

California Birth Defects Monitoring Program Report of Birth Defects 2012-2016

Table 1: Overall Prevalence of Selected Birth Defects: 2012-2016

Birth Defect or Birth Defect Group	Cases	Prevalence Rate*	95% Confidence Interval
Anophthalmia/Microphthalmia	56	1.8	1.3 - 2.3
Anotia/Microtia	128	4.0	3.4 - 4.8
Cleft Lip/Cleft Palate	478	15.0	13.7 - 16.4
Craniosynostosis	135	4.2	3.6 - 5.0
Esophageal Atresia/ Tracheoesophageal Fistula	62	2.0	1.5 - 2.5
Gastroschisis	182	5.7	4.9 - 6.6
Heart	1003	31.6	29.6 - 33.6
Hypospadias^β	655	40.3	37.3 - 43.5
Limb Deficiencies	106	3.3	2.7 - 4.0
NTD	224	7.0	6.2 - 8.0
Omphalocele	66	2.1	1.6 - 2.6
Trisomy 13	46	1.4	1.1 - 1.9
Trisomy 18	98	3.1	2.5 - 3.8
Trisomy 21	505	15.9	14.5 - 17.3

* Cases per 10,000 Live Births.

^β For Hypospadias defect, male or unknown gender cases were used in numerator and male live births were used in denominator.

Data Source: [California Birth Defects Monitoring Program Registry, 2012-2016](#), California 8-County Region (Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare).

Table 2: Prevalence of Selected Birth Defects by Mother's Age: 2012-2016

Anophthalmia/Microphthalmia

Mother's Age (years)	Cases	Prevalence Rate*	95% Confidence Interval
<20	3	1.1	0.2 - 3.1
20-24	13	1.6	0.8 - 2.7
25-29	16	1.7	1.0 - 2.8
30-34	12	1.7	0.9 - 2.9
35-39	7	2.1	0.8 - 4.3
40+	5	6.0	1.9 - 14.0

Anotia/Microtia

Mother's Age (years)	Cases	Prevalence Rate*	95% Confidence Interval
<20	12	4.3	2.2 - 7.5
20-24	20	2.4	1.5 - 3.8
25-29	24	2.6	1.6 - 3.8
30-34	42	5.8	4.2 - 7.8
35-39	23	6.9	4.4 - 10.4
40+	6	7.2	2.6 - 15.6

Cleft Lip/Cleft Palate

Mother's Age (years)	Cases	Prevalence Rate*	95% Confidence Interval
<20	32	11.5	7.8 - 16.2
20-24	114	14.0	11.5 - 16.8
25-29	139	14.8	12.4 - 17.5
30-34	110	15.2	12.5 - 18.3
35-39	63	18.9	14.5 - 24.2
40+	20	24.0	14.6 - 37.0

Craniosynostosis

Mother's Age (years)	Cases	Prevalence Rate*	95% Confidence Interval
<20	6	2.2	0.8 - 4.7
20-24	22	2.7	1.7 - 4.1
25-29	46	4.9	3.6 - 6.5
30-34	42	5.8	4.2 - 7.8
35-39	17	5.1	3.0 - 8.2
40+	2	2.4	0.3 - 8.7

Esophageal Atresia/Tracheoesophageal Fistula

Mother's Age (years)	Cases	Prevalence Rate*	95% Confidence Interval
<20	5	1.8	0.6 - 4.2
20-24	12	1.5	0.8 - 2.6
25-29	14	1.5	0.8 - 2.5
30-34	14	1.9	1.1 - 3.2
35-39	12	3.6	1.9 - 6.3
40+	5	6.0	1.9 - 14.0

Gastroschisis

Mother's Age (years)	Cases	Prevalence Rate*	95% Confidence Interval
<20	58	20.8	15.8 - 26.9
20-24	79	9.7	7.7 - 12.1
25-29	29	3.1	2.1 - 4.4
30-34	14	1.9	1.1 - 3.2
35-39	1	0.3	0.0 - 1.7
40+	1	1.2	0.0 - 6.7

Heart

Mother's Age (years)	Cases	Prevalence Rate*	95% Confidence Interval
<20	73	26.2	20.5 - 32.9
20-24	229	28.1	24.5 - 31.9
25-29	277	29.5	26.1 - 33.2
30-34	205	28.2	24.5 - 32.4
35-39	135	40.5	34.0 - 48.0
40+	82	98.2	78.2 - 121.8

Hypospadias

Mother's Age (years)	Cases	Prevalence Rate*	95% Confidence Interval
<20	51	35.5	26.5 - 46.7
20-24	160	38.1	32.4 - 44.5
25-29	196	40.8	35.3 - 46.9
30-34	144	38.8	32.7 - 45.6
35-39	81	48.2	38.3 - 59.8
40+	23	54.9	34.9 - 82.3

Limb Deficiencies

Mother's Age (years)	Cases	Prevalence Rate*	95% Confidence Interval
<20	11	3.9	2.0 - 7.1
20-24	31	3.8	2.6 - 5.4
25-29	32	3.4	2.3 - 4.8
30-34	22	3.0	1.9 - 4.6
35-39	6	1.8	0.7 - 3.9
40+	4	4.8	1.3 - 12.3

Neural Tube Defects

Mother's Age (years)	Cases	Prevalence Rate*	95% Confidence Interval
<20	26	9.3	6.1 - 13.7
20-24	57	7.0	5.3 - 9.0
25-29	49	5.2	3.9 - 6.9
30-34	59	8.1	6.2 - 10.5
35-39	25	7.5	4.9 - 11.1
40+	8	9.6	4.1 - 18.9

Omphalocele

Mother's Age (years)	Cases	Prevalence Rate*	95% Confidence Interval
<20	6	2.2	0.8 - 4.7
20-24	21	2.6	1.6 - 3.9
25-29	10	1.1	0.5 - 2.0
30-34	15	2.1	1.2 - 3.4
35-39	8	2.4	1.0 - 4.7
40+	6	7.2	2.6 - 15.6

Trisomy 13

Mother's Age (years)	Cases	Prevalence Rate*	95% Confidence Interval
<20	3	1.1	0.2 - 3.1
20-24	7	0.9	0.3 - 1.8
25-29	16	1.7	1.0 - 2.8
30-34	9	1.2	0.6 - 2.4
35-39	5	1.5	0.5 - 3.5
40+	6	7.2	2.6 - 15.6

Trisomy 18

Mother's Age (years)	Cases	Prevalence Rate*	95% Confidence Interval
<20	6	2.2	0.8 - 4.7
20-24	14	1.7	0.9 - 2.9
25-29	15	1.6	0.9 - 2.6
30-34	16	2.2	1.3 - 3.6
35-39	22	6.6	4.1 - 10.0
40+	25	29.9	19.4 - 44.2

Trisomy 21

Mother's Age (years)	Cases	Prevalence Rate*	95% Confidence Interval
<20	15	5.4	3.0 - 8.9
20-24	55	6.7	5.1 - 8.8
25-29	72	7.7	6.0 - 9.6
30-34	83	11.4	9.1 - 14.2
35-39	152	45.7	38.7 - 53.5
40+	127	152.1	127.0 - 180.7

* Cases per 10,000 Live Births

β For Hypospadias defect, male or unknown gender cases were used in numerator and male live births were used in denominator.

Data Source: [California Birth Defects Monitoring Program Registry, 2012-2016](#), California 8-County Region (Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare).

Table 3: Prevalence of Selected Birth Defects by Mother's Race/Ethnicity: 2012-2016

Anophthalmia/Microphthalmia

Mother's Race/Ethnicity	Cases	Prevalence Rate*	95% Confidence Interval
White	12	1.5	0.8 - 2.7
Black	3	2.0	0.4 - 5.8
Hispanic	29	1.5	1.0 - 2.2
Asian or Pacific Islander	7	2.7	1.1 - 5.5

Anotia/Microtia

Mother's Race/Ethnicity	Cases	Prevalence Rate*	95% Confidence Interval
White	14	1.8	1.0 - 3.0
Black	3	2.0	0.4 - 5.8
Hispanic	97	5.1	4.1 - 6.2
Asian or Pacific Islander	13	5.0	2.6 - 8.5

Cleft Lip/Cleft Palate

Mother's Race/Ethnicity	Cases	Prevalence Rate*	95% Confidence Interval
White	102	12.9	10.5 - 15.7
Black	18	11.9	7.1 - 18.8
Hispanic	289	15.1	13.4 - 16.9
Asian or Pacific Islander	38	14.5	10.3 - 19.9

Craniosynostosis

Mother's Race/Ethnicity	Cases	Prevalence Rate*	95% Confidence Interval
White	38	4.8	3.4 - 6.6
Black	0	0.0	0.0 - 2.4
Hispanic	88	4.6	3.7 - 5.7
Asian or Pacific Islander	7	2.7	1.1 - 5.5

Esophageal Atresia/Tracheoesophageal Fistula

Mother's Race/Ethnicity	Cases	Prevalence Rate*	95% Confidence Interval
White	13	1.6	0.9 - 2.8
Black	5	3.3	1.1 - 7.7
Hispanic	36	1.9	1.3 - 2.6
Asian or Pacific Islander	5	1.9	0.6 - 4.4

Gastroschisis

Mother's Race/Ethnicity	Cases	Prevalence Rate*	95% Confidence Interval
White	42	5.3	3.8 - 7.2
Black	9	6.0	2.7 - 11.3
Hispanic	109	5.7	4.7 - 6.9
Asian or Pacific Islander	14	5.3	2.9 - 9.0

Heart

Mother's Race/Ethnicity	Cases	Prevalence Rate*	95% Confidence Interval
White	237	30.0	26.3 - 34.1
Black	39	25.8	18.4 - 35.3
Hispanic	603	31.4	29.0 - 34.0
Asian or Pacific Islander	83	31.7	25.2 - 39.2

Hypospadias^β

Mother's Race/Ethnicity	Cases	Prevalence Rate*	95% Confidence Interval
White	254	62.6	55.2 - 70.8
Black	35	45.2	31.5 - 62.9
Hispanic	299	30.6	27.2 - 34.2
Asian or Pacific Islander	50	36.8	27.3 - 48.5

Limb Deficiencies

Mother's Race/Ethnicity	Cases	Prevalence Rate*	95% Confidence Interval
White	25	3.2	2.0 - 4.7
Black	7	4.6	1.9 - 9.6
Hispanic	58	3.0	2.3 - 3.9
Asian or Pacific Islander	6	2.3	0.8 - 5.0

Neural Tube Defects

Mother's Race/Ethnicity	Cases	Prevalence Rate*	95% Confidence Interval
White	38	4.8	3.4 - 6.6
Black	5	3.3	1.1 - 7.7
Hispanic	120	6.3	5.2 - 7.5
Asian or Pacific Islander	5	1.9	0.6 - 4.4

Omphalocele

Mother's Race/Ethnicity	Cases	Prevalence Rate*	95% Confidence Interval
White	16	2.0	1.2 - 3.3
Black	7	4.6	1.9 - 9.6
Hispanic	28	1.5	1.0 - 2.1
Asian or Pacific Islander	3	1.1	0.2 - 3.3

Trisomy 13

Mother's Race/Ethnicity	Cases	Prevalence Rate*	95% Confidence Interval
White	3	0.4	0.1 - 1.1
Black	6	4.0	1.5 - 8.7
Hispanic	23	1.2	0.8 - 1.8
Asian or Pacific Islander	1	0.4	0.0 - 2.1

Trisomy 18

Mother's Race/Ethnicity	Cases	Prevalence Rate*	95% Confidence Interval
White	8	1.0	0.4 - ?
Black	4	2.7	0.7 - 6.8
Hispanic	40	2.1	1.5 - 2.8
Asian or Pacific Islander	3	1.1	0.2 - 3.3

Trisomy 21

Mother's Race/Ethnicity	Cases	Prevalence Rate*	95% Confidence Interval
White	104	13.2	10.8 - 15.9
Black	15	9.9	5.6 - 16.4
Hispanic	321	16.7	15.0 - 18.7
Asian or Pacific Islander	31	11.8	8.0 - 16.8

* Cases per 10,000 Live Births

β For Hypospadias defect, male or unknown gender cases were used in numerator and male live births were used in denominator.

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