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Table 1: Description of health behaviour by most likely latent class grouping

Class	Size of class, N (%)	Description
White British women		
1 Non smoke exposed smokers (WB1)	50 (1.4)	Smoking before and during pregnancy Least likely to be inactive Unlikely to take vitamin D supplement during pregnancy
2 Most unhealthy (WB2)	1179 (33.9)	Very likely to be smoking before and during pregnancy Likely to be exposed to second hand smoke Highest levels of inactivity Highest levels of not taking vitamin D supplements during pregnancy
3 Mostly healthy but inactive (WB3)	1525 (43.9)	Unlikely to take vitamin D supplement during pregnancy Fairly likely to be inactive Not likely to smoke or be exposed to smoke
4 Smoke exposed and inactive (WB4)	723 (20.7)	Highly likely to be exposed to smoke but not to smoke themselves Highly likely to be inactive
Pakistani women		
1 Inactive smokers (P1)	148 (3.8)	Very likely to be smoking both before and during pregnancy Less likely to be exposed to smoking Highly likely to be inactive Very unlikely to be taking vitamin D
2 Smoke exposed and inactive (P2)	2829 (72.9)	Most likely to be exposed to second hand smoke Quite likely to be inactive Very unlikely to be taking vitamin D
3 Mostly healthy but inactive (P3)	902 (23.3)	Most likely to be inactive Very unlikely to be taking vitamin D Small probability of smoke exposure Non smokers

Table 2 Relationship between latent class group and mean birth weight (grams)

	Unadjusted (mean difference, 95% C.I.)	Adjusted[^] (mean difference, 95% C.I.)	Adjusted+ (mean difference, 95% C.I.)
Latent class group			
<i>White British</i>			
1 Non smoke exposed smokers (WB1)	-74.9 (-200.7, 50.9)	-112.3 (-217.9, -6.6)*	-67.2 (-192.3, 57.9)
2 Most unhealthy (WB2)	-273.4 (-315.4, -231.4)****	-255.4 (-290.5, -220.2)***	-242.0 (-290.5, -193.6)**
3 Mostly healthy but inactive (WB3)	ref	ref	ref
4 Smoke exposed and inactive (WB4)	-44.5 (-94.4, 5.3)	-45.6 (-87.0, 4.3)	-31.2 (-82.1, 19.8)
<i>Pakistani</i>			
1 Smokers (P1)	-99.8 (-186.3, -13.3)	-53.9 (-128.2, 20.5)	-47.0 (-135.9, 41.9)
2 Smoked exposed and inactive (P2)	-17.2 (-72.2, 37.9)	-15.2 (-61.9, 31.5)	6.6 (-48.7, 61.8)
3 Mostly healthy but inactive (P3)	ref	ref	ref

[^]birth related factors comprising type of delivery (vaginal vs caesarean), babies sex, gestational diabetes, hypertensive disorders of pregnancy, length of gestation, and parity.

⁺As above plus marital and cohabitation status, mother education, father education, IMD 2010, means tested benefits, housing tenure, booking BMI, subjective poverty, consanguinity

* P ≤ 0.05, ** P ≤ 0.01, *** P ≤ 0.001, **** P ≤ 0.0001

Table 3 Relationship between latent class grouping and odds of preterm birth

	Unadjusted (OR 95% CI)	Adjusted[^] (OR 95% CI)	Adjusted⁺ (OR 95% CI)
Latent class group			
<i>White British</i>			
1 Non smoke exposed smokers (WB1)	0.89 (0.30, 2.66)	0.95 (0.30, 3.00)	0.84 (0.26-2.75)
2 Most unhealthy (WB2)	1.45 (1.05, 1.99)*	1.67 (1.20, 2.36)**	1.45 (0.96-2.18)
3- Mostly healthy but inactive (WB3)	1	1	1
4- Smoke exposed and inactive (WB4)	1.07 (0.72, 1.61)	1.16 (0.76-1.78)	0.99 (0.62-1.58)
<i>Pakistani</i>			
1 Smokers (P1)	2.27 (1.33-3.89)	2.53 (1.42-4.50)	2.63 (1.43-4.80)
2 Smoked exposed and inactive (P2)	0.91 (0.55-1.49)	0.88 (0.52-1.50)	0.80 (0.46-1.41)
3 Mostly healthy but inactive (p3)	1	1	1

[^]birth related factors comprising type of delivery (vaginal vs caesarean), babies sex, gestational diabetes, hypertensive disorders of pregnancy, consanguinity and parity.

⁺As above plus marital and cohabitation status, mother education, father education, IMD 2010, means tested benefits, housing tenure, booking BMI and subjective poverty

* P ≤ 0.05, ** P ≤ 0.01, *** P ≤ 0.001, **** P ≤ 0.0001