Texas Birth Defects Registry (TBDR) Annual Report Table 5. Prevalence of Selected Birth Defects by Infant or Fetal Sex, Texas, 1999-2020

Nale Renate Re	Birth Defect (Body System)	Sex	Cases (count)	Prevalence (rate)	Confidence Interval (95% for Prevalence)
[p<0.0001] Female 1,047 2.54 2.38 - 2.69 Spina bifida without anencephaly Male 1,529 3.54 3.37 - 3.72 Female 1,573 3.81 3.62 - 4.00 Encephalocele Male 379 0.88 0.79 - 0.97 Microcephaly, severe (head circumference <3 rd Male 416 1.01 0.91 - 1.10 Microcephaly, severe (head circumference <3 rd Male 1,878 4.35 4.15 - 4.55 percentitle)* [p<0.0001]	Central Nervous System				
Spina bifida without anencephaly	Anencephaly*	Male	886	2.05	1.92 - 2.19
Encephalocele Female female 1,573 3.81 3.62 - 4.00 Encephalocele Male female 379 0.88 0.79 - 0.97 Female Microcephaly, severe (head circumference <3 rd Male 416 1.01 0.91 - 1.10 Microcephaly, severe (head circumference <3 rd Male 1,878 4.35 4.15 - 4.55 percentitle)* [p<0.0001]	[p<0.0001]	Female	1,047	2.54	2.38 - 2.69
Encephalocele Male Female 379 Female 0.88 1.079 − 0.97 − 0.97 − 0.97 − 0.91 − 0.10 Microcephaly, severe (head circumference < 3rd Male	Spina bifida without anencephaly	Male	1,529	3.54	3.37 - 3.72
Female Microcephaly, severe (head circumference <3rd Male 4.16 1.01 0.91 - 1.10 Microcephaly, severe (head circumference <3rd Male		Female	1,573	3.81	3.62 - 4.00
Microcephaly, severe (head circumference <3rd percentile)* [p<0.0001] Male percentile)* [p<0.0001] 1,878 percentile)* [p<0.0001] 4.35 percentile)* [p<0.0001] 4.35 percentile)* [p<0.0001] 5.83 percentile)* [p<0.0001] 6.80 percentile)* [p<0.0001] 6.8	Encephalocele	Male	379	0.88	0.79 - 0.97
percentile)* [p<0.0001] Female Male (p<0.0001) 5.83 (p<0.001) 5.60 - 6.07 Holoprosencephaly* (p<0.0001)		Female	416	1.01	0.91 - 1.10
percentile)* [p<0.0001] Female Male (p<0.0001) 5.83 (p<0.001) 5.60 - 6.07 Holoprosencephaly* (p<0.0001)	Microcephaly, severe (head circumference <3 rd	Male	1,878	4.35	4.15 - 4.55
Female S02 1.22 1.11 - 1.32		Female	2,409	5.83	5.60 - 6.07
Hydrocephaly without spina bifida* Male 3,838 8.89 8.61 - 9.17 [p<0.0001] Female 2,943 7.13 6.87 - 7.39 Eye and Ear Anophthalmia Male 111 0.26 0.21 - 0.31 Female 126 0.31 0.25 - 0.36 Microphthalmia* Male 1,090 2.53 2.38 - 2.68 [p=0.0003] Female 1,214 2.94 2.77 - 3.11 Cataract Male 828 1.92 1.79 - 2.05 Female 802 1.94 1.81 - 2.08 Anotia or microtia* Male 1,696 3.93 3.74 - 4.12 [p<0.0001] Female 1,299 3.15 2.98 - 3.32 Cardiac and Circulatory Common truncus Male 1,851 4.29 4.09 - 4.48 [p<0.0001] Female 988 2.39 2.24 - 2.54 Double outlet right ventricle* Male 1,851 4.29 4.09 - 4.48 [p<0.0001] Female 826 2.00 1.86 - 2.14 Tetralogy of Fallot* [p<0.0001] Female 826 2.00 1.86 - 2.14 Tetralogy of Fallot* [p<0.0001] Female 23,482 54.41 53.71 - 55.10 [p<0.0001] Female 28,040 67.91 67.12 - 68.71 Atrial septal defect* Male 30,193 69.96 69.17 - 70.74 [p=0.0002] Female 29,788 72.15 71.33 - 72.97 Atrioventricular septal defect (endocardial Male 1,758 4.07 3.88 - 4.26	Holoprosencephaly*	Male	370	0.86	0.77 - 0.94
Female 2,943 7.13 6.87 - 7.39	[p<0.0001]	Female	502	1.22	1.11 - 1.32
Male	Hydrocephaly without spina bifida*	Male	3,838	8.89	8.61 - 9.17
Anophthalmia Male 111 0.26 0.21 - 0.31 Microphthalmia* Male 1,090 2.53 2.38 - 2.68 [p=0.0003] Female 1,214 2.94 2.77 - 3.11 Cataract Male 828 1.92 1.79 - 2.05 Female 802 1.94 1.81 - 2.08 Anotia or microtia* Male 1,696 3.93 3.74 - 4.12 [p<0.0001] Female 1,299 3.15 2.98 - 3.32 Cardiac and Circulatory Common truncus Male 323 0.75 0.67 - 0.83 Female 322 0.78 0.69 - 0.87 Transposition of the great vessels* Male 1,851 4.29 4.09 - 4.48 [p<0.0001] Female 988 2.39 2.24 - 2.54 Double outlet right ventricle* Male 1,121 2.60 2.45 - 2.75 [p<0.0001] Female 826 2.00 1.86 - 2.14 Tetralogy of Fallot* Male 1,817 4.21	[p<0.0001]	Female	2,943	7.13	6.87 - 7.39
Microphthalmia* Male 1,090 2.53 2.38 - 2.68 [p=0.0003] Female 1,214 2.94 2.77 - 3.11 Cataract Male 828 1.92 1.79 - 2.05 Female 802 1.94 1.81 - 2.08 Anotia or microtia* Male 1,696 3.93 3.74 - 4.12 [p<0.0001]	Eye and Ear		•		
Microphthalmia* Male 1,090 2.53 2.38 - 2.68 [p=0.0003] Female 1,214 2.94 2.77 - 3.11 Cataract Male 828 1.92 1.79 - 2.05 Female 802 1.94 1.81 - 2.08 Anotia or microtia* Male 1,696 3.93 3.74 - 4.12 [p<0.0001]	Anophthalmia	Male	111	0.26	0.21 - 0.31
[p=0.0003] Female 1,214 2.94 2.77 - 3.11 Cataract Male 828 1.92 1.79 - 2.05 Female 802 1.94 1.81 - 2.08 Anotia or microtia* Male 1,696 3.93 3.74 - 4.12 [p<0.0001]		Female	126	0.31	0.25 - 0.36
Cataract Male 828 1.92 1.79 - 2.05 Female 802 1.94 1.81 - 2.08 Anotia or microtia* Male 1,696 3.93 3.74 - 4.12 [p<0.0001]	Microphthalmia*	Male	1,090	2.53	2.38 - 2.68
Female 802 1.94 1.81 - 2.08	[p=0.0003]	Female	1,214	2.94	2.77 - 3.11
Anotia or microtia* [p<0.0001] Female 1,299 3.15 2.98 - 3.32 Cardiac and Circulatory Common truncus Male 323 0.75 0.67 - 0.83 Female 322 0.78 0.69 - 0.87 Transposition of the great vessels* [p<0.0001] Female 988 2.39 2.24 - 2.54 Double outlet right ventricle* [p<0.0001] Female 826 2.00 1.86 - 2.14 Tetralogy of Fallot* [p<0.0001] Female 1,817 4.21 4.02 - 4.40 [p<0.0001] Female 1,516 3.67 3.49 - 3.86 Ventricular septal defect* Male 23,482 54.41 53.71 - 55.10 [p<0.0001] Female 28,040 67.91 67.12 - 68.71 Atrial septal defect* Male 30,193 69.96 69.17 - 70.74 [p=0.0002] Atrioventricular septal defect (endocardial Male 1,758 4.07 3.88 - 4.26	Cataract	Male	828	1.92	1.79 - 2.05
[p<0.0001] Female 1,299 3.15 2.98 - 3.32 Cardiac and Circulatory Wale 323 0.75 0.67 - 0.83 Female 322 0.78 0.69 - 0.87 Transposition of the great vessels* Male 1,851 4.29 4.09 - 4.48 [p<0.0001]		Female	802	1.94	1.81 - 2.08
Cardiac and Circulatory Common truncus Male 323 0.75 0.67 - 0.83 Female 322 0.78 0.69 - 0.87 Transposition of the great vessels* Male 1,851 4.29 4.09 - 4.48 [p<0.0001]	Anotia or microtia*	Male	1,696	3.93	3.74 - 4.12
Common truncus Male 323 0.75 0.67 - 0.83 Female 322 0.78 0.69 - 0.87 Transposition of the great vessels* Male 1,851 4.29 4.09 - 4.48 [p<0.0001]	[p<0.0001]	Female	1,299	3.15	2.98 - 3.32
Female 322 0.78 0.69 - 0.87 Transposition of the great vessels* Male 1,851 4.29 4.09 - 4.48 [p<0.0001] Female 988 2.39 2.24 - 2.54 Double outlet right ventricle* Male 1,121 2.60 2.45 - 2.75 [p<0.0001] Female 826 2.00 1.86 - 2.14 Tetralogy of Fallot* Male 1,817 4.21 4.02 - 4.40 [p<0.0001] Female 1,516 3.67 3.49 - 3.86 Ventricular septal defect* Male 23,482 54.41 53.71 - 55.10 [p<0.0001] Female 28,040 67.91 67.12 - 68.71 Atrial septal defect* Male 30,193 69.96 69.17 - 70.74 [p=0.0002] Female 29,788 72.15 71.33 - 72.97 Atrioventricular septal defect (endocardial Male 1,758 4.07 3.88 - 4.26	Cardiac and Circulatory				
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Common truncus	Male	323	0.75	0.67 - 0.83
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		Female	322	0.78	0.69 - 0.87
Double outlet right ventricle* Male 1,121 2.60 2.45 - 2.75 [p<0.0001]	,	Male	1,851	4.29	4.09 - 4.48
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	[p<0.0001]	Female	988	2.39	2.24 - 2.54
Tetralogy of Fallot* [p<0.0001] Male 1,817 Female 1,516 3.67 3.49 - 3.86 Ventricular septal defect* [p<0.0001] Male 23,482 54.41 53.71 - 55.10 Female 28,040 67.91 67.12 - 68.71 Atrial septal defect* Male 30,193 69.96 69.17 - 70.74 Female 29,788 72.15 71.33 - 72.97 Atrioventricular septal defect (endocardial Male 1,758 4.07 3.88 - 4.26		Male	1,121	2.60	2.45 - 2.75
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	[p<0.0001]	Female	826	2.00	1.86 - 2.14
Ventricular septal defect* Male 23,482 54.41 53.71 - 55.10 [p<0.0001]	37	Male	1,817	4.21	4.02 - 4.40
[p<0.0001] Female 28,040 67.91 67.12 - 68.71 Atrial septal defect* Male 30,193 69.96 69.17 - 70.74 [p=0.0002] Female 29,788 72.15 71.33 - 72.97 Atrioventricular septal defect (endocardial Male 1,758 4.07 3.88 - 4.26	[p<0.0001]	Female	1,516	3.67	3.49 - 3.86
Atrial septal defect* [p=0.0002] Atrioventricular septal defect (endocardial Male 1,758 4.07 3.88 - 4.26	•	Male	23,482	54.41	53.71 - 55.10
[p=0.0002] Female 29,788 72.15 71.33 - 72.97 Atrioventricular septal defect (endocardial Male 1,758 4.07 3.88 - 4.26	[p<0.0001]	Female	28,040	67.91	67.12 - 68.71
Atrioventricular septal defect (endocardial Male 1,758 4.07 3.88 – 4.26	•	Male	30,193	69.96	69.17 - 70.74
, discolation (1) \(\psi \) \(\text{Co. (0.004)} \)	[p=0.0002]	Female	29,788	72.15	71.33 - 72.97
cushion defect)* [p<0.0001] Female 1,916 4.64 4.43 – 4.85	·	Male	1,758	4.07	3.88 - 4.26
	cushion defect)* [p<0.0001]	Female	1,916	4.64	4.43 - 4.85

Birth Defect (Body System)	Sex	Cases (count)	Prevalence (rate)	Confidence Interval (95% for Prevalence)
Pulmonary valve atresia or stenosis*	Male	3,865	8.96	8.67 - 9.24
[p<0.0001]	Female	4,532	10.98	10.66 - 11.30
Tricuspid valve atresia or stenosis	Male	848	1.96	1.83 - 2.10
	Female	742	1.80	1.67 - 1.93
Ebstein anomaly	Male	320	0.74	0.66 - 0.82
	Female	319	0.77	0.69 - 0.86
Aortic valve stenosis*	Male	1,251	2.90	2.74 - 3.06
[p<0.0001]	Female	778	1.88	1.75 - 2.02
Hypoplastic left heart syndrome*	Male	1,153	2.67	2.52 - 2.83
[p<0.0001]	Female	740	1.79	1.66 - 1.92
Patent ductus arteriosus	Male	25,227	58.45	57.73 - 59.17
	Female	24,030	58.20	57.47 - 58.94
Coarctation of the aorta*	Male	2,590	6.00	5.77 - 6.23
[p<0.0001]	Female	1,877	4.55	4.34 - 4.75
Respiratory		, -		
Choanal atresia or stenosis	Male	533	1.23	1.13 - 1.34
	Female	540	1.31	1.20 - 1.42
Agenesis, aplasia, or hypoplasia of the lung*	Male	1,409	3.26	3.09 - 3.44
[p<0.0001]	Female	1,084	2.63	2.47 - 2.78
Oral Clefts				
Cleft palate alone (without cleft lip)*	Male	2,228	5.16	4.95 - 5.38
[p<0.0001]	Female	2,771	6.71	6.46 - 6.96
Cleft lip with or without cleft palate*	Male	5,476	12.69	12.35 - 13.02
[p<0.0001]	Female	3,572	8.65	8.37 - 8.94
Gastrointestinal			0.00	0.07
Tracheoesophageal fistula/esophageal atresia	Male	976	2.26	2.12 - 2.40
, , ,	Female	866	2.10	1.96 - 2.24
Pyloric stenosis*	Male	11,248	26.06	25.58 - 26.54
, [p<0.0001]	Female	2,339	5.67	5.44 - 5.89
Stenosis or atresia of the small intestine*	Male	1,387	3.21	3.04 - 3.38
[p=0.0023]	Female	1,487	3.60	3.42 - 3.78
Stenosis or atresia of large intestine, rectum, or		2,451	5.68	5.45 - 5.90
anal canal* [p<0.0001]	Female	1,969	4.77	4.56 - 4.98
Hirschsprung disease*	Male	928	2.15	2.01 - 2.29
[p<0.0001]	Female	284	0.69	0.61 - 0.77
Biliary atresia*	Male	251	0.58	0.51 - 0.65
[p<0.0001]	Female	352	0.85	0.76 - 0.94
Genitourinary	· ciriaic	332	0.03	3., 3 3131
Hypospadias (among males)*	Male	26,799	62.09	61.35 - 62.84
[p<0.0001]	Female	0	0.00	0.00 - 0.01
·			0.00	

Birth Defect (Body System)	Sex	Cases (count)	Prevalence (rate)	Confidence Interval (95% for Prevalence)
Epispadias*	Male	809	1.87	1.75 - 2.00
[p<0.0001]	Female	9	0.02	0.01 - 0.04
Renal agenesis or dysgenesis*	Male	3,200	7.41	7.16 - 7.67
[p<0.0001]	Female	2,224	5.39	5.16 - 5.61
Bladder exstrophy	Male	77	0.18	0.14 - 0.22
	Female	67	0.16	0.13 - 0.21
Musculoskeletal				
Congenital hip dislocation without hip	Male	646	1.50	1.38 - 1.61
dysplasia* [p<0.0001]	Female	1,471	3.56	3.38 - 3.74
Talipes equinovarus/clubfoot*	Male	8,558	19.83	19.41 - 20.25
[p<0.0001]	Female	5,398	13.07	12.73 - 13.42
Reduction defects of the upper limbs*	Male	1,906	4.42	4.22 - 4.61
[p<0.0001]	Female	1,564	3.79	3.60 - 3.98
Reduction defects of the lower limbs*	Male	875	2.03	1.89 - 2.16
[p=0.0272]	Female	750	1.82	1.69 - 1.95
Craniosynostosis*	Male	3,052	7.07	6.82 - 7.32
[p<0.0001]	Female	1,663	4.03	3.83 - 4.22
Achondroplasia	Male	146	0.34	0.28 - 0.39
	Female	161	0.39	0.33 - 0.45
Diaphragmatic hernia*	Male	1,335	3.09	2.93 - 3.26
[p<0.0001]	Female	1,017	2.46	2.31 - 2.61
Omphalocele*	Male	998	2.31	2.17 - 2.46
[p<0.0001]	Female	764	1.85	1.72 - 1.98
Gastroschisis	Male	2,226	5.16	4.94 - 5.37
	Female	2,058	4.98	4.77 - 5.20
Chromosomal				
Trisomy 21 (Down syndrome)*	Male	6,242	14.46	14.10 - 14.82
[p<0.0001]	Female	5,384	13.04	12.69 - 13.39
Trisomy 13 (Patau syndrome)	Male	498	1.15	1.05 - 1.26
	Female	452	1.09	0.99 - 1.20
Trisomy 18 (Edwards syndrome)*	Male	889	2.06	1.92 - 2.20
[p<0.0001]	Female	1,176	2.85	2.69 - 3.01
Infants and fetuses with regular reportable	Male	249,248	577.50	575.23 - 579.76
birth defects* [p<0.0001]	Female	169,280	410.00	408.05 - 411.95

Prevalence (rate) is expressed as the number of cases per 10,000 live births.

Please see the Methods section of the Annual Report for additional information: https://www.dshs.texas.gov/sites/default/files/birthdefects/annualreport/1999-2020-TBDR-Methods.pdf

Prepared by: Texas Birth Defects Registry, Birth Defects Epidemiology and Surveillance Branch, Texas Department of State Health Services, February 2024.

^{*}Statistically significant by Poisson regression [p<0.05].