Supplemental Material

Biomarker	Range of CVs (%)	Assay
CRP	0.3 - 9.5	Highly sensitive immunoturbidimetric assay[1] or high-sensitivity latex-enhanced immunonephelometric assay[2]
IL-6	1.9 - 15.3	Enzyme-linked immunosorbent assay (R&D Systems, Minneapolis, MN)
HbA$_{1C}$	1.2 - 1.6	Turbidimetric immunoinhibition immunoassay (Roche Diagnostics, Indianapolis, IN)
ICAM-1	2.3 - 8.9	Enzyme-linked immunosorbent assay (R&D Systems, Minneapolis, MN)
HDL-C	1.3 - 6.6	Measured enzymatically[3]
LDL-C	1.3 - 6.7	Measured enzymatically[3]
Triglycerides	1.2 - 10.4	Measured enzymatically[4]
Total Cholesterol	1.0 - 6.2	Measured enzymatically[5]

Supplemental Table 1. Coefficients of variation and assay type for each biomarker

[1]Roche Diagnostics, Indianapolis, IN; or Denka Seiken, Tokyo, Japan

[2]Dade-Behring, Newark, DE

[3]Roche Diagnostics, Indianapolis, IN; or Genzyme, Cambridge, MA; or Abbot Laboratories, Abbot Park, IL

[4]Roche Diagnostics, Indianapolis, IN; or Genzyme, Cambridge, MA; or Thermo Fisher Scientific, Oy, Finland

[5]Roche Diagnostics, Indianapolis, IN; or Genzyme, Cambridge, MA; or Abbot Laboratories, Abbot Park, IL; or Thermo Fisher Scientific, Oy, Finland

Supplemental Table 2. Age-standardized characteristics of participants by history of pregnancy complications among controls

	Only Normotensive (n=3,428)	Ever Hypertensive Disorder of Pregnancy (n=354)	Normotensive	
			Only Term (n=3,037)	Ever Preterm (n=388)
Age at first birth in years,[1] mean (SD)	26.5 (4.3)	26.8 (4.4)	26.6 (4.2)	26.4 (4.6)
Age at blood draw[1]				
<40 years	16.4	18.6	16.1	19.1
40 to <45 years	34.9	38.7	35.7	29.1
≥45 years	48.7	42.7	48.2	51.8
White	97.8	97.7	97.8	97.7
Years between first birth and blood draw, mean (SD)	17.6 (6.6)	17.4 (6.5)	17.6 (6.5)	17.6 (7.0)
Characteristics at blood draw:				
Smoking at blood draw				
Past or never smoker	93.8	92.0	94.1	90.7
Current smoker	6.2	8.0	5.9	9.3
Alcohol consumption in month prior to blood draw				
No drinks in past month	32.2	42.6	31.7	36.1
Moderate drinker in past month	58.6	49.8	58.7	57.0
Heavy drinker in past month	9.2	7.7	9.5	7.0
Menopausal status at blood draw				
Pre-menopausal	82.4	80.2	82.5	81.1
Post-menopausal	10.3	9.7	10.3	10.3
Unknown	7.4	10.2	7.2	8.6
Post-menopausal hormone use at blood draw	15.8	20.6	15.7	17.3
History of infertility at blood draw	6.7	7.8	6.2	9.9
Parity at blood draw				
1 birth	14.6	15.2	14.9	11.2
≥2 births	85.5	84.8	85.1	88.7
Potential Confounders:				
Pre-pregnancy BMI				
Underweight (<18.5 kg/m^2)	2.1	2.3	2.1	2.0
Normal weight (18.5-24.9 kg/m^2)	89.3	79.0	89.4	88.9
Overweight (25-29.9 kg/m^2)	7.3	13.3	7.2	8.3
Obese (≥30 kg/m^2)	1.2	5.4	1.3	0.8
Pre-pregnancy Alternative Healthy Eating Index				
First quintile (unhealthiest)	20.7	22.7	20.7	20.8
Fifth quintile (healthiest)	18.2	16.9	17.9	20.8
Strenuous physical activity, age 18-22 years				
Never	30.7	31.7	30.7	30.5
10-12 months per year	10.5	10.7	10.2	13.1

Values are percentages unless otherwise specified and are standardized to the age distribution of the study population. Values of polytomous variables may not sum to 100% due to rounding. Characteristics at blood draw were matching factors in sub-studies included in the analysis

[1] Value is not age adjusted

Supplemental Table 3. Percent difference in post-pregnancy biomarkers and 95% confidence intervals comparing women with only normotensive pregnancies to women with a history of a hypertensive disorder of pregnancy (HDP) among controls

	Normotensive Only	Ever HDP
CRP	n=1,821	n=176
CRP level, mg/L, median (IQR)	0.79 (0.37, 1.95)	1.31 (0.51, 2.48)
Model 1	ref	32.4 (12.8, 55.4)
Model 2	ref	29.4 (10.4, 51.7)
IL-6	n=1,621	n=152
IL-6 level, pg/mL, median (IQR)	0.88 (0.62, 1.32)	1.11 (0.74, 1.63)
Model 1	ref	16.7 (5.5, 29.1)
Model 2	ref	14.0 (3.2, 26.1)
HbA$_{1C}$	n=792	n=93
HbA$_{1C}$, %, median (IQR)	5.38 (5.21, 5.53)	5.38 (5.21, 5.48)
Model 1	ref	-0.1 (-1.0, 0.8)
Model 2	ref	-0.3 (-1.2, 0.6)
ICAM-1	n=1,093	n=109
ICAM-1, ng/mL, median (IQR)	231.5 (207.3, 261.2)	244.1 (213.5, 273.6)
Model 1	ref	4.1 (-0.6, 9.2)
Model 2	ref	2.8 (-1.8, 7.7)
HDL-C	n=812	n=96
HDL-C level, mg/dL, median (IQR)	58.8 (51.0, 69.1)	56.2 (47.0, 66.5)
Model 1	ref	-2.9 (-8.1, 2.6)
Model 2	ref	-2.2 (-7.2, 3.2)
LDL-C	n=812	n=96
LDL-C level, mg/dL, median (IQR)	111.8 (92.7, 130.0)	109.3 (89.7, 129.8)
Model 1	ref	-1.6 (-7.3, 4.5)
Model 2	ref	-2.3 (-7.9, 3.7)
Triglycerides	n=1,254	n=150
Triglyceride level, mg/dL, median (IQR)	85.3 (65.0, 121.2)	86.2 (67.4, 131.5)
Model 1	ref	3.2 (-4.8, 11.8)
Model 2	ref	-0.2 (-7.7, 7.9)
Total Cholesterol	n=2,085	n=224
Total cholesterol, mg/dL, median (IQR)	190.3 (171.2, 213.1)	193.4 (167.9, 214.3)
Model 1	ref	0.0 (-2.4, 2.4)
Model 2	ref	-0.5 (-2.9, 1.9)

Model 1 is adjusted for the following criteria for sample selection for laboratory analysis: age at blood draw, race, menopausal status at blood draw, smoking at blood draw, alcohol intake at blood draw, post-menopausal hormone use at blood draw, and history of infertility at blood draw.

Model 2 is additionally adjusted for pre-pregnancy BMI, diet, and physical activity, and parity at blood draw.

The null value comparing ever HDP to only normotensive is 0.0 percent difference.

Supplemental Table 4. Percent difference in post-pregnancy biomarkers and 95% confidence intervals among women with no history of HDP, comparing women with only term deliveries to women with a history of preterm deliveries among controls

	Only Term (≥37 weeks)	Ever Preterm (<37 weeks)	Ever Moderate Preterm (≥32 to <37 weeks)	Ever Very Preterm (<32 weeks)
CRP	n=1,623	n=198	n=154	n=44
CRP level, mg/L, median (IQR)	0.79 (0.36, 2.03)	0.81 (0.40, 1.68)	0.81 (0.42, 1.72)	0.70 (0.35, 1.37)
Model 1	ref	-5.2 (-18.3, 10.1)	-0.4 (-15.3, 17.2)	-20.2 (-42.2, 10.4)
Model 2	ref	-4.2 (-17.4, 11.1)	0.2 (-14.7, 17.8)	-18.2 (-40.4, 12.5)
IL-6	n=1,442	n=179	n=140	n=39
IL-6 level, pg/mL, median (IQR)	0.88 (0.62, 1.33)	0.89 (0.63, 1.32)	0.87 (0.61, 1.31)	0.96 (0.71, 1.36)
Model 1	ref	1.6 (-8.1, 12.3)	0.8 (-10.0, 12.9)	4.6 (-14.2, 27.4)
Model 2	ref	1.7 (-8.0, 12.5)	0.7 (-10.2, 12.8)	5.8 (-13.2, 29.0)
HbA$_{1C}$	n=706	n=84	n=65	n=19
HbA$_{1C}$, %, median (IQR)	5.38 (5.21, 5.53)	5.41 (5.24, 5.53)	5.42 (5.21, 5.53)	5.38 (5.26, 5.53)
Model 1	ref	0.2 (-0.8, 1.2)	0.2 (-0.9, 1.4)	0.2 (-1.2, 1.6)
Model 2	ref	0.2 (-0.8, 1.1)	0.2 (-1.0, 1.3)	0.1 (-1.3, 1.5)
ICAM-1	n=967	n=125	n=92	n=33
ICAM-1, ng/mL, median (IQR)	231.5 (207.6, 260.0)	231.2 (203.6, 265.5)	225.7 (201.1, 263.2)	246.1 (220.7, 278.6)
Model 1	ref	1.6 (-2.3, 5.7)	0.3 (-4.1, 4.9)	5.5 (-2.2, 13.8)
Model 2	ref	1.6 (-2.4, 5.7)	0.6 (-3.8, 5.2)	4.4 (-3.2, 12.5)
HDL-C	n=722	n=90	n=70	n=20
HDL level, mg/dL, median (IQR)	58.7 (50.6, 68.7)	59.5 (51.7, 70.8)	59.7 (51.4, 71.0)	57.1 (52.1, 70.5)
Model 1	ref	2.5 (-2.8, 8.1)	1.8 (-4.3, 8.2)	5.0 (-4.9, 15.9)
Model 2	ref	2.8 (-2.6, 8.5)	2.1 (-3.9, 8.6)	5.2 (-5.0, 16.6)
LDL-C	n=722	n=90	n=70	n=20
LDL level, mg/dL, median (IQR)	111.5 (92.0, 130.0)	112.8 (96.3, 131.2)	111.3 (94.6, 126.1)	117.3 (106.9, 135.4)
Model 1	ref	2.8 (-2.3, 8.2)	2.0 (-3.8, 8.1)	5.7 (-3.1, 15.3)
Model 2	ref	2.5 (-2.6, 7.9)	1.8 (-4.0, 7.9)	5.0 (-3.6, 14.3)
Triglycerides	n=1,112	n=141	n=108	n=33
Triglycerides, mg/dL, median (IQR)	85.3 (65.0, 121.7)	85.0 (61.6, 117.3)	83.8 (61.3, 114.8)	100.7 (70.2, 134.7)
Model 1	ref	-4.5 (-12.1, 3.8)	-6.8 (-15.3, 2.6)	3.5 (-10.2, 19.3)
Model 2	ref	-4.2 (-11.7, 4.0)	-6.3 (-14.8, 3.0)	3.3 (-10.1, 18.8)
Total Cholesterol	n=1,848	n=235	n=175	n=60
Total Cholesterol, mg/dL, median (IQR)	190.3 (170.9, 213.2)	191.5 (174.5, 213.1)	189.3 (172.2, 213.1)	199.1 (181.0, 213.3)
Model 1	ref	0.4 (-1.7, 2.6)	-0.1 (-2.5, 2.4)	1.9 (-1.9, 5.7)
Model 2	ref	0.4 (-1.7, 2.5)	0.1 (-2.4, 2.6)	1.2 (-2.5, 5.1)

Model 1 is adjusted for the following criteria for sample selection for laboratory analysis: age at blood draw, race, menopausal status at blood draw, smoking at blood draw, alcohol intake at blood draw, post-menopausal hormone use at blood draw, and history of infertility at blood draw.
Model 2 is additionally adjusted for pre-pregnancy BMI, diet, and physical activity, and parity at blood draw.
The null value comparing ever preterm groups to only term is 0.0 percent difference.