

Supplementary Information – Maternal obesity, interpregnancy weight changes and congenital heart defects in the offspring: a nationwide cohort study

Table S1. Definition of congenital heart defects by ICD-codes

	ICD-10	Comments	Excluded diagnoses
CHDs (EUROCAT)	Q20-26	Exclude PDA with GA<37 weeks; Exclude peripheral pulmonary artery stenosis with GA<37 weeks	<u>Q211C</u> (Q2111: Patent or persistent foramen ovale), <u>Q250</u> if GA<37 weeks (PDA), <u>Q254E</u> (Q2541: Persistent right aortic arch), <u>Q256</u> if GA<37 weeks (Peripheral pulmonary artery stenosis), <u>Q261</u> (Persistent left superior vena cava)
Severe CHDs (EUROCAT)	Q200	Truncus arteriosus	
	Q201	Double outlet right ventricle	
	Q203	Transposition of the great arteries (TGA)	
	Q204	Univentricular heart (UVH)	
	Q212	Atriventricular septal defects (AVSD)	
	Q213	Tetralogy of Fallot (ToF)	
	Q220	Pulmonary atresia	
	Q224	Tricuspid valve stenosis	
	Q225	Ebstein's anomaly	
	Q226	Hypoplastic right heart syndrome	

	Q230	Aortic valve stenosis	
	Q232	Mitral valve stenosis	
	Q233	Mitral insufficiency	
	Q234	Hypoplastic left heart syndrome	
	Q251	Coarctatio aortae (CoA)	
	Q252	Interrupted aortic arch	
	Q262	Total anomalous pulmonary venous return	

Table S2. Definitions of five of the most frequently identified, perinatally as well as neonatally, subtypes of severe congenital heart defects

ICD-10	Diagnoses
DQ204	Univentricular heart (UVH) =
DQ234	Hypoplastic left heart syndrome =
DQ226	Hypoplastic right heart syndrome
DQ203	Transposition of the great arteries (TGA)
DQ212	Atrioventricular septal defects (AVSD)
DQ251	Coarctatio aortae (CoA)
DQ213	Tetralogy of Fallot (ToF)

Table S3. Live births and risk of congenital heart defects

	No CHDs	CHDs				
	n = 529 185	n = 5 179				
Maternal BMI (kg/m ²)	Total	Total	Crude RR	95% CI	Crude RR	95% CI
< 18.5	34 835	351	1.12	1.01-1.25	1.08	0.96-1.21
18.5 - 24.9	311 250	2 785	1.00	ref	1.00	ref
25 - 29.9	114 717	1 224	1.19	1.11-1.27	1.17	1.09-1.25
30 - 34.9	44 864	499	1.24	1.13-1.36	1.24	1.12-1.36
35 - 39.9	16 230	197	1.35	1.17-1.56	1.31	1.12-1.51
≥ 40	7 289	123	1.87	1.55-2.23	1.87	1.55-2.24

Congenital heart defects defined by EUROCAT

Abbreviations: aRR, adjusted relative risk; BMI, body mass index; CHDs, congenital heart defects; CI, confidence interval; RR, relative risk.

*aRR adjusted for maternal age at conception, smoking status (yes/no/stopped) and year of estimated due date comparing CHD risk in women with early-pregnancy BMI < 18.5 kg/m² or BMI ≥ 30 kg/m² with women with early-pregnancy normal BMI (18.5-24.9 kg/m²).