, 2025.

⁷ Ibid.

⁸ Lin J, Horswell R, Chu S, et al. Trends in the Incidence of Gestational Diabetes Mellitus Among the Medicaid Population Before and During the COVID-19 Pandemic. *Journal of Women's Health*. 2024. Available at: [ldh.la.gov/assets/docs/MQI/pupp/2024-articles/Lin_2024_GDM.pdf](https://www.lahhs.com/assets/docs/MQI/pupp/2024-articles/Lin_2024_GDM.pdf). Accessed on: Oct 8, 2025.

⁹ Sweeting A, Hannah W, Backman H, et al. Epidemiology and management of gestational diabetes. *The Lancet*. 2024. Available at: pubmed.ncbi.nlm.nih.gov/38909620/. Accessed on: Oct 8, 2025.

¹⁰ National Institutes of Health. Am I at risk for gestational diabetes? Available at: [nichd.nih.gov/sites/default/files/publications/pubs/Documents/gestational_diabetes_2012.pdf](https://www.nichd.nih.gov/sites/default/files/publications/pubs/Documents/gestational_diabetes_2012.pdf). Accessed on: Sept 12, 2025.

test regularly.¹¹ This process is often referred to as self-monitoring blood glucose (SMBG). CGMs are wearable devices with a sensor inserted in the skin to monitor glucose levels in interstitial fluid.¹² CGMs provide real-time glucose levels to a connected smart device every few minutes, and sensors must be replaced every 10 to 14 days. CGMs can track trends and predict changes to glucose levels over time. Readings between BGMs and CGMs may differ because BGMs monitor blood glucose, while CGMs monitor interstitial fluid glucose.

Introduction

This report is written in response to House Resolution Number 292, 2025 Regular Session (H.R. 292), which requests that the Louisiana Department of Health (LDH) evaluate the current Louisiana Medicaid coverage and costs of CGM services for patients with GDM.¹³ Specifically, the resolution requests that LDH report on:

- The feasibility of updating Louisiana Medicaid coverage policies and fee schedules to more adequately provide access to CGM services for all at-risk or GDM without insulin use patients (also referred to as “otherwise qualifying GDM patients” in H.R. 292).
- The potential costs associated with updating CGM coverage policies, including long-term cost savings to the Louisiana Medicaid program and healthcare system, as well as the potential health risks of maintaining current policies.

A copy of H.R. 292 can be found in Appendix A—Text of House Resolution 292, 2025 Regular Session.

Methodology

An analysis was conducted to estimate the current and potential future costs associated with CGM for pregnant women in the Louisiana Medicaid population, as outlined under H.R. 292. The study sought to:

- Quantify current CGM utilization and costs among pregnant women diagnosed with GDM who are insulin-dependent; and
- Model the potential expansion of coverage of CGM to include pregnant women who are at risk of developing GDM.

Literature Review

Health Services Advisory Group, Inc. (HSAG) conducted a targeted literature review to inform recommendations related to coverage of and access to CGM. This was performed pursuant to Medicaid for members with GDM. The literature review was designed to answer the following research questions:

¹¹ American Diabetes Association. Blood Glucose Meters can Play an Important Role in Diabetes Care. Available at: diabetes.org/about-diabetes/devices-technology/blood-glucose-meters-important-role-in-diabetes-care. Accessed on: Oct 8, 2025.

¹² Northwestern Medicine. How Do Continuous Glucose Monitoring Systems (CGMS) work? Available at: www.nm.org/healthbeat/healthy-tips/How-Do-Continuous-Glucose-Monitoring-Systems-CGMS-Work. Accessed on: Oct 8, 2025.

¹³ Speaker of the House of Representatives. House Resolution No. 292. 2025 Regular Session. Available at: [https://www.legis.la.gov/legis/Details.aspx?ref=292](#). Accessed on: Oct 9, 2025.

- What risks or complications are associated with GDM during pregnancy, birth, the neonatal period (first 30 days of life), and the postpartum period? What are the long-term health outcomes associated with GDM for the mother and child?
- Does the use of CGM during pregnancy reduce these risks or complications? How effective is CGM at reducing risks or complications for GDM patients?
- How have other states approached the use of CGM for GDM patients?
- What, if any, are the cost savings of CGM use for patients with an insulin-dependent condition during pregnancy? What conditions, if any, are associated with the greatest cost savings?

To answer these questions, HSAG used a broad search strategy to identify peer-reviewed journal articles and reputable educational or news sources, such as the Centers for Medicare & Medicaid Services (CMS), the National Institutes of Health (NIH), and the Centers for Disease Control and Prevention (CDC). Search terms included, but were not limited to, *continuous glucose monitoring cost*, *gestational diabetes treatment*, and *gestational diabetes risks*. A complete list of search terms can be found in Appendix B—Literature Review Search Terms. Searches were conducted through electronic databases and other reputable online sources to identify relevant peer-reviewed and educational materials using the following criteria:

- Based in the U.S. or a similar industrialized country;
- Focused on patients with or at risk of developing GDM, or pregnant patients with other forms of insulin-dependent conditions;
- Evaluated the effectiveness and/or cost of CGM use in these patients;
- Written in English; and
- Published within the last five years (2020 to 2025).

Sources were excluded if they did not meet these criteria.

Abstracts of peer-reviewed studies and full content of educational and news articles were screened for relevance, quality, and applicability to the Medicaid population. HSAG extracted key information from the included sources, such as study design, population characteristics, interventions, outcomes, and cost or effectiveness findings, and synthesized them to address the research questions.

Cost Analysis

HSAG utilized validated 2023 medical and pharmacy claims and encounter data for the LDH Medicaid population. With only one calendar year (CY) of encounter data available at the time of this analysis, traditional methods for identifying complete pregnancy episodes were not feasible. To address this limitation, International Classification of Diseases, 10th Revision, Clinical Modification (ICD-10-CM); International Classification of Diseases, 10th Revision, Procedure Codes (ICD-10-PCS); and Current Procedural Terminology (CPT) codes were used to identify members with pregnancies within the available encounter data. HSAG only included claims that were incurred during the enrolled months for each member and such claims had to be paid (i.e., no denied encounters were used). If a member had a completed pregnancy diagnosis or a relevant procedure code at any point during CY 2023, they were included in the total pregnancy population count. Certain conditions, including ectopic pregnancies, abortion, fetal death, and eclampsia, were not included to provide a more relevant population of

pregnant women. It is important to note that the ICD-10-CM, ICD-10-PCS, and CPT codes are a best estimate using the available data sources but may not fully capture all pregnant women within the encounter data. The full list of codes used to identify the population can be found in Appendix C—Code Sets. This subset served as the base population for all subsequent analyses.

To assess the utilization and cost of CGM within the pregnancy subset under current legislation, CGM utilization was identified among pregnancy subset members. Specifically, utilization was identified among those members who had a CGM, a diagnosis of GDM, and evidence of insulin use using relevant ICD-10, CPT, and National Drug Code (NDC) codes. The total per utilizing member per year (PUMPY) CGM costs were then calculated. That is, the total annual CGM costs were divided from the CY 2023 encounter data by the members within the pregnancy subset who had a CGM. The full list of codes used to identify this population and associated costs can be found in Appendix C—Code Sets.

A risk stratification framework was developed to model the potential expansion of coverage of CGM to include pregnant women who are at-risk of developing GDM or GDM without insulin use patients. Members within the pregnancy subset were identified as a GDM without insulin use patient if the member was diagnosed with GDM and was not insulin-dependent. The at-risk-of-developing GDM population^{14,15,16} was based on the presence of one or more of the following diagnoses in the claims or encounter data:

- Obesity (Body Mass Index [BMI] greater than or equal to 35);
- Hypertension;
- Advanced maternal age (age 35 or older); and/or
- Pre-diabetes diagnosis.

Additional risk factors for GDM include having polycystic ovarian syndrome (PCOS), a family history of diabetes or GDM, a history of stillbirth or miscarriage, and being of a certain race or ethnicity (e.g., Black, Hispanic, American Indian).¹⁷ HSAG did not factor race or ethnicity into its risk stratification framework in order to ensure that individuals from all races and ethnicities were represented within each at-risk population. However, the four categories above were selected as they are measurable using one year’s worth of claims and encounter data. If a member in the pregnancy subset had one of these conditions in the CY 2023 encounter dataset at any point during the year, the member was included. That is, the member was included in the total count for that specific at-risk group.

The literature review described above was performed to assess the potential long-term savings impacts associated with expanding coverage of CGM and determine a cost-savings estimate to apply to the population. The cost-savings estimate focuses on using CGM compared to SMBG to assess glucose levels and is based on a population with type 1 diabetes (T1D). Although the cost savings estimate is derived

¹⁴ Centers for Disease Control and Prevention. Gestational Diabetes. Available at: [cdc.gov/diabetes/about/gestational-diabetes.html](https://www.cdc.gov/diabetes/about/gestational-diabetes.html). Accessed on: Sept 12, 2025.

¹⁵ American College of Obstetrics and Gynecology. Pregnancy at Age 35 Years or Older. Available at: [acog.org/clinical/clinical-guidance/obstetric-care-consensus/articles/2022/08/pregnancy-at-age-35-years-or-older](https://www.acog.org/clinical/clinical-guidance/obstetric-care-consensus/articles/2022/08/pregnancy-at-age-35-years-or-older). Accessed on: Nov 7, 2025.

¹⁶ National Institutes of Health. Am I at risk for gestational diabetes? Available at: [nichd.nih.gov/sites/default/files/publications/pubs/Documents/gestational_diabetes_2012.pdf](https://www.nichd.nih.gov/sites/default/files/publications/pubs/Documents/gestational_diabetes_2012.pdf). Accessed on: Sept 12, 2025.

¹⁷ Mayo Clinic. Gestational Diabetes. Available at: [mayoclinic.org/diseases-conditions/gestational-diabetes/symptoms-causes/syc-20355339](https://www.mayoclinic.org/diseases-conditions/gestational-diabetes/symptoms-causes/syc-20355339). Accessed on: Oct 31, 2025.

from a T1D population, it shares key clinical characteristics with the population used in this analysis. Furthermore, it remains appropriate for use as a reference point for approximating the potential long-term savings. Incidence rates determined from the literature review for the four at-risk categories were multiplied by the identified at-risk members in the pregnant population from the CY 2023 encounter data.^{18,19,20,21} This was done to more accurately estimate the members who would develop GDM from each risk factor. The population estimate for each risk factor was multiplied by the cost-savings estimate from the literature review and summed to find the potential long-term savings.

To assess costs with expanding coverage for each at-risk and other qualifying-GDM patient cohort, the following formula was used:

$$C_r = (A - B) * M_r$$

where C_r is the total cost of expanding coverage to an at-risk and GDM without insulin use patient to a single stratification (i.e., obesity, hypertension, advanced maternal age, pre-diabetes diagnosis). A is the PUMPY cost of a CGM device for the pregnant population subset calculated based on the CY 2023 encounter data outlined above. B is the average annual cost per member of SMBG. M_r are the identified members within each at-risk and other qualifying-GDM patient stratification.

To assess total costs with expanding coverage for all at-risk and other qualifying GDM patients, the following formula was used:

$$C = \sum C_r$$

where C is the total cost of expanding coverage to at-risk and GDM without insulin use patients across all stratifications.

Results

Current Coverage and Estimated Cost Changes

Currently, most state Medicaid programs provide CGM coverage for members with GDM, but getting access to CGM devices can still be difficult due to long wait times, requirements for insulin dependence, prior authorization, or other strict eligibility rules.²² Table 1 lists the states according to their Medicaid

¹⁸ Kim SY, Lucinda E, Wilson HG, et al. Percentage of Gestational Diabetes Mellitus Attributable to Overweight and Obesity. *American Journal of Public Health*. 2010. Available at: [pmc.ncbi.nlm.nih.gov/articles/PMC2866592/](https://pubmed.ncbi.nlm.nih.gov/articles/PMC2866592/). Accessed on: Nov 6, 2025.

¹⁹ Chen L, Pocobelli G, Onchee Y, et al. Early Pregnancy Hemoglobin A1C and Pregnancy Outcomes: A Population-Based Study. *American Journal of Perinatology*. 2019. Available at: [pmc.ncbi.nlm.nih.gov/articles/PMC6612540/](https://pubmed.ncbi.nlm.nih.gov/articles/PMC6612540/). Accessed on: Nov 6, 2025.

²⁰ Jin M, Liu X, Liu X, et al. Association of pre- /early pregnancy high blood pressure and pregnancy outcomes: a systematic review and meta-analysis. *Journal of Maternal-Fetal & Neonatal Medicine*. 2024. Available at: pubmed.ncbi.nlm.nih.gov/38151254/. Accessed on: Nov 7, 2025.

²¹ Rodacki M, Krakaur M, Franco DR, et al. Continuous glucose monitoring system in diabetes in pregnancy: a narrative review. *Diabetology & Metabolic Syndrome*. 2025. Available at: dmsjournal.biomedcentral.com/articles/10.1186/s13098-025-01854-x. Accessed on: Oct 31, 2025.

²² Center for Health Care Strategies. Medicaid Opportunities to Improve Gestational Diabetes Outcomes Through Expanded Access to Continuous Glucose Monitors. Available at: www.chcs.org/medicaid-opportunities-to-improve-gestational-diabetes-outcomes-through-expanded-access-to-continuous-glucose-monitors/. Accessed on: Oct 31, 2025.

CGM coverage policy. Medicare covers CGM for members with diabetes mellitus who take insulin or have a history of hypoglycemia.²³

Medicaid policy status	States
Provide CGM coverage for members with GDM*	Alaska, Arkansas, California, Connecticut, Delaware, Georgia, Illinois, Indiana, Iowa, Kentucky, Massachusetts, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Nebraska, Nevada, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Washington, West Virginia, Wisconsin
Coverage of CGM for members with GDM is not specified^	Colorado, Florida, Idaho, Montana, Vermont
Do not provide CGM coverage for members with GDM	Alabama, Kansas, Maine, Maryland, New Hampshire, Wyoming
Do not have a published policy	Arizona, Hawaii, New Jersey, New Mexico, Virginia

*Eligibility restrictions may apply.

^Coverage includes “diabetes” or “diabetes mellitus” but does not specify types of diabetes covered.

The CGM Access Accelerator initiative from the Center for Health Care Strategies is supporting seven states²⁴ in implementing policy strategies to improve access to CGM for Medicaid members.²⁵ Allowing GDM diagnosis to provide eligibility, removing the pre-authorization requirement, and reducing the number of eligibility criteria are some strategies these states have employed.²⁶

Louisiana Medicaid currently covers the cost of CGM devices based on certain approval criteria.²⁷ The member must have one of the following diagnoses:

- Any kind of diabetes mellitus, with evidence of at least one pharmacy claim for insulin within the previous 180-day period;
- Level 2 or level 3 hypoglycemia; or
- Glycogen storage disease type 1a.

²³ Medicare.gov. Continuous Glucose Monitors. Available at: [medicare.gov/coverage/therapeutic-continuous-glucose-monitors](https://www.medicare.gov/coverage/therapeutic-continuous-glucose-monitors). Accessed on: Nov 5, 2025.

²⁴ Iowa, Kentucky, Michigan, New Jersey, Oklahoma, South Dakota, and Texas.

²⁵ Center for Health Care Strategies. Accelerating Access to Continuous Glucose Monitors in Medicaid to Improve Diabetes Care. Available at: chcs.org/project/accelerating-access-to-continuous-glucose-monitors-in-medicaid-to-improve-diabetes-care/. Accessed on: Oct 31, 2025.

²⁶ Center for Health Care Strategies. Medicaid Opportunities to Improve Gestational Diabetes Outcomes Through Expanded Access to Continuous Glucose Monitors. Available at: chcs.org/medicaid-opportunities-to-improve-gestational-diabetes-outcomes-through-expanded-access-to-continuous-glucose-monitors/. Accessed on: Oct 31, 2025.

²⁷ Louisiana Department of Health. Louisiana Medicaid Diabetic Supplies List. 2025. Available at: ldh.la.gov/assets/docs/BayouHealth/Pharmacy/PDL.Diabetic.Supplies.pdf. Accessed on: Nov 6, 2025.

Among the Louisiana Medicaid population in CY 2023, 54 members (36%) of all insulin-dependent GDM pregnancies utilized CGM. The average PUMPY cost of CGM calculated from the CY 2023 encounter data was \$2,539.

The incremental utilization rates and estimated CGM costs for the at-risk population categories are outlined in Table 2, grouped by those with a non-GDM risk factor (i.e., diagnosis of pre-diabetes, hypertension, obesity, or of advanced maternal age), and GDM without insulin use patients.²⁸ The results suggest that expanding CGM coverage to the broadest definition of at-risk pregnancies would increase eligibility and total costs.

Risk Factor Group*	Unique Members (a)	CY 2023 CGM PUMPY Cost (b)	Estimated Annual SMBG Per-member Cost^ (c)	Final Estimated Additional Costs of Expanding CGM (a*[b-c])
Non-GDM (single risk factor)	9,350	\$2,539	\$0	\$23,735,817
2 Risk Factors	2,361	\$2,539	\$0	\$5,993,611
3 Risk Factors	345	\$2,539	\$0	\$875,814
4 Risk Factors	33	\$2,539	\$0	\$83,773
GDM Without Insulin Use (no other risk factors)	1,214	\$2,539	\$772	\$2,144,640
Single Additional Risk Factor	1,128	\$2,539	\$772	\$1,992,714
2 Additional Risk Factors	576	\$2,539	\$772	\$1,017,556
3 Additional Risk Factors	97	\$2,539	\$772	\$171,359

*Risk factors for the *non-GDM* group include diagnosis of pre-diabetes, hypertension, obesity, and women of advanced maternal age. Risk factors for the *GDM without insulin use* group include diagnosis of hypertension, obesity, and women of advanced maternal age.

^ The estimated annual SMBG per-member cost is based on literature review and is only applied to members in the GDM Without Insulin Use group, as members without GDM would not be managed through SMBG.

Note: Per-member costs (b) and (c) as shown have been rounded and may not match the Final Estimated Additional Costs of Expanding CGM.

The propensity of developing GDM varies depending on the specific risk factor. It ranges from 11.5% for severe obesity up to 47.7% for those with a prediabetes diagnosis.^{29,30} The incidence of developing GDM for those with a diagnosis of hypertension ranges from 11% to 14%.³¹ Further, advanced maternal age

²⁸ A supplemental table of counts for each combination of risk factor is provided in Appendix D.

²⁹ Kim SY, Lucinda E, Wilson HG, et al. Percentage of Gestational Diabetes Mellitus Attributable to Overweight and Obesity. *American Journal of Public Health*. 2010. Available at: [pmc.ncbi.nlm.nih.gov/articles/PMC2866592/](https://pubmed.ncbi.nlm.nih.gov/articles/PMC2866592/). Accessed on: Nov 6, 2025.

³⁰ Chen L, Pocobelli G, Onchee Y, et al. Early Pregnancy Hemoglobin A1C and Pregnancy Outcomes: A Population-Based Study. *American Journal of Perinatology*. 2019. Available at: [pmc.ncbi.nlm.nih.gov/articles/PMC6612540/](https://pubmed.ncbi.nlm.nih.gov/articles/PMC6612540/). Accessed on: Nov 6, 2025.

³¹ Jin M, Liu X, Liu X, et al. Association of pre- /early pregnancy high blood pressure and pregnancy outcomes: a systematic review and meta-analysis. *Journal of Maternal-Fetal & Neonatal Medicine*. 2024. Available at: pubmed.ncbi.nlm.nih.gov/38151254/. Accessed on: Nov 7, 2025.

has an incidence rate of 15.6%.³² Based on the identified at-risk members and corresponding incidence rates of developing GDM, approximately 16% of the at-risk population could be expected to develop GDM under the current coverage level.

Furthermore, it is unlikely that all identified women will receive and utilize a CGM unit; therefore, estimated costs will be lower than shown in Table 2.³³

Long-term Cost Savings

CGM use has been proven to provide long-term cost savings in the treatment of T1D pregnancies. One study found a cost reduction of approximately \$2,200 per individual when CGM was used in T1D pregnancy.³⁴ It further determined that for pregnant patients with T1D, CGM was more cost-effective than SMBG.³⁵ These cost savings were largely attributed to the reduction in neonatal intensive care unit (NICU) admissions. Similarly, another study found that the cost of CGM was offset by the reduction in NICU admissions for T1D pregnancies.³⁶ A Canadian study on CGM use in pregnant women with T1D found that healthcare costs were lower when the patient used CGM resulting in lower NICU use.³⁷

Savings also could come from reducing medical interventions, such as C-sections. C-sections are more likely to occur with GDM pregnancies and are associated with higher rates of NICU admissions.^{38,39} C-sections are estimated to cost Medicaid 50% more than vaginal births.⁴⁰

In order to estimate the cost reduction for T2D and GDM pregnancies, the \$2,200 from the Diab et al. 2024 paper was reduced to \$1,650 per individual.⁴¹ This was based on the ratio of per person per year

³² Centers for Disease Control and Prevention. *QuickStats: Percentage of Mothers with Gestational Diabetes, by Maternal Age*. Available at: [cdc.gov/mmwr/volumes/72/wr/mm7201a4.htm](https://www.cdc.gov/mmwr/volumes/72/wr/mm7201a4.htm). Accessed on: Oct 8, 2025.

³³ Lacy ME, Lee KE, Atac O, et al. Patterns and Trends in Continuous Glucose Monitoring Utilization Among Commercially Insured Individuals with Type 1 Diabetes: 2010-2013 to 2016-2019. *Clinical Diabetes*. 2024. Available at: diabetesjournals.org/clinical/article/42/3/388/154160/Patterns-and-Trends-in-Continuous-Glucose. Accessed on: Dec 5, 2025.

³⁴ Diab YH, Saade G, Kawakita T. Continuous glucose monitoring vs. self-monitoring in pregnant individuals with type 1 diabetes: an economic analysis. *American Journal of Obstetrics and Gynecology*. 2024. Available at: pubmed.ncbi.nlm.nih.gov/38908796/. Accessed on: Oct 31, 2025.

³⁵ Diab YH, Saade G, Kawakita T. Continuous glucose monitoring vs. self-monitoring in pregnant individuals with type 1 diabetes: an economic analysis. *American Journal of Obstetrics and Gynecology*. 2024. Available at: pubmed.ncbi.nlm.nih.gov/38908796/. Accessed on: Oct 31, 2025.

³⁶ Distefano MJ, McQueen RB, Gao V, et al. Cost of Continuous Glucose Monitoring vs. Self-Monitoring of Blood Glucose in Type 1 Diabetes Pregnancies. *Health Care Delivery*. 2024. Available at: journals.sagepub.com/doi/full/10.1089/dia.2024.0478. Accessed on: Oct 31, 2025.

³⁷ Ahmed RJ, Gafni A, Hutton EK, et al. The cost implications of continuous glucose monitoring in pregnant women with type 1 diabetes in 3 Canadian provinces: a posthoc cost analysis of the CONCEPT trial. *Canadian Medical Association Journal*. 2021. Available at: pmc.ncbi.nlm.nih.gov/articles/PMC8191590/. Accessed on: Oct 31, 2025.

³⁸ Mayo Clinic. Gestational Diabetes. Available at: mayoclinic.org/diseases-conditions/gestational-diabetes/symptoms-causes/syc-20355339. Accessed on: Oct 31, 2025.

³⁹ Chugh A, Lal S, Nijhawan T, et al. Evaluation of primary caesarean section and neonatal outcomes in a tertiary care hospital and impact on current obstetric practice. *European Journal of Obstetrics & Gynecology and Reproductive Biology: X*. 2023. Available at: sciencedirect.com/science/article/pii/S2590161323000388. Accessed on: Oct 31, 2025.

⁴⁰ Levy CJ, Galindo RJ, Parkin CG, et al. All Children Deserve to Be Safe, Mothers Too: Evidence and Rationale Supporting Continuous Glucose Monitoring Use in Gestational Diabetes Within the Medicaid Population. *Journal of Diabetes Science and Technology*. 2023. Available at: pmc.ncbi.nlm.nih.gov/articles/PMC11418457/. Accessed on: Oct 31, 2025.

⁴¹ Diab YH, Saade G, Kawakita T. Continuous glucose monitoring vs. self-monitoring in pregnant individuals with type 1 diabetes: an economic analysis. *American Journal of Obstetrics and Gynecology*. 2024. Available at: pubmed.ncbi.nlm.nih.gov/38908796/. Accessed on: Oct 31, 2025.

mean total costs for T1D and T2D patients.⁴² Because the estimated number of women who are in the GDM Without Insulin Use population are among those at highest risk and exceed the recommended allocation of \$500,000 to \$1 million, estimated long-term cost savings are calculated only for this group as shown in Table 3.

	Members (a)	Estimated PUMPY Cost Reduction (b)	Total Estimated Cost Reduction (a*b)
GDM Without Insulin Use (no other risk factors)	1,214	\$1,650	\$2,003,100
Single Additional Risk Factor	1,128	\$1,650	\$1,861,200
2 Additional Risk Factors	576	\$1,650	\$950,400
3 Additional Risk Factors	97	\$1,650	\$160,050

Note: Additional risk factors include diagnosis of hypertension, obesity, or women of advanced maternal age.

Health Risks of Maintaining Current Policies

GDM poses many health risks during pregnancy, birth, the neonatal period (first 30 days of life), and the postpartum period. GDM also can result in negative long-term health outcomes for the child and the mother. In the Medicaid population, intensive care unit (ICU) admissions among mothers with GDM are 8% higher compared to mothers without GDM (27% and 19%, respectively).⁴³ Moreover, the NICU admission incidence among GDM pregnancies is 39% higher compared to non-GDM pregnancies.⁴⁴ In addition, the incidence of C-section deliveries among Medicaid beneficiaries with GDM is 36% higher compared with non-GDM pregnancies.⁴⁵ These and additional risks are outlined in Table 4.

Life stage	Health risks of GDM
Pregnancy	ICU admission, fetal overnutrition, fetal overgrowth, increased fetal fat mass, altered fetal lung surfactant, fetal hypoxia, fetal asphyxiation, preeclampsia/high blood pressure ^{46,47,48}

⁴² Joish VN, Zhou FL, Preblick R, et al. Estimation of Annual Health Care Costs for Adults with Type 1 Diabetes in the United States. *Journal of Managed Care & Specialty Pharmacy*. 2020. Available at: [pmc.ncbi.nlm.nih.gov/articles/PMC10390990/](https://pubmed.ncbi.nlm.nih.gov/articles/PMC10390990/). Accessed on: Nov 6, 2025.

⁴³ Levy CJ, Galindo RJ, Parkin CG, et al. All Children Deserve to Be Safe, Mothers Too: Evidence and Rationale Supporting Continuous Glucose Monitoring Use in Gestational Diabetes Within the Medicaid Population. *Journal of Diabetes Science and Technology*. 2023. Available at: [pmc.ncbi.nlm.nih.gov/articles/PMC11418457/](https://pubmed.ncbi.nlm.nih.gov/articles/PMC11418457/). Accessed on: Oct 31, 2025.

⁴⁴ Ibid.

⁴⁵ Ibid.

⁴⁶ Ibid.

⁴⁷ Wicklow B, Retnakaran R. Gestational Diabetes Mellitus and Its Implications Across the Life Span. *Diabetes & Metabolism Journal*. 2023. Accessed on: Oct 31, 2025.

⁴⁸ Mayo Clinic. Gestational Diabetes. Available at: [mayoclinic.org/diseases-conditions/gestational-diabetes/symptoms-causes/syc-20355339](https://www.mayoclinic.org/diseases-conditions/gestational-diabetes/symptoms-causes/syc-20355339). Accessed on: Oct 31, 2025.

Life stage	Health risks of GDM
Birth	Preterm delivery, C-section, stillbirth, damage to child’s shoulders ^{49,50,51,52}
Neonatal	NICU admission, low birth weight, neonatal respiratory distress syndrome, neonatal hypoglycemia, macrosomia ^{53,54,55,56}
Postpartum & long-term (mother)	ICU admissions, development of T2D, complications from T2D, cardiovascular disease ^{57,58}
Long-term (child)	Obesity/high childhood BMI; development of T2D; cardiovascular disease; congenital abnormalities of the genitourinary tract, face, and central nervous system; development of insulin resistance or dysglycemia; increased blood pressure and hypertension; renal dysfunction ^{59,60}

Treatment of GDM, either with SMBG or CGM, can result in a lower incidence of adverse health outcomes. That is, CGM provides further improved health outcomes compared to SMBG.^{61,62} It is well demonstrated that, compared to SMBG, CGM can:

⁴⁹ American Diabetes Association. How Gestational Diabetes Can Impact Your Baby. Available at: diabetes.org/living-with-diabetes/pregnancy/gestational-diabetes/how-will-this-impact-my-baby. Accessed on: Oct 31, 2025.

⁵⁰ Mayo Clinic. Gestational Diabetes. Available at: mayoclinic.org/diseases-conditions/gestational-diabetes/symptoms-causes/syc-20355339. Accessed on: Oct 31, 2025.

⁵¹ Wicklow B, Retnakaran R. Gestational Diabetes Mellitus and Its Implications Across the Life Span. *Diabetes & Metabolism Journal*. 2023. Accessed on: Oct 31, 2025.

⁵² American Diabetes Association. How Gestational Diabetes Can Impact Your Baby. Available at: diabetes.org/living-with-diabetes/pregnancy/gestational-diabetes/how-will-this-impact-my-baby. Accessed on: Oct 31, 2025.

⁵³ Al-sharhrani AM. Predictors of Neonatal Intensive Care Unit Admission and Adverse Outcomes Related to Gestational Diabetes. *Cureus*. 2023. Available at: pmc.ncbi.nlm.nih.gov/articles/PMC10161799/. Accessed on: Oct 31, 2025.

⁵⁴ Wicklow B, Retnakaran R. Gestational Diabetes Mellitus and Its Implications Across the Life Span. *Diabetes & Metabolism Journal*. 2023. Accessed on: Oct 31, 2025.

⁵⁵ Yang F, Liu H, Ding C. Gestational diabetes mellitus and risk of neonatal respiratory distress syndrome: a systematic review and meta-analysis. *Diabetology & Metabolic Syndrome*. 2024. Available at: dmsjournal.biomedcentral.com/articles/10.1186/s13098-024-01539-x. Accessed on: Oct 31, 2025.

⁵⁶ American Diabetes Association. How Gestational Diabetes Can Impact Your Baby. Available at: diabetes.org/living-with-diabetes/pregnancy/gestational-diabetes/how-will-this-impact-my-baby. Accessed on: Oct 31, 2025.

⁵⁷ Levy CJ, Galindo RJ, Parkin CG, et al. All Children Deserve to Be Safe, Mothers Too: Evidence and Rationale Supporting Continuous Glucose Monitoring Use in Gestational Diabetes Within the Medicaid Population. *Journal of Diabetes Science and Technology*. 2023. Available at: pmc.ncbi.nlm.nih.gov/articles/PMC11418457/. Accessed on: Oct 31, 2025.

⁵⁸ Wicklow B, Retnakaran R. Gestational Diabetes Mellitus and Its Implications Across the Life Span. *Diabetes & Metabolism Journal*. 2023. Accessed on: Oct 31, 2025.

⁵⁹ Albairmani RA, Basheer BM, Macky MM, et al. Management of Diabetes in Pregnancy: A Review of Clinical Guidelines and Practices. *Cureus*. 2025. Available at: pmc.ncbi.nlm.nih.gov/articles/PMC11928751/. Accessed on: Oct 31, 2025.

⁶⁰ Wicklow B, Retnakaran R. Gestational Diabetes Mellitus and Its Implications Across the Life Span. *Diabetes & Metabolism Journal*. 2023. Accessed on: Oct 31, 2025.

⁶¹ Simmons D, Immanuel J, Hague W, et al. Treatment of Gestational Diabetes Mellitus Diagnosed Early in Pregnancy. *The New England Journal of Medicine*. 2023. Available at: nejm.org/doi/full/10.1056/NEJMoa2214956. Accessed on: Oct 31, 2025.

⁶² Balaji B, Hannah W, Popova P, et al. The Use of Continuous Glucose Monitoring in Comparison to Self-Monitoring of Blood Glucose in Gestational Diabetes: A Systematic Review. *Journal of Diabetes Science and Technology*. 2025. Available at: pmc.ncbi.nlm.nih.gov/articles/PMC12286989/. Accessed on: Oct 31, 2025.

1. Improve T1D pregnancy outcomes for the mother and child by reducing NICU admissions, significantly lowering preterm and very preterm births, and reducing the length of antenatal inpatient hospital stays and ICU stays.⁶³
2. Improve glycemic metrics, such as time in range (TIR) and glycemic variability, lowering the risk of complications related to low or high blood glucose, and reducing NICU admissions and preterm births.⁶⁴
3. Lower HbA1c for GDM patients compared to SMBG, and may reduce the rate of *large for gestational age* births for these patients.⁶⁵ However, additional research is needed to identify normative values and metrics for CGM in GDM pregnancies. This is needed because readings can vary at different stages of pregnancy and data on CGM use in GDM pregnancies is limited.^{66,67,68}

Additionally, one study found that CGM use was not beneficial or cost effective for patients whose HbA1c levels were under 6%.⁶⁹

Limitations

Due to the requirement to submit a response to the Louisiana House of Representatives by January 1, 2026, one limitation is that the assessment could not include in-depth stakeholder interviews. While available documentation and data were synthesized, the absence of direct input from key stakeholders means certain nuanced perspectives, potential concerns, and practical insights may not be fully represented. This may influence the assessment of feasibility and the completeness of the recommended action plan, as the recommendations have not been tested against the lived experiences and expertise of those most directly involved.

The most significant limitation of this analysis was the availability of only one year of encounter data, which restricted the ability to observe complete pregnancy episodes and longitudinal utilization trends. Pregnancies that span across two CYs are more vulnerable to misclassification under this method.

⁶³ Sekhon J, Graham D, Mehrotra C, et al. Continuous glucose monitoring: A cost-effective tool to reduce pre-term birth rates in women with type one diabetes. *Australian and New Zealand Journal of Obstetrics and Gynaecology*. 2023. Available at: pubmed.ncbi.nlm.nih.gov/35833262/. Accessed on: Oct 31, 2025.

⁶⁴ Balaji B, Hannah W, Popova P, et al. The Use of Continuous Glucose Monitoring in Comparison to Self-Monitoring of Blood Glucose in Gestational Diabetes: A Systematic Review. *Journal of Diabetes Science and Technology*. 2025. Available at: pmc.ncbi.nlm.nih.gov/articles/PMC12286989/. Accessed on: Oct 31, 2025.

⁶⁵ Burk J, Ross GP, Hernandez T, et al. Evidence for improved glucose metrics and perinatal outcomes with continuous glucose monitoring compared to self-monitoring in diabetes during pregnancy. *American Journal of Obstetrics and Gynecology*. 2025. Available at: [ajog.org/article/S0002-9378\(25\)00217-0/fulltext](https://ajog.org/article/S0002-9378(25)00217-0/fulltext). Accessed on: Nov 5, 2025.

⁶⁶ Chai T, Leathwick S, Agarwal M, et al. Continuous glucose monitoring in gestational diabetes mellitus: hope or hype? *Diabetes Research and Clinical Practice*. 2025. Available at: [diabetesresearchclinicalpractice.com/article/S0168-8227\(25\)00403-6/fulltext](https://diabetesresearchclinicalpractice.com/article/S0168-8227(25)00403-6/fulltext). Accessed on: Oct 31, 2025.

⁶⁷ Castorino K, Durnwald C, Ehrenberg S, et al. Practical Considerations for Using Continuous Glucose Monitoring in Patients with Gestational Diabetes Mellitus. *Journal of Women's Health*. 2024. Available at: pubmed.ncbi.nlm.nih.gov/39378174/. Accessed on: Oct 31, 2025.

⁶⁸ Rodacki M, Krakaur M, Franco DR, et al. Continuous glucose monitoring system in diabetes in pregnancy: a narrative review. *Diabetology & Metabolic Syndrome*. 2025. Available at: dmsjournal.biomedcentral.com/articles/10.1186/s13098-025-01854-x. Accessed on: Oct 31, 2025.

⁶⁹ Lai M, Weng J, Yang J, et al. Effect of continuous glucose monitoring compared with self-monitoring of blood glucose in gestational diabetes patients with HbA1c<6%: a randomized controlled trial. *Frontiers in Endocrinology*. 2023. Available at: pmc.ncbi.nlm.nih.gov/articles/PMC10155499/. Accessed on: Oct 31, 2025.

Another limitation was the reliance on encounter data submitted by managed care organizations (MCOs). While these data can provide a consistent baseline, they may be subject to incomplete coding, delayed submissions, or variation across MCOs and/or providers, which can affect the accuracy of utilization patterns, identification of eligible members, and the accuracy of cost estimates. The definition of pregnant women at-risk of developing GDM and otherwise qualifying patients was built off evidence-based clinical and public health sources but was implemented using claims and encounter data, including ICD-10, CPT, and NDC codes. While the framework reflects accepted risk factors, its implementation is inherently dependent on the completeness and accuracy of encounter data and may not fully capture all clinically relevant cases.

Additionally, research indicates that there are additional risk factors for GDM aside from the four identified in the above methodology (i.e., obesity, hypertension, advanced maternal age, and pre-diabetes diagnosis). With data limited to claims and encounter data, excluding clinical data, only conditions that were more appropriately identified through the use of encounter data were used. Additional risk factors and comorbid conditions for developing GDM not typically captured in claims and encounter data for these analyses include a personal or family history of diabetes, a personal or family history of GDM, and PCOS.

Lastly, SMBG costs were estimated based on average annual costs informed by literature for insulin dependent patients.⁷⁰ Specific costs are dependent on the insulin dependence, supplies utilized, how often patients test their glucose levels, and price differences for testing materials between retail locations. Additionally, some supplies can be purchased over the counter and are not included nor easily tracked in claims and encounter data.

Conclusions and Recommendations

While the estimated costs and long-term cost savings provide useful insight into potential costs and cost reductions, they do not represent savings for all at-risk pregnancies, as not every member within the at-risk groups will experience complications or utilize CGM.

H.R. 292 recommends keeping the cost of expanding coverage to \$500,000 to \$1 million. To do so, HSAG recommends providing coverage to the other qualifying GDM population because those members are at the highest risk of developing complications given that they have already been diagnosed with GDM. Further policy guardrails will likely need to be implemented to prioritize women with multiple at-risk conditions, such as those in the GDM without insulin use population with other risk factors.

Table 5 illustrates the estimated cost of expanding coverage for CGM to the risk-populations identified in Table 3. Prior research shows that among patients with type 1 diabetes, approximately 20% to 50% have historically used CGM, with substantial increases in use since 2013.⁷¹

⁷⁰ Yeaw J, Lee WC, Aagren M, et al. Cost of self-monitoring of blood glucose in the United States among patients on an insulin regimen for diabetes. *Journal of Managed Care & Specialty Pharmacy*. 2012. Available at: [pmc.ncbi.nlm.nih.gov/articles/PMC10438111/](https://pubmed.ncbi.nlm.nih.gov/articles/PMC10438111/). Accessed on: Nov 6, 2025.

⁷¹ Lacy ME, Lee KE, Atac O, et al. Patterns and Trends in Continuous Glucose Monitoring Utilization Among Commercially Insured Individuals with Type 1 Diabetes: 2010-2013 to 2016-2019. *Clinical Diabetes*. 2024. Available at:

Risk Factor Group	Total Estimated Additional Costs of Expanding CGM (Table 2)	Estimated Cost at Assumed Utilization Rates		
		20%	30%	50%
GDM Without Insulin Use (no other risk factors)	\$2,144,640	\$428,928	\$643,392	\$1,072,320
Single Additional Risk Factor	\$1,992,714	\$398,543	\$597,814	\$996,357
2 Additional Risk Factors	\$1,017,556	\$203,511	\$305,267	\$508,778
3 Additional Risk Factors	\$171,359	\$34,272	\$51,408	\$85,680

Note: Additional risk factors include diagnosis of hypertension, obesity, or women of advanced maternal age.

For example, Table 5 shows that assuming a 30% utilization rate, GDM Without Insulin Use patients with at least one additional risk factor (i.e., diagnosis of hypertension, obesity, or are of advanced maternal age) would amount to a cost of approximately \$954,489 (\$597,814 **plus** \$305,267 **plus** \$51,408). However, it is important to note that the estimates above are based on identifying at-risk members only through a single year of Medicaid data.

Future policy analysis or program evaluation would benefit from additional Medicaid data (i.e., enrollment, demographic, and encounter data), clinical health records, and State vital statistics, to support a more robust assessment of the intended population, outcomes, and cost-effectiveness. With a more robust assessment of the intended population and incidence rates of adverse outcomes, sensitivity analyses could be conducted to test assumptions made.⁷² Lastly, HSAG recommends developing monitoring and evaluation procedures to track CGM utilization, maternal glycemic control, GDM incidence, pregnancy outcomes, and associated costs. Establishing these metrics in advance would enable the State to assess both the fiscal impact and the clinical benefit in real time, guiding refinements to coverage and policy criteria.

diabetesjournals.org/clinical/article/42/3/388/154160/Patterns-and-Trends-in-Continuous-Glucose. Accessed on: Dec 9, 2025.

⁷² Bardach E. *A Practical Guide for Policy Analysis: The Eightfold Path to More Effective Problem Solving*. Thousand Oaks, California: SAGE Publications. 2012.

Appendix A—Text of House Resolution 292, 2025 Regular Session

ENROLLED

2025 Regular Session

HOUSE RESOLUTION NO. 292

BY REPRESENTATIVES BERAULT, ADAMS, BAYHAM, CARLSON, ROBBY CARTER, CARVER, CHASSION, FISHER, JACKSON, LYONS, SPELL, AND WYBLE

A RESOLUTION

To urge and request the Louisiana Department of Health to study the feasibility of updating its Medicaid coverage policy and fee schedule to more adequately provide access to healthcare services required by individuals at-risk for gestational diabetes mellitus or otherwise qualifying gestational diabetes mellitus patients and report its findings no later than January 1, 2026.

WHEREAS, the Louisiana Department of Health has determined maternal health to be a priority within its Strategic Plan; and

WHEREAS, gestational diabetes mellitus (GDM) occurrences in the Louisiana Medicaid population increased from ten and two-tenths percent to fourteen and eight-tenths percent in recent years and have remained around fourteen percent; and

WHEREAS, prominent risk factors for GDM, such as obesity and sedentary behaviors, remain prevalent in the Louisiana Medicaid population in addition to Medicaid populations typically facing additional health adversities; and

WHEREAS, increased occurrences of GDM have been linked to the long-term future health of both the mother and child; and

WHEREAS, continuous glucose monitoring (CGM) services have been proven to significantly reduce the complications arising from GDM by providing real-time glucose readings and helping guide informed decisions involving insulin usage, diet, and exercise, as well as insights involving nocturnal hyperglycemia; and

WHEREAS, current CGM Medicaid coverage policies provide coverage only for insulin-dependent GDM patients and do not afford coverage for all at-risk or otherwise qualifying GDM patients; and

WHEREAS, if not appropriately managed, GDM can result in complexities and additional risks for both the mother and the child through the pregnancy, such as excessive fetal growth, premature births, and respiratory distress; and

WHEREAS, the cost for expanding coverage to additional qualifying GDM Medicaid patients is estimated to be between five hundred thousand and one million dollars; and

WHEREAS, incentive-based reimbursement mechanisms already in existence between the Louisiana Department of Health, Healthy Louisiana Managed Care Organizations, and hospitals could afford the opportunity to expand coverage with existing resources.

THEREFORE, BE IT RESOLVED that the House of Representatives of the Legislature of Louisiana does hereby urge and request the Louisiana Department of Health to study the feasibility of updating its Medicaid coverage policy and fee schedule to more adequately provide access to continuous glucose monitoring services for all at-risk or otherwise qualifying maternal patients facing gestational diabetes mellitus.

BE IT FURTHER RESOLVED that the Louisiana Department of Health shall study the potential coverage policy updates, the costs associated with expanding the Louisiana Medicaid CGM coverage policies for maternal health, the long-term cost savings to the Louisiana healthcare system, and the potential health risks of leaving current policies in place.

BE IT FURTHER RESOLVED that the Louisiana Department of Health shall provide a written report of its findings including a coverage policy analysis to the House Committee on Health and Welfare no later than January 1, 2026, unless after performing the study the Louisiana Department of Health elects to update the maternal CGM coverage policy prior to that date.

BE IT FURTHER RESOLVED that a copy of this Resolution be transmitted to the secretary of the Louisiana Department of Health.

SPEAKER OF THE HOUSE OF REPRESENTATIVES

Appendix B—Literature Review Search Terms

Search terms for the literature review included:

- Continuous glucose monitoring cost pregnancy
- Gestational diabetes treatment
- Gestational diabetes risks
- Gestational diabetes cost
- Medicaid policy continuous glucose monitoring
- Continuous glucose monitoring access pregnancy
- Gestational diabetes complications
- Gestational diabetes pregnancy complications
- Gestational diabetes birth complications
- Gestational diabetes neonatal complications
- Gestational diabetes long term complications mother
- Gestational diabetes long term complications child
- Continuous glucose monitoring for gestational diabetes

Appendix C—Code Sets

Table C-1 contains a list of the ICD-10 codes that were used in the analysis.

Table C-1—ICD-10 Codes		
ICD-10 Code	ICD-10 Code Description	GDM Risk Factor
E66:	Obesity for adults	Obesity*
Z68.35	BMI 35.0–35.9	Obesity*
Z68.36	BMI 36.0–36.9	Obesity*
Z68.37	BMI 37.0–37.9	Obesity*
Z68.38	BMI 38.0–38.9	Obesity*
Z68.39	BMI 39.0–39.9	Obesity*
Z68.40	BMI 40.0 or greater	Obesity*
Z68.41	BMI 40.0–44.9	Obesity*
Z68.42	BMI 45.0–49.9	Obesity*
Z68.43	BMI 50.0–59.9	Obesity*
Z68.44	BMI 60.0–69.9	Obesity*
Z68.45	BMI 70.0 or greater	Obesity*
Z68.46	BMI 70.0 or greater	Obesity*
Z68.47	BMI 70.0 or greater	Obesity*
Z68.48	BMI 70.0 or greater	Obesity*
Z68.49	BMI 70.0 or greater	Obesity*
O09.5:	Supervision of elderly primigravida and multigravida	Advanced maternal age
R73.03	Prediabetes signs and symptoms and does not have a type 1 or 2 diagnosis	Prediabetes
R73.09	Other abnormal glucose	Prediabetes
I10:	Essential (Primary) Hypertension	Hypertension
O10:	Pre-existing hypertension complicating pregnancy, childbirth and the puerperium	Hypertension
O11.1	Pre-existing hypertension with pre-eclampsia, first trimester	Hypertension
O11.2	Pre-existing hypertension with pre-eclampsia, second trimester	Hypertension
O11.3	Pre-existing hypertension with pre-eclampsia, third trimester	Hypertension
O11.4	Pre-existing hypertension with pre-eclampsia, complicating childbirth	Hypertension
O11.5	Pre-existing hypertension with pre-eclampsia, complicating the puerperium	Hypertension
O11.9	Pre-existing hypertension with pre-eclampsia, unspecified trimester	Hypertension
O13.1	Gestational hypertension; first trimester	Hypertension
O13.2	Gestational hypertension; second trimester	Hypertension
O13.3	Gestational hypertension; third trimester	Hypertension

ICD-10 Code	ICD-10 Code Description	GDM Risk Factor
O13.4	Gestational hypertension; complicating childbirth	Hypertension
O13.5	Gestational hypertension; complicating the puerperium	Hypertension
O13.9	Gestational hypertension; unspecified trimester	Hypertension
O14.00	Mild to moderate pre-eclampsia; unspecified trimester	Hypertension
O14.02	Mild to moderate pre-eclampsia; second trimester	Hypertension
O14.03	Mild to moderate pre-eclampsia; third trimester	Hypertension
O14.04	Mild to moderate pre-eclampsia; complicating childbirth	Hypertension
O14.05	Mild to moderate pre-eclampsia; complicating the puerperium	Hypertension
O14.10	Severe pre-eclampsia; unspecified trimester	Hypertension
O14.12	Severe pre-eclampsia; second trimester	Hypertension
O14.13	Severe pre-eclampsia; third trimester	Hypertension
O14.14	Severe pre-eclampsia; complicating childbirth	Hypertension
O14.15	Severe pre-eclampsia; complicating the puerperium	Hypertension
O14.90	Unspecified pre-eclampsia; unspecified trimester	Hypertension
O14.92	Unspecified pre-eclampsia; second trimester	Hypertension
O14.93	Unspecified pre-eclampsia; third trimester	Hypertension
O14.94	Unspecified pre-eclampsia; complicating childbirth	Hypertension
O14.95	Unspecified pre-eclampsia; complicating the puerperium	Hypertension
O24.4:	Gestational diabetes mellitus (GDM)	GDM

: indicates that any ICD-10 code beginning with the same numbers are included, e.g., E66: includes E66.0, E66.1, E66.11, etcetera.

*To be included as Obesity, must have an E66 type code AND a BMI code.

Table C-2 contains a list of CPT codes that were used in the analysis.

CPT Code	CPT Code Description
A4238	Supply allowance for adjunctive, nonimplanted continuous glucose monitor (CGM), includes all supplies and accessories, 1 month supply = 1 unit of service
A4239	Supply allowance for nonadjunctive, nonimplanted continuous glucose monitor (CGM), includes all supplies and accessories, 1 month supply = 1 unit of service
A9276	Sensor; invasive (e.g., subcutaneous), disposable, for use with nondurable medical equipment interstitial continuous glucose monitoring system (CGM), one unit = 1 day supply
A9277	Transmitter; external, for use with nondurable medical equipment interstitial continuous glucose monitoring system (CGM)
A9278	Receiver (monitor); external, for use with nondurable medical equipment interstitial continuous glucose monitoring system (CGM)
E2102	Adjunctive, nonimplanted continuous glucose monitor (CGM) or receiver
E2103	Nonadjunctive, nonimplanted continuous glucose monitor (CGM) or receiver
S1030	Continuous noninvasive glucose monitoring device, purchase

Table C-2—CPT Codes	
CPT Code	CPT Code Description
S1031	Continuous noninvasive glucose monitoring device, rental, including sensor, sensor replacement, and download to monitor

Table C-3 contains a list of NDC codes that were used in the analysis.

Table C-3—NDC Codes	
NDC Code	NDC Code Description
8627009111	DEXCOM G6 RECEIVER
8627005303	DEXCOM G6 SENSOR
8627001601	DEXCOM G6 TRANSMITTER
8627007901	DEXCOM G7 15 DAY SENSOR
8627007801	DEXCOM G7 RECEIVER
8627007701	DEXCOM G7 SENSOR
57599000101	FREESTYLE LIBRE 14 DAY SENSOR
57599083500	FREESTYLE LIBRE 2 PLUS SENSOR
57599080300	FREESTYLE LIBRE 2 READER
57599080000	FREESTYLE LIBRE 2 SENSOR
57599084400	FREESTYLE LIBRE 3 PLUS SENSOR
57599082000	FREESTYLE LIBRE 3 READER
57599081800	FREESTYLE LIBRE 3 SENSOR
63000041338	GUARDIAN 4 GLUCOSE SENSOR
63000051968	GUARDIAN 4 GLUCOSE SENSOR
63000044515	GUARDIAN 4 TRANSMITTER
63000044516	GUARDIAN 4 TRANSMITTER
43169095568	GUARDIAN LINK 3 TRANSMITTER
63000028678	GUARDIAN LINK 3 TRANSMITTER
63000031699	GUARDIAN LINK 3 TRANSMITTER
63000035751	GUARDIAN LINK 3 TRANSMITTER
76300023982	GUARDIAN LINK 3 TRANSMITTER
43169070405	GUARDIAN SENSOR 3
63000017962	GUARDIAN SENSOR 3
63000033698	GUARDIAN SENSOR 3
63000035844	GUARDIAN SENSOR 3

Table C-4 contains the codes used for pregnancy identification.

Table C-4—Pregnancy Identification Codes		
Code Type	Code	Code Description
CPT	59400	Routine obstetric care, including antepartum care, vaginal delivery (with or without episiotomy and/or forceps), and postpartum care
CPT	59409	Vaginal delivery only, with or without episiotomy and/or forceps

Table C-4—Pregnancy Identification Codes

Code Type	Code	Code Description
CPT	59410	Vaginal delivery only, with or without episiotomy and/or forceps, including postpartum care
CPT	59510	Routine obstetric care, including antepartum care, cesarean delivery, and postpartum care
CPT	59514	Surgical delivery of a fetus and placenta via an abdominal incision
CPT	59515	Admission to the hospital, the procedure itself (delivery of fetus and placenta via abdominal incision), and initial inpatient care.
CPT	59610	Routine obstetric care, including antepartum, vaginal delivery, and postpartum care, after a previous cesarean delivery
CPT	59612	Vaginal delivery only following a previous cesarean delivery (VBAC)
CPT	59614	Vaginal delivery after a previous cesarean delivery (VBAC), including the delivery and all postpartum care
CPT	59618	Routine obstetric care that includes antepartum care, a cesarean delivery, and postpartum care, specifically following an attempted vaginal delivery after a previous cesarean delivery
CPT	59620	Cesarean delivery only, performed after an attempted vaginal delivery in a patient who has had a previous cesarean delivery
CPT	59622	Cesarean delivery only, including postpartum care, following an attempted vaginal delivery after a previous cesarean delivery
ICD-10-PCS	10D00Z0	Extraction of Products of Conception, High, Open Approach
ICD-10-PCS	10D00Z1	Extraction of Products of Conception, Low, Open Approach
ICD-10-PCS	10D00Z2	Extraction of Products of Conception, Extraperitoneal, Open Approach
ICD-10-PCS	10D07Z3	Extraction of Products of Conception, Low Forceps, Via Natural or Artificial Opening
ICD-10-PCS	10D07Z4	Extraction of Products of Conception, Mid Forceps, Via Natural or Artificial Opening
ICD-10-PCS	10D07Z5	Extraction of Products of Conception, High Forceps, Via Natural or Artificial Opening
ICD-10-PCS	10D07Z6	Extraction of Products of Conception, Vacuum, Via Natural or Artificial Opening
ICD-10-PCS	10D07Z7	Extraction of Products of Conception, Internal Version, Via Natural or Artificial Opening
ICD-10-PCS	10D07Z8	Extraction of Products of Conception, Other, Via Natural or Artificial Opening
ICD-10-PCS	10E0XZZ	Delivery of Products of Conception, External Approach
ICD-10	Z37.1	Single Stillbirth
ICD-10	Z37.4	Twins, born stillborn
ICD-10	Z37.7	Other multiple births, all stillborn

Appendix D—Combination Risk Factors

Table D-1 contains the counts for each combination of risk factors.

Combination	Estimated Members in 2023	Number of Risk Factors*
GDM Without Insulin Use	1,214	0
GDM Without Insulin Use & Advanced Maternal Age	271	1
GDM Without Insulin Use & Obesity	167	1
GDM Without Insulin Use & Obesity & Advanced Maternal Age	24	2
GDM Without Insulin Use & Hypertension	690	1
GDM Without Insulin Use & Hypertension & Advanced Maternal Age	260	2
GDM Without Insulin Use & Hypertension & Obesity	292	2
GDM Without Insulin Use & Hypertension & Obesity & Advanced Maternal Age	97	3
Non-GDM: Advanced Maternal Age	1,377	1
Non-GDM: Obesity	979	1
Non-GDM: Obesity & Advanced Maternal Age	84	2
Non-GDM: Hypertension	6,484	1
Non-GDM: Hypertension & Advanced Maternal Age	889	2
Non-GDM: Hypertension & Obesity	1,000	2
Non-GDM: Hypertension & Obesity & Advanced Maternal Age	168	3
Non-GDM: Pre-Diabetes	510	1
Non-GDM: Pre-Diabetes & Advanced Maternal Age	63	2
Non-GDM: Pre-Diabetes & Obesity	73	2
Non-GDM: Pre-Diabetes & Obesity & Advanced Maternal Age	5	3
Non-GDM: Pre-Diabetes & Hypertension	252	2
Non-GDM: Pre-Diabetes & Hypertension & Advanced Maternal Age	55	3
Non-GDM: Pre-Diabetes & Hypertension & Obesity	117	3
Non-GDM: Pre-Diabetes & Hypertension & Obesity & Advanced Maternal Age	33	4

*For purposes of this table, risk factors for the *GDM Without Insulin Use* group include a diagnosis of hypertension, obesity, or women of advanced maternal age; risk factors for the *Non-GDM* group include a diagnosis of pre-diabetes, hypertension, obesity, or women of advanced maternal age.

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