



Table S1. Representation of modelling strategy

Full sample: 1973-1995						
	Model 1	Model 2	Model 3	Model 4		Model 5
Intergenerational sociodemographic factors	MA	Group	X	X		X
Intergenerational biological variables	MA	Group	X	X		X
Early-life factors: outcomes	MA	Group		X		X
Individual adult life factors	MA	Group				X

Restricted sample: 1982-1995						
	Model 1	Model 2	Model 3	Model 4a	Model 4b	Model 5
Intergenerational sociodemographic factors	MA	Group	X	X	X	X
Intergenerational biological variables	MA	Group	X	X	X	X
Early-life factors: before birth	MA	Group		X	X	X
Early-life factors: outcomes	MA	Group			X	X
Individual adult life factors	MA	Group				X

Abbreviations: MA, minimally adjusted

Table S2. Associations of social and biological characteristics with rate of polycystic ovary syndrome among Swedish women born between 1973-1995

	Model 1	Model 1	Model 2	Model 2	Model 3	Model 3	Model 4	Model 4a	Model 4b	Model 5	Model 5
	[Full]	[Res.]	[Full]	[Res.]	[Full]	[Res.]	[Full]	[Res.]	[Res.]	[Full]	[Res.]
	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR
Predictor	CI 95%	CI 95%	CI 95%	CI 95%	CI 95%	CI 95%	CI 95%	CI 95%	CI 95%	CI 95%	CI 95%
Intergenerational sociodemographic factors											
Birth order											
First born [Ref]	1***	1***	1***	1***	1***	1***	1***	1***	1***	1**	1***
Second born	0.911	0.875	0.915	0.876	0.915	0.870	0.922	0.864	0.872	0.924	0.873
	[0.873 - 0.951]	[0.811 - 0.943]	[0.877 - 0.956]	[0.812 - 0.946]	[0.876 - 0.955]	[0.805 - 0.939]	[0.882 - 0.963]	[0.780 - 0.933]	[0.807 - 0.943]	[0.884 - 0.965]	[0.809 - 0.945]
Third born or higher	0.998	1.072	0.965	1.036	0.951	1.020	0.959	0.997	1.007	0.957	1.000
	[0.940 - 1.061]	[0.981 - 1.173]	[0.908 - 1.027]	[0.945 - 1.136]	[0.893 - 1.014]	[0.927 - 1.121]	[0.900 - 1.022]	[0.906 - 1.097]	[0.914 - 1.109]	[0.898 - 1.020]	[0.908 - 1.102]
Mother's age at index woman's birth, years											
Less than or equal to 18	1.220	1.204	1.128	1.036	1.126	1.035	1.122	1.054	1.058	1.118	1.046
	[1.054 - 1.413]	[0.845 - 1.715]	[0.973 - 1.307]	[0.742 - 1.498]	[0.972 - 1.305]	[0.724 - 1.478]	[0.968 - 1.300]	[0.737 - 1.506]	[0.740 - 1.512]	[0.964 - 1.296]	[0.732 - 1.496]
Between 19-35 [Ref]	1**	1*	1*	1	1*	1	1*	1	1	1*	1
Greater than 35	1.066	1.048	1.065	1.049	1.047	1.024	1.047	1.009	1.008	1.036	1.000
	[0.997 - 1.139]	[0.935 - 1.175]	[0.996 - 1.139]	[0.934 - 1.179]	[0.978 - 1.119]	[0.911 - 1.151]	[0.979 - 1.121]	[0.897 - 1.134]	[0.896 - 1.133]	[0.969 - 1.109]	[0.890 - 1.125]
Mother's educational attainment											
Primary	1.071	1.100	0.991	0.992	0.984	0.984	0.983	0.959	0.957	0.987	0.955
	[1.017 - 1.127]	[0.995 - 1.217]	[0.940 - 1.046]	[0.894 - 1.101]	[0.933 - 1.038]	[0.887 - 1.093]	[0.933 - 1.037]	[0.864 - 1.065]	[0.863 - 1.064]	[0.935 - 1.041]	[0.860 - 1.061]
Secondary [Ref]	1***	1***	1	1*	1	1*	1	1	1	1	1
University	0.941	0.884	0.975	0.937	0.982	0.945	0.983	0.982	0.984	0.981	0.981
	[0.904 - 0.981]	[0.821 - 0.952]	[0.932 - 1.020]	[0.864 - 1.017]	[0.938 - 1.028]	[0.871 - 1.026]	[0.942 - 1.031]	[0.904 - 1.066]	[0.905 - 1.068]	[0.937 - 1.027]	[0.903 - 1.065]
Father's educational attainment											
Primary	1.042	1.022	1.011	0.983	1.004	0.979	1.005	0.964	0.965	1.018	0.975
	[0.997 - 1.090]	[0.940 - 1.111]	[0.966 - 1.059]	[0.903 - 1.071]	[0.959 - 1.051]	[0.890 - 1.066]	[0.964 - 1.056]	[0.885 - 1.049]	[0.886 - 1.050]	[0.972 - 1.066]	[0.895 - 1.061]
Secondary [Ref]	1***	1***	1	1*	1	1*	1	1*	1*	1*	1*

University	0.945	0.871	0.981	0.920	0.984	0.924	0.985	0.951	0.952	0.977	0.948
	[0.905 - 0.988]	[0.804 - 0.945]	[0.934 - 1.031]	[0.841 - 1.007]	[0.937 - 1.034]	[0.844 - 1.011]	[0.939 - 1.036]	[0.869 - 1.042]	[0.869 - 1.043]	[0.930 - 1.026]	[0.865 - 1.039]

Mother's country of birth

Sweden [Ref]	1***	1***	1***	1***	1***	1***	1***	1***	1***	1***	1***
Nordics, excluding Sweden	1.062	1.035	1.017	0.994	1.017	0.992	1.018	0.975	0.974	0.988	0.949
	[0.972 - 1.160]	[0.873 - 1.226]	[0.926 - 1.117]	[0.833 - 1.186]	[0.926 - 1.117]	[0.832 - 1.184]	[0.927 - 1.118]	[0.817 - 1.163]	[0.816 - 1.162]	[0.900 - 1.086]	[0.795 - 1.134]
Europe, North America and	1.573	1.632	1.366	1.423	1.350	1.413	1.353	1.444	1.441	1.299	1.371
Oceania	[1.446 - 1.712]	[1.399 - 1.903]	[1.235 - 1.511]	[1.184 - 1.711]	[1.220 - 1.495]	[1.175 - 1.700]	[1.223 - 1.497]	[1.200 - 1.737]	[1.198 - 1.734]	[1.173 - 1.438]	[1.138 - 1.652]
Africa	1.796	2.115	1.291	1.490	1.274	1.475	1.271	1.542	1.541	1.211	1.471
	[1.465 - 2.202]	[1.515 - 2.953]	[0.996 - 1.675]	[0.968 - 2.295]	[0.982 - 1.653]	[0.956 - 2.274]	[0.979 - 1.649]	[1.001 - 2.374]	[1.001 - 2.374]	[0.933 - 1.572]	[0.954 - 2.270]
Asia	2.418	2.215	1.658	1.549	1.608	1.506	1.604	1.634	1.626	1.553	1.599
	[2.140 - 2.732]	[1.785 - 2.750]	[1.402 - 1.960]	[1.156 - 2.075]	[1.358 - 1.903]	[1.123 - 2.019]	[1.355 - 1.898]	[1.218 - 2.193]	[1.211 - 2.183]	[1.313 - 1.838]	[1.191 - 2.146]
South America	1.960	1.648	1.579	1.143	1.564	1.134	1.566	1.159	1.263	1.480	1.100
	[1.573 - 2.443]	[1.112 - 2.443]	[1.187 - 2.100]	[0.699 - 1.867]	[1.176 - 2.082]	[0.693 - 1.856]	[1.176 - 2.084]	[0.708 - 1.898]	[0.711 - 1.903]	[1.113 - 1.968]	[0.672 - 1.798]

Father's country of birth

Sweden [Ref]	1***	1***	1***	1*	1***	1*	1***	1*	1*	1***	1*
Nordics, excluding Sweden	1.091	1.070	1.060	1.033	1.055	1.020	1.055	1.008	1.010	1.047	1.005
	[0.991 - 1.201]	[0.892 - 1.283]	[0.958 - 1.175]	[0.855 - 1.249]	[0.953 - 1.168]	[0.843 - 1.232]	[0.952 - 1.168]	[0.834 - 1.219]	[0.834 - 1.218]	[0.945 - 1.160]	[0.831 - 1.215]
Europe, North America and	1.444	1.445	1.196	1.142	1.187	1.129	1.186	1.140	1.137	1.134	1.091
Oceania	[1.334 - 1.563]	[1.245 - 1.677]	[1.087 - 1.315]	[0.954 - 1.366]	[1.079 - 1.306]	[0.943 - 1.353]	[1.078 - 1.304]	[0.952 - 1.366]	[0.949 - 1.362]	[1.030 - 1.248]	[0.910 - 1.310]
Africa	1.677	1.809	1.362	1.306	1.335	1.268	1.333	1.257	1.251	1.237	1.144
	[1.422 - 1.978]	[1.364 - 2.340]	[1.103 - 1.682]	[0.905 - 1.884]	[1.081 - 1.649]	[0.878 - 1.830]	[1.079 - 1.647]	[0.872 - 1.812]	[0.867 - 1.804]	[1.001 - 1.528]	[0.792 - 1.652]
Asia	2.374	2.199	1.624	1.508	1.594	1.466	1.593	1.440	1.435	1.516	1.366
	[2.109 - 2.672]	[1.786 - 2.707]	[1.379 - 1.912]	[1.135 - 2.005]	[1.353 - 1.879]	[1.102 - 1.950]	[1.352 - 1.878]	[1.082 - 1.915]	[1.079 - 1.910]	[1.287 - 1.787]	[1.027 - 1.818]
South America	1.762	1.822	1.313	1.584	1.306	1.552	1.306	1.570	1.562	1.236	1.518
	[1.431 - 2.169]	[1.305 - 2.542]	[1.003 - 1.719]	[1.044 - 2.403]	[0.997 - 1.711]	[1.022 - 2.359]	[0.997 - 1.711]	[1.033 - 2.386]	[1.029 - 2.373]	[0.944 - 1.618]	[1.000 - 2.306]

Mother's lifetime earning rank

First quintile	1.128	1.237	1.035	1.096	1.023	1.079	1.024	1.079	1.081	1.033	1.076
	[1.057 - 1.204]	[1.101 - 1.390]	[0.967 - 1.107]	[0.970 - 1.239]	[0.956 - 1.095]	[0.954 - 1.219]	[0.957 - 1.096]	[0.955 - 1.220]	[0.956 - 1.222]	[0.966 - 1.107]	[0.951 - 1.217]

No sister	1.119 [1.077 - 1.170]	1.126 [1.051 - 1.205]	1.114 [1.072 - 1.157]	1.120 [1.046 - 1.199]	1.103 [1.060 - 1.147]	1.119 [1.043 - 1.201]	1.103 [1.061 - 1.148]	1.108 [1.033 - 1.190]	1.108 [1.032 - 1.190]	1.100 [1.057 - 1.144]	1.105 [1.030 - 1.186]
Sister with PCOS	5.210 [4.708 - 5.765]	5.506 [4.610 - 6.576]	5.148 [4.652 - 5.697]	5.377 [4.501 - 6.424]	4.970 [4.490 - 5.502]	5.143 [4.301 - 6.149]	4.957 [4.479 - 5.487]	5.003 [4.183 - 5.983]	5.002 [4.183 - 5.982]	4.739 [4.281 - 5.245]	4.786 [4.002 - 5.724]

Early-life factors - before birth

Mother's smoking in early pregnancy^a

Not smoking [Ref]	-	1***	-	1***	-	1***	1***	-	1***
Moderate smoker	-	1.170 [1.073 - 1.276]	-	1.172 [1.075 - 1.279]	-	1.168 [1.069 - 1.277]	1.162 [1.062 - 1.270]	-	1.146 [1.047 - 1.253]
Heavy smoker	-	1.301 [1.176 - 1.440]	-	1.282 [1.158 - 1.419]	-	1.260 [1.135 - 1.399]	1.250 [1.125 - 1.390]	-	1.221 [1.098 - 1.358]

Weight gain during pregnancy^a

Inadequate	-	1.016 [0.932 - 1.107]	-	1.046 [0.959 - 1.140]	-	1.041 [0.954 - 1.135]	1.034 [0.947 - 1.128]	-	1.037 [0.950 - 1.132]
Appropriate [Ref]	-	1**	-	1*	-	1*	1*	-	1*
Excessive	-	1.139 [1.053 - 1.231]	-	1.057 [0.976 - 1.146]	-	1.047 [0.966 - 1.134]	1.051 [0.969 - 1.139]	-	1.047 [0.966 - 1.136]

Mother's BMI at the beginning of pregnancy^a

Underweight	-	0.904 [0.788 - 1.037]	-	0.893 [0.777 - 1.025]	-	0.878 [0.765 - 1.009]	0.873 [0.760 - 1.003]	-	0.866 [0.754 - 0.995]
Normal [Ref]	-	1***	-	1***	-	1***	1***	-	1***
Overweight	-	1.488 [1.361 - 1.628]	-	1.470 [1.340 - 1.612]	-	1.397 [1.271 - 1.494]	1.394 [1.268 - 1.532]	-	1.396 [1.270 - 1.534]
Obese	-	1.902 [1.617 - 2.361]	-	1.871 [1.590 - 2.202]	-	1.698 [1.438 - 2.005]	1.694 [1.434 - 2.001]	-	1.681 [1.423 - 1.986]

Early-life factors - outcomes

Birth weight, grams^b

Less than 2 500	1.095	0.966	1.092	0.851	1.072	0.821	1.071	0.822
	[0.989 - 1.213]	[0.782 - 1.193]	[0.970 - 1.230]	[0.669 - 1.082]	[0.952 - 1.207]	[0.760 - 1.003]	[0.951 - 1.206]	[0.647 - 1.045]
2 500 – 2 999	1.129	1.102	1.130	1.073	1.109	1.051	1.106	1.049
	[1.066 - 1.195]	[0.995 - 1.225]	[1.066 - 1.197]	[0.963 - 1.195]	[1.046 - 1.176]	[0.942 - 1.172]	[1.043 - 1.172]	[0.941 - 1.170]
3 000 – 3 499 [Ref]	1***	1*	1***	1*	1**	1*	1**	1*
3 500 – 3 999	0.992	0.932	0.983	0.932	0.996	0.940	1.001	0.944
	[0.949 - 1.037]	[0.860 - 1.010]	[0.940 - 1.027]	[0.860 - 1.011]	[0.953 - 1.041]	[0.866 - 1.020]	[0.957 - 1.046]	[0.869 - 1.025]
4 000 – 4 499	1.056	0.984	1.034	0.977	1.053	0.967	1.063	0.972
	[0.994 - 1.122]	[0.880 - 1.100]	[0.972 - 1.099]	[0.873 - 1.093]	[0.990 - 1.120]	[0.862 - 1.086]	[0.999 - 1.131]	[0.866 - 1.092]
Fetal macrosomia, over 4 500	1.071	1.182	1.033	1.162	1.040	1.105	1.056	1.125
	[0.942 - 1.218]	[0.950 - 1.470]	[0.908 - 1.175]	[0.933 - 1.447]	[0.914 - 1.183]	[0.884 - 1.382]	[0.928 - 1.202]	[0.900 - 1.407]

One-minute Apgar

Less than or equal to 7	1.184	1.285	1.163	1.263	1.35	1.189	1.122	1.207
	[1.086 - 1.291]	[1.086 - 1.521]	[1.065 - 1.269]	[1.066 - 1.497]	[1.039 - 1.239]	[1.003 - 1.411]	[1.027 - 1.225]	[1.016 - 1.433]
8	1.132	1.067	1.119	1.055	1.102	1.017	1.093	1.036
	[1.045 - 1.227]	[0.912 - 1.249]	[1.032 - 1.213]	[0.901 - 1.235]	[1.017 - 1.195]	[0.868 - 1.192]	[1.008 - 1.192]	[0.883 - 1.215]
9	1.127	1.180	1.124	1.176	1.121	1.162	1.124	1.200
	[1.068 - 1.190]	[1.059 - 1.315]	[1.064 - 1.187]	[1.055 - 1.310]	[1.062 - 1.184]	[1.042 - 1.295]	[1.042 - 1.295]	[1.073 - 1.341]
10 [Ref]	1***	1**	1***	1**	1***	1**	1**	1**

Gestational age, weeks

Extremely preterm, less than	0.895	0.820	0.820	0.856	0.797	0.837	0.797	0.846
28	[0.427 - 1.879]	[0.115 – 5.822]	[0.388 - 1.732]	[0.120 – 6.129]	[0.377 - 1.684]	[0.117 - 5.994]	[0.377 - 1.683]	[0.118 – 6.058]
Very preterm, between 28-32	0.991	1.027	0.904	1.124	0.893	1.138	0.892	1.153
	[0.769 - 1.277]	[0.596 - 1.771]	[0.688 - 1.188]	[0.631 – 2.004]	[0.680 - 1.172]	[0.638 – 2.027]	[0.679 - 1.171]	[0.647 – 2.052]
Moderate to late preterm, 33-36	1.126	1.290	1.044	1.287	1.033	1.274	1.032	1.273
	[1.023 - 1.239]	[1.096 - 1.517]	[0.939 - 1.162]	[1.075 - 1.541]	[0.928 - 1.150]	[1.065 - 1.524]	[0.928 - 1.148]	[1.064 - 1.522]
Full term, 37 -41 [Ref]	1***	1*	1***	1*	1***	1*	1***	1*
Post-term, 42 or over	1.191	1.125	1.199	1.128	1.195	1.110	1.187	1.100
	[1.126 - 1.260]	[0.983 - 1.288]	[1.133 - 1.269]	[0.984 - 1.293]	[1.129 - 1.265]	[0.968 - 1.273]	[1.121 - 1.257]	[0.959 - 1.261]

Individual adult life factors – index woman

Educational attainment

Under primary	1.148 [0.875 - 1.506]	1.148 [0.754 - 1.747]	1.144 [0.872 - 1.500]	1.139 [0.749 - 1.733]	1.109 [0.847 - 1.452]	1.063 [0.701 - 1.613]
Primary school	1.288 [1.201 - 1.382]	1.368 [1.211 - 1.545]	1.276 [1.190 - 1.369]	1.349 [1.195 - 1.523]	1.221 [1.137 - 1.310]	1.243 [1.100 - 1.405]
Secondary school [Ref]	1***	1***	1***	1***	1***	1**
University	1.033 [0.989 - 1.079]	0.986 [0.905 - 1.074]	1.014 [0.970 - 1.059]	0.982 [0.901 - 1.071]	1.063 [1.015 - 1.112]	1.051 [0.962 - 1.149]

Civil status

Not married, not registered relationship	1.261 [1.192 - 1.333]	1.596 [1.388 - 1.835]	1.274 [1.205 - 1.347]	1.587 [1.380 - 1.824]	1.242 [1.175 - 1.313]	1.459 [1.268 - 1.678]
Married, registered relationship [Ref]	1***	1***	1***	1***	1***	1***

Abbreviations: BMI, body mass index; CI, confidence interval; DM, diabetes mellitus; HR, hazard ratio; PCOS, polycystic ovary syndrome; Ref, reference; Res, restricted.

Full: analyses were done on the full sample; women born between 1973 and 1995 [n = 977 637].

Restricted.: analyses were done on the restricted sample; women born between 1982 and 1995 [n = 302 638].

^aAvailable for a subgroup of women born between 1982 and 1995 [n = 302 638].

^bNo significant nonlinearity was detected when testing for birth weight and its quadratic term.

Model 1: Minimally adjusted analyses that only adjust for the given variable and birth year.

Model 2: Further adjusted models additionally adjust for variables under the same category, for instance Intergenerational biological variables: OD in mother, DM in mother, OD in sister, with additional adjustment for birth year.

Model 3: Model includes all Intergenerational sociodemographic and biological variables with additional adjustment for birth year.

Model 4: Model includes all Intergenerational sociodemographic and biological variables, and Early-life factors with additional adjustment for birth year.

Model 5: Model includes all Intergenerational sociodemographic and biological variables, Early-life factors and Individual adult life factors with additional adjustment for birth year and counties.

***p<0.001

**p<0.01

*p<0.5

Table S3. Associations of social and biological characteristics with rate of polycystic ovary syndrome with age restriction among Swedish women born between 1973-1995

	Sensitivity analysis: Age <20yrs n = 644 692	Sensitivity analysis: Age <25yrs n = 803 948	Full Model: Follow-up 1973-1995 n = 977 637
Predictor	HR [CI 95%]	HR [CI 95%]	HR [CI 95%]
Intergenerational sociodemographic variables			
<i>Birth order</i>			
First born [Ref]	1***	1***	1**
Second born	0.892 [0.842 - 0.944]	0.908 [0.867 - 0.951]	0.924 [0.884 - 0.965]
Third born or higher	0.938 [0.873 - 1.008]	0.947 [0.887 - 1.010]	0.957 [0.898 - 1.020]
<i>Mother's age at index woman's birth, years</i>			
Less than or equal to 18	1.091 [0.849 - 1.402]	1.084 [0.894 - 1.313]	1.118 [0.964 - 1.296]
Between 19-35 [Ref]	1*	1*	1*
Greater than 35	1.053 [0.969 - 1.144]	1.040 [0.967 - 1.118]	1.036 [0.969 - 1.109]
<i>Mother's educational attainment</i>			
Primary	0.984 [0.911 - 1.063]	0.978 [0.918 - 1.042]	0.987 [0.935 - 1.041]
Secondary [Ref]	1*	1	1
University	0.953 [0.897 - 1.012]	0.976 [0.927 - 1.026]	0.981 [0.937 - 1.027]
<i>Father's educational attainment</i>			
Primary	1.020	1.036	1.018

	[0.957 - 1.086]	[0.983 - 1.092]	[0.972 - 1.066]
Secondary [Ref]	1	1*	1*
University	0.978	0.991	0.977
	[0.916 - 1.045]	[0.938 - 1.047]	[0.930 - 1.026]
<i>Mother's country of birth</i>			
Sweden [Ref]	1***	1***	1***
Nordics, excluding Sweden	0.981	0.959	0.988
	[0.861 - 1.117]	[0.860 - 1.068]	[0.900 - 1.086]
Europe, North America and Oceania	1.340	1.329	1.299
	[1.175 - 1.529]	[1.188 - 1.487]	[1.173 - 1.438]
Africa	1.295	1.267	1.211
	[0.969 - 1.731]	[0.967 - 1.661]	[0.933 - 1.572]
Asia	1.527	1.541	1.553
	[1.262 - 1.848]	[1.294 - 1.836]	[1.313 - 1.838]
South America	1.406	1.368	1.480
	[1.016 - 1.947]	[1.012 - 1.848]	[1.113 - 1.968]
<i>Father's country of birth</i>			
Sweden [Ref]	1***	1***	1***
Nordics, excluding Sweden	1.037	1.052	1.047
	[0.901 - 1.192]	[0.936 - 1.182]	[0.945 - 1.160]
Europe, North America and Oceania	1.188	1.153	1.134
	[1.046 - 1.349]	[1.035 - 1.284]	[1.030 - 1.248]
Africa	1.169	1.179	1.237
	[0.907 - 1.507]	[0.939 - 1.480]	[1.001 - 1.528]
Asia	1.547	1.554	1.516
	[1.283 - 1.866]	[1.310 - 1.844]	[1.287 - 1.787]
South America	1.254	1.281	1.236
	[0.924 - 1.702]	[0.969 - 1.695]	[0.944 - 1.618]

Mother's lifetime earning rank

First quintile	1.054 [0.962 - 1.156]	1.027 [0.951 - 1.110]	1.033 [0.966 - 1.107]
Second quintile	1.110 [1.040 - 1.185]	1.080 [1.022 - 1.141]	1.068 [1.018 - 1.122]
Third quintile [Ref]	1***	1**	1**
Fourth quintile	0.969 [0.903 - 1.039]	0.974 [0.919 - 1.033]	0.991 [0.941 - 1.044]
Fifth quintile	0.941 [0.855 - 1.035]	0.962 [0.890 - 1.040]	0.953 [0.889 - 1.022]

Father's lifetime earning rank

First quintile	1.061 [0.974 - 1.156]	1.015 [0.944 - 1.093]	1.033 [0.968 - 1.102]
Second quintile	0.988 [0.923 - 1.057]	0.976 [0.922 - 1.033]	0.979 [0.931 - 1.030]
Third quintile [Ref]	1*	1*	1**
Fourth quintile	0.946 [0.880 - 1.018]	0.933 [0.879 - 0.991]	0.922 [0.874 - 0.973]
Fifth quintile	0.902 [0.823 - 0.988]	0.904 [0.839 - 0.974]	0.914 [0.856 - 0.976]

Intergenerational biological variables

PCOS in mother

No [Ref]	1***	1***	1***
Yes	3.247 [2.578 - 4.089]	2.900 [2.344 - 3.587]	2.612 [2.132 - 3.320]

DM in mother

No [Ref]	1***	1***	1***
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	Yes	1.400 [1.241 - 1.578]	1.400 [1.271 - 1.541]	1.377 [1.270 - 1.494]
<i>PCOS in sister</i>				
	Sister without PCOS [Ref]	1***	1***	1***
	No sister	1.133 [1.075 - 1.194]	1.100 [1.053 - 1.149]	1.100 [1.057 - 1.144]
	Sister with PCOS	5.270 [4.633 - 5.995]	4.687 [4.194 - 5.238]	4.739 [4.281 - 5.245]
Early-life factors - outcomes				
<i>Birth weight, grams</i>				
	Less than 2 500	0.976 [0.831 - 1.147]	1.019 [0.890 - 1.168]	1.071 [0.951 - 1.206]
	2 500 – 2 999	1.058 [0.977 - 1.145]	1.071 [1.002 - 1.145]	1.106 [1.043 - 1.172]
	3 000 – 3 499 [Ref]	1*	1*	1**
	3 500 – 3 999	0.976 [0.919 - 1.037]	1.001 [0.953 - 1.053]	1.001 [0.957 - 1.046]
	4 000 – 4 499	1.037 [0.954 - 1.128]	1.051 [0.980 - 1.126]	1.063 [0.999 - 1.131]
	Fetal macrosomia, over 4 500	1.153 [0.977 - 1.362]	1.063 [0.920 - 1.228]	1.056 [0.928 - 1.202]
<i>One-minute Apgar</i>				
	Less than or equal to 7	1.203 [1.057 - 1.368]	1.166 [1.045 - 1.301]	1.122 [1.027 - 1.225]
	8	1.133 [1.007 - 1.276]	1.128 [1.020 - 1.248]	1.093 [1.008 - 1.192]
	9	1.183	1.158	1.124

	[1.085 - 1.290]	[1.075 - 1.248]	[1.042 - 1.295]
10 [Ref]	1***	1***	1**
<i>Gestational age, weeks</i>			
Extremely preterm, less than 28	0.642	0.791	0.797
	[0.238 - 1.731]	[0.352 - 1.778]	[0.377 - 1.683]
Very preterm, between 28-32	1.018	0.940	0.892
	[0.724 - 1.432]	[0.695 - 1.270]	[0.679 - 1.171]
Moderate to late preterm, 33-36	1.106	1.079	1.032
	[0.971 - 1.260]	[0.962 - 1.212]	[0.928 - 1.148]
Full term, 37 -41 [Ref]	1*	1**	1***
Post-term, 42 or over	1.037	1.126	1.187
	[0.935 - 1.151]	[1.048 - 1.209]	[1.121 - 1.257]

Individual adult life factors -index woman

Educational attainment

Under primary	1.079	1.095	1.109
	[0.820 - 1.421]	[0.834 - 1.437]	[0.847 - 1.452]
Primary school	1.189	1.205	1.221
	[1.087 - 1.301]	[1.114 - 1.304]	[1.137 - 1.310]
Secondary school [Ref]	1**	1***	1***
University	1.010	1.033	1.063
	[0.943 - 1.082]	[0.979 - 1.090]	[1.015 - 1.112]

Civil status

Not married, not registered relationship	1.451	1.340	1.242
	[1.300 - 1.619]	[1.247 - 1.440]	[1.175 - 1.313]
Married, registered relationship [Ref]	1***	1***	1***

***p<0.001

**p<0.01

*p<0.5

Figure S1. Flow diagram of the study sample

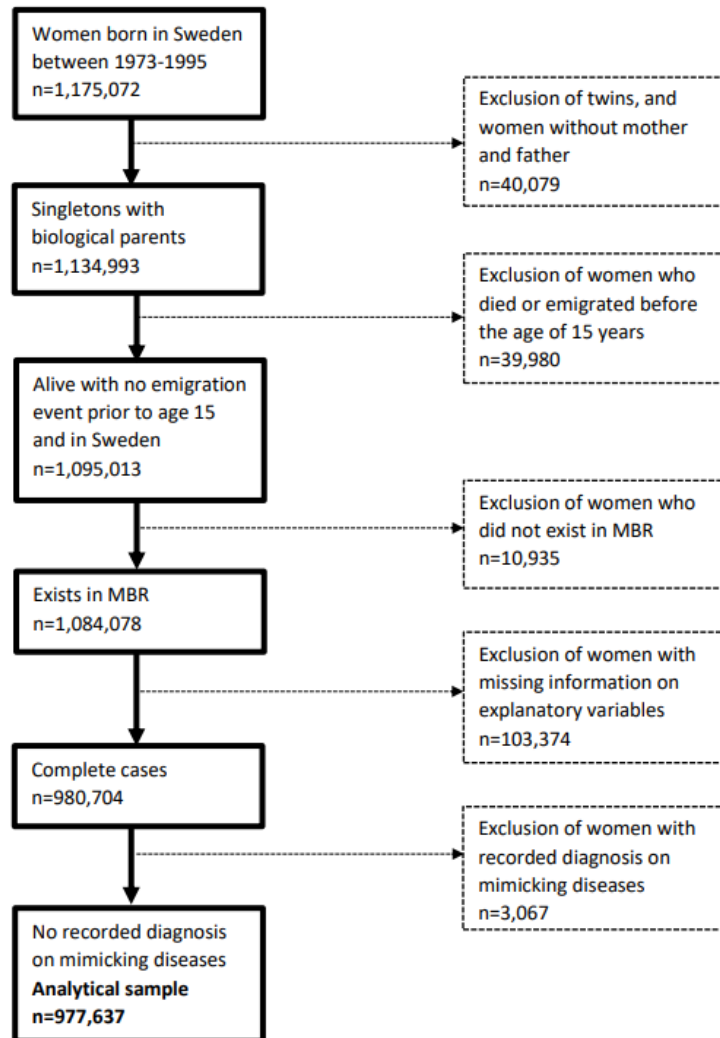


Figure S2. Conceptual framework depicting explanatory variables that capture pre-, peri-, and postnatal context of polycystic ovary syndrome

