# Patients with Diabetes, with a Rural Residence, or Who Are Black Experience Higher Risk of Stillbirth

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#### **Key Findings**

- Patients who are Black, patients who live in non-urban areas, and patients with diabetes each have an increased likelihood of stillbirth after 20 weeks gestation.
- Thrombophilia, severe obesity, hypertension, and chronic kidney disease were associated with higher likelihood of stillbirth at some stages.

Stillbirth (fetal death at 20 or more weeks gestation) is a major cause of perinatal loss, with long-term impacts on families and public health. While certain risk factors are well-documented, less is known about whether they are specific to early, late, or term stillbirth. We aimed to further understand timing-specific patterns, highlighting opportunities for targeted prevention.

We studied 246,775 pregnancies that occurred between January 1, 2017, and May 1, 2025, including those that had a miscarriage and those that did not, and matched pregnancies based on maternal age, gravidity, prior neonatal or fetal demise, and whether the pregnancy had more than one fetus. We accounted for demographics, BMI, smoking, rurality, census region, residence in a socially vulnerable area, multiple gestation status, maternal conditions, obstetric history, and prenatal care timing. Stillbirths were classified as early (20 to 27 weeks), late (28 to 36 weeks), or term (≥37 weeks).

Mothers who are Black experience markedly higher likelihood of stillbirths at each stage of stillbirth—up to 87% more likely compared to those who are White—as seen in Figure 1. A 9% increase in early pregnancy stillbirth was observed for Hispanic mothers. For other non-White mothers, representation was too low to establish statistical significance.



### Stillbirth Likelihood by Race and Ethnicity

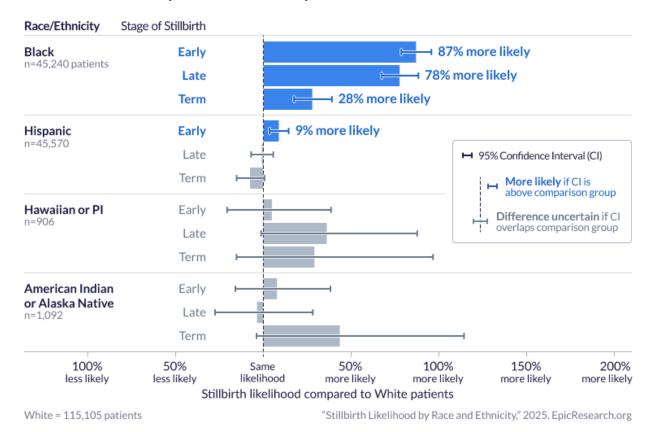


Figure 1. The likelihood of stillbirth by maternal race and ethnicity.

Mothers living in more rural areas are up to 35% more likely to experience a stillbirth compared to those living in more urban areas, as seen in Figure 2.



#### Stillbirth Likelihood by Rurality

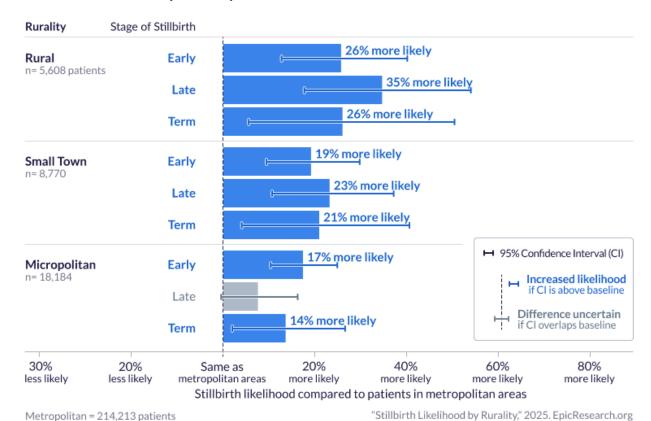
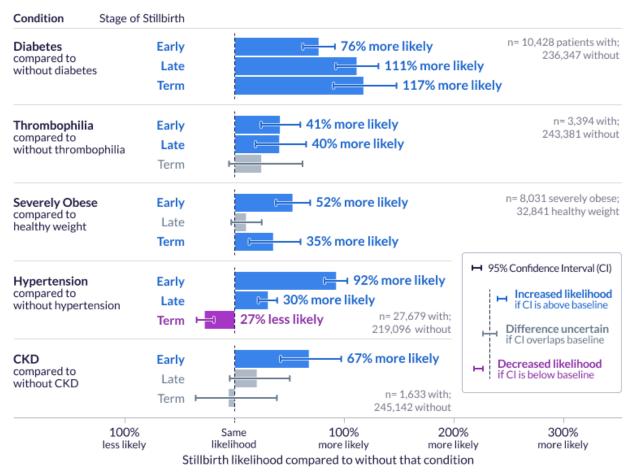


Figure 2. The likelihood of stillbirth by rurality.

We evaluated 20 maternal conditions that could potentially influence the risk of stillbirth. Figure 3 shows those with the strongest correlation. Patients with diabetes consistently had increased likelihood of stillbirth across all stages. Mothers who had thrombophilia, severe obesity, hypertension, or chronic kidney disease (CKD), on the other hand, had varying relationships with the likelihood of stillbirth at different stages. For the results of all studied factors, see the tables below.



#### Stillbirth Likelihood by Maternal Conditions



"Stillbirth Likelihood by Maternal Conditions," 2025. EpicResearch.org

Figure 3. The likelihood of stillbirth by maternal conditions.

These data come from Cosmos, a dataset created in collaboration with a community of Epic health systems representing more than 300 million patient records from 1,800 hospitals and more than 41,000 clinics from all 50 U.S. states, Canada, Lebanon, and Saudi Arabia. This study was completed by two teams that worked independently, each composed of a clinician and research scientists. The two teams came to similar conclusions. Graphics by Brian Olson.

#### References

1. American College of Obstetricians and Gynecologists, Society for Maternal-Fetal Medicine. Management of stillbirth: Obstetric care consensus no, 10: Obstetric care consensus no, 10. Obstet Gynecol. 2020;135(3):e110-e132. doi:10.1097/AOG.0000000000003719



## **Data Definitions**

Term	Definition
Study period	Pregnancy starting: 1/1/2017-5/1/2025
Study population: inclusion	Inclusion:  • A pregnancy record in Cosmos with the following information:  • Number of fetuses between 1 and 15  • A known delivery with a gestational age between 0 and 315 days  • A maternal age at pregnancy start between 8 and 69
Study population: exclusion	<ul> <li>A pregnancy:</li> <li>With a fetal demise at &lt;20 weeks' gestation</li> <li>With the number of fetuses not aligning with the fetal and neonatal demise values</li> <li>To mothers outside of the U.S.</li> </ul>
Confounders	Maternal age  o < 14  o 14-17  o 18-26  o 27-34  o 35-39  o 40-44  o 45+  Race and ethnicity (mutually exclusive)  o Black  o White  o Asian  o Hispanic  o Indigenous American or Alaska Native  o Hawaiian or Pacific Islander  o Unknown/other single race/multiracial  Social Vulnerability Index quartile  Pregravid BMI (between 6 and 251, if not, then Unknown)  o Underweight  o Healthy  o Overweight  o Heselthy  o Overweight  o Asserved RUCA  o Metropolitan  o Micropolitan  o Small Town  o Rural  Census Region  o MW  o W  o NE



	T
	o \$
	o Unknown
	Multiple fetuses: Y/N
	Comorbidities
	During pregnancy
	o Gestational diabetes: O24.4*
	o Preeclampsia / pregnancy hypertension: O18, O1[3-6]*
	o Genetic abnormalities: O28.5*, O35.1*
	o Physical abnormalities: O28.3*, O35.0*, O35.8*, or O35.A*
	o Alcohol & substance use complicating pregnancy: O35.4*,
	O35.5*, O99.31*, O99.32*, or O99.33*
	o Other fetal problems: O36*
	Any time prior to pregnancy end
	o Gestational diabetes: O24.4*
	o Preeclampsia / pregnancy hypertension: O14, O1[3-6]*
	o Diabetes: E11*, E10*, E08*, E09*, O24.0*, O24.1*, or O24.3*
	o Hypertension: I10*, I1A.0, O11*, O10*
	o CKD: N18* or SNOMED 709044004
	o Thrombophilia: D68.5* and D68.6*
	o Thyroid disease: E0[0-7]*
	o Anxiety: F40*, F41*, F06.4*, F93.0*, F94.0*
	o Asthma: SNOMED 195967001
	o Auto-immune: SNOMED 85828009
	o Depression: F32*
	o Epilepsy: SNOMED 84757009
	o Hypothyroid: SNOMED 40930008
	OB History:
	• Group as 0, 1, 2-3, and 4+
	o Gravida
	o Parity
	• Group as 0, 1, 2+
	o Fetal demise history
	o Neonatal demise history
	Prior C-Section
	N (A)
	o Yes/No Prenatal care, by trimester, by specialty:
	<ul> <li>MFM: Any non-admission encounter with a specialty of "Maternal and Fetal Medicine" or "Perinatology"</li> </ul>
	<u> </u>
	OB: Any <b>outpatient face-to-face</b> or prenatal encounter with specialty of "Obstetrice" or "Obstetrics and Gynasology"
	of "Obstetrics" or "Obstetrics and Gynecology"
	Family Medicine: Any outpatient face-to-face or prenatal encounter     with an acidly of Family Medicine
Outpotiont force to for	with specialty of Family Medicine
Outpatient face-to-face	An encounter of type Emergency, Office Visit, Well Child, Follow-up,
Outron	Telemedicine, Urgent care, Walk-in, or Hospital Outpatient Visit
Outcomes	Stillbirth
	• Early: 20 to 27 weeks
	Late: 28 to 36 weeks
	Term: 37 or more weeks



Model specifications	Matched 1:4 case to control. Matched on multiple pregnancy, mother's age at pregnancy start in years, pregnancy gravida count, prior fetal demise count, prior neonatal demise count
Limitations	Genetic conditions and anomalies are likely underrepresented. If a patient has a stillbirth, the fetus won't have a record to document these on. Fetal sex is not captured in Cosmos. Stillbirth is more common among male fetuses than female fetuses.

Table 1: Characteristics of the Study Population

Grouping	Sub Grouping	Total Count	Total %	Stillbirth Count	Stillbirth %
Overall	Overall	8,217,637	100.00%	49,655	0.60%
Stillbirth Status	Early	25,392	0.31%	17,033	0.0070
Stillbirth Status	Late	16,376	0.20%		
Stillbirth Status	Term	7,887	0.10%		
Multiple Fetuses	Multiple pregnancy	148,737	1.81%	3,443	2.31%
Multiple Fetuses	Single pregnancy	8,068,900	98.19%	46,212	0.57%
Neonatal Demise	Neonatal Demise	22,898	0.28%	342	1.49%
BMI	Unknown	4,983,868	60.65%	34,348	0.69%
BMI	Underweight	79,085	0.96%	316	0.40%
BMI	Healthy	1,204,090	14.65%	4,795	0.40%
BMI	Overweight	862,438	10.49%	3,902	0.45%
BMI	Obese	835,608	10.17%	4,608	0.55%
BMI	Severely Obese	252,548	3.07%	1,686	0.67%
SVI	<.2	1,028,597	12.52%	4,558	0.44%
SVI	[.2,.4)	1,380,217	16.80%	6,753	0.49%
SVI	[.4,.6)	1,375,609	16.74%	7,661	0.56%
SVI	[.6,.8)	1,730,639	21.06%	10,808	0.62%
SVI	>=.8	2,656,059	32.32%	19,634	0.74%
SVI	Other	46,516	0.57%	241	0.52%
Census Region	Unknown	1,140	0.01%	12	1.05%
Census Region	W	1,111,160	13.52%	6,274	0.56%
Census Region	MW	2,204,325	26.82%	12,845	0.58%
Census Region	S	3,531,391	42.97%	23,316	0.66%
Census Region	NE	1,369,621	16.67%	7,208	0.53%
RUCA	Metropolitan	7,134,111	86.81%	42,525	0.60%
RUCA	Micropolitan	584,181	7.11%	3,854	0.66%
RUCA	Small Town	282,101	3.43%	1,913	0.68%
RUCA	Rural	180,659	2.20%	1,209	0.67%
RUCA	Other	36,585	0.45%	154	0.42%
Age at Pregnancy Start	<14	2,029	0.02%	22	1.08%



Age at Pregnancy Start	[14,17]	103,038	1.25%	750	0.73%
Age at Pregnancy Start	[18,26]	2,593,542	31.56%	15,747	0.61%
Age at Pregnancy Start	[27,34]	3,989,662	48.55%	21,726	0.54%
Age at Pregnancy Start	[35,44]	1,511,587	18.39%	11,148	0.74%
Age at Pregnancy Start	45+	17,779	0.22%	262	1.47%
Race/Ethnicity	Hawaiian or Pacific				
-	Islander	28,034	0.34%	205	0.73%
Race/Ethnicity	Hispanic	1,542,727	18.77%	8,423	0.55%
Race/Ethnicity	Native American	33,447	0.41%	253	0.76%
Race/Ethnicity	Other/Multiracial/Unkn own	921,544	11.21%	6,207	0.67%
Race/Ethnicity	White	4,084,783	49.71%	20,089	0.49%
Race/Ethnicity	Black	1,225,900	14.92%	12,821	1.05%
Race/Ethnicity	Asian	381,202	4.64%	1,657	0.43%
Para Count	0	3,196,577	38.90%	19,557	0.61%
Para Count	1	2,601,846	31.66%	12,651	0.49%
Para Count	[2,3]	1,965,879	23.92%	12,838	0.65%
Para Count	4+	453,335	5.52%	4,609	1.02%
Gravida Count	1	2,276,636	27.70%	12,350	0.54%
Gravida Count	[2,3]	3,811,554	46.38%	20,103	0.53%
Gravida Count	4+	2,129,447	25.91%	17,202	0.81%
<b>Prior Fetal Demise Count</b>	0	8,111,323	98.71%	47,287	0.58%
Prior Fetal Demise Count	1	98,055	1.19%	2,105	2.15%
Prior Fetal Demise Count	2+	8,259	0.10%	263	3.18%
Prior Neonatal Demise		0.407.400	00 ( 40 (	40.000	0.500/
Count Prior Neonatal Demise	0	8,106,183	98.64%	48,200	0.59%
Count	1	98,525	1.20%	1,277	1.30%
Prior Neonatal Demise					
Count	2+	12,929	0.16%	178	1.38%
Prior Cesarean	Prior C-Section	1,409,112	17.15%	10,053	0.71%
Prior Cesarean	No Prior C-Section	6,808,525	82.85%	39,602	0.58%
Smoking Status	Unknown	265,527	3.23%	1,893	0.71%
Smoking Status	Never	6,113,734	74.40%	33,967	0.56%
Smoking Status	Ever Smoked	1,838,376	22.37%	13,795	0.75%
Pregnancy Year	2017	792,776	9.65%	4,841	0.61%
Pregnancy Year	2018	867,418	10.56%	5,123	0.59%
Pregnancy Year	2019	928,335	11.30%	5,554	0.60%
Pregnancy Year	2020	992,741	12.08%	5,991	0.60%
Pregnancy Year	2021	1,096,329	13.34%	6,727	0.61%
Pregnancy Year	2022	1,185,449	14.43%	7,044	0.59%
Pregnancy Year	2023	1,288,733	15.68%	7,256	0.56%
Pregnancy Year	2024	1,063,660	12.94%	6,943	0.65%



Pregnancy Year	2025	2,196	0.03%	176	8.01%
During Pregnancy -Gest	1 2020	2,170	0.0070	170	0.0170
Diabetes	Hx	117,411	1.43%	1,054	0.90%
During Pregnancy -Gest Diabetes	During Pregnancy	825,919	10.05%	3,267	0.40%
During Pregnancy - Pree/Hypertension	Hx	310,117	3.77%	2,420	0.78%
During Pregnancy -		4 500 405	40.500/	0.000	0.500/
Pree/Hypertension	During Pregnancy	1,522,105	18.52%	8,983	0.59%
During Pregnancy	Genetic Abnormalities	145,217	1.77%	3,991	2.75%
During Pregnancy	Physical Abnormalities	778,176	9.47%	11,259	1.45%
During Pregnancy  During Pregnancy	Social Factors Alcohol/Substance Use	43,081	0.52%	277	0.64%
	Complicating Pregnancy	663,312	8.07%	5,993	0.90%
During Pregnancy	Other Fetal Problems	2,955,741	35.97%	37,763	1.28%
Before Pregnancy End	Diabetes	265,280	3.23%	3,377	1.27%
Before Pregnancy End	Hypertension	754,700	9.18%	7,575	1.00%
Before Pregnancy End	Thrombophilia	81,694	0.99%	932	1.14%
Before Pregnancy End	Hypothyroid	506,841	6.17%	3,045	0.60%
Before Pregnancy End	Thyroid Disease	721,114	8.78%	4,372	0.61%
Before Pregnancy End	CKD	37,563	0.46%	586	1.56%
Before Pregnancy End	Epilepsy	85,905	1.05%	706	0.82%
Before Pregnancy End	Depression	1,311,128	15.96%	8,741	0.67%
Before Pregnancy End	Anxiety	1,814,075	22.08%	11,125	0.61%
Before Pregnancy End	Asthma	970,199	11.81%	6,406	0.66%
Before Pregnancy End	Auto-immune	243,355	2.96%	1,722	0.71%
OB Visits - Trimester 1	0	5,429,398	66.07%	35,144	0.65%
OB Visits - Trimester 1	1	1,079,233	13.13%	5,681	0.53%
OB Visits - Trimester 1	2	1,061,397	12.92%	5,205	0.49%
OB Visits - Trimester 1	3	439,225	5.34%	2,302	0.52%
OB Visits - Trimester 1	4+	208,384	2.54%	1,323	0.63%
OB Visits - Trimester 2	0	4,759,465	57.92%	29,235	0.61%
OB Visits - Trimester 2	1	387,268	4.71%	4,094	1.06%
OB Visits - Trimester 2	2	534,324	6.50%	4,757	0.89%
OB Visits - Trimester 2	3+	2,536,580	30.87%	11,569	0.46%
OB Visits - Trimester 3	0	4,313,288	52.49%	39,138	0.91%
OB Visits - Trimester 3	[1,5]	1,439,716	17.52%	7,913	0.55%
OB Visits - Trimester 3	[6,10]	2,246,870	27.34%	2,375	0.11%
OB Visits - Trimester 3	11+	217,763	2.65%	229	0.11%
MFM Visits - Trimester 1	0	7,480,283	91.03%	45,026	0.60%
MFM Visits - Trimester 1	1	338,651	4.12%	1,851	0.55%
MFM Visits - Trimester 1	2	168,850	2.05%	944	0.56%
MFM Visits - Trimester 1	3	92,505	1.13%	666	0.72%



MFM Visits - Trimester 1	4+	137,348	1.67%	1,168	0.85%
MFM Visits - Trimester 2	0	6,481,514	78.87%	36,075	0.56%
MFM Visits - Trimester 2	1+	1,736,123	21.13%	13,580	0.78%
MFM Visits - Trimester 3	0	6,749,875	82.14%	43,941	0.65%
MFM Visits - Trimester 3	1+	1,467,762	17.86%	5,714	0.39%
Fam Med Visits -				,	
Trimester 1	0	7,612,679	92.64%	46,255	0.61%
Fam Med Visits -					
Trimester 1	1	399,681	4.86%	2,233	0.56%
Fam Med Visits -					
Trimester 1	2	128,860	1.57%	726	0.56%
Fam Med Visits -					
Trimester 1	3+	76,417	0.93%	441	0.58%
Fam Med Visits -					
Trimester 2	0	7,797,135	94.88%	47,441	0.61%
Fam Med Visits -					
Trimester 2	1+	420,502	5.12%	2,214	0.53%
Fam Med Visits -					
Trimester 3	0	7,841,182	95.42%	48,849	0.62%
Fam Med Visits -					
Trimester 3	1+	376,455	4.58%	806	0.21%

Table 2: Likelihood of Early Term Stillbirth

Factor	OR	Lower CI	Upper CI
Other Fetal Problems	5.13	4.95	5.32
Genetic Abnormalities	3.38	3.12	3.66
BMI Unknown	2.38	2.25	2.51
Physical Abnormalities	2.28	2.18	2.38
Pregnancy Para Count 0	2.02	1.91	2.14
Hypertension	1.92	1.82	2.03
Race Ethnicity Black	1.87	1.79	1.96
Diabetes	1.76	1.62	1.91
CKD	1.67	1.42	1.97
BMI Severely Obese	1.52	1.37	1.69
BMI Obese	1.42	1.32	1.53
Thrombophilia	1.41	1.24	1.60
Race Ethnicity Other/Multiracial/Unknown	1.29	1.22	1.36
Smoking Status Unknown	1.28	1.18	1.40
RUCA Rural	1.26	1.13	1.40
BMI Overweight	1.19	1.11	1.29
RUCA Small Town	1.19	1.09	1.30
SVI>=.8	1.18	1.12	1.24
RUCA Micropolitan	1.17	1.10	1.25



Smoking Status Ever Smoked	1.14	1.10	1.19
SVI [.6,.8)	1.13	1.07	1.20
Prior Cesearean	1.13	1.08	1.18
Census Region S	1.13	1.08	1.17
Hypothyroid	1.12	1.00	1.26
Census Region W	1.12	1.06	1.18
Gestational Diabetes Hx	1.09	0.97	1.23
Race Ethnicity Hispanic	1.09	1.04	1.14
Race Ethnicity Native American	1.08	0.84	1.38
SVI[.4,.6)	1.07	1.01	1.14
Race Ethnicity Asian	1.07	0.98	1.16
Epilepsy	1.06	0.92	1.22
Preeclampsia Preg Hypertension Hx	1.05	0.97	1.14
Race Ethnicity Hawaiian Or Pacific Islander	1.05	0.79	1.39
Family Med Trimester 1	1.03	0.95	1.11
Autoimmune	1.03	0.93	1.13
MFM Trimester 4+	1.02	0.92	1.14
Alc Substance Use	0.98	0.93	1.05
BMI Underweight	0.98	0.81	1.20
Census Region NE	0.98	0.93	1.03
Family Med Trimester 2	0.96	0.84	1.10
Family Med Trimester 3+	0.96	0.81	1.13
SVI<.2	0.95	0.89	1.02
MFM Trimester 3	0.95	0.82	1.09
Anxiety	0.94	0.90	0.99
Asthma	0.94	0.89	0.99
Depression	0.93	0.88	0.98
Pregnancy Para Count[2,3]	0.89	0.85	0.94
Thyroid Disease	0.88	0.80	0.97
MFM Trimester 2	0.86	0.77	0.97
MFM Trimester 1	0.82	0.75	0.89
Pregnancy Para Count 4+	0.75	0.69	0.82
OB Trimester 4+	0.75	0.68	0.82
OB Trimester 1	0.74	0.71	0.78
OB Trimester 3	0.71	0.65	0.76
OB Trimester 2	0.70	0.67	0.74
Social Factors	0.66	0.52	0.83
Preeclampsia Preg Hypertension	0.41	0.39	0.44
Gestational Diabetes	0.22	0.20	0.23
		•	



Table 3: Likelihood of Term Stillbirth

Factor	OR	Lower CI	Upper CI
Other Fetal Problems	7.33	6.87	7.83
Genetic Abnormalities	2.68	2.31	3.10
Diabetes	2.17	1.90	2.48
BMI Unknown	1.49	1.36	1.63
Smoking Statu sUnknown	1.47	1.27	1.70
Race Ethnicity Native American	1.44	0.96	2.14
PregnancyParaCount0	1.36	1.23	1.50
BMI Severely Obese	1.35	1.13	1.60
Pregnancy Para Count 4+	1.32	1.12	1.56
Physical Abnormalities	1.32	1.21	1.43
Race Ethnicity Hawaiian Or Pacific Islander	1.29	0.85	1.97
Race Ethnicity Black	1.28	1.17	1.39
RUCA Rural	1.26	1.06	1.50
Prior Cesearean	1.25	1.16	1.35
Thrombophilia	1.24	0.95	1.62
BMI Obese	1.23	1.09	1.38
Hypothyroid	1.23	1.00	1.50
RUCA Small Town	1.21	1.04	1.41
Epilepsy	1.18	0.92	1.51
SVI>=.8	1.17	1.07	1.29
BMI Overweight	1.17	1.04	1.32
Census Region W	1.15	1.04	1.27
Pregnancy Para Count [2,3]	1.15	1.04	1.27
RUCA Micropolitan	1.14	1.02	1.27
SVI [.6,.8)	1.13	1.03	1.24
Preeclampsia Preg Hypertension Hx	1.11	0.96	1.29
Smoking Status Ever Smoked	1.09	1.01	1.17
Census Region S	1.08	1.00	1.16
Race Ethnicity Other Multiracial Unknown	1.07	0.98	1.17
Gestational Diabetes	1.07	0.85	1.34
SVI [.4,.6)	1.06	0.96	1.17
Census Region NE	1.05	0.96	1.14
Depression	1.04	0.95	1.13
SVI<.2	1.01	0.90	1.12
Alc Substance Use	0.99	0.89	1.10
CKD	0.94	0.64	1.38
Race Ethnicity Hispanic	0.92	0.85	1.01
Anxiety	0.91	0.84	0.99



BMI Underweight	0.90	0.65	1.25
Autoimmune	0.89	0.74	1.06
Family Med Trimester1	0.88	0.76	1.01
Family Med Trimester2	0.87	0.69	1.09
Asthma	0.85	0.78	0.93
Race Ethnicity Asian	0.84	0.73	0.98
MFM Trimester3	0.84	0.65	1.09
Social Factors	0.82	0.56	1.20
Thyroid Disease	0.81	0.68	0.97
Gestational Diabetes During Pregnancy	0.77	0.70	0.85
Hypertension	0.73	0.65	0.81
Preeclampsia Preg Hypertension	0.70	0.65	0.76
MFM Trimester1	0.69	0.59	0.80
Family Med Trimester3+	0.68	0.50	0.92
MFM Trimester4+	0.65	0.52	0.80
OB Trimester1	0.62	0.57	0.68
OB Trimester2	0.58	0.53	0.64
MFM Trimester2	0.56	0.46	0.70
OB Trimester3	0.55	0.48	0.63
OB Trimester4+	0.47	0.39	0.57

Table 4: Likelihood of Late Term Stillbirth

Factor	OR	Lower CI	Upper CI
Other Fetal Problems	8.57	8.16	9.01
Genetic Abnormalities	3.31	3.00	3.65
Diabetes	2.11	1.92	2.31
Physical Abnormalities	1.89	1.79	2.00
Race Ethnicity Black	1.78	1.67	1.88
BMI Unknown	1.60	1.50	1.71
Thrombophilia	1.40	1.19	1.65
Race Ethnicity Other Multiracial Unknown	1.37	1.28	1.46
Race Ethnicity Hawaiian or Pacific Islander	1.36	0.99	1.88
RUCA Rural	1.35	1.18	1.54
Smoking Status Ever Smoked	1.32	1.25	1.39
Prior Cesearean	1.31	1.24	1.38
Hypertension	1.30	1.22	1.39
PregnancyParaCount0	1.30	1.21	1.40
Smoking Status Unknown	1.29	1.16	1.44
Preeclampsia Preg Hypertension Hx	1.28	1.15	1.41
Census Region W	1.24	1.15	1.33



RUCA Small Town	1.23	1.11	1.37
Alc Substance Use	1.20	1.12	1.29
CKD	1.20	0.95	1.50
Census Region S	1.17	1.11	1.23
SVI>=.8	1.15	1.07	1.23
PregnancyParaCount4+	1.13	1.01	1.26
Gestational Diabetes Hx	1.10	0.94	1.28
BMI Severely Obese	1.10	0.97	1.25
BMI Obese	1.08	0.99	1.18
RUCA Micropolitan	1.08	1.00	1.16
SVI [.6,.8)	1.06	0.98	1.13
SVI [.4,.6)	1.03	0.95	1.11
BMI Overweight	1.00	0.92	1.10
Race Ethnicity Hispanic	0.99	0.93	1.06
Depression	0.99	0.93	1.05
Hypothyroid	0.98	0.85	1.13
Census Region NE	0.98	0.91	1.05
MFM Trimester 3	0.97	0.81	1.15
Epilepsy	0.96	0.81	1.15
Race Ethnicity Native American	0.96	0.72	1.28
BMI Underweight	0.96	0.76	1.22
Pregnancy Para Count [2,3]	0.94	0.88	1.01
Thyroid Disease	0.94	0.83	1.06
Autoimmune	0.92	0.82	1.04
Race Ethnicity Asian	0.92	0.81	1.03
FamilyMed_Trimester11	0.92	0.83	1.01
Anxiety	0.89	0.84	0.95
SVI<.2	0.89	0.82	0.97
Preeclampsia Preg Hypertension	0.89	0.84	0.94
Asthma	0.87	0.82	0.93
Family Med Trimester 2	0.86	0.73	1.02
Social Factors	0.81	0.63	1.05
MFM Trimester 4+	0.80	0.70	0.92
Family Med Trimester 3+	0.76	0.61	0.95
MFM Trimester 1	0.72	0.65	0.80
MFM Trimester 2	0.66	0.56	0.76
Gestational Diabetes	0.64	0.59	0.68
OB Trimester 1	0.59	0.55	0.63
OB Trimester 2	0.56	0.52	0.60
OB Trimester 3	0.52	0.47	0.57
OB Trimester 4+	0.51	0.45	0.58

