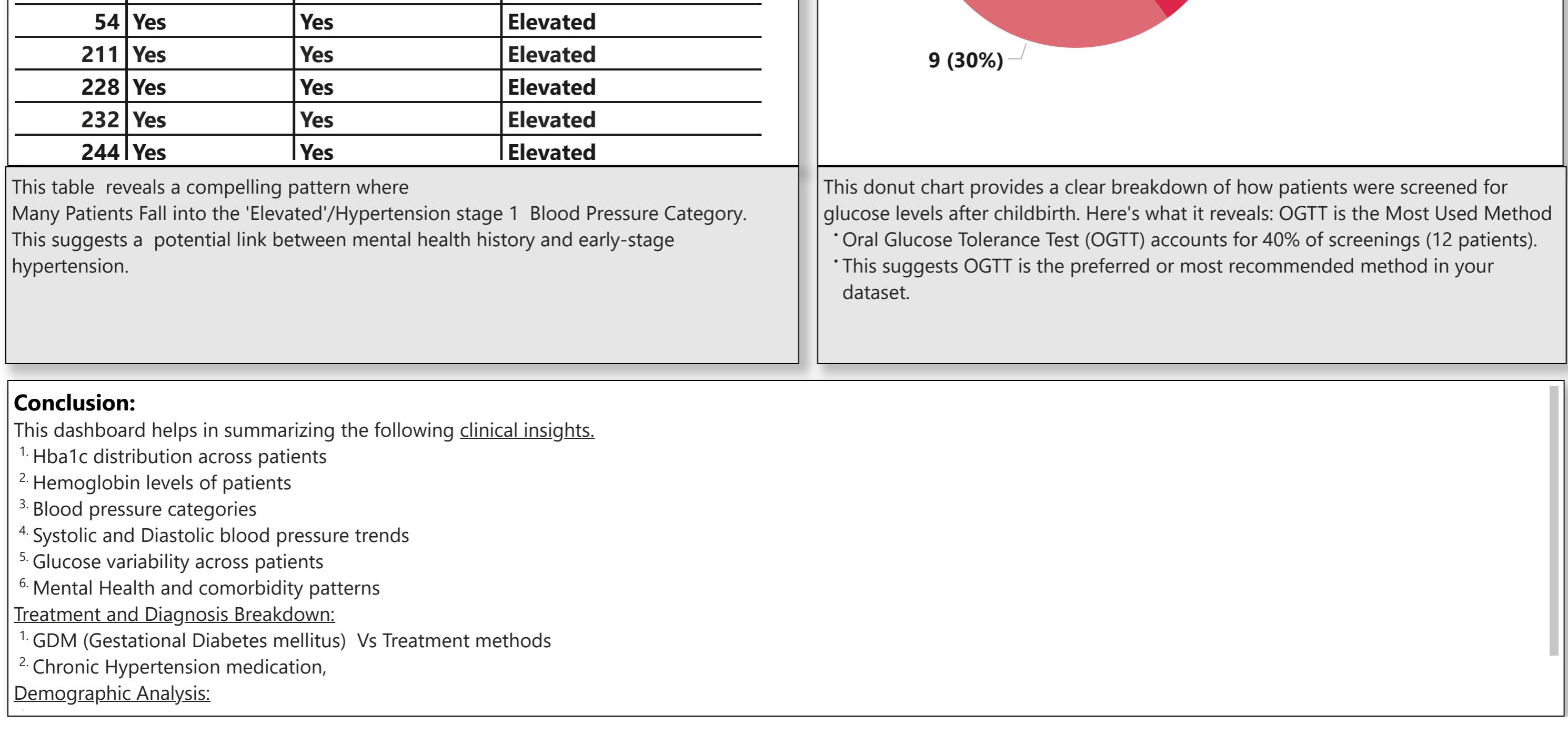
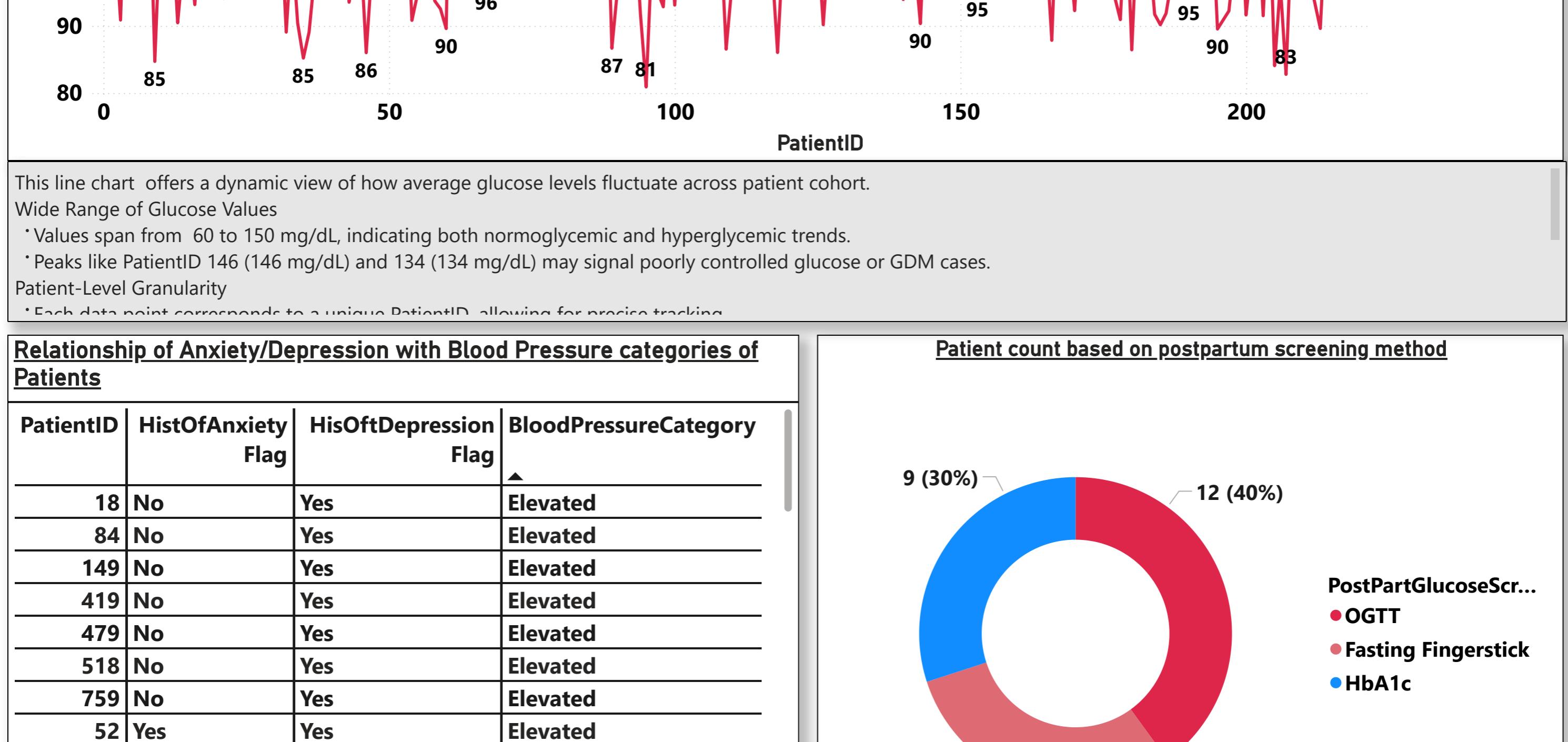
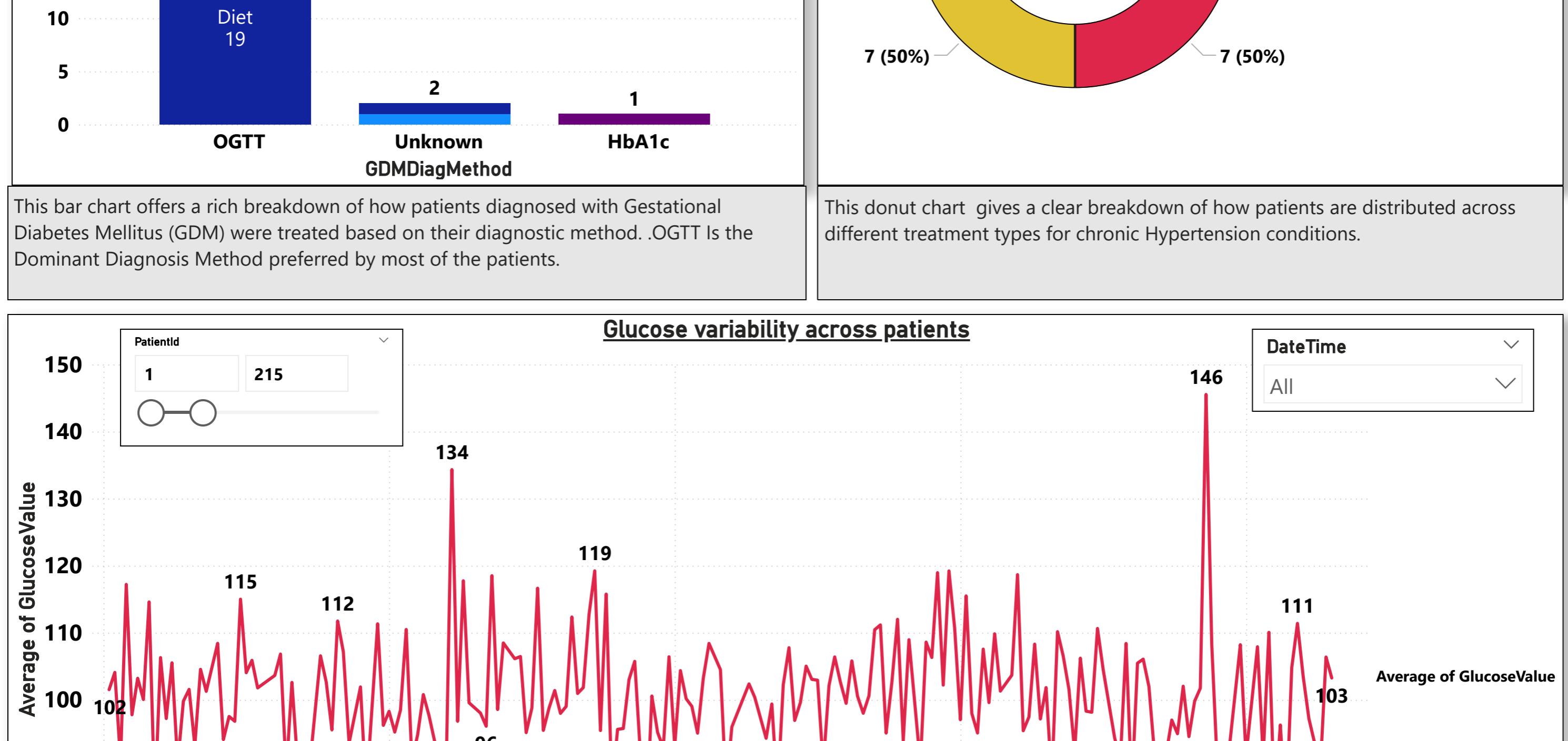
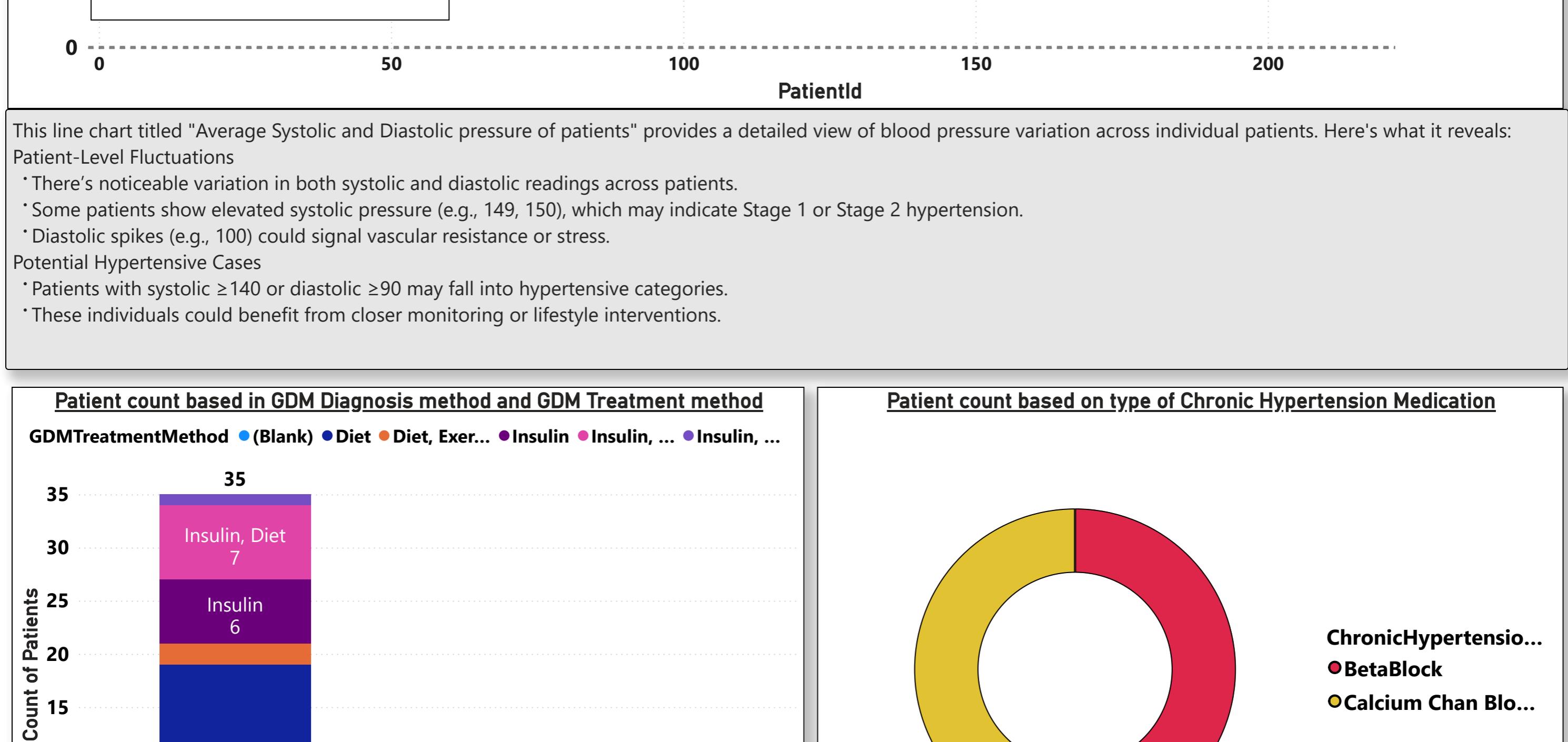
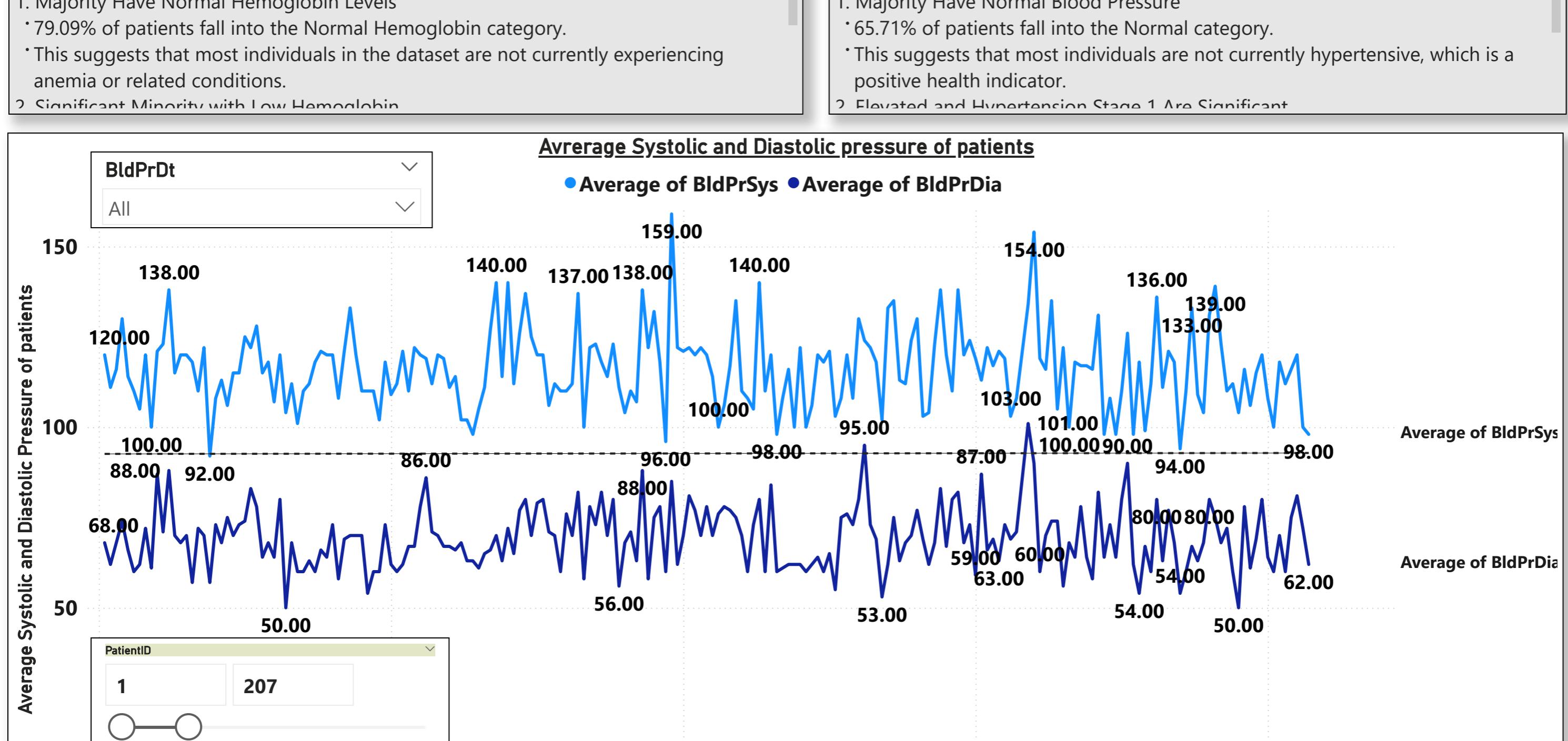
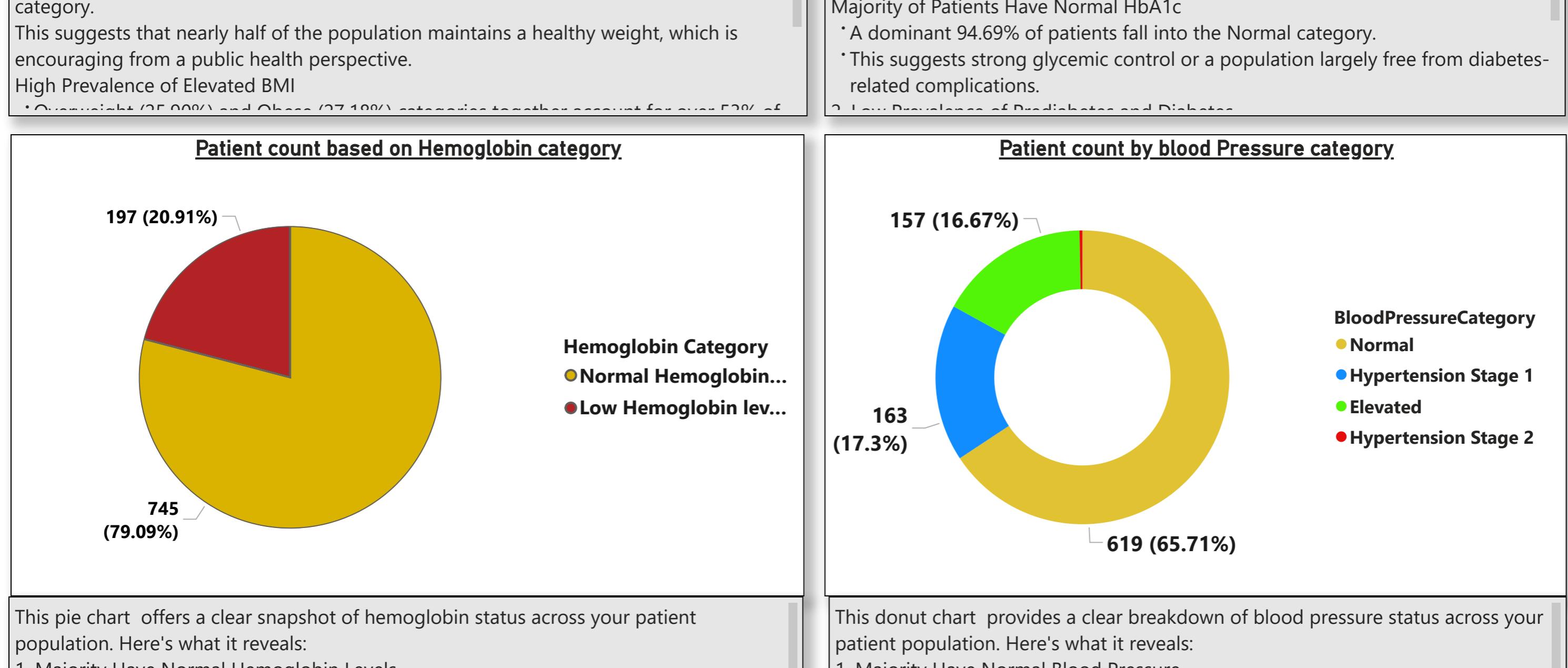
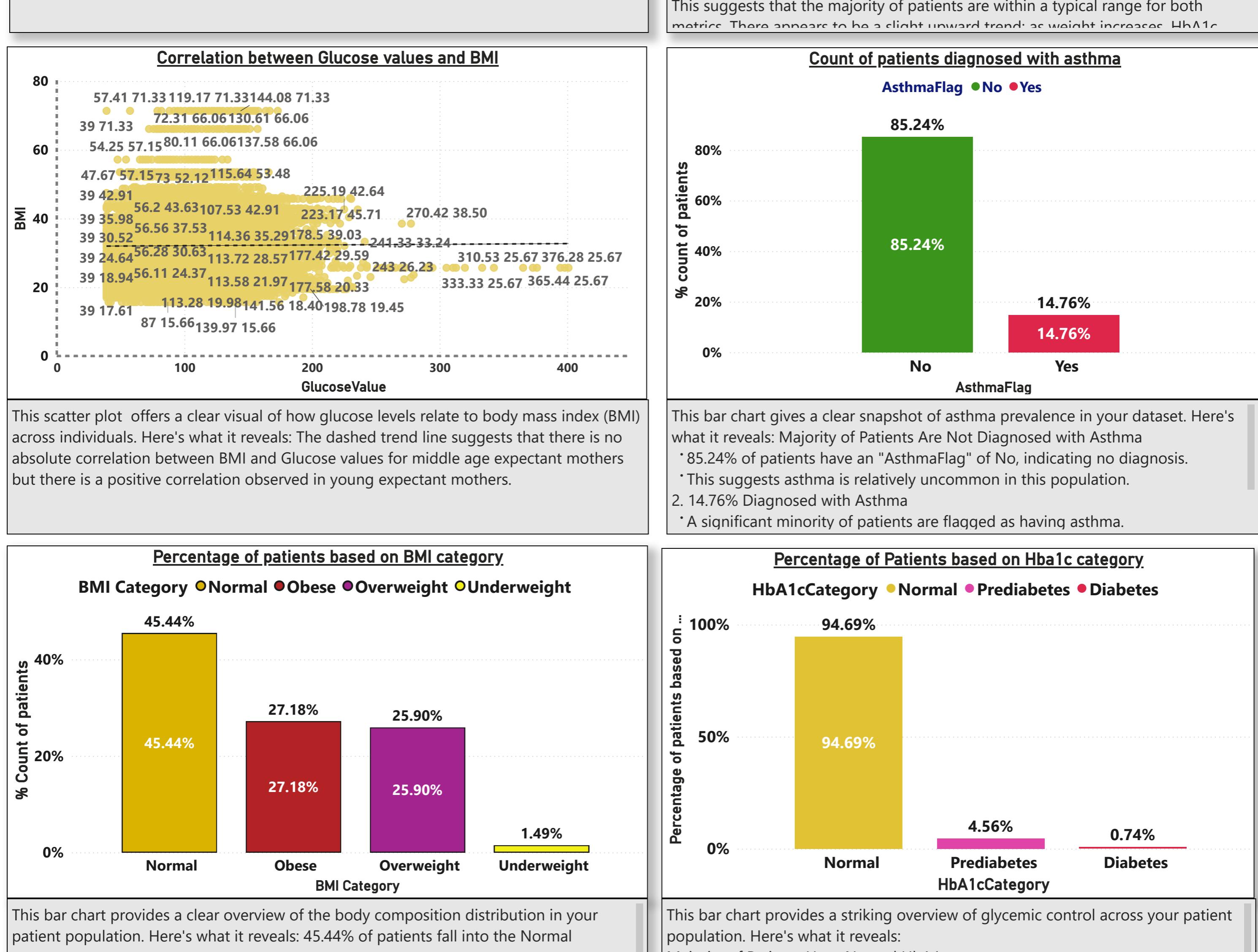
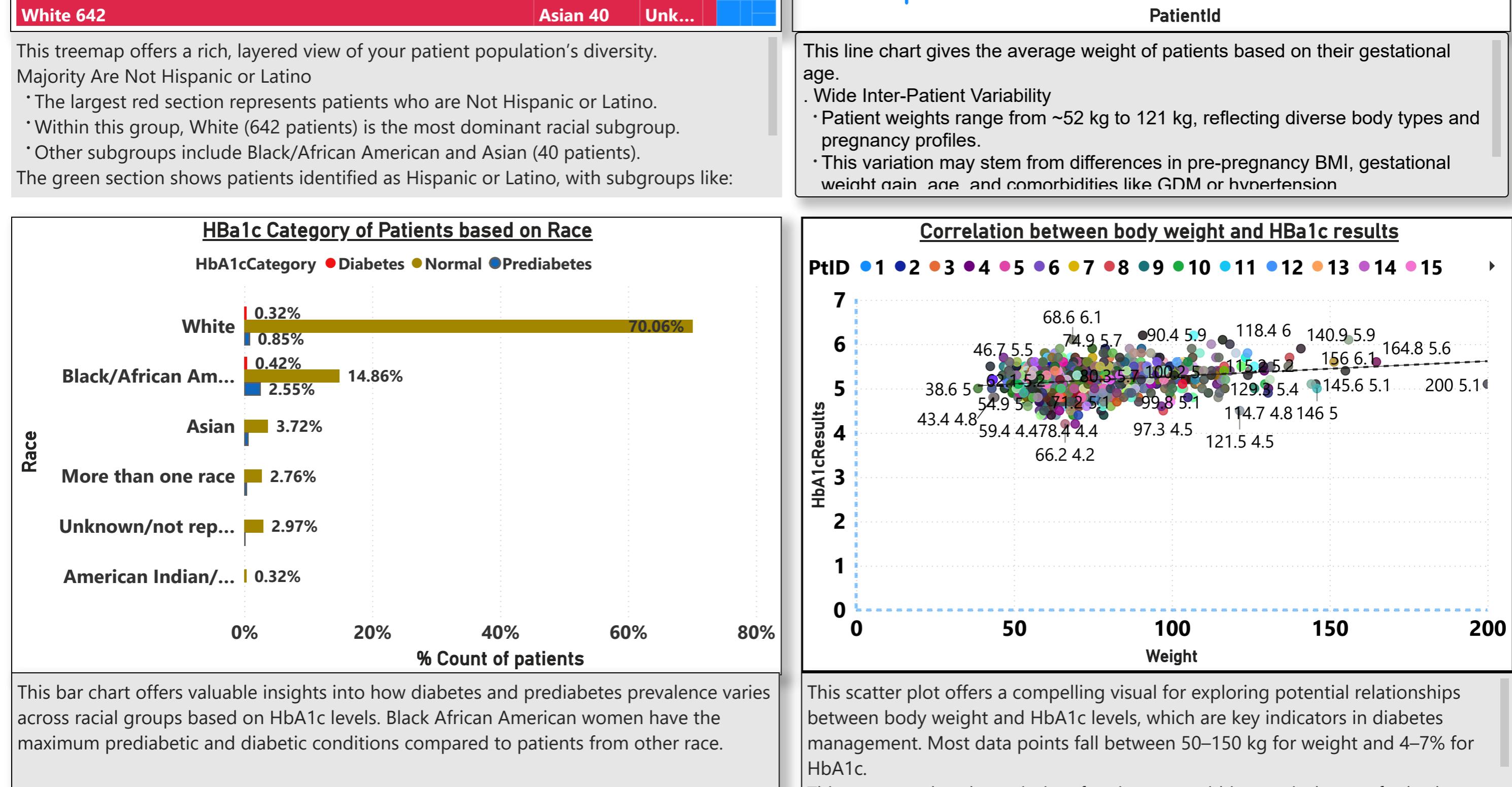
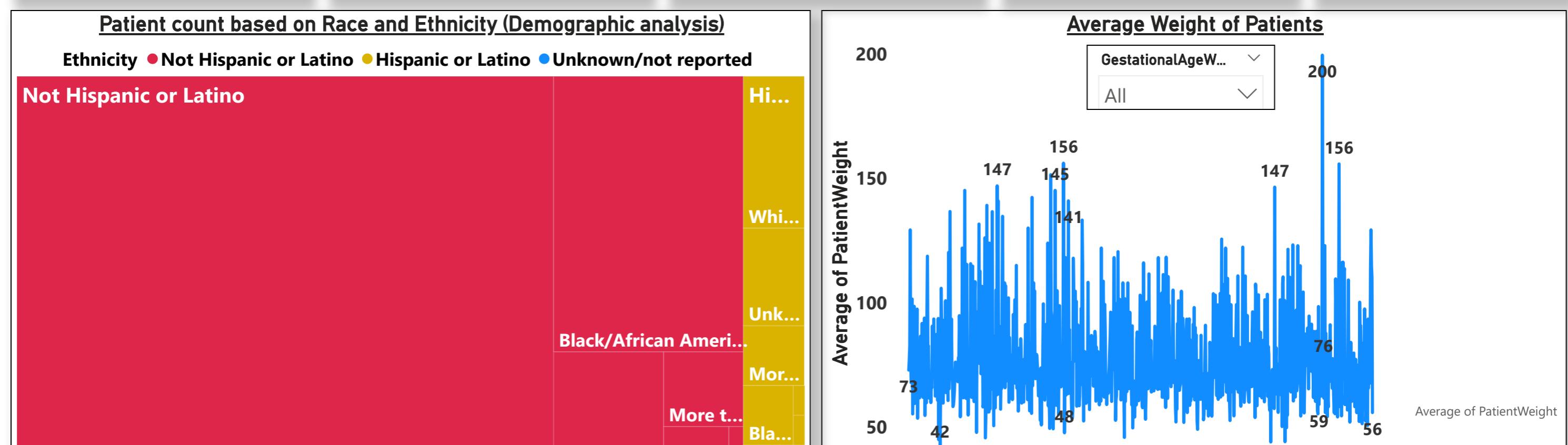
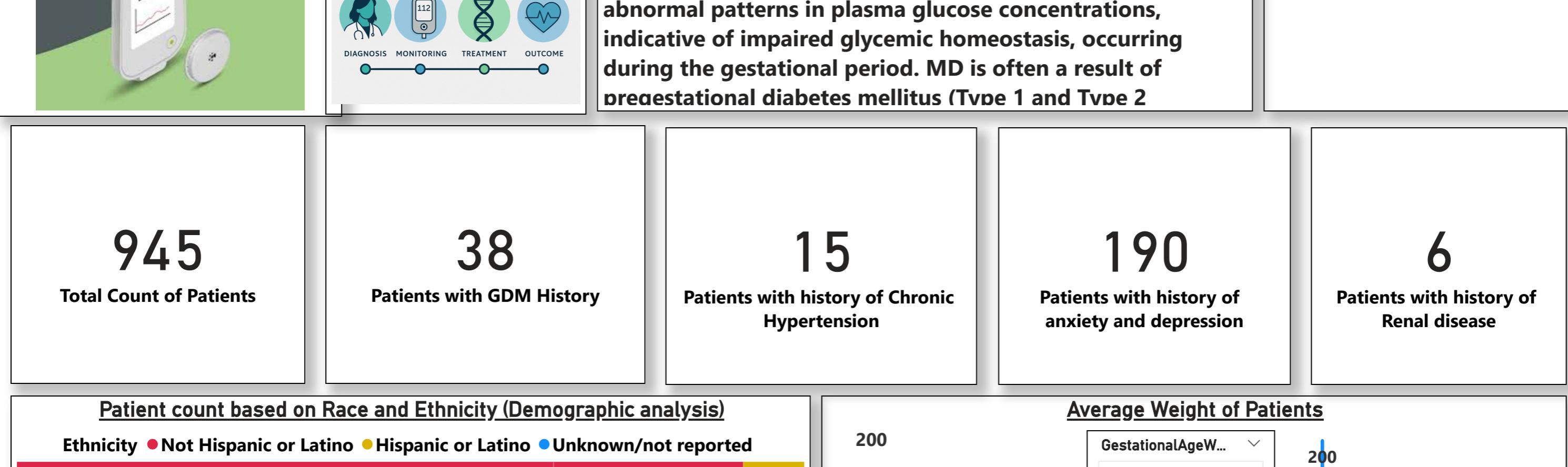
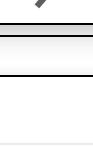


ANALYSIS OF CRITICAL HEALTH PARAMETERS OF PATIENTS



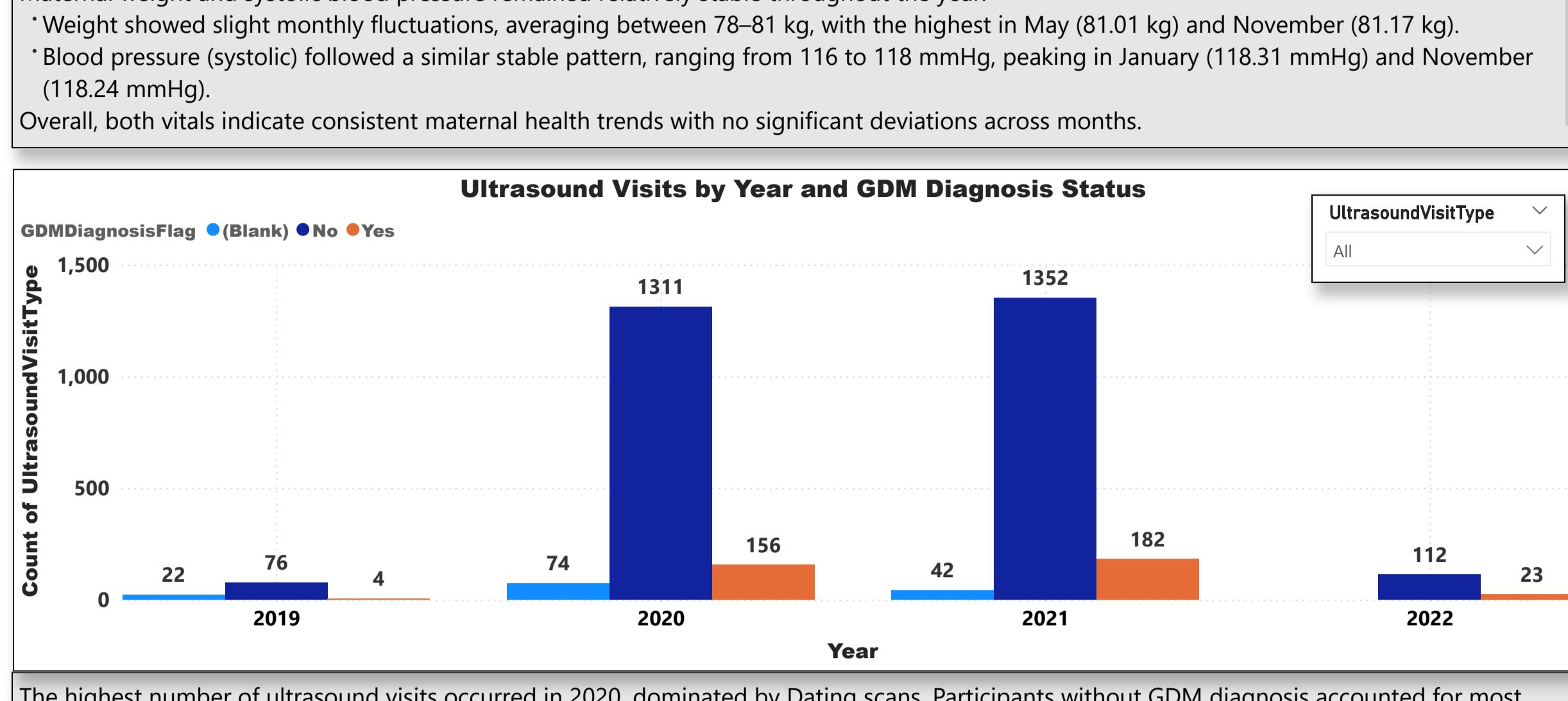
MATERNAL & FETAL HEALTH MONITORING DASHBOARD

KPI

21.78 AvgGA 147.26 AvgFHR 0.05 AbnormalityPct 153 AbnormalityCount 80.00 AvgWeight 3354 TotalScans 117.16 AvgSysB

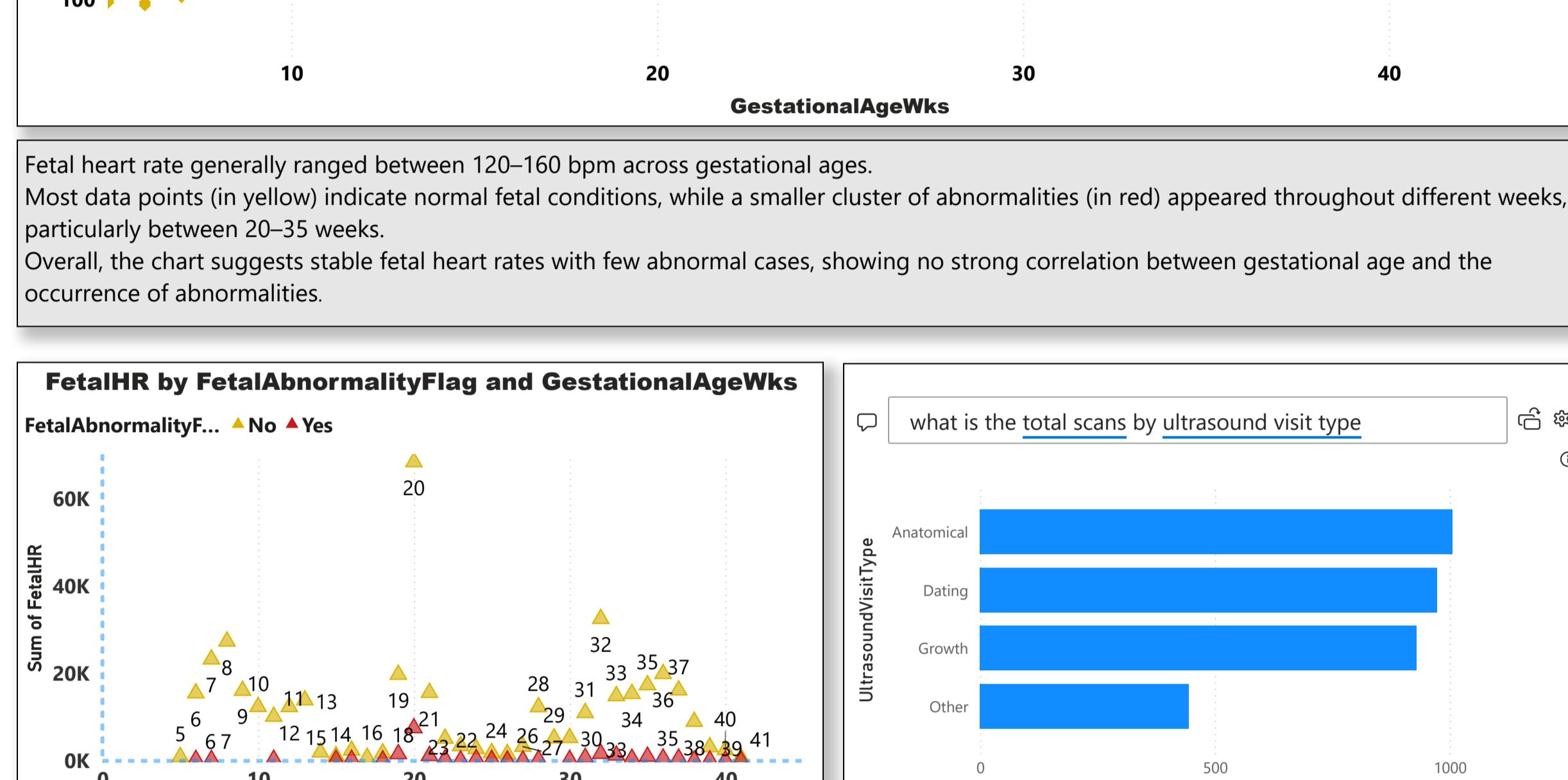
7 Patients	5 Patients_OnSteroids	0.71 Pct_Patients_OnSteroids	1.40 Courses_per_Patient	7 SteroidCourses
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Maternal Vital Trends



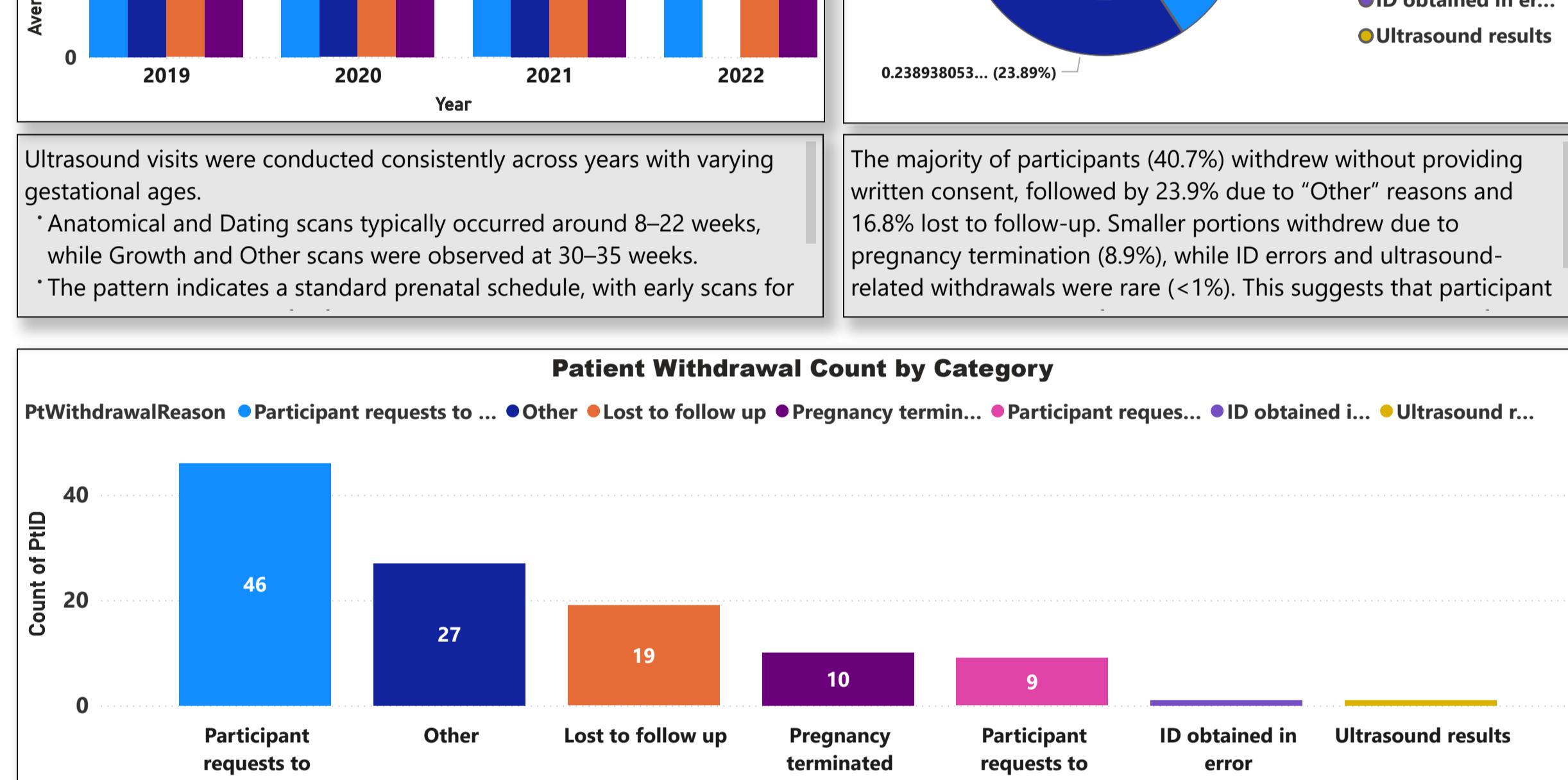
Maternal weight and systolic blood pressure remained relatively stable throughout the year.
Weight showed slight monthly fluctuations, averaging between 78–81 kg, with the highest in May (81.01 kg) and November (81.17 kg).
Blood pressure (systolic) followed a similar stable pattern, ranging from 116 to 118 mmHg, peaking in January (118.31 mmHg) and November (118.24 mmHg).
Overall, both vitals indicate consistent maternal health trends with no significant deviations across months.

Ultrasound Visits by Year and GDM Diagnosis Status



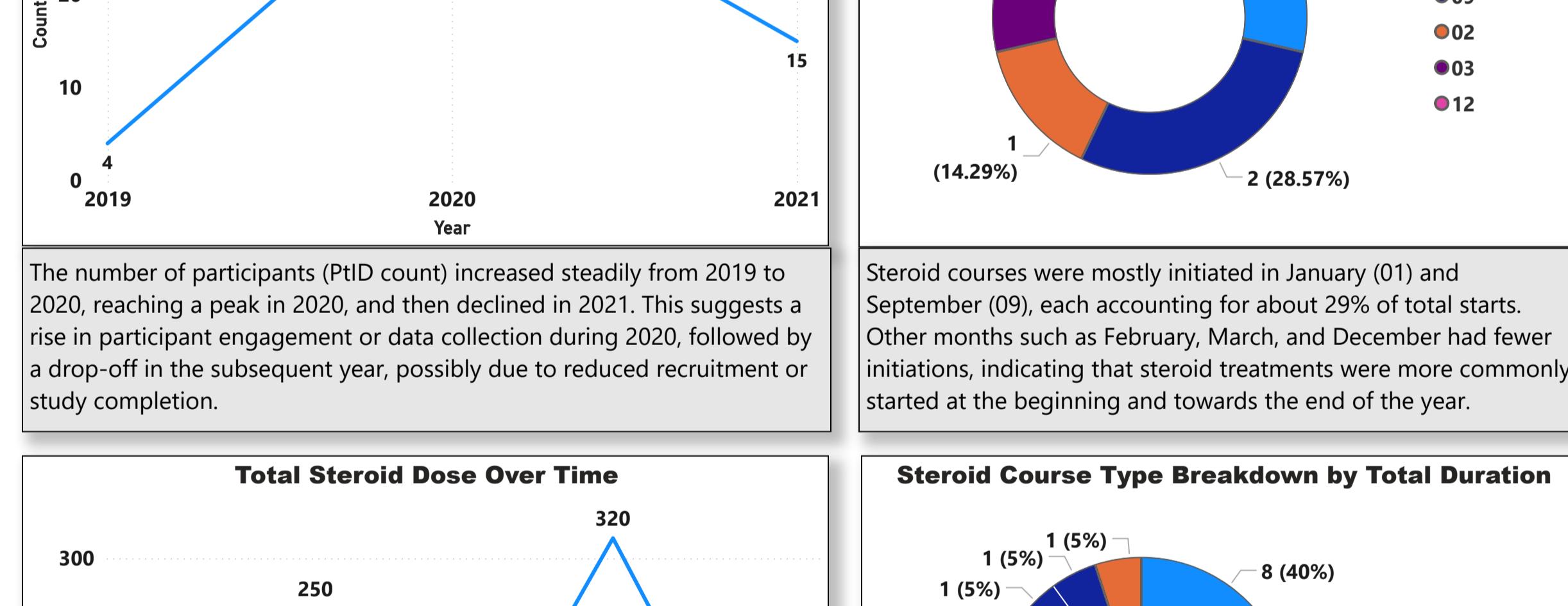
The highest number of ultrasound visits occurred in 2020, dominated by Dating scans. Participants without GDM diagnosis accounted for most scans across all years, while GDM-positive cases showed a modest presence, peaking in 2020. By 2021, total visits declined but the pattern between GDM and non-GDM groups remained similar. This trend indicates consistent prenatal monitoring, with 2020 showing the most active diagnostic activity.

Fetal Health Analysis



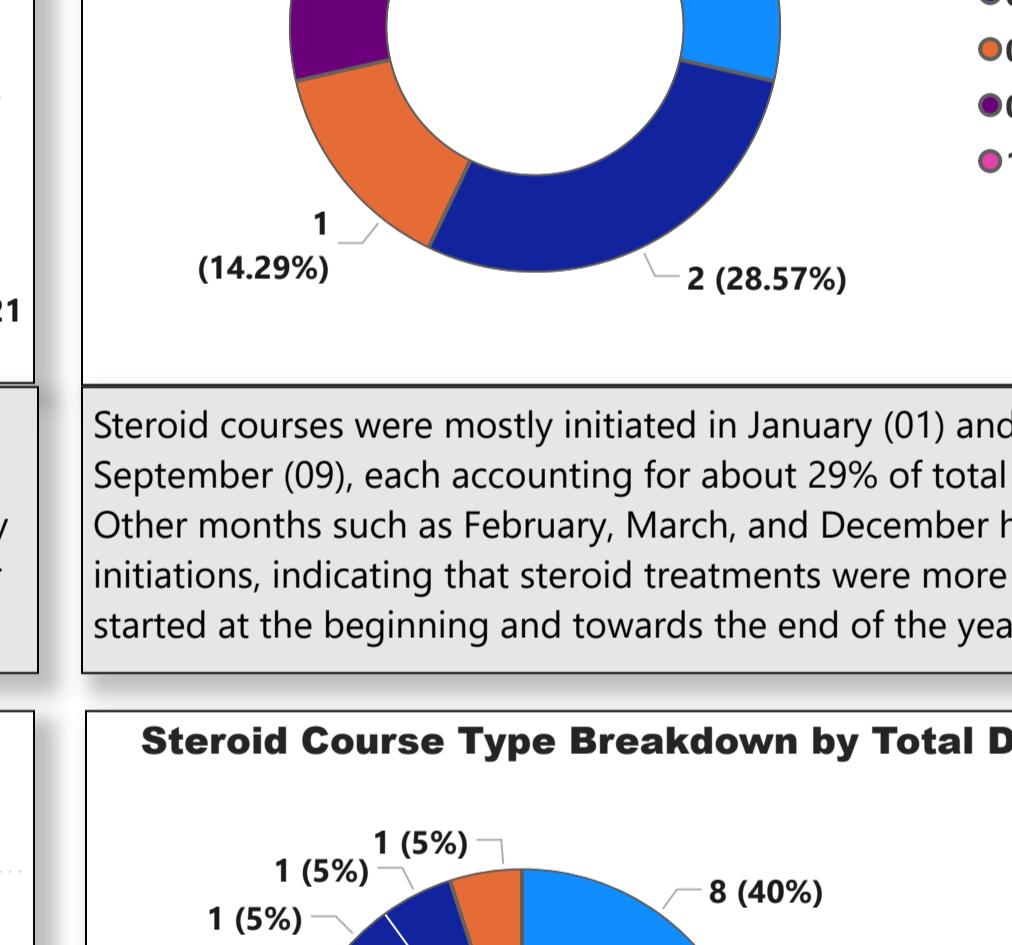
Fetal heart rate generally ranged between 120–160 bpm across gestational ages.
Most data points (in yellow) indicate normal fetal conditions, while a smaller cluster of abnormalities (in red) appeared throughout different weeks, particularly between 20–35 weeks.
Overall, the chart suggests stable fetal heart rates with few abnormal cases, showing no strong correlation between gestational age and the occurrence of abnormalities.

FetalHR by FetalAbnormalityFlag and GestationalAgeWks



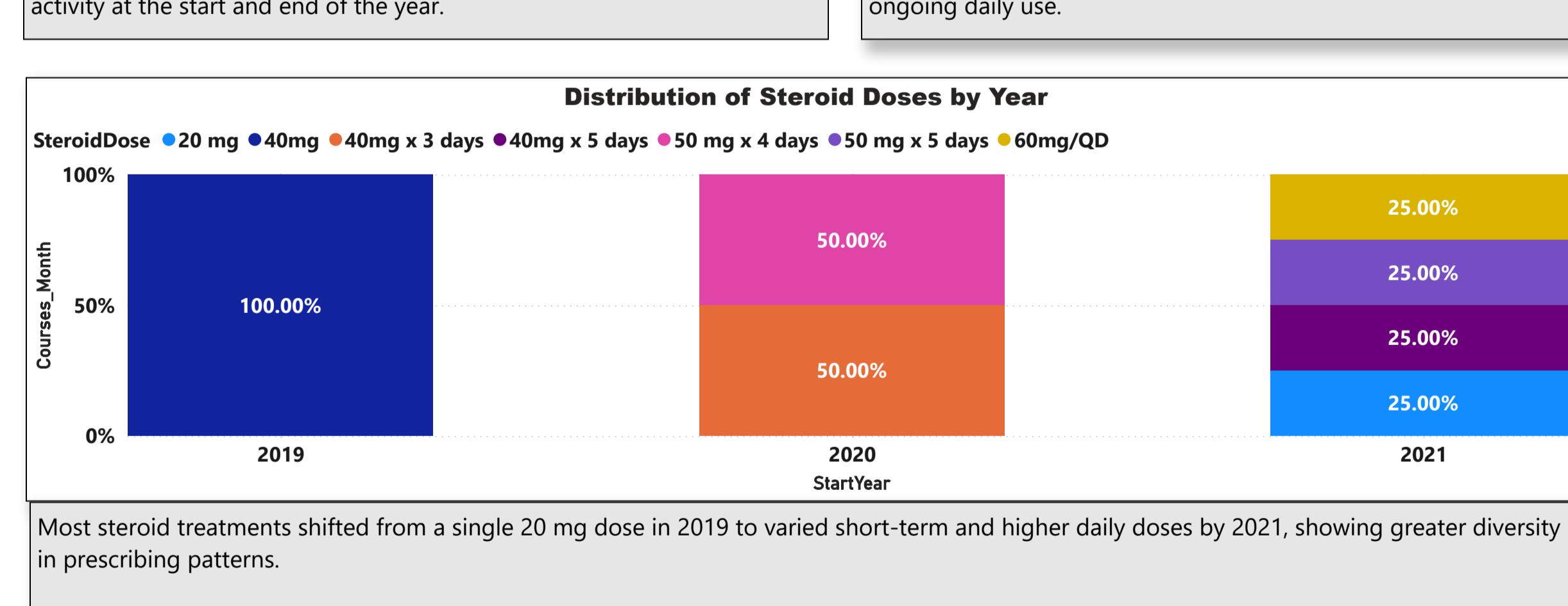
The majority of fetal heart rate (Fetal HR) readings are normal (yellow) across all gestational weeks, with few abnormal cases (red) appearing intermittently between 10–40 weeks. Peaks in total Fetal HR values are observed around 8, 20, and 35 weeks, indicating periodic monitoring intensity. Overall, normal fetal activity dominates, suggesting few

what is the total scans by ultrasound visit type



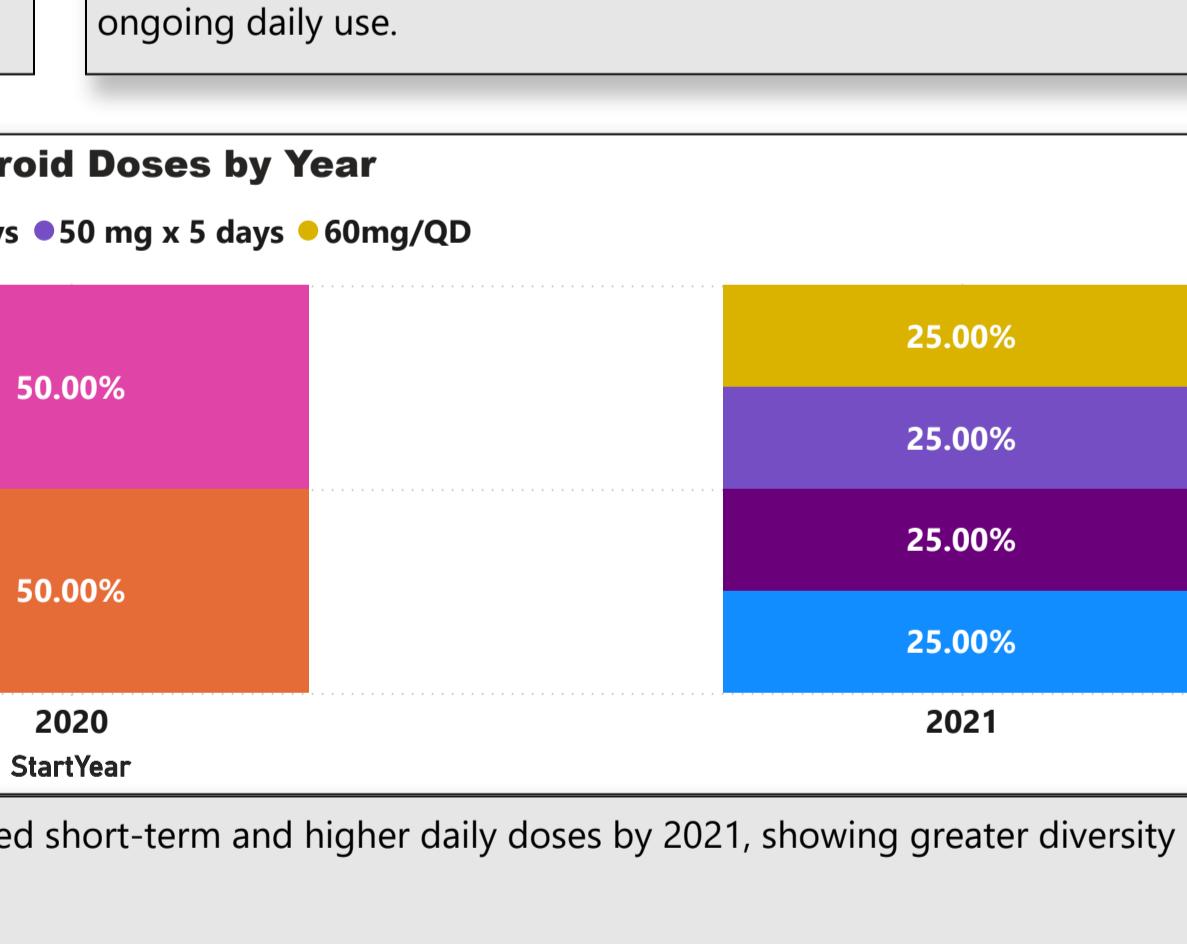
This is an Q & A chart. We can search for any questions related to the data and it gives the answers.

Ultrasound Timeline



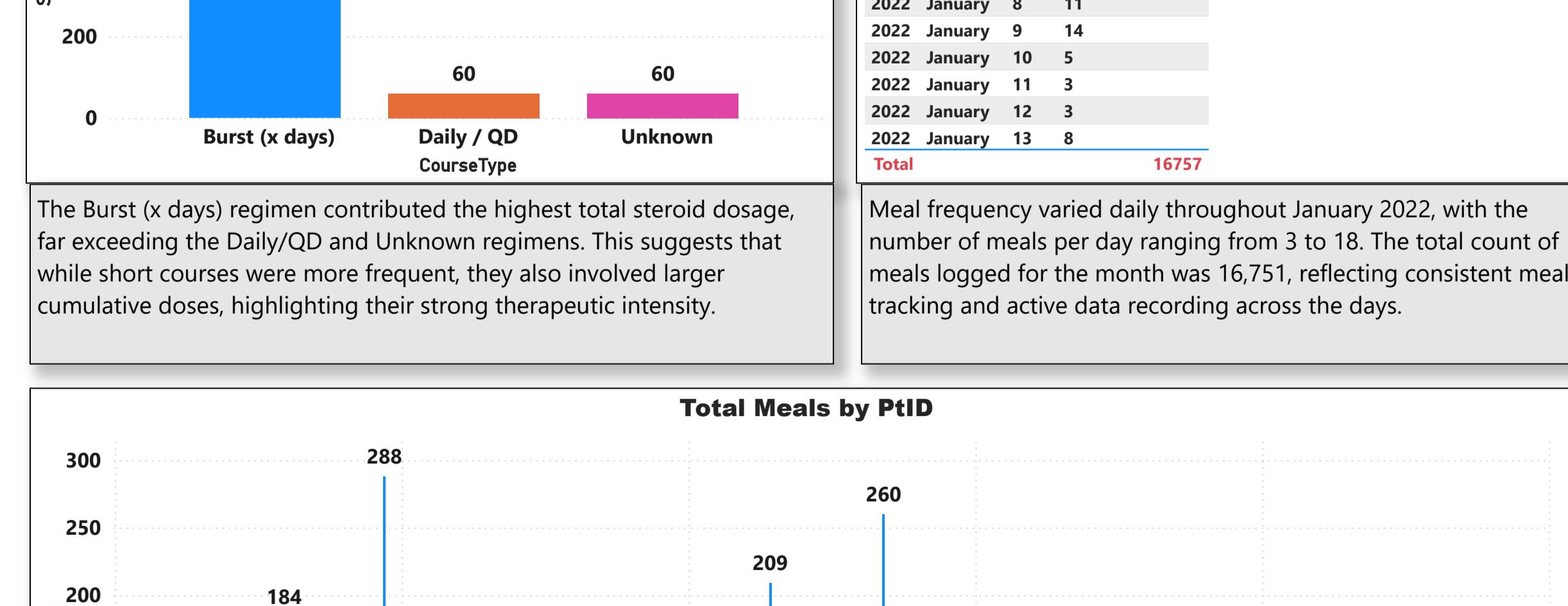
Ultrasound visits were conducted consistently across years with varying gestational ages.
Anatomical and Dating scans typically occurred around 8–22 weeks, while Growth and Other scans were observed at 30–35 weeks.
The pattern indicates a standard prenatal schedule, with early scans for

Distribution of Withdrawal Reasons



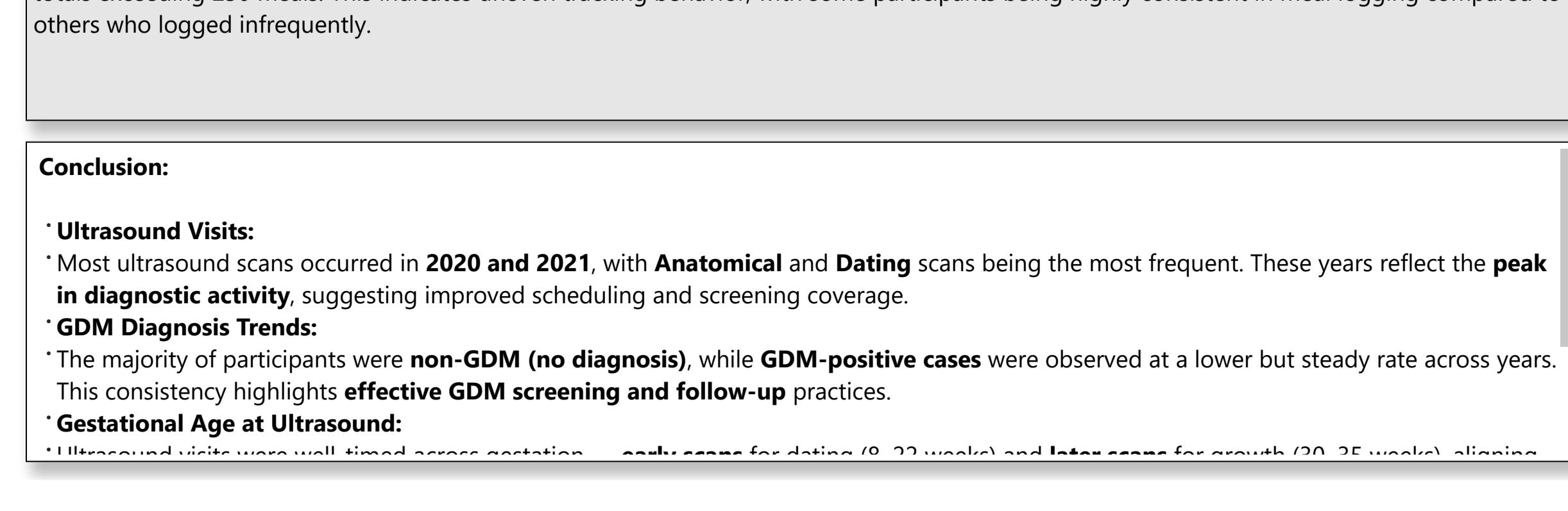
The majority of participants (40.7%) withdrew without providing written consent, followed by 23.9% due to "Other" reasons and 16.8% lost to follow-up. Smaller portions withdrew due to pregnancy termination (8.9%), while ID errors and ultrasound-related withdrawals were rare (<1%). This suggests that participant

Patient Withdrawal Count by Category



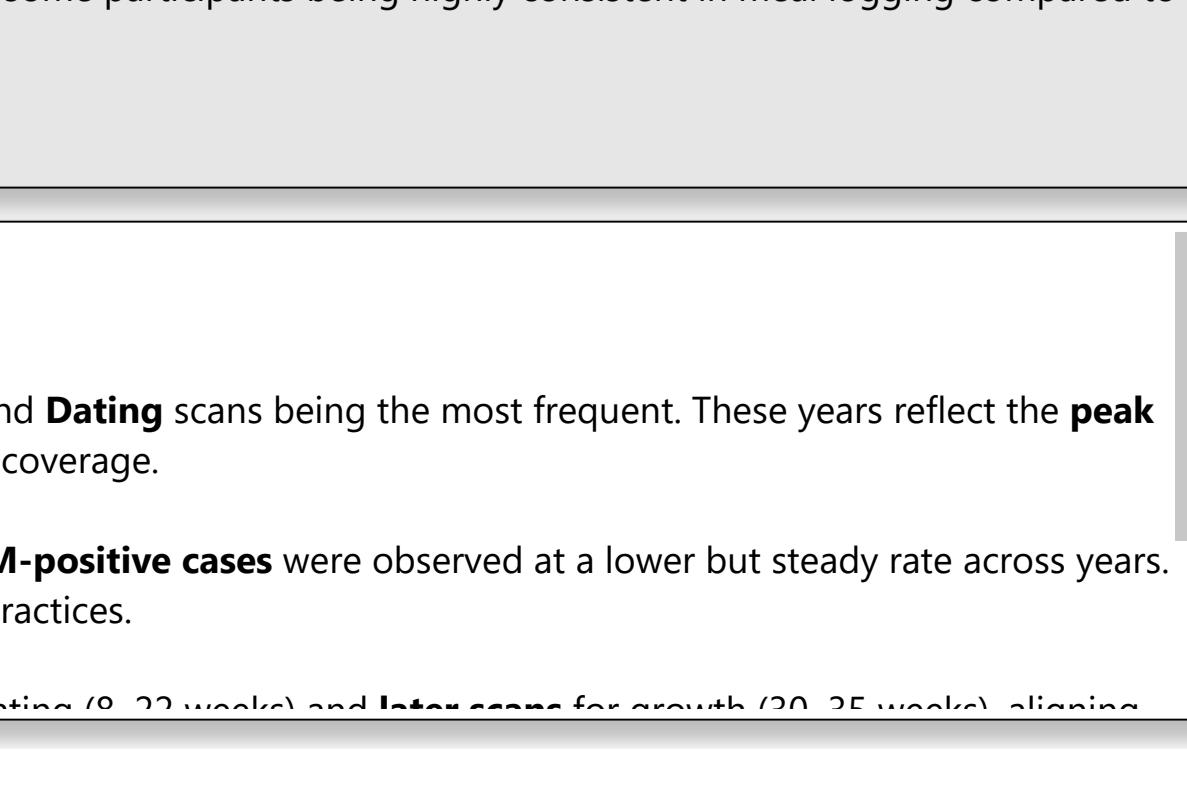
The highest withdrawal count (46) occurred for participants who requested withdrawal without writing, followed by 27 "Other" cases and 19 lost to follow-up. Lower counts were seen in pregnancy-related and administrative reasons, indicating the need for better participant retention and documentation consistency.

Count of PtID by Year



The number of participants (PtID count) increased steadily from 2019 to 2020, reaching a peak in 2020, and then declined in 2021. This suggests a rise in participant engagement or data collection during 2020, followed by a drop-off in the subsequent year, possibly due to reduced recruitment or study completion.

Monthly Pattern of Steroid Course Initiation

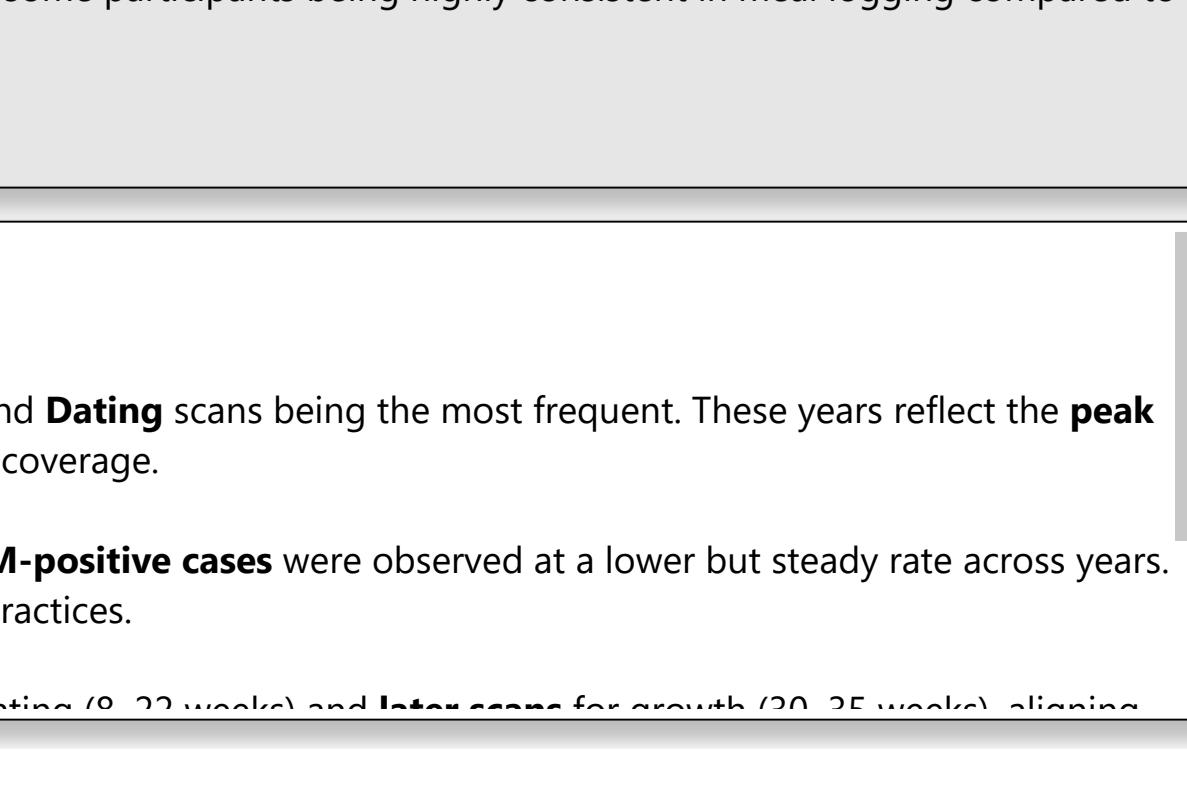


Steroid courses were mostly initiated in January (01) and September (09), each accounting for about 29% of total starts. Other months such as February, March, and December had fewer initiations, indicating that steroid treatments were more commonly started at the beginning and towards the end of the year.

Total Steroid Dose Over Time

The total steroid dose showed clear variation over the months — peaking in September, followed by moderate levels in January and February, and a sharp decline in March and December. This indicates that steroid treatments were most frequent around late third quarter, with minimal activity at the start and end of the year.

Steroid Course Type Breakdown by Total Duration



Most steroid courses were short-term Burst treatments, accounting for nearly 85–90% of total durations. Only a small number were classified as Daily/QD or Unknown, indicating that steroids were typically prescribed for short, fixed-duration regimens rather than ongoing daily use.

Distribution of Steroid Doses by Year

Most steroid treatments shifted from a single 20 mg dose in 2019 to varied short-term and higher daily doses by 2021, showing greater diversity in prescribing patterns.

Distribution of Steroid Regimens

The Burst (x days) regimen contributed the highest total steroid dosage, far exceeding the Daily/QD and Unknown regimens. This suggests that while short courses were more frequent, they also involved larger cumulative doses, highlighting their strong therapeutic intensity.

Daily Meals Distribution

Meal frequency varied daily throughout January 2022, with the number of meals per day ranging from 3 to 18. The total count of meals logged for the month was 16,757, reflecting consistent meal tracking and active data recording across the days.

Total Meals by PtID

ANALYSIS OF PREGNANCY AND INFANT INFO

100.00

Adverse Event Rate

33.33

Discontinuation Rate

53

Total Preterm Births

664

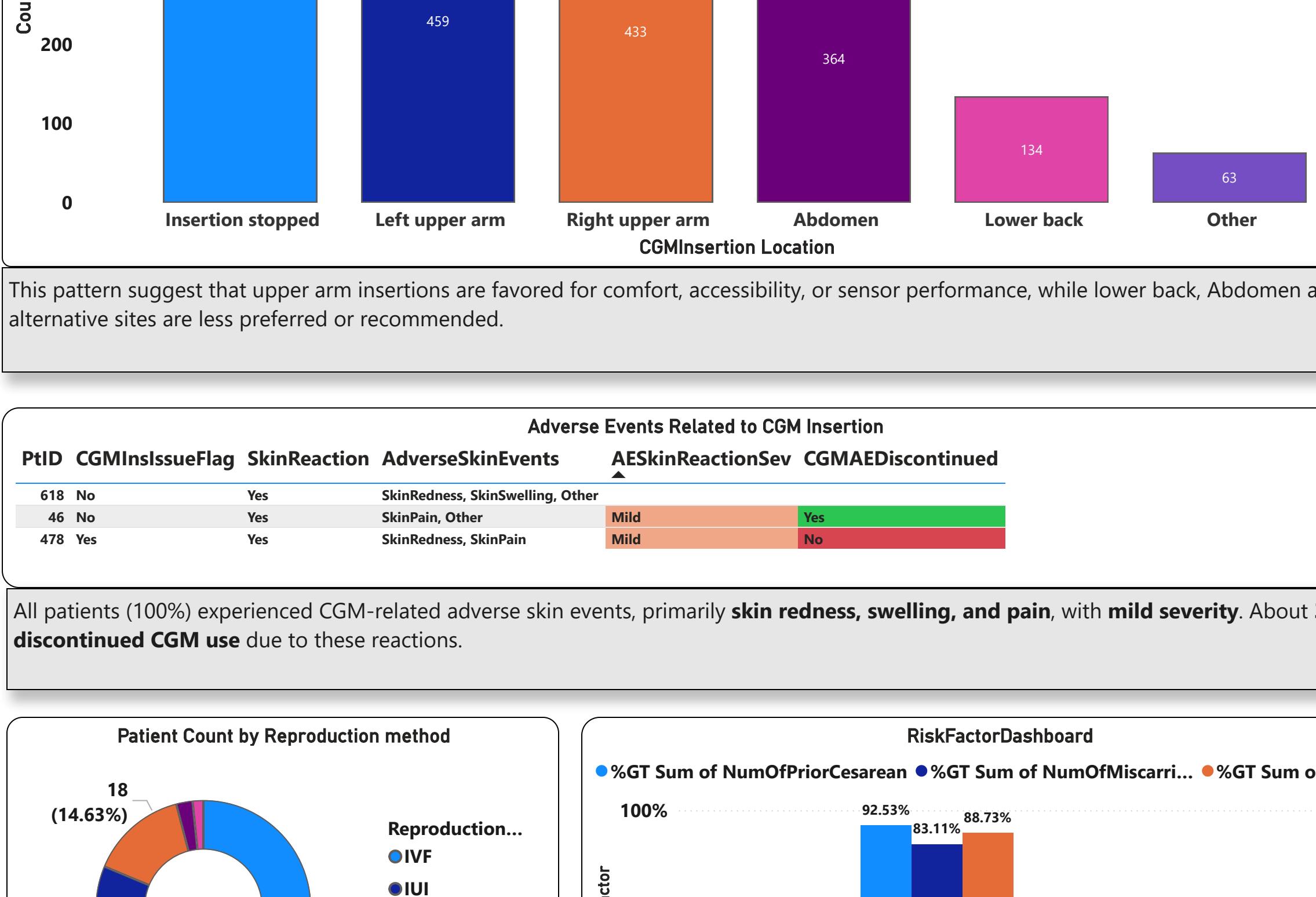
FullTermBirths count

717

ChildBirth count

Patient Count by CGM Insertion Location

CGMInsLoc ● Insertion stopped ● Left upper arm ● Right upper arm ● Abdomen ● Lower back ● Other



This pattern suggests that upper arm insertions are favored for comfort, accessibility, or sensor performance, while lower back, abdomen, and alternative sites are less preferred or recommended.

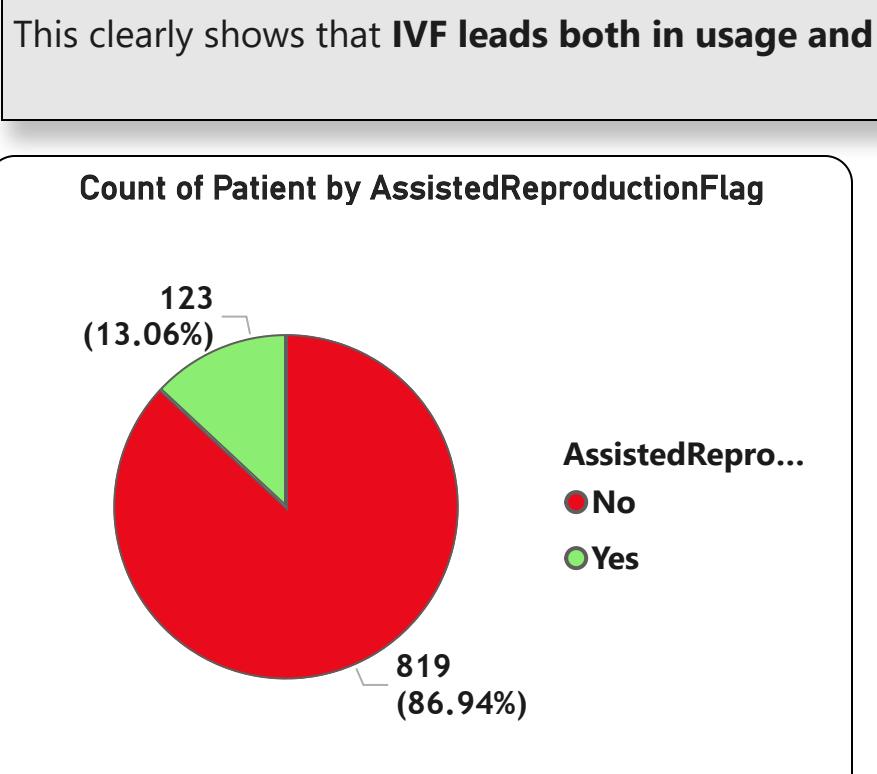
Adverse Events Related to CGM Insertion

PtID CGMInsIssueFlag SkinReaction AdverseSkinEvents AESkinReactionSev CGMAEDiscontinued

PtID	CGMInsIssueFlag	SkinReaction	AdverseSkinEvents	AESkinReactionSev	CGMAEDiscontinued
618	No	Yes	SkinRedness, SkinSwelling, Other	Mild	Yes
46	No	Yes	SkinPain, Other	Mild	No
478	Yes	Yes	SkinRedness, SkinPain	Mild	No

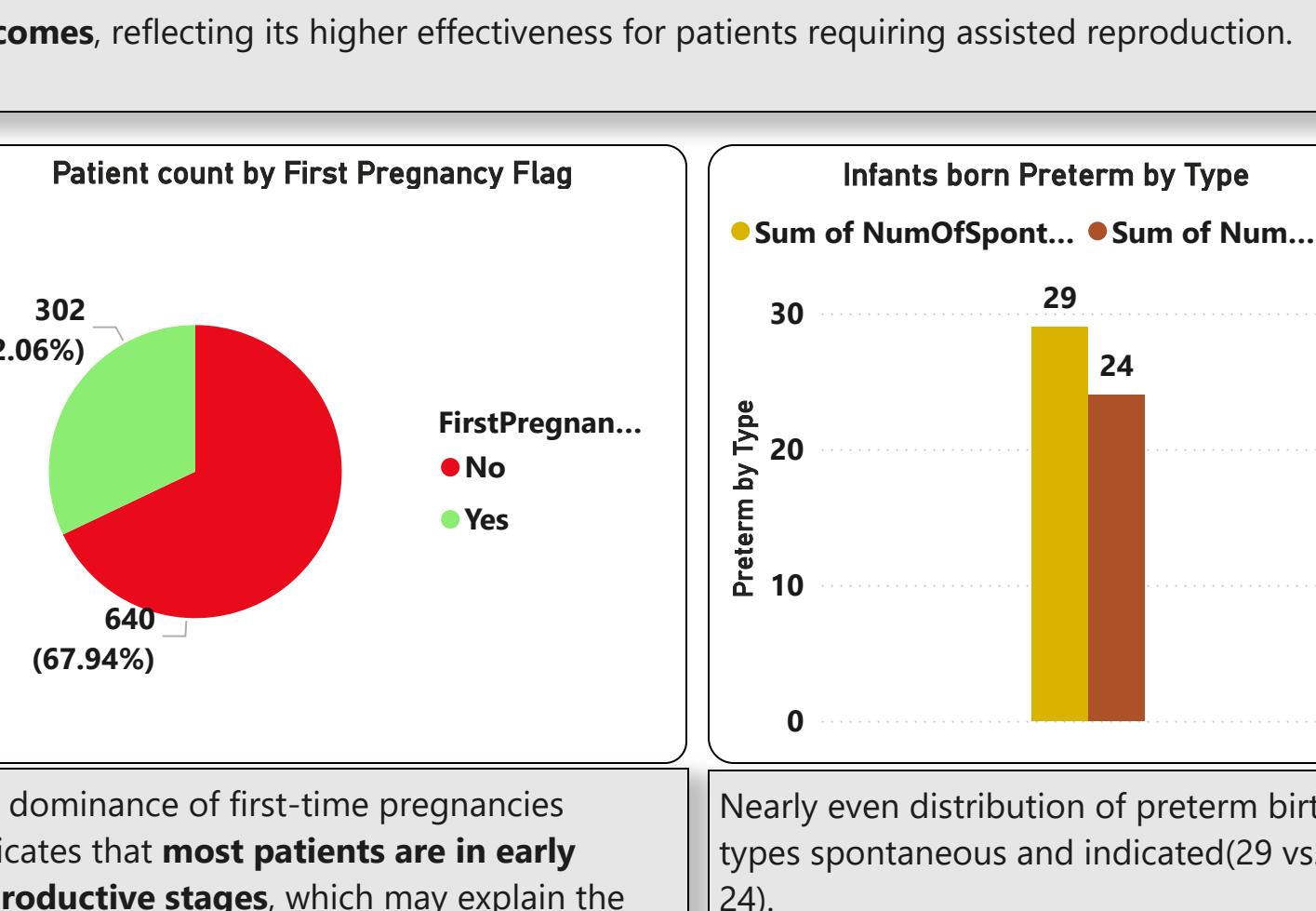
All patients (100%) experienced CGM-related adverse skin events, primarily **skin redness, swelling, and pain**, with **mild severity**. About **33.3% discontinued CGM use** due to these reactions.

Patient Count by Reproduction method



This distribution indicates that **IVF dominates** assisted reproductive techniques, suggesting that most patients prefer or require advanced fertility interventions.

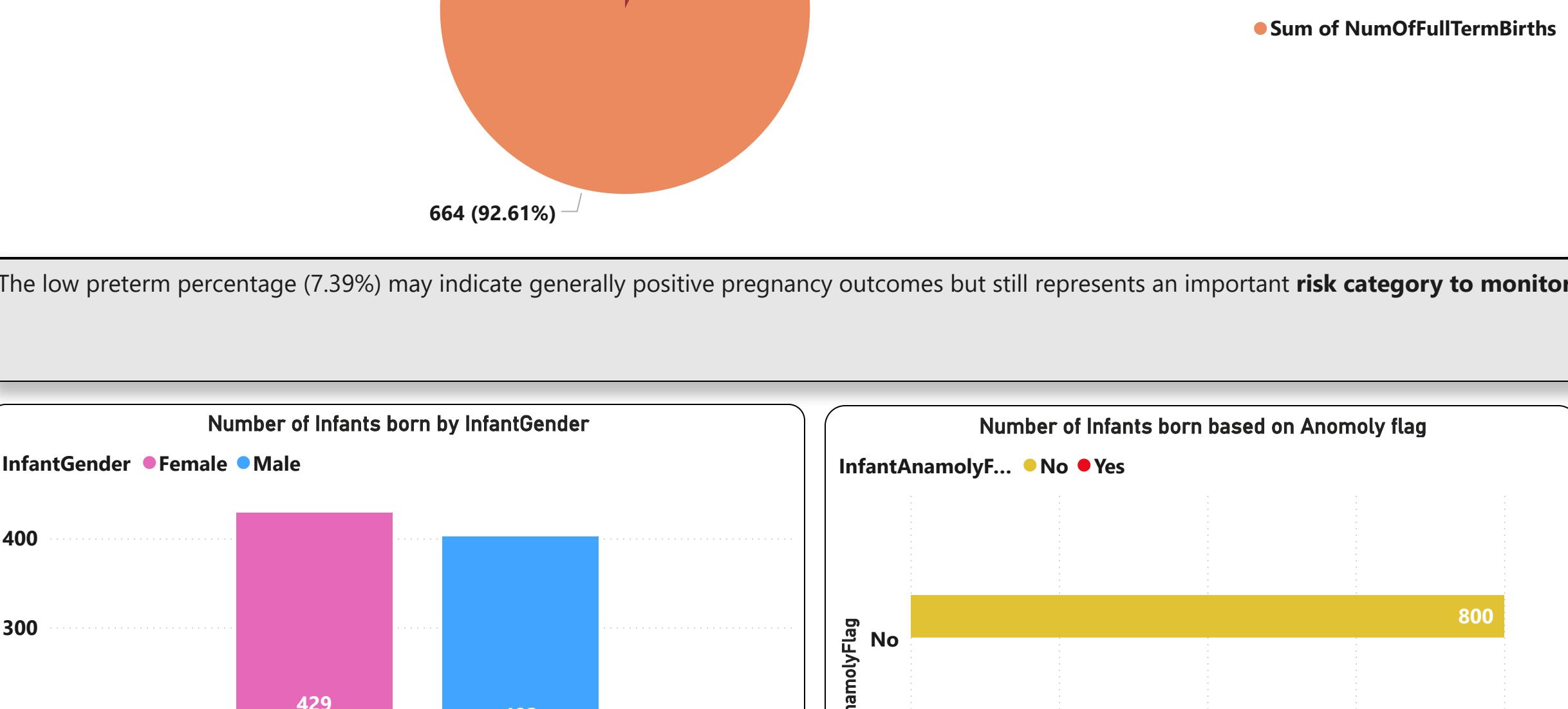
RiskFactorDashboard



Risk factors are considerably lower for those undergoing assisted reproduction, likely due to **better prenatal care and screening**.

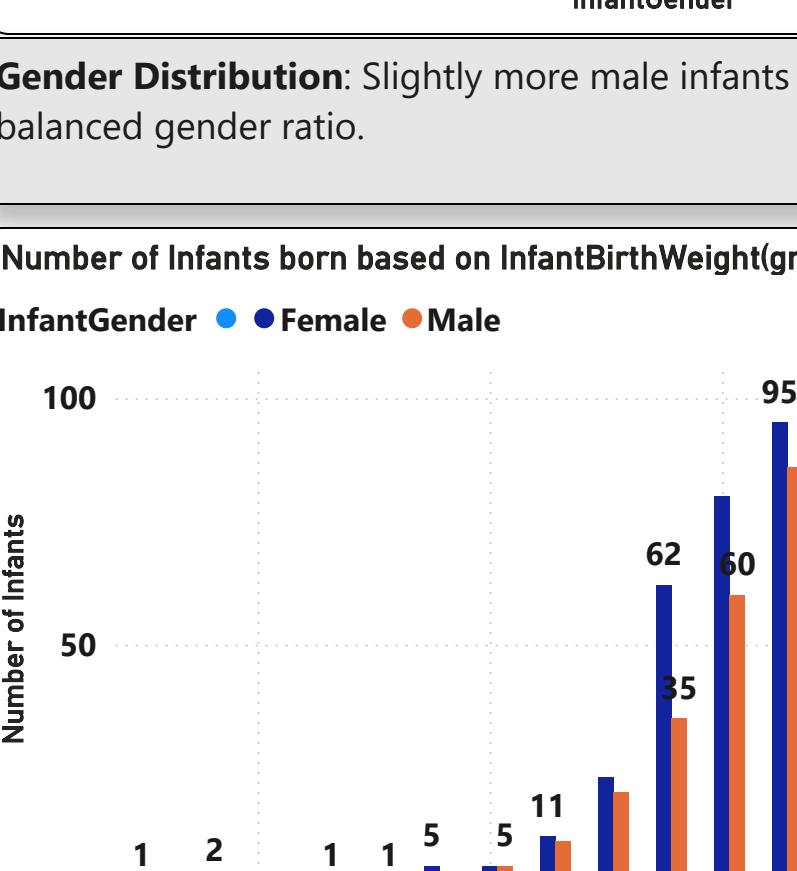
Traditional conception cases (no assisted reproduction) have higher histories of cesarean, miscarriages, and NICU admissions — indicating **potential underlying maternal health challenges**

Total number of child births by Reproduction Method

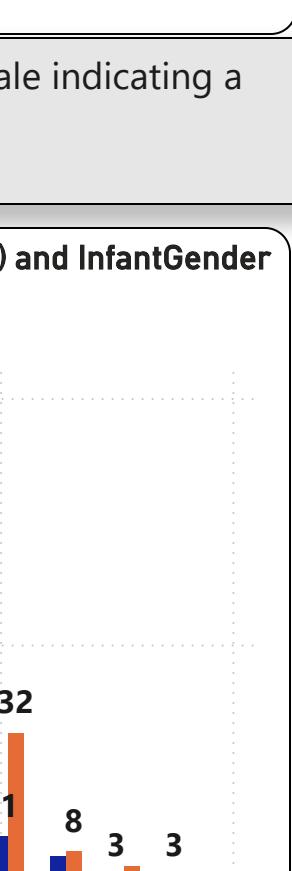


This clearly shows that **IVF leads both in usage and outcomes**, reflecting its higher effectiveness for patients requiring assisted reproduction.

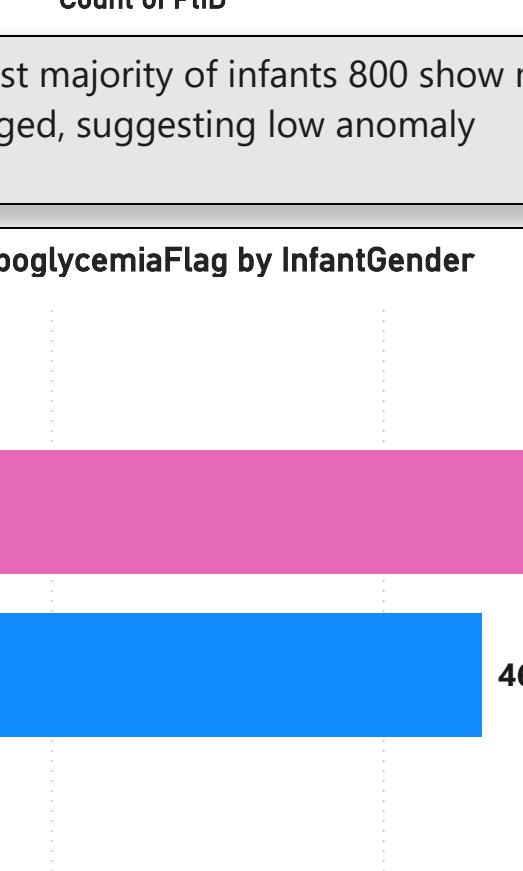
Count of Patient by AssistedReproductionFlag



Patient count by First Pregnancy Flag



Infants born Preterm by Type



Although assisted reproduction is used by a

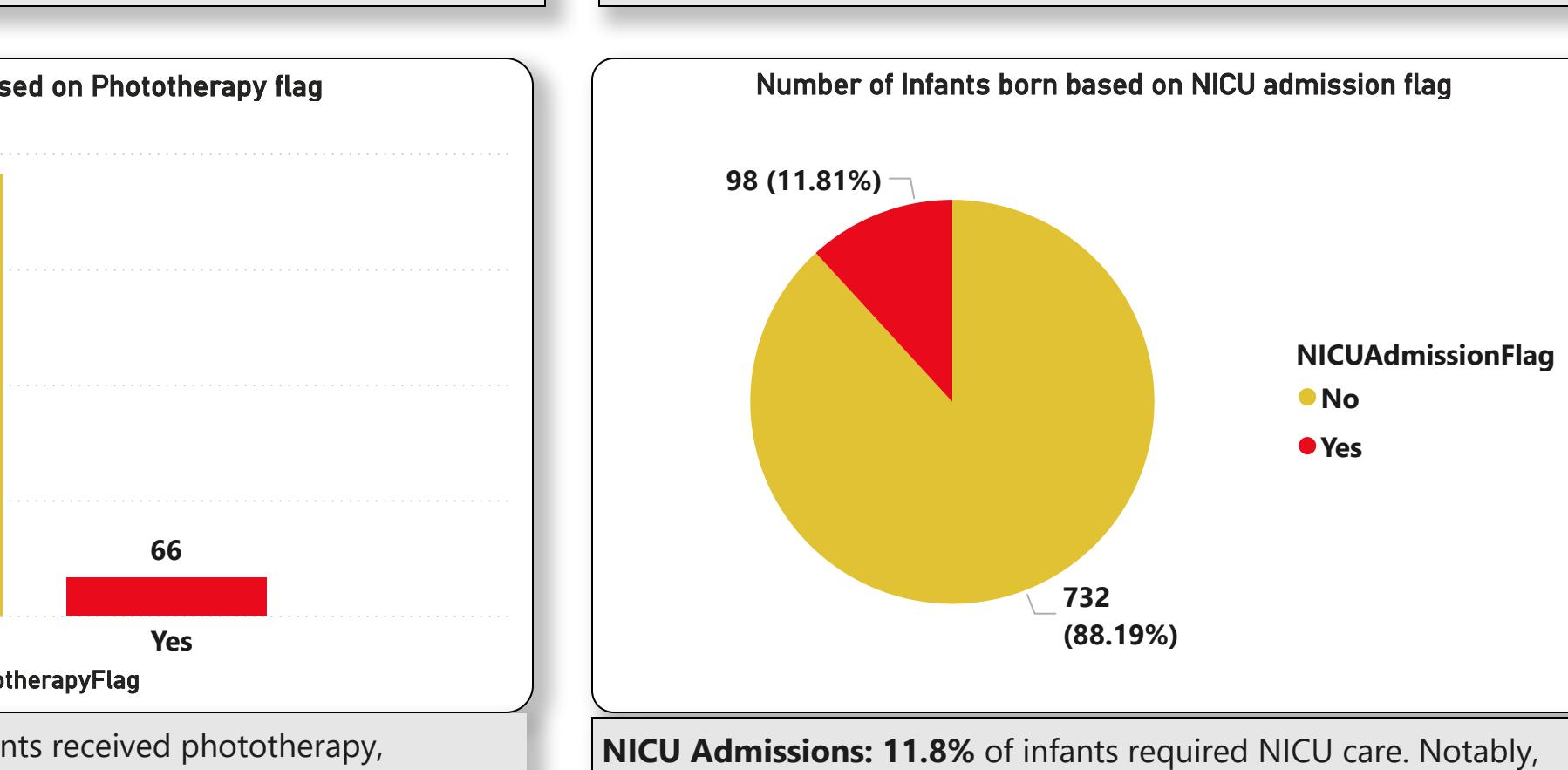
smaller population, earlier charts show that these

patients often achieve **comparable or even safer birth outcomes**, emphasizing the **success and safety of assisted techniques**.

The dominance of first-time pregnancies indicates that **most patients are in early reproductive stages**, which may explain the high proportion using **assisted methods** like IVF due to **age or fertility challenges**.

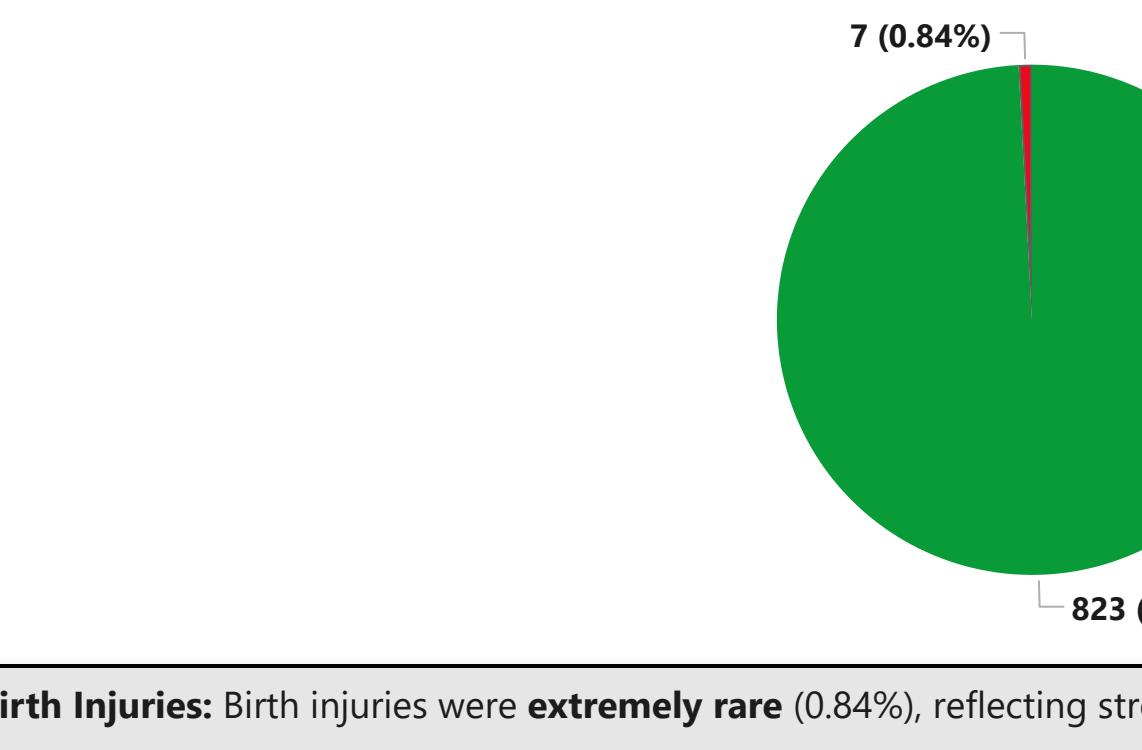
Nearly even distribution of preterm birth types spontaneous and indicated(29 vs. 24).

Total Preterm Births and Total Number Of FullTermBirths

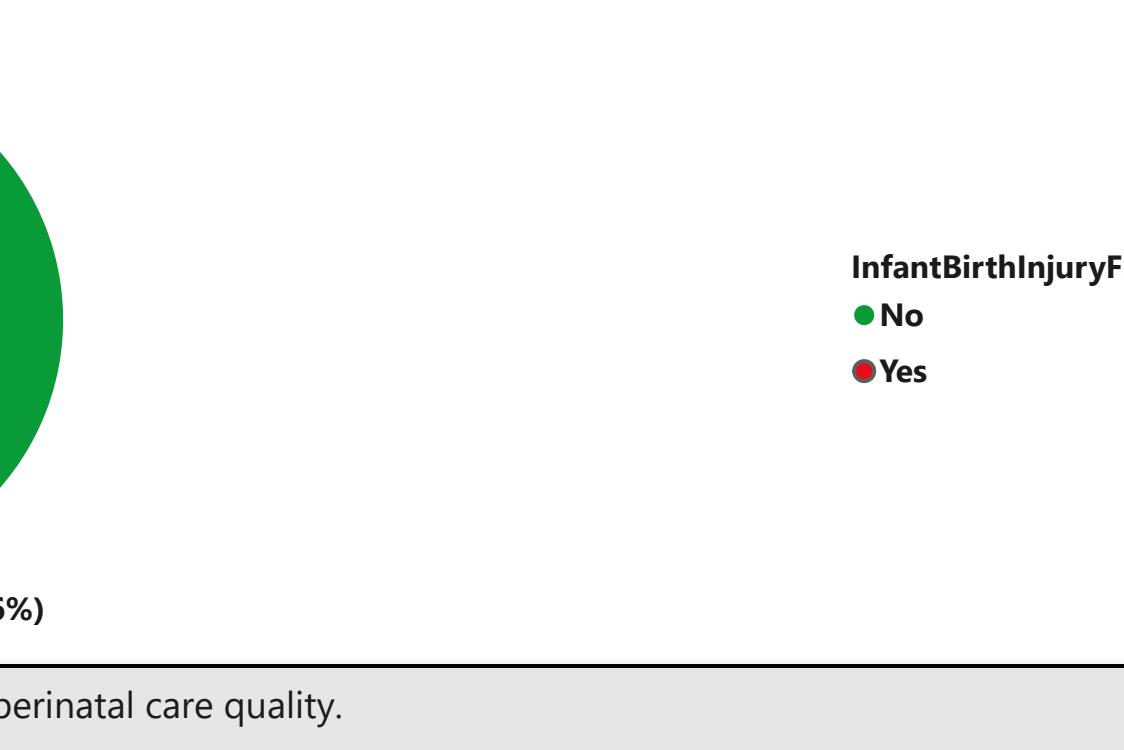


The low preterm percentage (7.39%) may indicate generally positive pregnancy outcomes but still represents an important **risk category to monitor**.

Number of Infants born by InfantGender



Number of Infants born based on Anomaly flag



Number of Infants born based on InfantBirthWeight(grams) (bins)

and InfantGender

InfantGender ● Female ● Male

Female

Male

1000 2000 3000 4000 5000

1000 2000 3000 4000 5000

1000 2000 3000 4000 5000

1000 2000 3000 4000 5000

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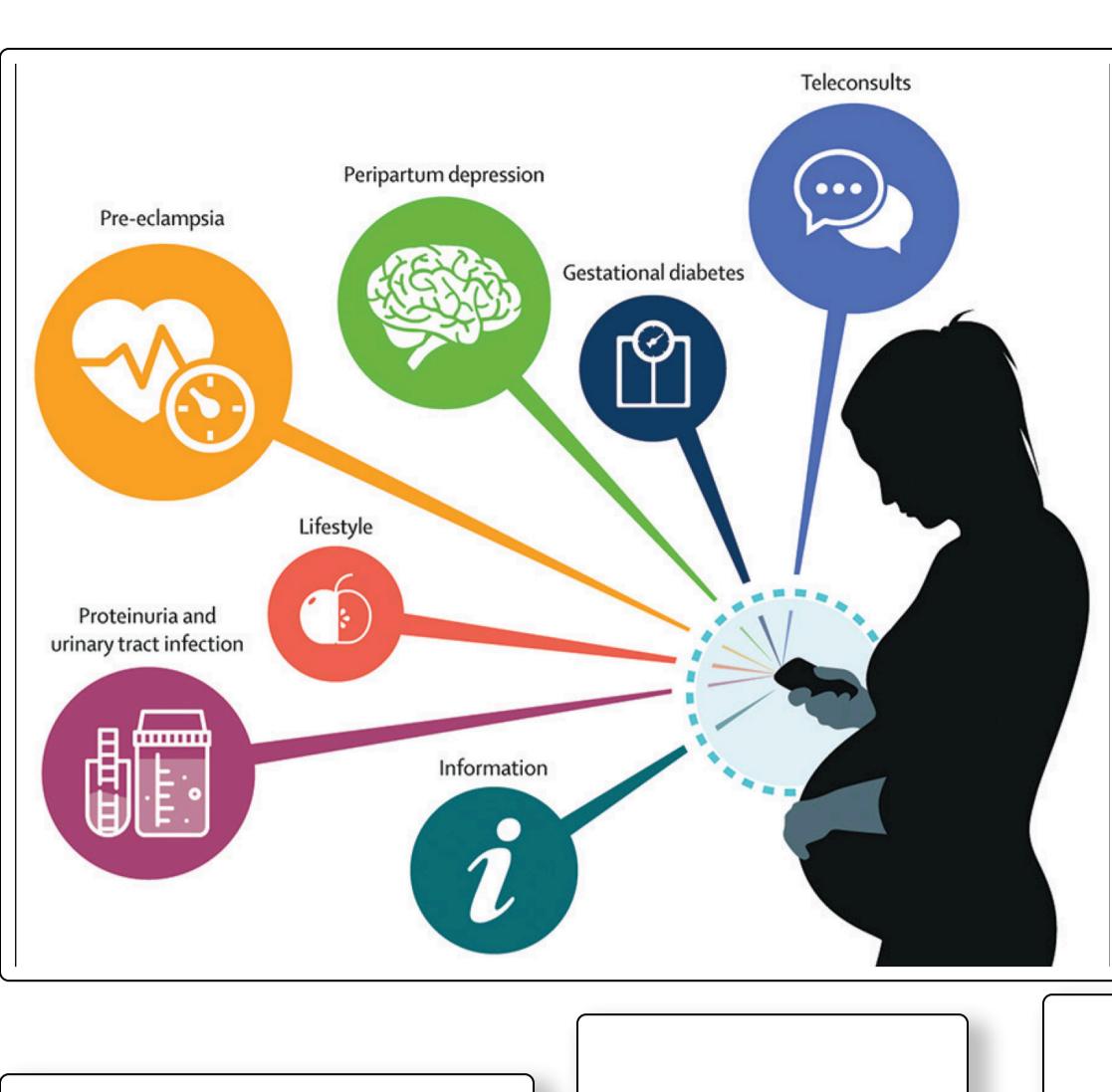
1000 2000 3000 4000 5000

1000 2000 3000 4000 5000

1000 2000 3000 4000 5000

1000 2000 3000 4000 5000

PATIENT DELIVERY INFORMATION



Gestational Diabetes

67

GDM Patient Count

8.05

GDM Prevalence Rate (%)

5.97

GDM_Preterm Correlation Rate (%)

4

Insulin Consumers Count

Hypertension/Pre-Eclampsia

Successful Delivery

832

27.40

HTN_PEC Incidence Rate (%)

172

HTN/PEC Onset Count

468

HighBP Episode Count

52

SPEC Incidence Count

Labor And Delivery

1

Miscarriage Count

43.39

Induction Rate (%)

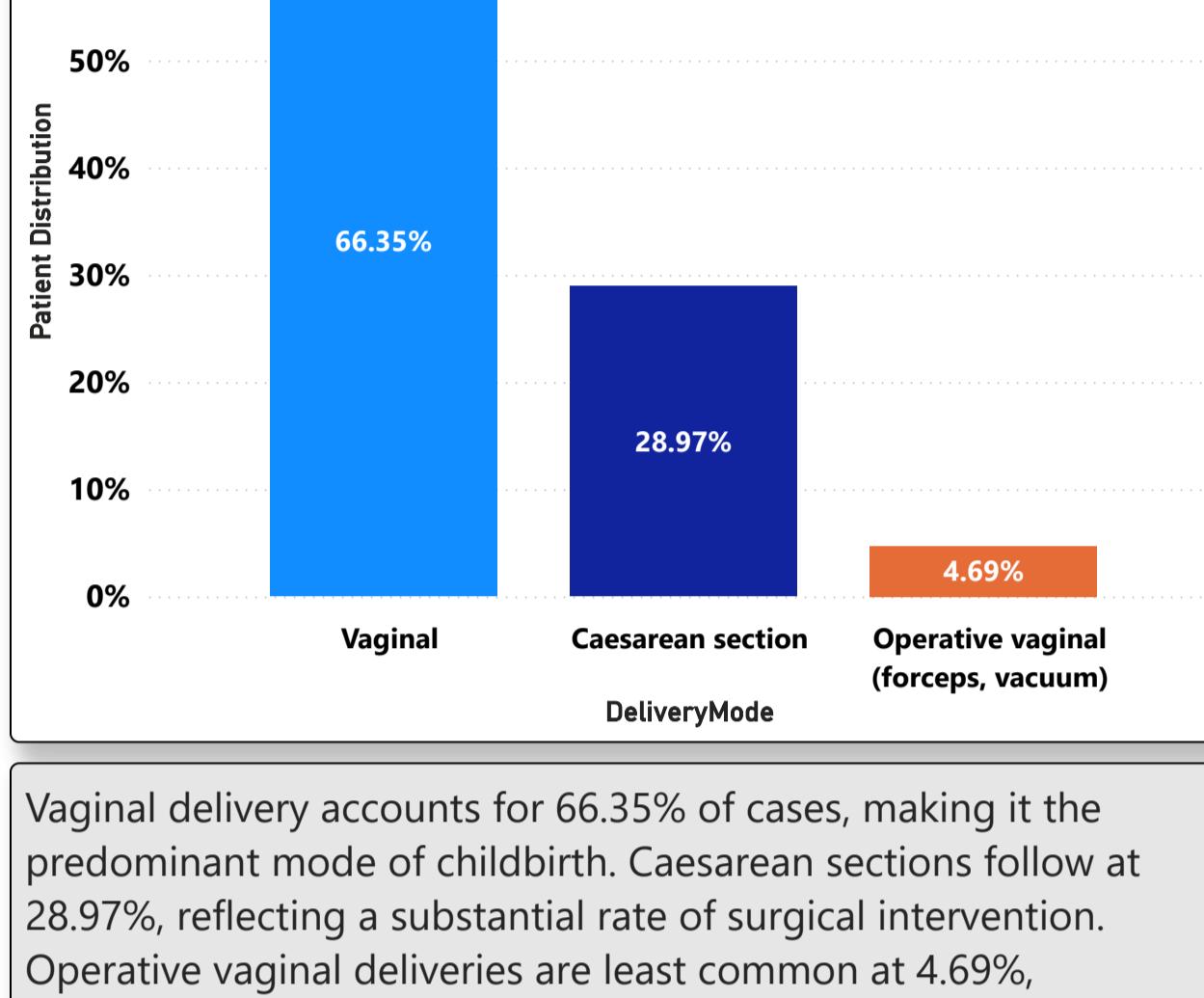
37.00

Average of Gestational Age

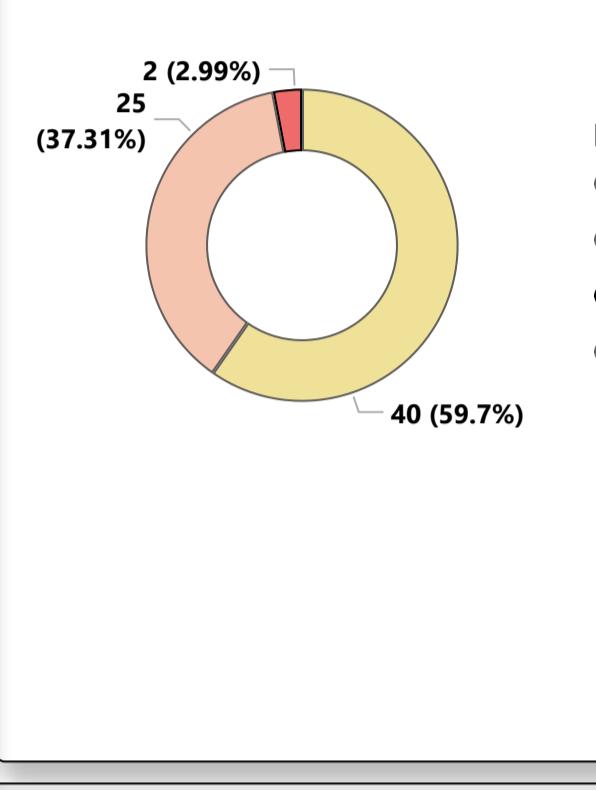
100.00

OGTT Completion Rate (%)

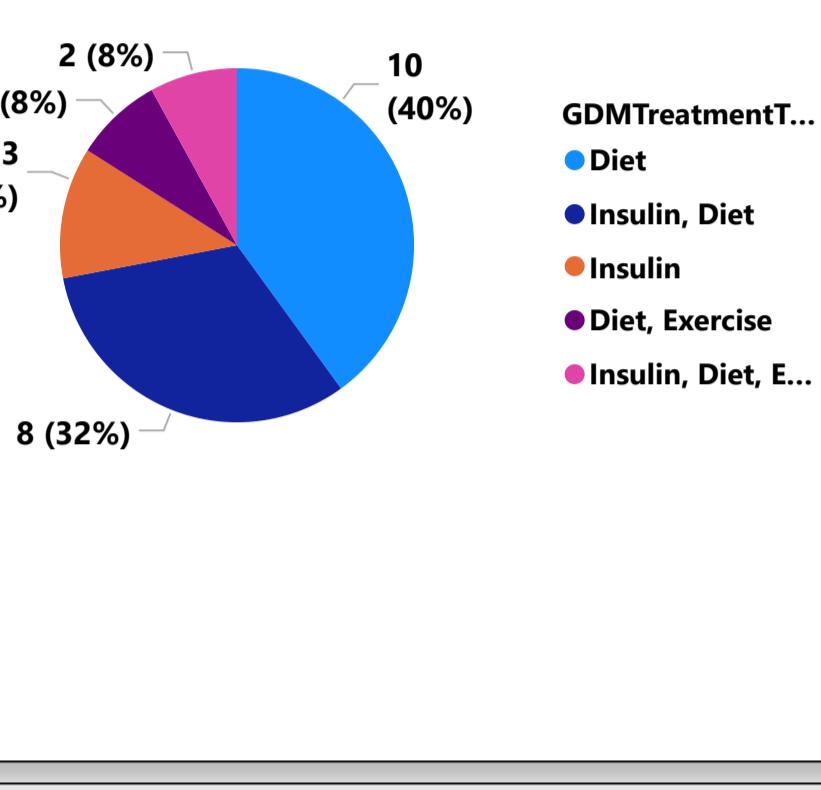
Patient Distribution by Delivery Mode



GDM Patient Distribution by DeliveryMode



CSection by GDM TreatmentType

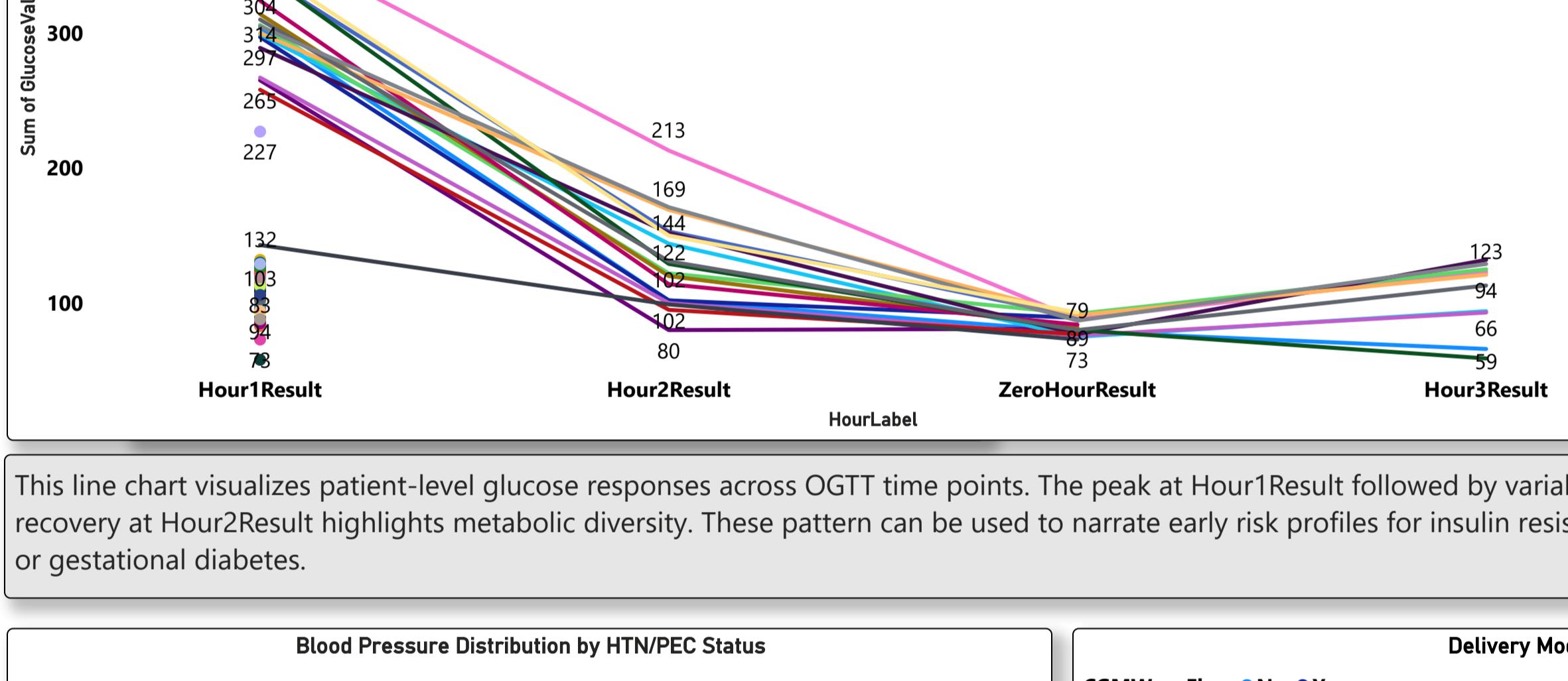


Vaginal delivery accounts for 66.35% of cases, making it the predominant mode of childbirth. Caesarean sections follow at 28.97%, reflecting a substantial rate of surgical intervention. Operative vaginal deliveries are least common at 4.69%, indicating minimal reliance on forceps or vacuum assistance.

Vaginal delivery is most common among GDM patients (59.7%), but the elevated C-section rate (37.31%) suggests increased clinical caution or more severe cases.

Diet only treatment accounted for 40% of C-section cases among GDM patients, while 32% involved both insulin and diet. This shows that Cesarean delivery occurs across a range of treatment plans, not just in insulin managed.

OGTT Glucose Profiles by Time Point



DeliveryMode

All

CGMWornFlag

All

GDMDiagnosisFlag

All

GDMTreatmentType

All

HTN/PECFlag

All

HTN/PECOnsetFlag

All

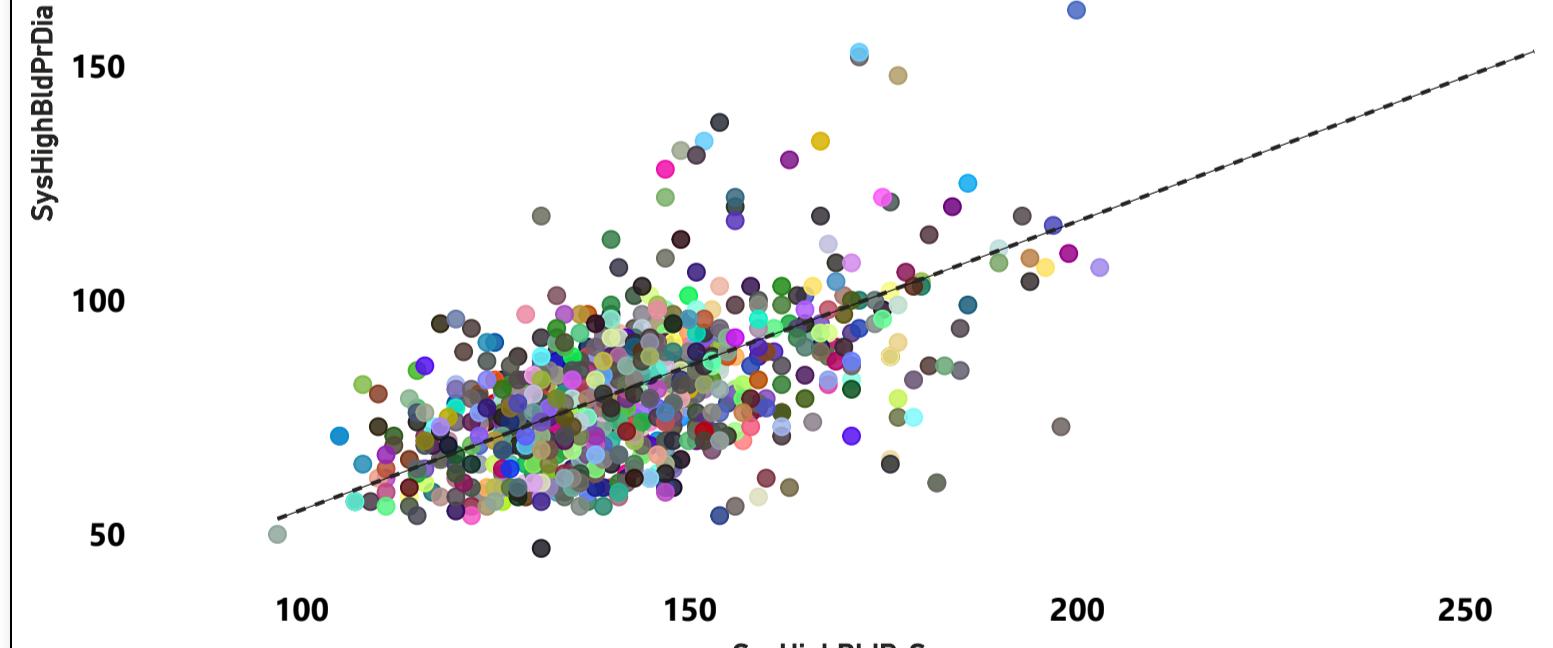
SPECTermFlag

All

ONShiftWorkFlag

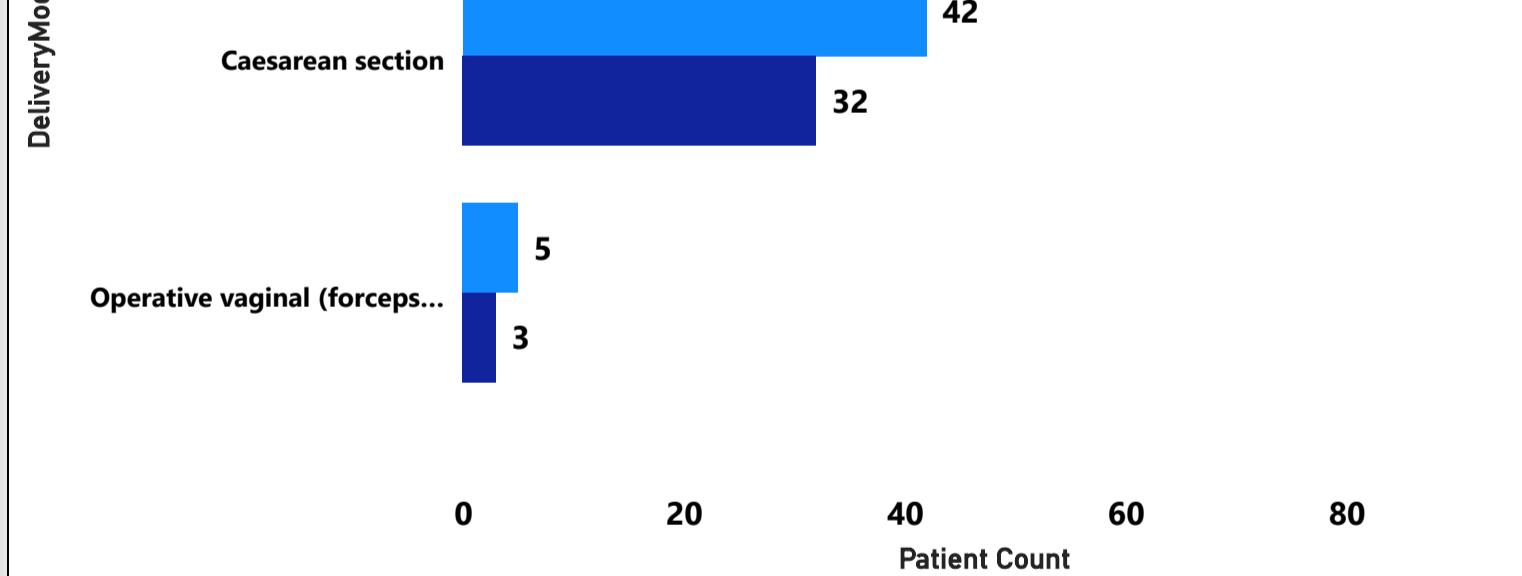
All

Blood Pressure Distribution by HTN/PEC Status



Delivery Mode by CGM Flag

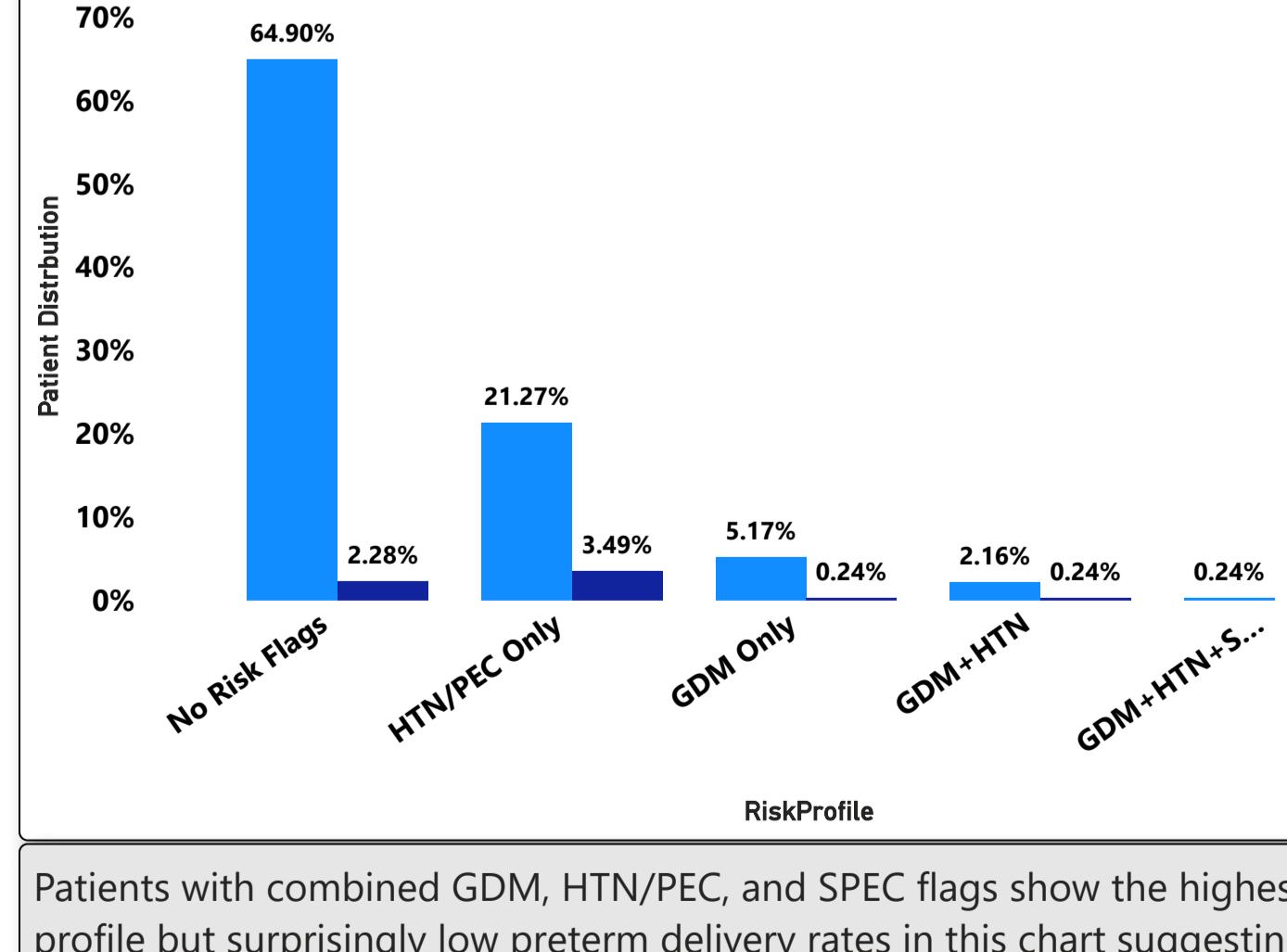
CGMWornFlag ● No ● Yes



This scatter plot visualizes the relationship between systolic and diastolic blood pressure across patients. The upward trend line confirms a positive correlation, while clustering in the hypertensive zone highlights elevated cardiovascular risk among flagged patients.

Patients who wore CGM devices had slightly fewer Caesarean and operative vaginal deliveries compared to non-CGM users, suggesting a possible link between CGM usage and improved delivery outcomes. Vaginal delivery remained the most common mode across both groups.

Combined Risk Profile with Preterm



Patients with combined GDM, HTN/PEC, and SPEC flags show the highest risk profile but surprisingly low preterm delivery rates in this chart suggesting either low sample size or effective intervention. HTN/PEC alone contributes more to preterm births than GDM alone.

Surgical Delivery Reasons and Neonatal Risk Correlation

CSectionReasonOther

No Yes 1

Breech presentation	719	93
Cesarean Section due to history of shoulder dystocia with previous vaginal delivery	1	1
Concern for uterine rupture	1	
Failure to progress, failed vacuum	1	
Fetal intolerance to labor. h/o caesarean; desired tolac	1	
Gestational diabetes, advanced maternal age, obesity	1	
History of shoulder dystocia	1	
History of shoulder dystocia	1	1
maternal cardiac disease (bicuspid aortic valve)	1	
Maternal pulmonary edema, oliguria, and acidosis in setting of acute pancreatitis and ARPKD	1	
persistent breech fetus	1	
premature ruptures of membranes (PROM)	1	
rheumatoid arthritis	1	
Severe pelvic pain	1	
Triple I and Category 2 tracing - fetal tachycardia	1	
Worsening inflammatory bowel syndrome	1	
Total	732	98

The "Other Diagnoses" C-section reasons represent rare, case-specific maternal and procedural indications with minimal neonatal impact. Among 812 total cases, only breech presentation and prior shoulder dystocia led to NICU admissions, suggesting that most surgeries were precautionary and not prompted by acute fetal compromise.

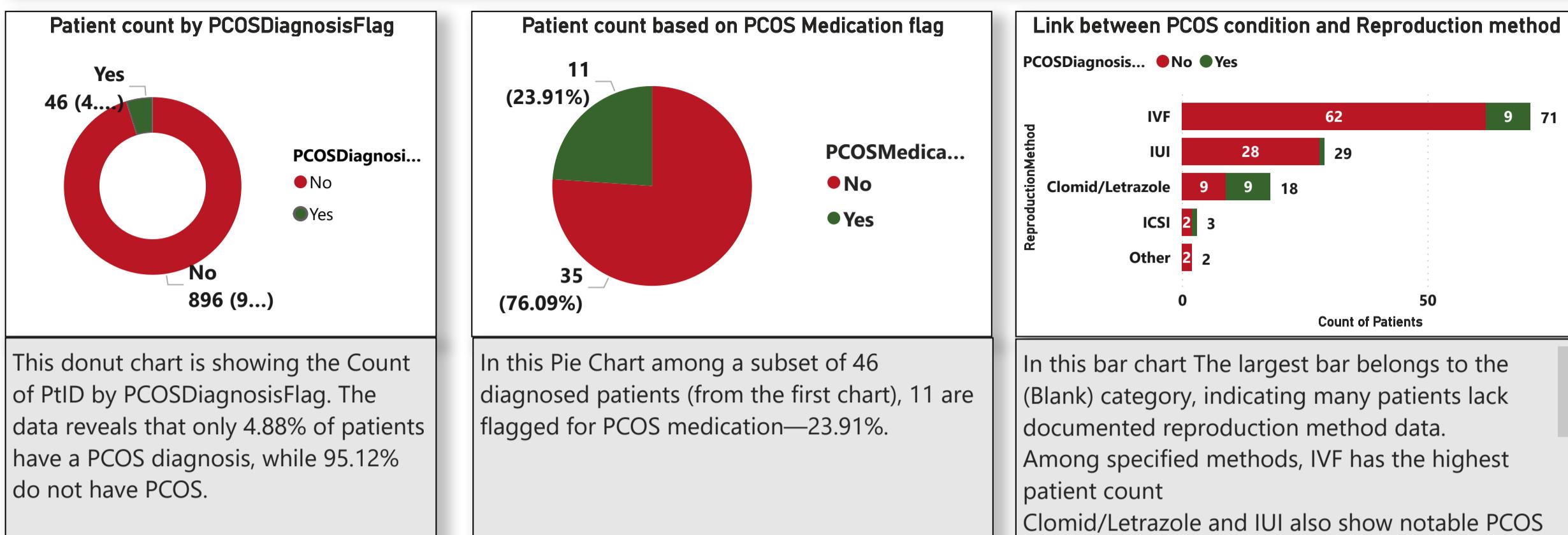
Conclusion:

Hypertension emerges as a stronger and more immediate driver of preterm births and C-sections than GDM alone, with nearly one-third of surgical deliveries linked to hypertensive complications. Dual-risk patients (GDM + HTN/PEC) exhibit compounded metabolic and cardiovascular stress, underscoring the need for early insulin stratification and stringent BP monitoring. Elevated induction rates and maternal-risk-driven surgical choices reflect adaptive clinical protocols shaped by urgency and resource considerations. The dashboard underscores the importance of proactive screening, stratified care pathways, and data-informed delivery planning to mitigate maternal-fetal risks and enhance institutional outcomes.



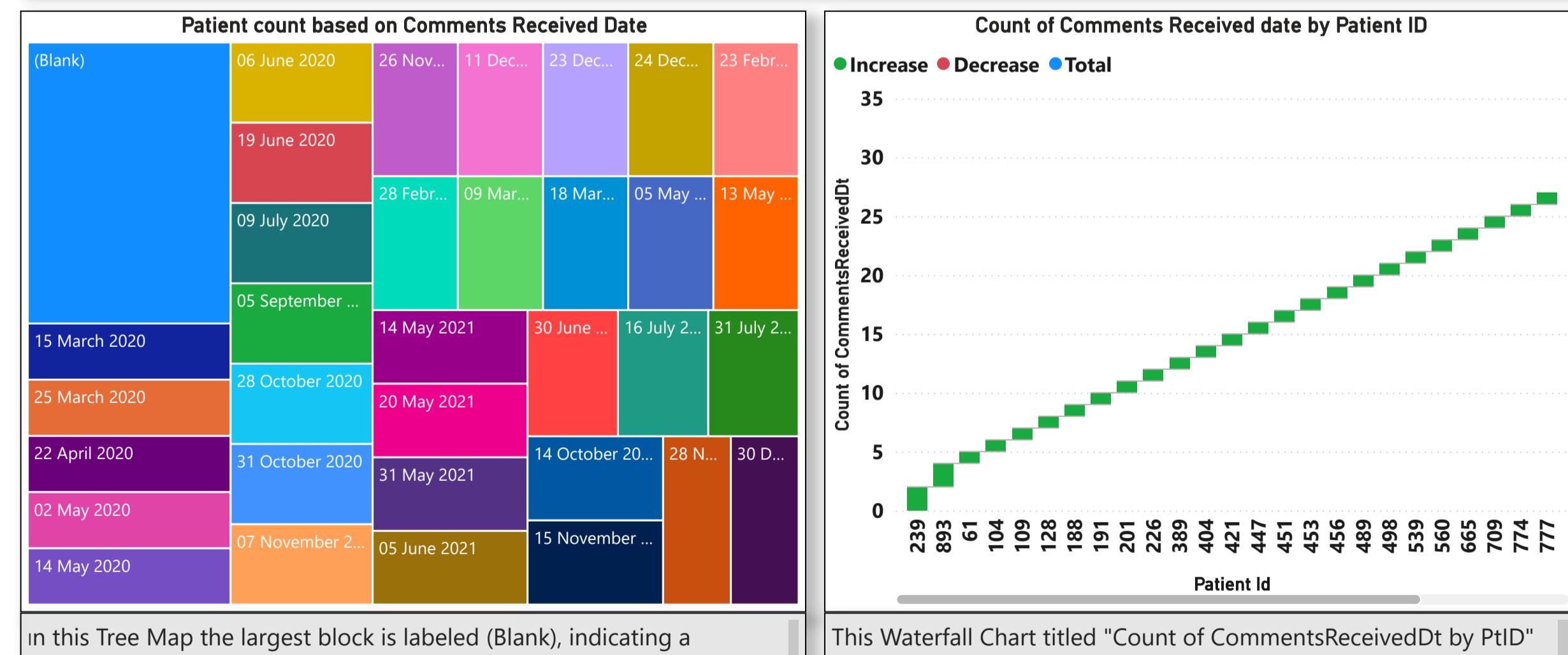
PCOS DIAGNOSIS ANALYSIS OF PATIENTS

PCOSDiagnosisFlag



PCOS Medications information for patients with PCOS Conditions						
PtID	PCOSMedicationFlag	PCOSMedicine1	PCOSMedicine1Dosage	PCOSMedicine1DiscMon/Year	PCOSMedicir	PCOSMedicir
371	Yes	etonogestrel-ethynodiol dihydrogen phosphate (NUVARING)	0.12-0.015 mg/24 hr			
112	Yes	Femara	2.5 mg			
456	Yes	Letrozole	5mg	Aug 2020		
103	Yes	Levothyroxine	75 mcg			
393	Yes	medroxyPROGESTERone	10 MG	Jul 2020		
203	Yes	Metformin	500mg	Aug 2020		
707	Yes	Metformin	500mg			
757	Yes	metFORMIN XR (GLUCOPHAGE XR)500 mg 24 hr tablet	2 tablets 2x a day	Jun 2021		
211	Yes	Spiromolactone	100mg BID			
146	Yes	Letrozole	2.5 mg	Feb 2020		Metformin

This Table shows how medication flags translate into actual prescriptions, dosages, and time patterns. Patients are prescribed different medications—Metformin, Spironolactone, Phentermine, Letrozole, Femara, Nuvaring—with varying dosages and regimens. This reflects the heterogeneity of PCOS symptoms . PCOS management is not one-size-fits-all. The presence of both Metformin and Spironolactone suggests tailored approaches based on symptom profiles. Dosages like "2 tablets 2x a day" for Metformin XR indicate aggressive management of insulin



Conclusion:

The data collectively demonstrate **diverse and individualized PCOS medication practices**, reflecting tailored treatment strategies. Active patient interactions through comments suggest **ongoing communication and follow-up**, although **missing comment date entries** highlight an opportunity for improving data completeness and documentation accuracy.