

eTable 1. Nationally-representative estimates of GWG and GWG adequacy^a in France by survey year (French National Perinatal Survey 2010 and 2016; N=24850)

	2010					2016				
	N (%)	GWG (kg) mean (SD)	Insufficient GWG n (%)	Adequate GWG n (%)	Excessive GWG n (%)	N (%)	GWG (kg) mean (SD)	Insufficient GWG n (%)	Adequate GWG n (%)	Excessive GWG n (%)
Total	13455	13.2 (5.6)	3443 (25.9)	5006 (37.7)	4839 (36.4)	11395	12.7 (5.7)	3163 (28.0)	4100 (36.2)	4053 (35.8)
BMI^b										
Underweight	1110 (8.3)	14.0 (4.7)	415 (37.5)	454 (41.0)	239 (21.6)	850 (7.5)	13.7 (4.9)	347 (40.8)	331 (38.9)	172 (20.2)
Normal weight	8601 (64.7)	13.9 (4.8)	2394 (27.9)	3614 (42.1)	2583 (30.1)	6905 (60.9)	13.7 (4.9)	2079 (30.2)	2824 (41.0)	1991 (28.9)
Overweight	2289 (17.2)	12.4 (5.9)	310 (13.6)	662 (28.9)	1315 (57.5)	2256 (19.9)	12.0 (6.0)	377 (16.7)	641 (28.4)	1237 (54.9)
All obese	1303 (9.8)	8.9 (7.4)	324 (24.9)	276 (21.2)	702 (53.9)	1322 (11.7)	8.4 (7.3)	360 (27.3)	304 (23.1)	653 (49.6)
Obese class I	893 (6.7)	10.2 (6.7)	162 (18.2)	190 (21.3)	540 (60.5)	909 (8.0)	9.5 (6.7)	193 (21.3)	202 (22.3)	510 (56.4)
Obese class II	280 (2.1)	7.0 (8.0)	92 (32.9)	64 (22.9)	124 (44.3)	309 (2.7)	7.0 (7.4)	109 (35.4)	74 (24.0)	125 (40.6)
Obese class III	130 (1.0)	4.2 (8.1)	70 (53.8)	22 (16.9)	38 (29.2)	104 (0.9)	2.8 (8.6)	58 (55.8)	28 (26.9)	18 (17.3)

Abbreviations: GWG= gestational weight gain; BMI= body mass index; SD= standard deviation; IOM= Institute of Medicine

^aBased on 2009 IOM thresholds,¹ accounting for gestational age at birth;^{2,3} considered insufficient GWG if below recommendation, adequate if within recommendation, or excessive if above recommendation

^bBMI (kg/m²): underweight: <18.5; normal weight: 18.5-24.9; overweight: 25-29.9; obese: ≥30 (class I [30-34.9]; class II [35-39.9]; class III [≥40])⁴

Table 2: Characteristics of the study population, in comparison to those of women excluded for missing or implausible GWG (French National Perinatal Survey 2010 and 2016)

	Included (N=24850) n (%)	Excluded (N=2269) n (%)
BMI^a		
Underweight	1960 (8.0)	7 (4.2)
Normal weight	15506 (62.9)	92 (55.1)
Overweight	4545 (18.4)	33 (19.8)
All obese	2625 (10.7)	35 (21.0)
Obese class I	1802 (7.3)	25 (15.0)
Obese class II	589 (2.4)	7 (4.2)
Obese class III	234 (0.9)	3 (1.8)
Parity		
Multiparous	14061 (56.7)	1100 (63.5)
Primiparous	10722 (43.3)	632 (36.5)
Age		
<25 years	3716 (15.0)	370 (22.0)
25-29 years	8126 (32.7)	482 (28.6)
30-34 years	8079 (32.5)	476 (28.3)
≥35 years	4918 (19.8)	356 (21.1)
Country or region of birth		
France	20398 (82.2)	280 (53.6)
Europe	957 (3.9)	47 (9.0)
Northern Africa	1720 (6.9)	63 (12.1)
Sub-Saharan Africa	1024 (4.1)	101 (19.3)
Other	719 (2.9)	31 (5.9)
Employment during pregnancy		
None	7089 (28.7)	404 (60.3)
Stopped working during pregnancy		
Before 14+0 wks gestation	1595 (6.5)	20 (3.0)
14+0 to 27+6 wks gestation	6701 (27.1)	58 (8.7)
28+0 to 31+6 wks gestation	4243 (17.2)	24 (3.6)
Unknown stop point	317 (1.3)	124 (18.5)
Continued working to ≥32 wks gestation	4743 (19.2)	40 (6.0)
Education		
Less than high school	2158 (8.7)	217 (37.0)
High school	9157 (37.1)	226 (38.5)
1-2 years post-graduation	5086 (20.6)	67 (11.4)
3-4 years post-graduation	4466 (18.1)	50 (8.5)
≥5 years post-graduation	3798 (15.4)	27 (4.6)
Social deprivation^b		
No	20424 (82.2)	304 (60.9)
Yes	4414 (17.8)	195 (39.1)
Smoking habits before, during pregnancy		
Non smoker	17216 (69.9)	297 (72.1)
Decreased smoking in pregnancy		
<10 cig/d, stopped	1855 (7.5)	18 (4.4)
≥10 cig/d, stopped	1402 (5.7)	17 (4.1)
≥10 cig/d, <10 cig/d	2185 (8.9)	21 (5.1)
Maintained smoking level in pregnancy		
<10 cig/d, <10 cig/d	845 (3.4)	32 (7.8)
≥10 cig/d, ≥10 cig/d	1081 (4.4)	26 (6.3)
Increased smoking in pregnancy ^c	47 (0.2)	1 (0.2)
Insufficient care^d		
No	23515 (94.7)	673 (83.3)
Yes	1328 (5.3)	135 (16.7)
Diabetes		
No	22414 (91.5)	1490 (89.4)
Yes, diet controlled	633 (2.6)	42 (2.5)
Yes, insulin controlled	1458 (5.9)	134 (8.0)
Preexisting hypertension		
No	24229 (98.0)	1656 (97.5)
Yes	504 (2.0)	42 (2.5)

Abbreviations: GWG= gestational weight gain; BMI= body mass index; cig/d= cigarettes per day; GA= gestational age

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^bNo stable home (homeless or living in a hotel or caravan) and/or no salary nor unemployment allowance

^cNon-smoker, <10 cig/d; non-smoker, ≥10 cig/d; <10 cig/d, ≥10 cig/d

^dLate pregnancy declaration (national health insurance not notified in first three completed months and no nuchal translucency measurement in first trimester) or insufficient sonograms (<2 if GA at birth 24-33 weeks; <3 if GA at birth 34 weeks or later) or prenatal visits (<3 if GA at birth 24-27 weeks; <4 if GA at birth 28-31 weeks; <5 if GA at birth 32-35 weeks; <6 if GA at birth 36 weeks or later), consistent with French guidelines for low risk women

References

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3. Liu J, Gallagher AE, Carta CM, Torres ME, Moran R, Wilcox S. Racial differences in gestational weight gain and pregnancy-related hypertension. *Annals of Epidemiology*. 2014;24(6):441-447.
4. World Health Organization. Obesity: preventing and managing the global epidemic: report of a WHO consultation. Geneva, Switzerland: WHO Technical Report Series; 2000. Report No: 894.