

Appendix 1. Risk predictions chart (% , CI) of an adverse pregnancy outcome for maternal age groups with different combinations of risk factors.

		Risk score													
		7% and below				8-9%				10-12%				13-14%	
		20-34 years				35-39 years				40+ years					
		Nulli- parous	Multi- parous	Nulli- parous	Multi- parous	Nulli- parous	Multi- parous	Nulli- parous	Multi- parous	Nulli- parous	Multi- parous	Nulli- parous	Multi- parous		
Under weight		7 (7-8)	6 (6-7)	9 (8-10)	8 (8-9)	9 (8-10)	8 (8-9)	12 (11-13)	11 (10-12)	14 (12-15)	12 (11-14)	17 (15-19)	16 (14-17)	Smoker	
		7 (6-8)	6 (5-7)	9 (7-10)	8 (7-9)	8 (7-10)	8 (6-9)	11 (9-13)	10 (8-12)	13 (11-15)	11 (10-13)	16 (14-19)	15 (12-17)	Stopped	
		6 (5-6)	5 (4-6)	8 (7-8)	7 (6-7)	7 (7-8)	7 (6-7)	10 (9-10)	9 (8-9)	11 (10-12)	10 (9-11)	14 (13-16)	13 (12-14)	Non-smoker	
Normal weight		7 (6-7)	6 (6-6)	9 (8-9)	8 (7-8)	8 (8-9)	8 (7-8)	11 (10-12)	10 (9-11)	13 (12-14)	11 (11-12)	16 (15-18)	15 (13-16)	Smoker	
		6 (5-7)	6 (5-6)	8 (7-9)	7 (6-8)	8 (7-9)	7 (6-8)	10 (9-12)	9 (8-11)	12 (10-14)	11 (9-12)	15 (13-18)	14 (12-16)	Stopped	
		5 (5-6)	5 (5-5)	7 (7-7)	6 (6-7)	7 (7-7)	6 (6-6)	9 (8-9)	8 (8-9)	10 (10-11)	9 (9-10)	13 (12-14)	12 (11-13)	Non-smoker	
Over weight		7 (7-8)	7 (6-7)	9 (9-10)	8 (8-9)	9 (9-10)	8 (8-9)	12 (11-13)	11 (10-12)	14 (13-15)	12 (11-14)	17 (16-19)	16 (14-17)	Smoker	
		7 (6-8)	6 (5-7)	9 (8-10)	8 (7-9)	9 (7-10)	8 (7-9)	11 (9-13)	10 (9-12)	13 (11-15)	12 (10-14)	16 (14-19)	15 (13-17)	Stopped	
		6 (6-6)	5 (5-5)	8 (7-8)	7 (6-7)	7 (7-8)	7 (6-7)	10 (9-10)	9 (8-9)	11 (10-12)	10 (9-11)	14 (13-16)	13 (12-14)	Non-smoker	
Obese		9 (8-9)	8 (7-8)	11 (10-12)	10 (9-11)	11 (10-12)	10 (9-10)	14 (13-15)	12 (11-13)	16 (15-17)	14 (13-16)	20 (18-22)	18 (17-20)	Smoker	
		8 (7-9)	7 (6-8)	10 (9-12)	9 (8-11)	10 (9-12)	9 (8-10)	13 (11-15)	12 (10-13)	15 (13-17)	13 (12-16)	19 (16-22)	17 (15-20)	Stopped	
		7 (7-7)	6 (6-6)	9 (8-10)	8 (8-9)	9 (8-9)	8 (7-8)	11 (10-12)	10 (9-11)	13 (12-14)	12 (11-13)	17 (15-18)	15 (14-16)	Non-smoker	
		Spontaneous conception		Assisted reproductive technology		Spontaneous conception		Assisted reproductive technology		Spontaneous conception		Assisted reproductive technology			

Appendix 2. Clarification of the Calculations and Assumptions Behind the Risk Prediction Chart Presented in Appendix 1

In the fitted logistic regression model, we assumed that there were no interactions between the included predicting factors, which could potentially cause narrow confidence intervals. This assumption was made a priori with regards to the literature. We tested our risk prediction model for interactions in all possible combinations and interactions were found between maternal age and assisted reproductive technology (p-value: 0.015) and between parity and smoking (0.016). However, these p-values of about 1.5% reveal only small interaction-effects, which are not considered likely to change the risk estimates. When we included those interactions in our fitted model, the confidence intervals in the risk prediction model became minimally wider. The validity of the estimates and 95% CIs relies on the assumption of no interaction on the multiplicative scale, and the model check described above found no strong evidence of interaction.

Calculation of risk estimates using the following coefficients for the a priori chosen set of risk predictors derived from the fitted logistic regression model:

Variable	Coefficient
Intercept	-2,869
20-34y	0.0 (ref.)
35-39y	0.257
=>40y	0.709
Nulliparous	0.0 (ref.)
Multiparous	-0.113
Spontaneous conception	0.0 (ref.)
Assisted conception	0.281

Non-smoker	0.0 (ref.)
Stopped smoking	0.151
Smoker	0.228
Underweight	0.077
Normal weight	0.0 (ref.)
Overweight	0.923
Obese	0.264

Example of calculation of risk estimate for pregnant women ≥ 40 years, nulliparous, spontaneous conception, smoker, obese = $-2.869 + 1 \times 0.709 + 1 \times 0.0 + 1 \times 0.0 + 1 \times 0.228 + 1 \times 0.264 = -1.668$

Risk = $\exp(-1.668) / (1 + \exp(-1.668)) \times 100 = 15.87\%$