

Supplementary material.

Korean prevalence of fetal deaths and infant deaths caused by birth defect subtypes in 2009-2015

Birth defects (ICD-10)	N. of infant deaths caused by birth defect	Proportion (%) in birth defects	Prevalence per 10000 livebirths	N. of fetal deaths caused by birth defect	Proportion (%) in birth defects	Prevalence per 10000 total births
Nervous system (Q00-07)						
Anencephaly (Q00.0-00.2)	37	1.70	0.12	213	4.90	0.66
Encephalocele (Q01.0-01.9)	3	0.14	0.01	32	0.74	0.10
Congenital Hydrocephalus (Q03.0-03.9)	34	1.56	0.11	157	3.62	0.49
Holoprosencephaly (Q04.0-04.2)	14	0.64	0.04	46	1.06	0.14
Other brain anomaly (Q43-49)	36	1.65	0.11	131	3.02	0.41
Spina bifida (Q05.0-05.9)	8	0.37	0.03	28	0.64	0.09
Other spinal anomaly (Q68-69)	0	0.00	0.00	3	0.07	0.01
Arnold-Chiari malformation (Q70)	1	0.05	0.00	18	0.41	0.06
Other nervous system anomaly (Q78-79)	3	0.14	0.01	206	4.74	0.64
Eye, ear, face and neck (Q10-18)	1	0.05	0.00	7	0.16	0.02
Circulatory system (Q20-28)						
Truncus arteriosus (Q20.0)	9	0.41	0.03	1	0.02	0.00
Double outlet right ventricle	66	3.03	0.21	7	0.16	0.02
Transposition of great arteries (Q20.1-20.3)	72	3.31	0.23	0	0.00	0.00
Double inlet ventricle (Q20.4)	58	2.67	0.18	1	0.02	0.00
Discordant atrioventricular connection (Q20.5)	2	0.09	0.01	1	0.02	0.00
Isomerism of atrial appendages (Q20.6)	3	0.14	0.01	1	0.02	0.00
Ventricular septal defect (Q21.0)	50	2.30	0.16	20	0.46	0.06
Atrial septal defect (Q21.1)	20	0.92	0.06	2	0.05	0.01
Atrioventricular septal defect (Q21.2)	72	3.31	0.23	4	0.09	0.01
Tetralogy of Fallot (Q21.3)	88	4.04	0.28	21	0.48	0.07
Other malformations of cardiac septa (Q21.4, 21.8, 21.9)	6	0.28	0.02	10	0.23	0.03
Pulmonary valve atresia/stenosis (Q22.0-22.1)	52	2.39	0.16	1	0.02	0.00
Congenital tricuspid stenosis (Q22.4)	5	0.23	0.02	1	0.02	0.00
Ebstein's anomaly (Q22.5)	23	1.06	0.07	7	0.16	0.02
Hypoplastic right heart syndrome (Q22.6)	1	0.05	0.00	1	0.02	0.00
Other malformations of tricuspid valve (Q22.8, 22.9)	3	0.14	0.01	4	0.09	0.01
Aortic valve stenosis/insufficiency (Q23.0, 23.1)	9	0.41	0.03	3	0.07	0.01

Mitral valve stenosis/insufficiency (Q23.2, 23.3)	8	0.37	0.03	0	0.00	0.00
Hypoplastic left heart syndrome (Q23.4)	86	3.95	0.27	7	0.16	0.02
Dextrocardia (Q 24.0)	0	0.00	0.00	3	0.07	0.01
Cor triatrium (Q 24.2)	2	0.09	0.01	0	0.00	0.00
Subaortic stenosis (Q 24.4)	2	0.09	0.01	0	0.00	0.00
Malformation of coronary vessels (Q24.5-24.6)	6	0.28	0.02	0	0.00	0.00
Other heart malformation (Q24.2, 24.4-24.6)	88	4.04	0.28	50	1.15	0.16
Unspecified heart malformation (Q24.9)	75	3.45	0.24	299	6.88	0.93
Patent ductus arteriosus (Q25.0)*	87	4.00	0.27	0	0.00	0.00
Coarctation/atresia/stenosis of aorta (Q25.1-25.3)	55	2.53	0.17	0	0.00	0.00
Other malformations of aorta (Q25.4)	18	0.83	0.06	4	0.09	0.01
Pulmonary artery atresia/stenosis (Q25.5, 25.6)	22	1.01	0.07	2	0.05	0.01
Total anomalous pulmonary venous connection (Q26.2)	83	3.81	0.26	0	0.00	0.00
Partial anomalous pulmonary venous connection (Q26.3)	3	0.14	0.01	1	0.02	0.00
Peripheral arteriovenous malformation (Q27.3, 27.9, 27.9)	1	0.05	0.00	4	0.09	0.01
Malformations of cerebral vessels (Q 28.2, 28.3)	6	0.28	0.02	4	0.09	0.01
Other malformations of circulatory system (Q20.8, 20.9, 22.3, 25.7-26.1, 26.4, 27.0, 26.8, 28.8, 28.9)	31	1.42	0.10	34	0.78	0.11
Respiratory system (Q30-34)						
Other malformations of larynx, bronchus, trachea (Q31.0-32.4)	34	1.56	0.11	3	0.07	0.01
Congenital cystic lung (Q33.0)	5	0.23	0.02	5	0.12	0.02
Other malformation of lung (Q33.1-33.9)	42	1.93	0.13	16	0.37	0.05
Other malformations of respiratory system (Q34)	6	0.28	0.02	4	0.09	0.01
Cleft lip/palate (Q35-37)	3	0.14	0.01	64	1.47	0.20
Digestive system (Q38-45)						
Other malformation of mouths (Q38.5)	0	0.00	0.00	1	0.02	0.00
Esophageal atresia/stenosis (Q39.0-39.2)	34	1.56	0.11	6	0.14	0.02
Malformation of upper elementary tract (Q40.0-40.9)	3	0.14	0.01	3	0.07	0.01
Duodenal atresia/stenosis (Q41.0)	3	0.14	0.01	7	0.16	0.02
Small intestine atresia/stenosis (Q41.1-41.9)	22	1.01	0.07	1	0.02	0.00
Anorectal atresia/stenosis (Q42.0-42.3)	2	0.09	0.01	2	0.05	0.01
Congenital megacolon (Q43.1)	44	2.02	0.14	0	0.00	0.00
Malrotation of colon (Q43.3)	9	0.41	0.03	0	0.00	0.00
Persistent cloaca (Q43.7)	1	0.05	0.00	2	0.05	0.01

Other intestinal and bile duct malformation (Q43.8-44.3)	42	1.93	0.13	6	0.14	0.02
Liver malformation (Q44.7)	4	0.18	0.01	0	0.00	0.00
Other malformation of digestive system (Q 42.8, 43.0, 45.8, 45.9)	5	0.23	0.02	6	0.14	0.02
Genital organs (Q50-56)	0	0.00	0.00	5	0.12	0.02
Urinary system (Q60-64)						
Renal agenesis (Q60.0-60.6)	22	1.01	0.07	44	1.01	0.14
Autosomal recessive polycystic kidney (Q61.1)	10	0.46	0.03	6	0.14	0.02
Unspecified polycystic kidney (Q61.3)	6	0.28	0.02	23	0.53	0.07
Renal dysplasia (Q61.4)	6	0.28	0.02	30	0.69	0.09
Cystic kidney (Q61.0, Q61.5-61.9)	1	0.05	0.00	3	0.07	0.01
Congenital hydronephrosis (Q62.0-62.8)	2	0.09	0.01	14	0.32	0.04
Other renal anomaly (Q63.0, 63.2, 63.8, 63.9)	3	0.14	0.01	30	0.69	0.09
Posterior urethral valve (Q64.2)	3	0.14	0.01	3	0.07	0.01
Congenital absence of bladder and urethra (Q64.5-64.9)	1	0.05	0.00	6	0.14	0.02
Musculoskeletal system (Q65-79)						
Club foot-talipes equinovarus (66.0)	0	0.00	0.00	1	0.02	0.00
Other congenital feet deformities (Q66.1-66.9)	0	0.00	0.00	4	0.09	0.01
Congenital deformities of skull, face, and jaw (Q67.0-67.4)	0	0.00	0.00	2	0.05	0.01
Pectus carinatum (Q67.6)	2	0.09	0.01	0	0.00	0.00
Other congenital musculoskeletal deformities (Q68.0-Q70.9)	0	0.00	0.00	12	0.28	0.04
Total limb reduction defects (Q71.0-71.9, Q72.0-72.9, Q73.0-73.8)	0	0.00	0.00	8	0.18	0.02
Other malformation of limbs and pelvic girdle (Q74.0-Q74.2, 74.8)	3	0.14	0.01	19	0.44	0.06
Arthrogryposis multiplex congenita (Q74.3)	4	0.18	0.01	1	0.02	0.00
Craniosynostosis (Q75.0)	6	0.28	0.02	0	0.00	0.00
Malformations of skull and face bones (Q75.1-75.9)	6	0.28	0.02	7	0.16	0.02
Klippel-Feil syndrome (Q76.1)	2	0.09	0.01	0	0.00	0.00
Malformations of spine and bony thorax (Q76.2-76.9)	2	0.09	0.01	7	0.16	0.02
Achondrogenesis/Hypochondrogenesis (Q77.0)	2	0.09	0.01	1	0.02	0.00
Thanatophoric dysplasia (Q77.1)	7	0.32	0.02	20	0.46	0.06
Asphyxiating thoracic dysplasia (Q77.2)	1	0.05	0.00	3	0.07	0.01
Achondroplasia/hypochondroplasia (Q77.4)	3	0.14	0.01	9	0.21	0.03
Osteogenesis imperfecta (Q78.0)	2	0.09	0.01	6	0.14	0.02

Other osteochondrodysplasia (Q77.8, 78.8, 78.9)	2	0.09	0.01	4	0.09	0.01
Diaphragmatic hernia (Q79.0)	138	6.34	0.43	22	0.51	0.07
Other malformations of diaphragm (Q79.1)	6	0.28	0.02	1	0.02	0.00
Omphalocele (Q79.2)	10	0.46	0.03	15	0.35	0.05
Gastroschisis (Q79.3)	8	0.37	0.03	12	0.28	0.04
Prune belly syndrome (Q79.4)	0	0.00	0.00	3	0.07	0.01
Other musculoskeletal anomaly (Q79.8, 79.9)	4	0.18	0.01	19	0.44	0.06
Other and unspecified (Q80-89)	186	8.55	0.58	1105	25.44	3.43
Chromosomal abnormalities (Q90-99)	220	10.11	0.69	1438	33.11	4.46

*Patent ductus arteriosus cases included 81 cases whose birthweight was less than 2,500 g.

N, number.