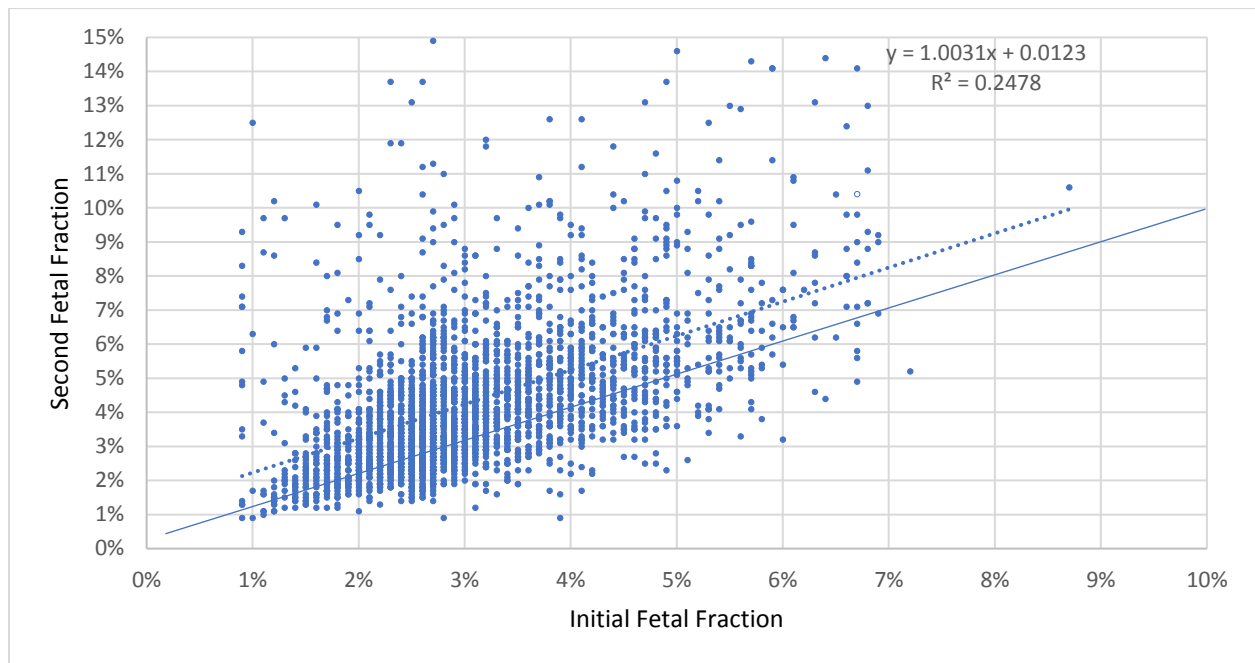


**Appendix 1. Scatterplot of initial fetal fraction versus second raw fetal fraction. *Broken line* indicates linear regression line, *solid line* indicates expected if there is perfect correlation.**

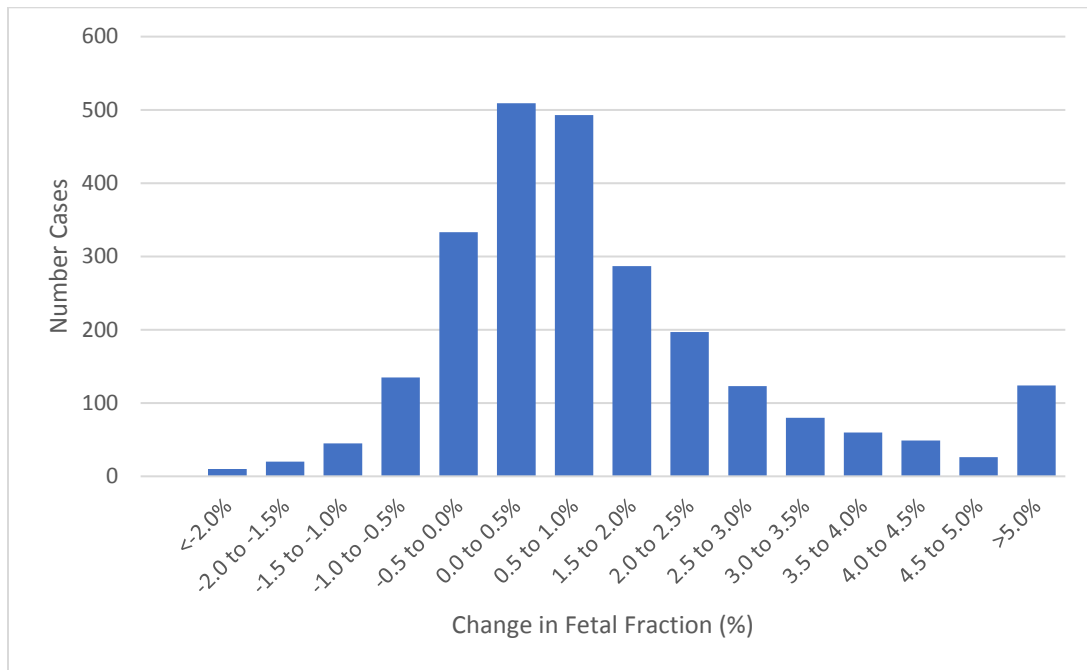


Benn P, Valenti E, Shah S, Martin K, Demko Z. Predicting whether a redraw will be informative after an initial no result in noninvasive prenatal testing. *Obstet Gynecol* 2018; 133.

The authors provided this information as a supplement to their article.

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## Appendix 2. Change in fetal fraction between draws.

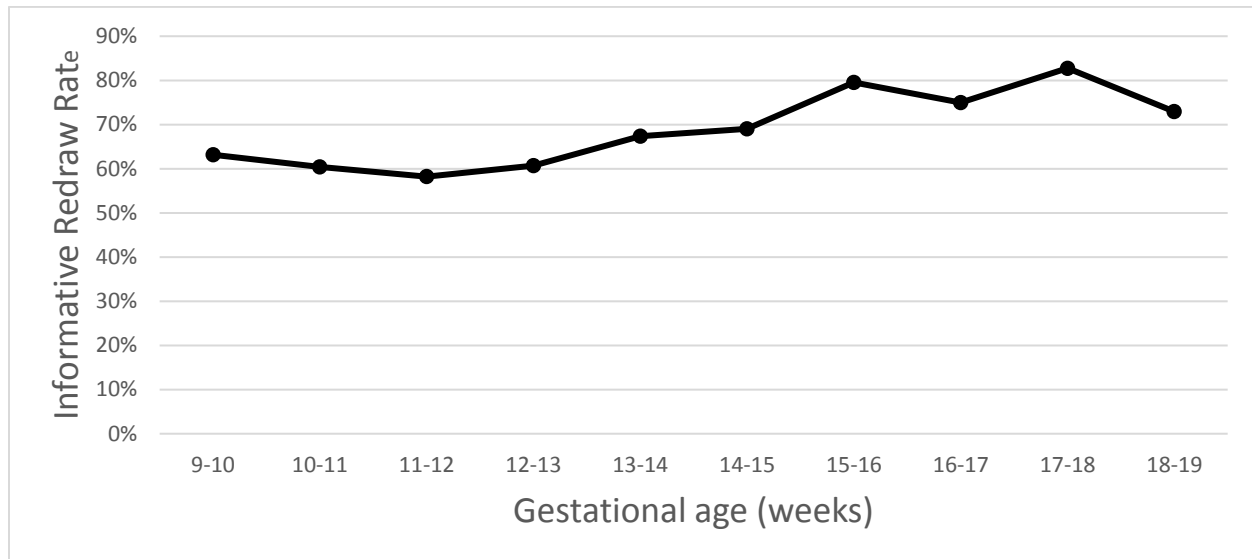


Benn P, Valenti E, Shah S, Martin K, Demko Z. Predicting whether a redraw will be informative after an initial no result in noninvasive prenatal testing. *Obstet Gynecol* 2018; 133.

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**Appendix 3. Informative redraw rate by initial sample gestational age. The modest change in informative redraw rate across the gestational age groups has borderline statistical significance based on a Chi-square, Linear-by-Linear Association test for trend (1 degree of freedom;  $P=.52$ ).**



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#### Appendix 4. Binary logistic analysis regression coefficients and odds ratios.

	Regression Coefficient (a)	Significance (P).	Odds Ratios (b)	95% CI for Odds Ratios	
				Lower	Upper
Fetal fraction (FF) (%)	0.777	<0.001	2.175	1.952	2.424
Maternal weight (MW) (lbs.)	-0.007	<0.001	0.993	0.992	0.995
Time between draws (t) (days)	0.057	<0.001	1.059	1.043	1.076
Gestational age (GA) (days)	0.001	0.771	1.001	0.996	1.006
Constant, (c)	-1.220	<0.001	0.295		

- (a) The regression coefficients are used to calculate the probability of an informative redraw for any continuous scale combination of FF, MW, and t. The probability of an informative redraw is given by the formula:

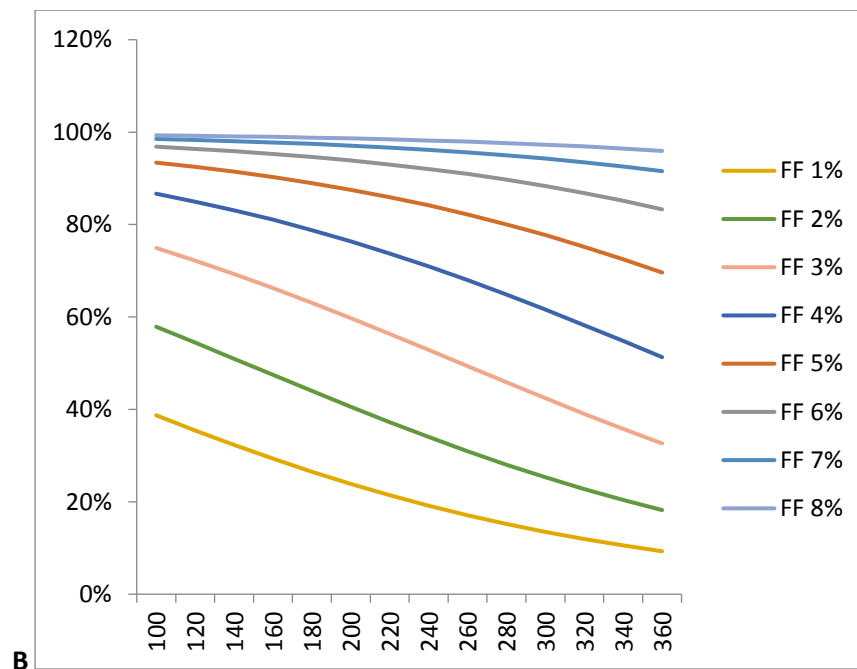
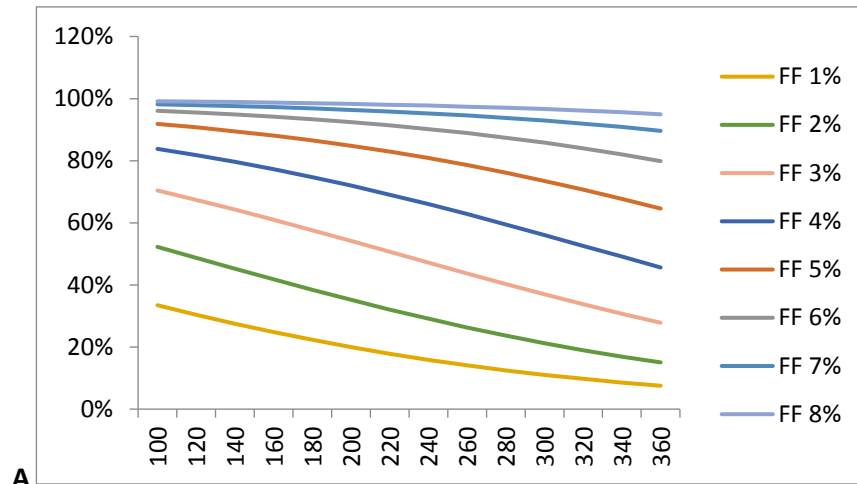
$$\text{Informative probability} = 1/(1+\text{EXP}(-(-1.22+(0.777*\text{FF})-(0.007*\text{MW})+(0.057*t))))$$

Example data for the probabilities are shown in Supplemental Figure 3 and Table 4.

- (b) The Odds Ratios indicate the change in the informative redraw rate per unit change in a variable. For example, a 1% increase in FF will increase the chance of an informative redraw by 2.125-fold (95% CI 1.952-2.424).

Additional statistical data for the strength of the regression model is provided in Appendix 6.

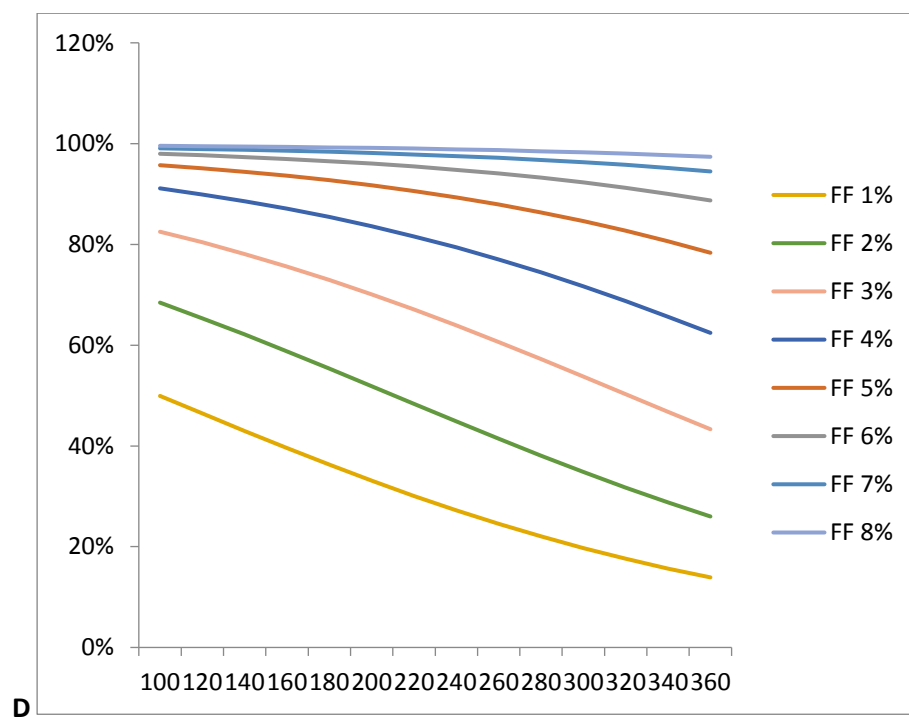
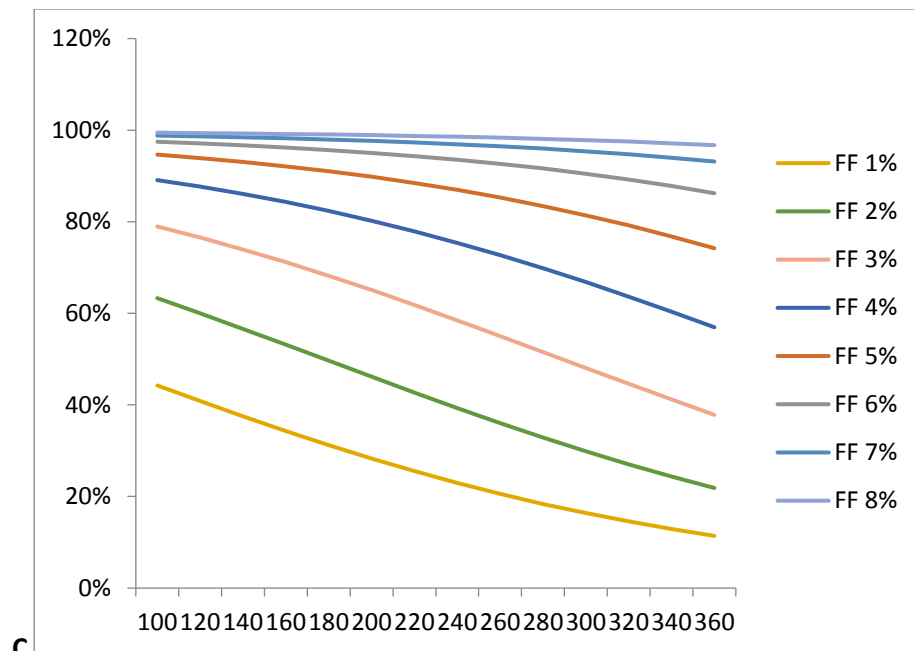
**Appendix 5. Expected redraw success rates based on logistic regression. X-axis indicates maternal weight, y-axis indicates redraw success. Eight days between draws (A), 12 days between draws (B), 16 days between draws (C), and 20 days between draws (D).**



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**Appendix 6. Additional statistical measures of the logistic regression analysis.**

	Wald	df	Sig.
Fetal fraction (FF) (%)	197.849	1	<0.001
Maternal weight (MW) (lbs.)	65.257	1	<0.001
Time between draws (t) (days)	51.418	1	<0.001
Gestational age (GA) (days)	.0.84	1	0.771
Constant, (c)	15.062	1	<0.001

The logistic regression model had a -2 Log likelihood ratio =3007, Cox and Snell R Square =0.163 and Nagelkerke R Square = 0.223.