Analysis Report

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Descriptive Statistics

In this technical report, we examine the descriptive statistics for a sample of women who have declined FMF screening. The cohort consists of 54 women, all of whom are not on Aspirin therapy and have not been diagnosed with chronic hypertension, reflecting a uniformity in these particular health variables across the group.

The table below shows a summary of the sample.

Category	Level	Count	%
On Aspirin	No	54	100.0
PIH_PET	No	50	94.3
	PET	3	5.7
Chronic HTN	No	53	100.0
Ges at delivery	18+0	1	1.9
	19+5	1	1.9
	20+1	1	1.9
	35+3	1	1.9
	37+1	1	1.9
	37+2	2	3.8
	37+4	1	1.9
	38+0	2	3.8
	38+1	1	1.9
	38+2	2	3.8
	38+3	3	5.8
	38+4	2	3.8
	38+6	1	1.9
	39+0	2	3.8
	39+2	1	1.9
	39+3	1	1.9
	39+4	3	5.8
	39+5	3	5.8
	39+6	1	1.9
	40+0	2	3.8
	40+1	2	3.8
	40+2	2	3.8
	40+3	1	1.9
	40+4	4	7.7
	40+5	1	1.9
	41+1	2	3.8
	41+3	3	5.8
	41+5	1	1.9
	41+6	1	1.9
	42+0	2	3.8
	43+4	1	1.9
IOL _reason	No	38	76.0
	Yes	12	24.0
Mode of delivery	ELCS	7	14.0
	EMCS	7	14.0
	Kiwi	5	10.0
	SVD	30	60.0
	Vacuum	1	2.0
IUGR	No	38	82.6
	Yes	8	17.4
Apgars	-,8 (required intubation)	1	2.1
	10,10	1	2.1

Category	Level	Count	%
	5,6,10	1	2.1
	7,9,10	1	2.1
	8,10	4	8.5
	8,9	1	2.1
	9,10	29	61.7
	9,10,10	2	4.3
	9,9	6	12.8
	9,9,10	1	2.1
IUD_neonatal death	No	48	92.3
	Yes	4	7.7
method of conception	Spontaneous	54	100.0
Ethnicity	Asian	7	13.0
	Black-African	7	13.0
	Black-Caribbean	1	1.9
	Middle East	1	1.9
	Middle East-African	1	1.9
	Mixed White/Black	1	1.9
	White-Other	19	35.2
	White British	17	31.5
English 1st language	No	19	35.2
	Yes	35	64.8
Smoker	No	53	98.1
	Yes	1	1.9

The majority of the sample (94.3%) did not have pre-eclampsia (PIH_PET), with only a small proportion (5.7%) being affected. Gestational age at delivery shows a wide distribution, with ages ranging from 18 weeks to over 43 weeks. The majority of deliveries occurred from 37 weeks onward, with a notable concentration of cases delivering at full term (39 weeks and beyond), including the highest frequency of delivery at 40+4 weeks (7.7%).

Induction of labor was required in 24% of the cases, which is relatively significant, indicating potential complications or medical decisions favoring earlier delivery. In terms of delivery method, spontaneous vaginal delivery (SVD) was predominant (60%), followed by equal instances of elective and emergency cesarean sections (14% each).

Regarding infant outcomes, a substantial majority of the neonates (82.6%) did not suffer from intrauterine growth restriction (IUGR). Apgar scores, a quick test to evaluate the health of newborns, were predominantly high, with 61.7% scoring 9,10 at one minute post-birth, indicative of good initial health.

Incidences of intrauterine or neonatal death were low (7.7%), aligning with the generally favorable Apgar scores observed. All women in the study conceived spontaneously, and the ethnic diversity of the group varied, with the largest proportions being White-Other (35.2%) and White British (31.5%). Language and lifestyle factors, such as the primary language being English (64.8%) and low smoking rates (1.9%), also contribute to the demographic and health profile of the sample.

The table below illustrates the answers of the women who participated in the interview process.

Category	Level	N	%
Method of conception	spontaneous	10	100
Ethnicity	Black African	1	10
	White British	6	60
	White Irish	1	10
	white other	1	10
	white/Middle eastern	1	10
Education	college	1	10
	Masters	1	10
	secondary	5	50
	Secondary	1	10
	Secondary school	1	10
	undergraduate	1	10
English 1st language	no	2	20
	yes	8	80
Religion	Catholic	1	10
	Christian	1	10
	Jewish	8	80
Smoker	no	9	90
	yes	1	10
Have you had high blood pressure or pre_eclampsia in pregnancy before	no	10	100
Have you ever had high blood pressure before pregnancy	no	10	100
Are you taking or have you been advised to start taking Aspirin 150mg every evening in this pregnancy	no	10	100
Did you also decline the combined screening test which screens for Downs _Edwards and Pataus syndromes	no	1	10
	yes	9	90
Do you feel that you understand what pre_eclampsia is	no	2	20
	yes	8	80
Have any of your friends or family had pre_eclampsia	no	9	90
	yes	1	10
Did you feel that you understood how the pre_eclampsia screening would be done at your appointment	no	3	30
	yes	7	70
Did you understand what the test results would be and what would be offered	no	2	20
	yes	8	80
Were you aware of the use of aspirin in pregnancy to reduce the chance of pre_eclampsia	no	7	70
	yes	3	30
was the pre_eclampsia screening discussed with you before the scan appointment or any information provided	cant remember	1	10
	hadn't had apt yet	1	10
was the pre_eclampsia screening discussed with you before the scan appointment or any information provided	no	4	40
	yes	4	40
Had you already decided whether to accept or decline the pre_eclampsia screening before your scan appointment	cant remember	2	20
	no	5	50
Had you already decided whether to accept or decline the pre_eclampsia screening before your scan appointment	yes	3	30

The sample consisted entirely of women who conceived spontaneously. The ethnic distribution predominantly featured White British (60%), with smaller representations from other backgrounds

including Black African and White Irish, each constituting 10% of the sample. This diverse ethnic composition underscores the variability in health decisions across different demographics.

Education levels within the group varied, with half of the respondents having attained secondary education. This suggests a moderate level of educational attainment which could influence understanding and decision-making regarding health screenings.

A significant majority (80%) of the women interviewed were first-language English speakers, which could potentially facilitate better comprehension and communication during medical consultations. Religiously, the cohort was primarily Jewish (80%), providing a cultural context that may influence health practices and perceptions.

Smoking habits were low within the group, with 90% reporting as non-smokers, indicating a general avoidance of this particular health risk. Uniformly, all respondents had no history of high blood pressure either before or during pregnancy, and none were taking or advised to take aspirin—a common preventative measure against pre-eclampsia.

Regarding the decline in screening for pre-eclampsia and other syndromes, 90% opted out of the combined test for Downs, Edwards, and Patau's syndromes, highlighting a significant trend of declination. Despite this, 80% expressed understanding of what pre-eclampsia is, suggesting that their decision to decline was informed rather than due to a lack of knowledge.

However, awareness of the use of aspirin in preventing pre-eclampsia was low (30%), indicating a gap in the dissemination or retention of information regarding preventive strategies. Moreover, discussions about pre-eclampsia screening before the scan appointment were equally split, with 40% reporting no prior discussion, which might contribute to uncertainty or reluctance regarding the screening process.

Decision-making patterns revealed that half of the women had not decided whether to accept or decline the screening before their scan appointment, and 30% had already decided to decline, pointing to a pre-existing inclination against the screening.

The table below focuses on the numeric measures taken from the surveyed women.

Variable	Mean	Median	SEM	SD
Birthweight._g_	3302.958	3322.500	102.451	709.804
Age	30.296	30.000	0.788	5.788
Parity	2.333	1.000	0.339	2.488
BMI	25.817	25.450	0.737	5.419

The average birthweight of neonates in the sample was 3302.958 grams, with a median slightly higher at 3322.500 grams. This slight skew towards higher birthweights is further delineated by a standard

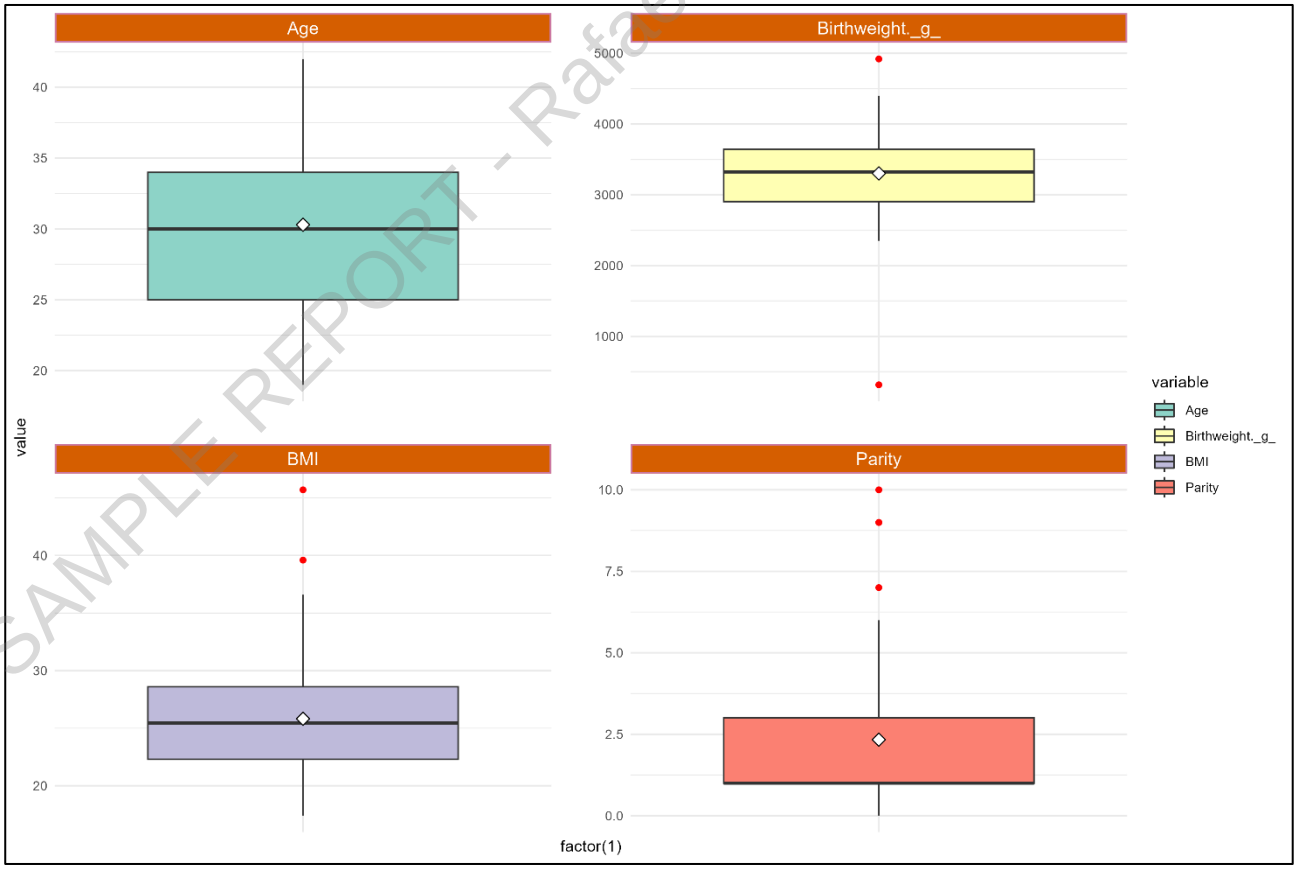
error of the mean (SEM) of 102.451 grams and a standard deviation (SD) of 709.804 grams, indicating a broad range of birthweights, which reflects the natural variability in neonatal weights.

Maternal age within this cohort averaged 30.296 years, with the median closely aligned at 30 years. The SEM of 0.788 years and an SD of 5.788 years suggest a moderately dispersed age range among the mothers, typical of reproductive age distributions.

Parity, which indicates the number of times a woman has given birth to a fetus with a gestational age of 24 weeks or more, had an average value of 2.333 with a considerable range as indicated by an SD of 2.488. However, the median value was 1.000, pointing to a right-skewed distribution where more women in the sample had fewer childbirths, yet some had significantly more, increasing the average.

Lastly, the mean BMI of the women was 25.817, with the median slightly lower at 25.450. The SEM of 0.737 and an SD of 5.419 both highlight variations in BMI among the participants, indicating a diverse set of body mass indices that straddle the threshold between normal weight and overweight according to typical BMI classifications.

A boxplot is a standardized way of displaying the distribution of data based on a five-number summary: minimum, first quartile (Q1), median, third quartile (Q3), and maximum. The figure below shows boxplots of the four measures.



Starting with age, the data is tightly clustered around a median age of approximately 30 years, with the interquartile range extending from about 28 to 32 years. This narrow spread indicates a relatively homogeneous age group among the sampled women, suggesting that the majority are in their late twenties to early thirties, which is typical for childbearing age.

In contrast, the birthweight variable exhibits a broader range. The median birthweight is around 3322.5 grams, positioned within an interquartile range that stretches from roughly 2700 to 3900 grams. The wider range and slightly right-skewed distribution reflect the natural variability in neonatal weights, with a few instances of significantly higher weights extending the upper whisker.

BMI shows notable variation among the women, with values spanning from below 20 to over 40, and a median at about 25.5. The interquartile range from approximately 21 to 30 suggests a mix of underweight, average, and overweight categories within the group. The presence of outliers, particularly on the higher end, points to a smaller subset of the sample having a significantly higher BMI, indicative of obesity, which may warrant additional health considerations.

Lastly, the parity plot reveals a median value of 1, with most women having between 0 and 4 children as shown by the interquartile range. The distribution is right-skewed, with the long upper whisker and a maximum at 10, indicating that while most women in the sample have fewer children, there are exceptions with significantly higher numbers.