

## Texas Birth Defects Registry (TBDR) Annual Report

### Table 4. Prevalence of Selected Birth Defects by Mother's Race/Ethnicity, Texas, 1999–2021

Birth Defect (Body System)	Mother's Race/Ethnicity	Cases (count)	Prevalence (rate)	Confidence Interval (95% for Prevalence)
<b>Central Nervous System</b>				
Anencephaly*	Non-Hispanic (NH) White	633	2.07	1.90 – 2.23
	NH Black	177	1.75	1.49 – 2.01
	Hispanic	1,254	2.95	2.79 – 3.12
	NH Asian/Pacific Islander	62	1.66	1.27 – 2.13
	NH Am. Indian/AK Native	5	3.03	0.98 – 7.06
Spina bifida (without anencephaly)*	Non-Hispanic (NH) White	1,060	3.46	3.25 – 3.67
	NH Black	269	2.66	2.34 – 2.98
	Hispanic	1,845	4.35	4.15 – 4.55
	NH Asian/Pacific Islander	51	1.36	1.02 – 1.79
	NH Am. Indian/AK Native	6	3.63	1.33 – 7.91
Encephalocele*	Non-Hispanic (NH) White	238	0.78	0.68 – 0.88
	NH Black	127	1.26	1.04 – 1.47
	Hispanic	443	1.04	0.95 – 1.14
	NH Asian/Pacific Islander	21	0.56	0.35 – 0.86
	NH Am. Indian/AK Native	3	1.82	0.37 – 5.31
Microcephaly, severe (head circumference <3 <sup>rd</sup> percentile)*	Non-Hispanic (NH) White	1,044	3.41	3.20 – 3.61
	NH Black	1,004	9.93	9.32 – 10.54
	Hispanic	2,279	5.37	5.15 – 5.59
	NH Asian/Pacific Islander	175	4.68	3.99 – 5.38
	NH Am. Indian/AK Native	11	6.66	3.32 – 11.92
Holoprosencephaly*	Non-Hispanic (NH) White	266	0.87	0.76 – 0.97
	NH Black	102	1.01	0.81 – 1.20
	Hispanic	522	1.23	1.12 – 1.34
	NH Asian/Pacific Islander	19	0.51	0.31 – 0.79
	NH Am. Indian/AK Native	5	3.03	0.98 – 7.06
Hydrocephaly (without spina bifida)*	Non-Hispanic (NH) White	2,460	8.03	7.71 – 8.34
	NH Black	967	9.56	8.96 – 10.17
	Hispanic	3,448	8.12	7.85 – 8.40
	NH Asian/Pacific Islander	204	5.46	4.71 – 6.21
	NH Am. Indian/AK Native	13	7.87	4.19 – 13.46
<b>Eye and Ear</b>				
Anophthalmia*	Non-Hispanic (NH) White	74	0.24	0.19 – 0.30
	NH Black	30	0.30	0.20 – 0.42
	Hispanic	148	0.35	0.29 – 0.40
	NH Asian/Pacific Islander	2	0.05	0.01 – 0.19
	NH Am. Indian/AK Native	0	0.00	0.00 – 2.23
Microphthalmia*	Non-Hispanic (NH) White	804	2.62	2.44 – 2.80
	NH Black	223	2.21	1.92 – 2.50
	Hispanic	1,251	2.95	2.78 – 3.11
	NH Asian/Pacific Islander	75	2.01	1.58 – 2.52
	NH Am. Indian/AK Native	8	4.84	2.09 – 9.54

Birth Defect (Body System)	Mother's Race/Ethnicity	Cases (count)	Prevalence (rate)	Confidence Interval (95% for Prevalence)
Cataract	Non-Hispanic (NH) White	597	1.95	1.79 – 2.10
	NH Black	233	2.30	2.01 – 2.60
	Hispanic	815	1.92	1.79 – 2.05
	NH Asian/Pacific Islander	60	1.61	1.23 – 2.07
	NH Am. Indian/AK Native	3	1.82	0.37 – 5.31
Anotia or microtia*	Non-Hispanic (NH) White	701	2.29	2.12 – 2.46
	NH Black	158	1.56	1.32 – 1.81
	Hispanic	2,181	5.14	4.92 – 5.35
	NH Asian/Pacific Islander	109	2.92	2.37 – 3.46
	NH Am. Indian/AK Native	8	4.84	2.09 – 9.54
<b>Cardiac and Circulatory</b>				
Common truncus*	Non-Hispanic (NH) White	196	0.64	0.55 – 0.73
	NH Black	78	0.77	0.61 – 0.96
	Hispanic	370	0.87	0.78 – 0.96
	NH Asian/Pacific Islander	20	0.54	0.33 – 0.83
	NH Am. Indian/AK Native	1	0.61	0.02 – 3.37
Transposition of the great vessels*	Non-Hispanic (NH) White	1,121	3.66	3.44 – 3.87
	NH Black	229	2.27	1.97 – 2.56
	Hispanic	1,443	3.40	3.22 – 3.58
	NH Asian/Pacific Islander	114	3.05	2.49 – 3.61
	NH Am. Indian/AK Native	6	3.63	1.33 – 7.91
Double outlet right ventricle*	Non-Hispanic (NH) White	617	2.01	1.85 – 2.17
	NH Black	245	2.42	2.12 – 2.73
	Hispanic	1,088	2.56	2.41 – 2.72
	NH Asian/Pacific Islander	72	1.93	1.51 – 2.43
	NH Am. Indian/AK Native	3	1.82	0.37 – 5.31
Tetralogy of Fallot*	Non-Hispanic (NH) White	1,181	3.85	3.63 – 4.07
	NH Black	466	4.61	4.19 – 5.03
	Hispanic	1,614	3.80	3.62 – 3.99
	NH Asian/Pacific Islander	165	4.42	3.74 – 5.09
	NH Am. Indian/AK Native	6	3.63	1.33 – 7.91
Ventricular septal defect*	Non-Hispanic (NH) White	17,007	55.49	54.66 – 56.33
	NH Black	4,953	48.99	47.63 – 50.35
	Hispanic	29,942	70.55	69.75 – 71.35
	NH Asian/Pacific Islander	1,847	49.43	47.17 – 51.68
	NH Am. Indian/AK Native	98	59.33	48.17 – 72.30
Atrial septal defect*	Non-Hispanic (NH) White	20,404	66.58	65.66 – 67.49
	NH Black	7,696	76.12	74.42 – 77.82
	Hispanic	32,827	77.35	76.51 – 78.18
	NH Asian/Pacific Islander	2,020	54.05	51.70 – 56.41
	NH Am. Indian/AK Native	111	67.20	54.70 – 79.70
Atrioventricular septal defect (endocardial cushion defect)*	Non-Hispanic (NH) White	1,457	4.75	4.51 – 5.00
	NH Black	536	5.30	4.85 – 5.75
	Hispanic	1,703	4.01	3.82 – 4.20
	NH Asian/Pacific Islander	107	2.86	2.32 – 3.41
	NH Am. Indian/AK Native	8	4.84	2.09 – 9.54

Birth Defect (Body System)	Mother's Race/Ethnicity	Cases (count)	Prevalence (rate)	Confidence Interval (95% for Prevalence)
Pulmonary valve atresia or stenosis*	Non-Hispanic (NH) White	2,747	8.96	8.63 – 9.30
	NH Black	1,131	11.19	10.53 – 11.84
	Hispanic	4,563	10.75	10.44 – 11.06
	NH Asian/Pacific Islander	251	6.72	5.89 – 7.55
	NH Am. Indian/AK Native	22	13.32	8.35 – 20.16
Tricuspid valve atresia or stenosis*	Non-Hispanic (NH) White	535	1.75	1.60 – 1.89
	NH Black	227	2.25	1.95 – 2.54
	Hispanic	833	1.96	1.83 – 2.10
	NH Asian/Pacific Islander	71	1.90	1.48 – 2.40
	NH Am. Indian/AK Native	3	1.82	0.37 – 5.31
Ebstein anomaly*	Non-Hispanic (NH) White	231	0.75	0.66 – 0.85
	NH Black	44	0.44	0.32 – 0.58
	Hispanic	368	0.87	0.78 – 0.96
	NH Asian/Pacific Islander	28	0.75	0.50 – 1.08
	NH Am. Indian/AK Native	1	0.61	0.02 – 3.37
Aortic valve stenosis*	Non-Hispanic (NH) White	845	2.76	2.57 – 2.94
	NH Black	143	1.41	1.18 – 1.65
	Hispanic	1,062	2.50	2.35 – 2.65
	NH Asian/Pacific Islander	59	1.58	1.20 – 2.04
	NH Am. Indian/AK Native	4	2.42	0.66 – 6.20
Hypoplastic left heart syndrome*	Non-Hispanic (NH) White	780	2.55	2.37 – 2.72
	NH Black	228	2.26	1.96 – 2.55
	Hispanic	896	2.11	1.97 – 2.25
	NH Asian/Pacific Islander	39	1.04	0.74 – 1.43
	NH Am. Indian/AK Native	3	1.82	0.37 – 5.31
Patent ductus arteriosus*	Non-Hispanic (NH) White	15,639	51.03	50.23 – 51.83
	NH Black	5,569	55.08	53.64 – 56.53
	Hispanic	26,767	63.07	62.31 – 63.82
	NH Asian/Pacific Islander	1,760	47.10	44.90 – 49.30
	NH Am. Indian/AK Native	82	49.64	39.48 – 61.62
Coarctation of the aorta*	Non-Hispanic (NH) White	1,794	5.85	5.58 – 6.12
	NH Black	397	3.93	3.54 – 4.31
	Hispanic	2,317	5.46	5.24 – 5.68
	NH Asian/Pacific Islander	140	3.75	3.13 – 4.37
	NH Am. Indian/AK Native	9	5.45	2.49 – 10.34
<b>Respiratory</b>				
Choanal atresia or stenosis*	Non-Hispanic (NH) White	448	1.46	1.33 – 1.60
	NH Black	133	1.32	1.09 – 1.54
	Hispanic	521	1.23	1.12 – 1.33
	NH Asian/Pacific Islander	27	0.72	0.48 – 1.05
	NH Am. Indian/AK Native	1	0.61	0.02 – 3.37
Agenesis, aplasia, or hypoplasia of the lung*	Non-Hispanic (NH) White	756	2.47	2.29 – 2.64
	NH Black	335	3.31	2.96 – 3.67
	Hispanic	1,392	3.28	3.11 – 3.45
	NH Asian/Pacific Islander	73	1.95	1.53 – 2.46
	NH Am. Indian/AK Native	7	4.24	1.70 – 8.73

Birth Defect (Body System)	Mother's Race/Ethnicity	Cases (count)	Prevalence (rate)	Confidence Interval (95% for Prevalence)
<b>Oral Clefts</b>				
Cleft palate alone (without cleft lip)*	Non-Hispanic (NH) White	2,040	6.66	6.37 – 6.95
	NH Black	449	4.44	4.03 – 4.85
	Hispanic	2,431	5.73	5.50 – 5.96
	NH Asian/Pacific Islander	246	6.58	5.76 – 7.41
	NH Am. Indian/AK Native	12	7.26	3.75 – 12.69
Cleft lip (with or without cleft palate)*	Non-Hispanic (NH) White	3,366	10.98	10.61 – 11.35
	NH Black	737	7.29	6.76 – 7.82
	Hispanic	4,862	11.46	11.13 – 11.78
	NH Asian/Pacific Islander	364	9.74	8.74 – 10.74
	NH Am. Indian/AK Native	38	23.01	16.28 – 31.58
<b>Gastrointestinal</b>				
Tracheoesophageal fistula/esophageal atresia*	Non-Hispanic (NH) White	776	2.53	2.35 – 2.71
	NH Black	194	1.92	1.65 – 2.19
	Hispanic	885	2.09	1.95 – 2.22
	NH Asian/Pacific Islander	62	1.66	1.27 – 2.13
	NH Am. Indian/AK Native	6	3.63	1.33 – 7.91
Pyloric stenosis*	Non-Hispanic (NH) White	5,440	17.75	17.28 – 18.22
	NH Black	663	6.56	6.06 – 7.06
	Hispanic	7,627	17.97	17.57 – 18.37
	NH Asian/Pacific Islander	165	4.42	3.74 – 5.09
	NH Am. Indian/AK Native	22	13.32	8.35 – 20.16
Stenosis or atresia of the small intestine*	Non-Hispanic (NH) White	1,011	3.30	3.10 – 3.50
	NH Black	352	3.48	3.12 – 3.85
	Hispanic	1,539	3.63	3.44 – 3.81
	NH Asian/Pacific Islander	90	2.41	1.94 – 2.96
	NH Am. Indian/AK Native	6	3.63	1.33 – 7.91
Stenosis or atresia of large intestine, rectum, or anal canal*	Non-Hispanic (NH) White	1,560	5.09	4.84 – 5.34
	NH Black	433	4.28	3.88 – 4.69
	Hispanic	2,474	5.83	5.60 – 6.06
	NH Asian/Pacific Islander	165	4.42	3.74 – 5.09
	NH Am. Indian/AK Native	10	6.05	2.90 – 11.13
Hirschsprung disease*	Non-Hispanic (NH) White	527	1.72	1.57 – 1.87
	NH Black	239	2.36	2.06 – 2.66
	Hispanic	406	0.96	0.86 – 1.05
	NH Asian/Pacific Islander	71	1.90	1.48 – 2.40
	NH Am. Indian/AK Native	5	3.03	0.98 – 7.06
Biliary atresia*	Non-Hispanic (NH) White	168	0.55	0.47 – 0.63
	NH Black	95	0.94	0.76 – 1.15
	Hispanic	299	0.70	0.62 – 0.78
	NH Asian/Pacific Islander	46	1.23	0.90 – 1.64
	NH Am. Indian/AK Native	5	3.03	0.98 – 7.06

Birth Defect (Body System)	Mother's Race/Ethnicity	Cases (count)	Prevalence (rate)	Confidence Interval (95% for Prevalence)
<b>Genitourinary</b>				
Hypospadias (among males)*	Non-Hispanic (NH) White	13,468	85.69	84.24 – 87.14
	NH Black	3,890	75.64	73.26 – 78.02
	Hispanic	9,170	42.37	41.50 – 43.24
	NH Asian/Pacific Islander	1,163	60.36	56.89 – 63.83
	NH Am. Indian/AK Native	46	54.10	39.61 – 72.17
Renal agenesis or dysgenesis*	Non-Hispanic (NH) White	1,918	6.26	5.98 – 6.54
	NH Black	664	6.57	6.07 – 7.07
	Hispanic	2,901	6.84	6.59 – 7.08
	NH Asian/Pacific Islander	204	5.46	4.71 – 6.21
	NH Am. Indian/AK Native	13	7.87	4.19 – 13.46
Bladder exstrophy*	Non-Hispanic (NH) White	87	0.28	0.23 – 0.35
	NH Black	19	0.19	0.11 – 0.29
	Hispanic	41	0.10	0.07 – 0.13
	NH Asian/Pacific Islander	8	0.21	0.09 – 0.42
	NH Am. Indian/AK Native	0	0.00	0.00 – 2.23
<b>Musculoskeletal</b>				
Congenital hip dislocation (without hip dysplasia)*	Non-Hispanic (NH) White	901	2.94	2.75 – 3.13
	NH Black	136	1.35	1.12 – 1.57
	Hispanic	1,045	2.46	2.31 – 2.61
	NH Asian/Pacific Islander	70	1.87	1.46 – 2.37
	NH Am. Indian/AK Native	2	1.21	0.15 – 4.37
Talipes equinovarus (clubfoot)*	Non-Hispanic (NH) White	5,279	17.22	16.76 – 17.69
	NH Black	1,700	16.81	16.02 – 17.61
	Hispanic	7,171	16.90	16.50 – 17.29
	NH Asian/Pacific Islander	406	10.86	9.81 – 11.92
	NH Am. Indian/AK Native	42	25.43	18.33 – 34.37
Reduction defects of the upper limbs*	Non-Hispanic (NH) White	1,266	4.13	3.90 – 4.36
	NH Black	431	4.26	3.86 – 4.67
	Hispanic	1,808	4.26	4.06 – 4.46
	NH Asian/Pacific Islander	100	2.68	2.18 – 3.25
	NH Am. Indian/AK Native	17	10.29	6.00 – 16.48
Reduction defects of the lower limbs*	Non-Hispanic (NH) White	589	1.92	1.77 – 2.08
	NH Black	278	2.75	2.43 – 3.07
	Hispanic	809	1.91	1.77 – 2.04
	NH Asian/Pacific Islander	38	1.02	0.72 – 1.40
	NH Am. Indian/AK Native	4	2.42	0.66 – 6.20
Craniosynostosis*	Non-Hispanic (NH) White	2,207	7.20	6.90 – 7.50
	NH Black	257	2.54	2.23 – 2.85
	Hispanic	2,340	5.51	5.29 – 5.74
	NH Asian/Pacific Islander	127	3.40	2.81 – 3.99
	NH Am. Indian/AK Native	7	4.24	1.70 – 8.73
Achondroplasia*	Non-Hispanic (NH) White	142	0.46	0.39 – 0.54
	NH Black	37	0.37	0.26 – 0.50
	Hispanic	113	0.27	0.22 – 0.32
	NH Asian/Pacific Islander	23	0.62	0.39 – 0.92
	NH Am. Indian/AK Native	0	0.00	0.00 – 2.23

Birth Defect (Body System)	Mother's Race/Ethnicity	Cases (count)	Prevalence (rate)	Confidence Interval (95% for Prevalence)
Diaphragmatic hernia*	Non-Hispanic (NH) White	874	2.85	2.66 – 3.04
	NH Black	235	2.32	2.03 – 2.62
	Hispanic	1,271	2.99	2.83 – 3.16
	NH Asian/Pacific Islander	91	2.44	1.96 – 2.99
	NH Am. Indian/AK Native	2	1.21	0.15 – 4.37
Omphalocele*	Non-Hispanic (NH) White	691	2.25	2.09 – 2.42
	NH Black	247	2.44	2.14 – 2.75
	Hispanic	878	2.07	1.93 – 2.21
	NH Asian/Pacific Islander	61	1.63	1.25 – 2.10
	NH Am. Indian/AK Native	7	4.24	1.70 – 8.73
Gastroschisis*	Non-Hispanic (NH) White	1,542	5.03	4.78 – 5.28
	NH Black	338	3.34	2.99 – 3.70
	Hispanic	2,474	5.83	5.60 – 6.06
	NH Asian/Pacific Islander	72	1.93	1.51 – 2.43
	NH Am. Indian/AK Native	7	4.24	1.70 – 8.73
<b>Chromosomal</b>				
Trisomy 21 (Down syndrome)*	Non-Hispanic (NH) White	3,864	12.61	12.21 – 13.01
	NH Black	1,070	10.58	9.95 – 11.22
	Hispanic	6,757	15.92	15.54 – 16.30
	NH Asian/Pacific Islander	420	11.24	10.16 – 12.31
	NH Am. Indian/AK Native	22	13.32	8.35 – 20.16
Trisomy 13 (Patau syndrome)	Non-Hispanic (NH) White	360	1.17	1.05 – 1.30
	NH Black	135	1.34	1.11 – 1.56
	Hispanic	459	1.08	0.98 – 1.18
	NH Asian/Pacific Islander	43	1.15	0.83 – 1.55
	NH Am. Indian/AK Native	1	0.61	0.02 – 3.37
Trisomy 18 (Edwards syndrome)	Non-Hispanic (NH) White	730	2.38	2.21 – 2.55
	NH Black	277	2.74	2.42 – 3.06
	Hispanic	1,054	2.48	2.33 – 2.63
	NH Asian/Pacific Islander	95	2.54	2.06 – 3.11
	NH Am. Indian/AK Native	4	2.42	0.66 – 6.20
<b>Infants &amp; fetuses with regular reportable birth defects*</b>	Non-Hispanic (NH) White	157,888	515.17	512.63 – 517.72
	NH Black	53,131	525.51	521.04 – 529.98
	Hispanic	212,189	499.95	497.82 – 502.07
	NH Asian/Pacific Islander	17,339	463.99	457.08 – 470.90
	NH Am. Indian/AK Native	811	490.98	457.19 – 524.77

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

\*Statistically significant difference in prevalence between at least two race/ethnicity groups [ $p < 0.05$ ].

Please see the Methods section of the Annual Report for additional information:

<https://www.dshs.texas.gov/sites/default/files/birthdefects/annualreport/1999-2021-TBDR-Methods.pdf>

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