

Appendix 1.

The authors acknowledge the following investigators in the WHI Program:

Program Office: (National Heart, Lung, and Blood Institute, Bethesda, Maryland) Jacques Rossouw, Shari Ludlam, Dale Burwen, Joan McGowan, Leslie Ford, and Nancy Geller

Clinical Coordinating Center: Fred Hutchinson Cancer Research Center, Seattle, WA, Garnet Anderson, Ross Prentice, Andrea LaCroix, and Charles Kooperberg

Investigators and Academic Centers: (Brigham and Women's Hospital, Harvard Medical School, Boston, MA) JoAnn E. Manson; (MedStar Health Research Institute/Howard University, Washington, DC) Barbara V. Howard; (Stanford Prevention Research Center, Stanford, CA) Marcia L. Stefanick; (The Ohio State University, Columbus, OH) Rebecca Jackson; (University of Arizona, Tucson/Phoenix, AZ) Cynthia A. Thomson; (University at Buffalo, Buffalo, NY) Jean Wactawski-Wende; (University of Florida, Gainesville/Jacksonville, FL) Marian Limacher; (University of Iowa, Iowa City/Davenport, IA) Robert Wallace; (University of Pittsburgh, Pittsburgh, PA) Lewis Kuller; (Los Angeles Biomedical Research Institute, Torrance, CA) Rowan T. Chlebowski; (Wake Forest University School of Medicine, Winston-Salem, NC) Sally Shumaker Women's Health Initiative Memory Study: (Wake Forest University School of Medicine, Winston-Salem, NC) Sally Shumaker

For a list of all the investigators who have contributed to WHI science, please visit:
http://www.whi.org/publications/WHI_investigators_longlist.pdf

Appendix 2. Baseline Characteristics of Participants by Breastfeeding

	Breastfeeding									
	0		1-6 months		7-12 months		13-23 months		24 or more	
	N	%	N	%	N	%	N	%	N	%
Age, Year (Mean, SD)	62.7	7.0	63.6	7.2	63.1	7.3	63.2	7.2	63.4	7.3
Ethnicity										
American Indian or Alaskan Native	197	0.4	150	0.4	56	0.4	39	0.3	35	0.5
Asian or Pacific Islander	857	1.7	1081	3.1	510	3.3	308	2.6	247	3.3
Black or African-American	4401	8.7	2919	8.3	1172	7.6	614	5.1	461	6.1
Hispanic/Latino	1768	3.5	1416	4.0	611	4.0	398	3.3	403	5.4
White (not of Hispanic origin)	42924	84.5	28997	82.7	12775	83.4	10434	87.3	6259	83.2
Other	656	1.3	517	1.5	197	1.3	157	1.3	117	1.6
Education Level										
HS diploma or less	13575	26.7	7712	22.0	2894	18.9	1883	15.8	1459	19.4
Some college/technical training	20643	40.6	14084	40.1	5338	34.8	4028	33.7	2455	32.6
College graduate or some post-college	9756	19.2	7872	22.4	4015	26.2	3405	28.5	2063	27.4
Master degree or higher	6443	12.7	5148	14.7	2948	19.2	2568	21.5	1505	20.0
Smoking										
Never Smoked	24092	47.4	17483	49.8	8228	53.7	6666	55.8	4675	62.2
Past Smoker	22242	43.8	14693	41.9	6039	39.4	4570	38.2	2497	33.2
Current Smoker	3902	7.7	2497	7.1	888	5.8	587	4.9	286	3.8
Alcohol intake										
7+ drinks per week	5664	11.1	4288	12.2	1949	12.7	1495	12.5	745	9.9
Relative had adult diabetes										
No	32087	63.2	22599	64.4	10183	66.5	8120	67.9	5040	67.0
Yes	16181	31.9	10693	30.5	4443	29.0	3377	28.3	2154	28.6
High cholesterol requiring medicine										

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No	41017	80.7	28562	81.4	12641	82.5	9932	83.1	6285	83.6
Yes	6682	13.2	4436	12.6	1737	11.3	1249	10.5	791	10.5
Prior hormone use										
Never use	21969	43.2	14253	40.6	6327	41.3	4999	41.8	3612	48.0
E-alone use	15699	30.9	11221	32.0	4445	29.0	3227	27.0	1792	23.8
E+P use	10340	20.4	7494	21.4	3612	23.6	2995	25.1	1722	22.9
E-alone and E+P use	2795	5.5	2112	6.0	937	6.1	729	6.1	396	5.3
Oral Contraceptive use (yes)	22081	43.5	15278	43.6	6896	45.0	5340	44.7	3126	41.6
Body-mass Index (BMI), kg/m² (Mean, SD)	27.9	5.8	27.7	5.7	27.5	5.6	27.5	5.5	27.9	5.8
Total METs per week (Mean, SD)	12.1	13.6	12.6	13.7	13.3	13.9	13.7	14.1	13.4	14.5
Total HEI-2005 Score (Mean, SD)	66.4	10.9	67.4	10.6	68.1	10.5	68.5	10.2	68.3	10.5
Waist circumference (cm) (Mean, SD)	86.2	13.5	85.8	13.2	85.2	13.2	85.2	13.0	86.2	13.2
Age at menopause	48.0	6.4	48.2	6.4	48.6	6.1	49.1	5.8	49.5	5.7

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Results from a sensitivity analysis among the WHI-OS by further adjusting for weight gain between age 18 to age 50

Appendix 3. Associations (HR 95% CI) Between Combinations of Parity and Breastfeeding and Risk of Diabetes in the WHI-OS*

	Parity		
	Nulliparous	Parous (1-4)	Parous (≥5)
	HR (95% CI)	HR (95% CI)	HR (95% CI)
Lactation history			
No of months breastfed			
Never breastfed	Reference	1.02 (0.95 1.09)	1.07 (0.96 1.20)
1-6	Reference	1.00 (0.93 1.08)	0.99 (0.88 1.12)
7-12	Reference	0.95 (0.86 1.04)	1.19 (1.01 1.40)
13-23	Reference	0.96 (0.87 1.06)	1.18 (1.00 1.38)
24 or more	Reference	0.93 (0.81 1.07)	1.04 (0.90 1.20)
No of months breastfed per child			
Never breastfed	Reference	1.02 (0.95 1.09)	1.07 (0.96 1.20)
1-3	Reference	1.01 (0.93 1.08)	1.05 (0.94 1.17)
4-6	Reference	0.93 (0.85 1.02)	1.18 (1.00 1.38)
6 or more	Reference	0.96 (0.88 1.06)	1.04 (0.90 1.20)

* In the multivariable-adjusted models, we adjusted for age at enrollment (in continuous), race/ethnicity (American Indian or Alaska Native, Asian or Pacific Islander, Black or African-American, Hispanic/Latino, non-Hispanic White, and other), education (high school or less, some college/technical training, college or some post-college, and master or higher), family history of diabetes (no, yes), BMI (in continuous), waist circumference (in continuous), smoking (never, former, current), alcohol intake (non-drinker, past drinker, current and <7 drinks/wk, current and ≥7 drinks/wk), physical activity (<5, 5-<10, 10-<20, 20-<30, 30+ Metabolic equivalent (METs)/week), history of hormone therapy use (none, estrogen alone, estrogen and progestin, mixed), age at menopause (<45 years old, 45-<56 years old, 56 or more), oral contraceptive use (no, yes), age of menarche (less than 12, 12-13, 14-15, ≥16 years), healthy eating index (HEI)-2005 score as a measure of diet quality, high cholesterol requiring medicine, and weight gain between age 18 to age 50.

Appendix 4. Associations (HR 95% CI) Between Breastfeeding History and Risk of Diabetes Stratified Among Parous Women by Race/Ethnicity in the WHI-OS*

	White	Black	Hispanic	Asian	P for interaction
	HR (95% CI)	HR (95% CI)	HR (95% CI)		
Lactation history					
No of months breastfed					0.03
Never breastfed	Reference	Reference	Reference	Reference	
1-6	1.00 (0.94 1.06)	0.89 (0.76 1.06)	0.90 (0.69 1.17)	0.69 (0.48 0.98)	
7-12	0.95 (0.87 1.02)	1.10 (0.88 1.38)	0.79 (0.54 1.14)	1.01 (0.66 1.54)	
13-23	0.95 (0.87 1.04)	0.99 (0.73 1.32)	1.40 (0.95 2.05)	0.73 (0.43 1.24)	
24 or more	0.91 (0.81 1.02)	0.87 (0.61 1.22)	1.07 (0.74 1.56)	0.54 (0.28 1.05)	
No of months breastfed per child					0.7
Never breastfed	Reference	Reference	Reference	Reference	
1-3	1.00 (0.94 1.06)	0.94 (0.80 1.11)	0.88 (0.68 1.14)	0.76 (0.54 1.07)	
4-6	0.94 (0.87 1.02)	1.01 (0.80 1.27)	1.07 (0.76 1.52)	0.73 (0.47 1.15)	
6 or more	0.94 (0.86 1.02)	0.88 (0.68 1.15)	1.04 (0.75 1.44)	0.72 (0.45 1.15)	

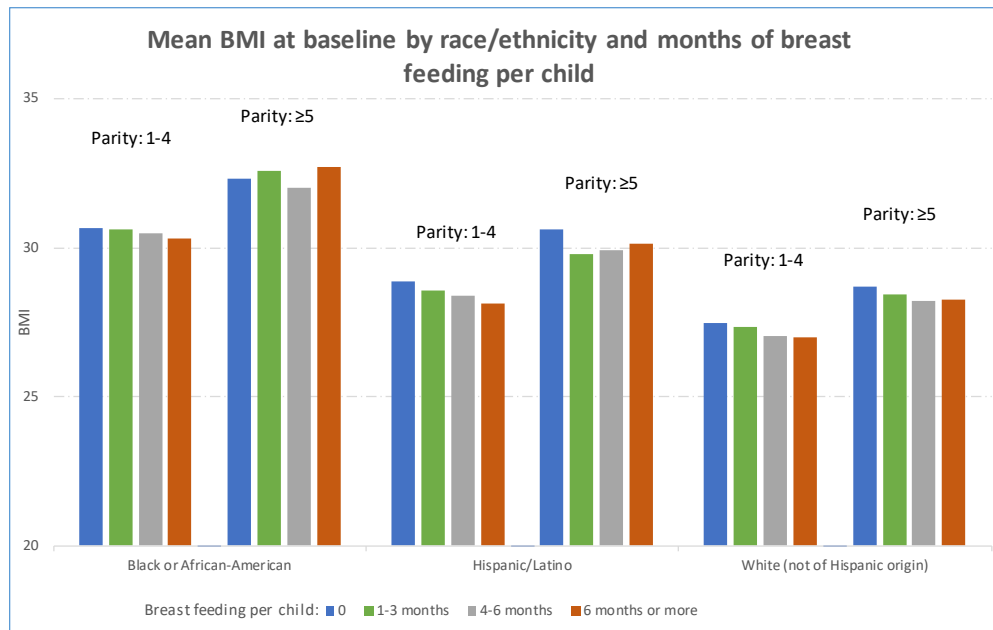
* In the multivariable-adjusted models, we adjusted for age at enrollment (in continuous), race/ethnicity (American Indian or Alaska Native, Asian or Pacific Islander, Black or African-American, Hispanic/Latino, non-Hispanic White, and other), education (high school or less, some college/technical training, college or some post-college, and master or higher), family history of diabetes (no, yes), BMI (in continuous), waist circumference (in continuous), smoking (never, former, current), alcohol intake (non-drinker, past drinker, current and <7 drinks/wk, current and ≥7 drinks/wk), physical activity (<5, 5-<10, 10-<20, 20-<30, 30+ Metabolic equivalent (METs)/week), history of hormone therapy use (none, estrogen alone, estrogen and progestin, mixed), age at menopause (<45 years old, 45-<56 years old, 56 or more), oral contraceptive use (no, yes), age of menarche (less than 12, 12-13, 14-15, ≥16 years), healthy eating index (HEI)-2005 score as a measure of diet quality, high cholesterol requiring medicine, weight gain between age 18 to age 50, and parity.

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Appendix 5. Mean BMI at baseline by race/ethnicity and months of breastfeeding per child.

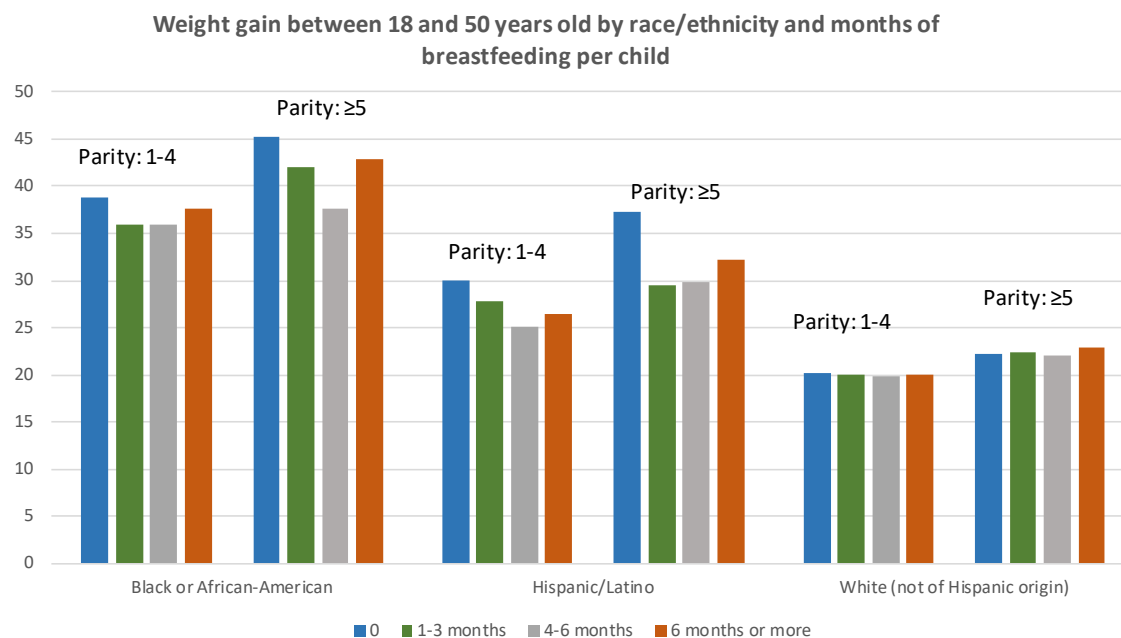


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Appendix 6. Weight gain between 18 and 50 years old by race/ethnicity and months of breastfeeding per child.



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