

Appendix 1

Dougan S, Okun N, Bellai-Dussault K, Meng L, Howley H, Huang T, Reszel J, Lanes A, Walker MC, Armour CM. Performance of a universal prenatal screening program incorporating cell-free fetal DNA analysis in Ontario, Canada.

Table S1: MMS modalities used by Ontario's publicly funded prenatal screening program for pregnancies with an estimated due date between September 1, 2016 and March 31, 2019.

Figure S1: Data Assets of Prenatal Screening Ontario (PSO).

Figure S2: Ontario's prenatal screening program offered a variety of screening and diagnostic modalities during the study period.

MMS Modality	Serum Biomarkers	Ultrasound Biomarker	Screen-positive Cut-off*
enhanced first trimester screening (eFTS)	First trimester PAPP-A, AFP, hCG, +/- PIGF	Nuchal translucency	≥ 1/350 for T21 ≥ 1/200 for T18
First trimester screening (FTS)	First trimester PAPP-A, hCG	Nuchal translucency	≥ 1/350 for T21 ≥ 1/200 for T18
Integrated prenatal screening (IPS)	First trimester PAPP-A, hCG/ free β-hCG Second trimester AFP, hCG, UE3	Nuchal translucency	≥ 1/200 for T21 ≥ 1/200 for T18
Maternal serum screening (MSS)	Second trimester AFP, hCG, UE3 and inhibin A	None	≥ 1/200 for T21 ≥ 1/200 for T18

*Chance at term that the pregnancy is affected by one or more of the screened conditions based on MMS results.

Table S1: MMS modalities used by Ontario’s publicly funded prenatal screening program for pregnancies with an estimated due date between September 1, 2016 and March 31, 2019. MMS: multiple marker screening; PAPP-A: pregnancy-associated plasma protein A; AFP: alpha-fetoprotein; hCG: human chorionic gonadotropin; PIGF: placental growth factor; UE3: unconjugated estriol.

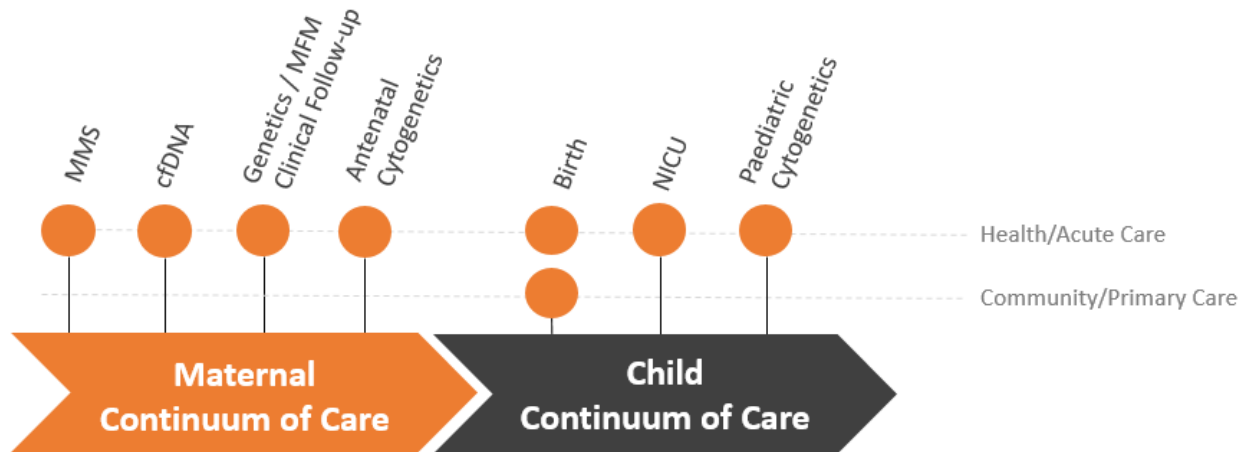


Figure S1: Data Assets of Prenatal Screening Ontario (PSO). The Better Outcomes Registry and Network (BORN) Information System contains maternal-child health data for every birth in the province of Ontario – almost 1.5 million babies to date (with 2,088 distinct data variables). PSO uses data from a variety of sources to capture and analyze routinely collected pregnancy and birth data. The figure only includes the subset of BORN Ontario data assets used by PSO. MMS: multiple marker screening; cfDNA: cell-free fetal DNA screening; NICU: neonatal intensive care.

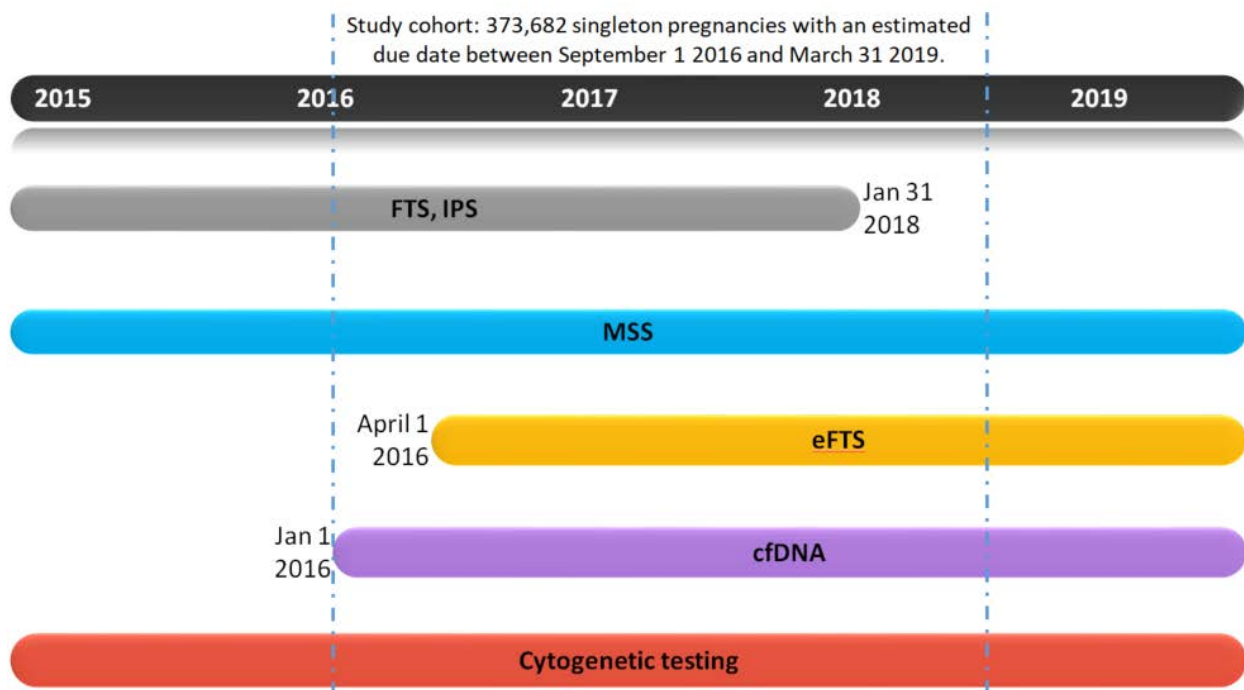


Figure S2: Ontario’s prenatal screening program offered a variety of screening and diagnostic modalities during the study period. Coloured bars represent the time period each modality was offered. The start and end of the study period is indicated by vertical dashed lines. FTS: first trimester screening; IPS: integrated prenatal screening; MSS: maternal serum screening; eFTS: enhanced first trimester screening; cfDNA: cell-free fetal DNA screening.