

Mississippi

Mississippi Birth Defects Surveillance Registry (MBDSR)

Purpose: Surveillance, Referral to Services

Partner: Local Health Departments, Hospitals, Advocacy Groups, Title V Children with Special Healthcare Needs

Program status: Currently collecting data

Start year: 2000

Earliest year of available data: 2000

Organizational location: Department of Health (Maternal and Child Health, Genetic Services Bureau)

Population covered annually: 38,000

Statewide: Yes

Current legislation or rule: Section 41-21-205 of the Mississippi Code of 1972

Legislation year enacted: 1997

Case Definition

Outcomes covered: The infant/fetus must have a reportable structural defect, newborn screening disorder, functional or metabolic disorder, genetically determined or a defect resulting from an environmental influence during embryonic or fetal life.

Pregnancy outcome: Livebirths (All gestational ages and birth weights), Fetal deaths - stillbirths, spontaneous abortions, etc. (20 weeks gestation and greater)

Age: Birth to 21 years

Residence: In and out of state births to state residents

Surveillance Methods

Case ascertainment: Passive case-finding without case confirmation

Vital records: Matched birth/death file

Other state based registries: Programs for children with special needs, Newborn hearing screening program, Newborn metabolic screening program

Delivery hospitals: Discharge summaries

Pediatric & tertiary care hospitals: Discharge summaries, Specialty outpatient clinics

Other specialty facilities: Genetic counseling/clinic genetic facilities

Other sources: Physician reports

Case Ascertainment

Coding: ICD-9-CM/ICD-10-CM

Data Collected

Infant/fetus: Identification information (name, address, date-of-birth, etc.), Demographic information (race/ethnicity, sex, etc.), Birth measurements (weight, gestation, Apgars, etc.), Birth defect diagnostic information

Mother: Identification information (name, address, date-of-birth, etc.), Demographic information (race/ethnicity, sex, etc.)

Father: Demographic information (race/ethnicity, sex, etc.), Family history

Data Collection Methods and Storage

Data collection: Printed abstract/report filled out by staff, Printed abstract/report submitted by other agencies (hospitals, etc.), Electronic file/report submitted by other agencies (hospitals, etc.)

Database collection and storage: Access, New web based program (in development)

Data Analysis

Data analysis software: SAS, Excel

Quality assurance: Validity checks, Double-checking of assigned codes, Comparison/verification between multiple data sources, Timeliness

Data use and analysis: Routine statistical monitoring, Public health program evaluation, Baseline rates, Rates by demographic and other variables, Monitoring outbreaks and cluster investigations, Time trends, Epidemiological studies (using only program data), Referral, Education/public awareness

System Integration

System links: Link case finding data to final birth file

Funding

Funding source: 100% Genetic screening revenues

Other

Web site: www.HealthyMS.com

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DATA TABLES

Mississippi
Birth Defects Counts and Prevalence 2014 - 2018 (Prevalence per 10,000 Live Births)

Defect	Maternal Race/Ethnicity					Total*	Notes
	White, Non-Hispanic	Black, Non-Hispanic	Hispanic	Asian or Pacific Islander, Non-Hispanic	American Indian or Alaska Native, Non-Hispanic		
Anencephalus	57 <i>5.9</i>	92 <i>11.4</i>	10 <i>12.3</i>	2 <i>8.2</i>	5 <i>47.1</i>	185 <i>9.8</i>	
Anophthalmia/microphthalmia	119 <i>12.4</i>	96 <i>11.9</i>	8 <i>9.8</i>	1 <i>4.1</i>	4 <i>37.7</i>	239 <i>12.6</i>	
Anotia/microtia	4 <i>0.4</i>	4 <i>0.5</i>	1 <i>1.2</i>	0 <i>0.0</i>	1 <i>9.4</i>	14 <i>0.7</i>	
Aortic valve stenosis	9 <i>0.9</i>	3 <i>0.4</i>	0 <i>0.0</i>	0 <i>0.0</i>	1 <i>9.4</i>	15 <i>0.8</i>	
Atrial septal defect	1,334 <i>139.0</i>	1,621 <i>201.1</i>	115 <i>141.3</i>	26 <i>107.1</i>	45 <i>424.1</i>	3,390 <i>178.9</i>	
Atrioventricular septal defect (Endocardial cushion defect)	24 <i>2.5</i>	19 <i>2.4</i>	2 <i>2.5</i>	1 <i>4.1</i>	0 <i>0.0</i>	51 <i>2.7</i>	
Biliary atresia	3 <i>0.3</i>	9 <i>1.1</i>	0 <i>0.0</i>	0 <i>0.0</i>	0 <i>0.0</i>	18 <i>1.0</i>	
Bladder exstrophy	1 <i>0.1</i>	2 <i>0.2</i>	0 <i>0.0</i>	0 <i>0.0</i>	0 <i>0.0</i>	4 <i>0.2</i>	
Choanal atresia	100 <i>10.4</i>	122 <i>15.1</i>	9 <i>11.1</i>	1 <i>4.1</i>	3 <i>28.3</i>	257 <i>13.6</i>	
Cleft lip alone	19 <i>2.0</i>	7 <i>0.9</i>	1 <i>1.2</i>	0 <i>0.0</i>	0 <i>0.0</i>	32 <i>1.7</i>	
Cleft lip with cleft palate	34 <i>3.5</i>	19 <i>2.4</i>	4 <i>4.9</i>	0 <i>0.0</i>	1 <i>9.4</i>	70 <i>3.7</i>	
Cleft palate alone	43 <i>4.5</i>	26 <i>3.2</i>	1 <i>1.2</i>	0 <i>0.0</i>	2 <i>18.9</i>	80 <i>4.2</i>	
Cloacal exstrophy	5 <i>0.5</i>	9 <i>1.1</i>	0 <i>0.0</i>	0 <i>0.0</i>	0 <i>0.0</i>	16 <i>0.8</i>	
Clubfoot	121 <i>12.6</i>	84 <i>10.4</i>	4 <i>4.9</i>	1 <i>4.1</i>	2 <i>18.9</i>	236 <i>12.5</i>	
Coarctation of the aorta	54 <i>5.6</i>	32 <i>4.0</i>	4 <i>4.9</i>	1 <i>4.1</i>	1 <i>9.4</i>	105 <i>5.5</i>	
Common truncus (truncus arteriosus)	7 <i>0.7</i>	2 <i>0.2</i>	0 <i>0.0</i>	0 <i>0.0</i>	0 <i>0.0</i>	11 <i>0.6</i>	
Congenital cataract	8 <i>0.8</i>	11 <i>1.4</i>	1 <i>1.2</i>	0 <i>0.0</i>	0 <i>0.0</i>	24 <i>1.3</i>	
Congenital posterior urethral valves	5 <i>1.0</i>	9 <i>2.2</i>	0 <i>0.0</i>	0 <i>0.0</i>	0 <i>0.0</i>	16 <i>1.7</i>	1
Craniosynostosis	167 <i>17.4</i>	54 <i>6.7</i>	10 <i>12.3</i>	2 <i>8.2</i>	1 <i>9.4</i>	248 <i>13.1</i>	
Deletion 22q11.2	1 <i>0.1</i>	4 <i>0.5</i>	0 <i>0.0</i>	1 <i>4.1</i>	0 <i>0.0</i>	6 <i>0.3</i>	
Diaphragmatic hernia	8 <i>0.8</i>	5 <i>0.6</i>	2 <i>2.5</i>	0 <i>0.0</i>	0 <i>0.0</i>	17 <i>0.9</i>	
Double outlet right ventricle	18 <i>1.9</i>	20 <i>2.5</i>	1 <i>1.2</i>	0 <i>0.0</i>	0 <i>0.0</i>	42 <i>2.2</i>	
Ebstein anomaly	6 <i>0.6</i>	2 <i>0.2</i>	1 <i>1.2</i>	0 <i>0.0</i>	0 <i>0.0</i>	10 <i>0.5</i>	
Encephalocele	5 <i>0.5</i>	6 <i>0.7</i>	0 <i>0.0</i>	0 <i>0.0</i>	0 <i>0.0</i>	13 <i>0.7</i>	
Esophageal atresia/tracheoesophageal fistula	11 <i>1.1</i>	11 <i>1.4</i>	0 <i>0.0</i>	0 <i>0.0</i>	0 <i>0.0</i>	23 <i>1.2</i>	
Gastroschisis	9 <i>0.9</i>	10 <i>1.2</i>	2 <i>2.5</i>	0 <i>0.0</i>	1 <i>9.4</i>	27 <i>1.4</i>	
Holoprosencephaly	22 <i>2.3</i>	35 <i>4.3</i>	2 <i>2.5</i>	1 <i>4.1</i>	2 <i>18.9</i>	72 <i>3.8</i>	
Hypoplastic left heart syndrome	19 <i>2.0</i>	12 <i>1.5</i>	1 <i>1.2</i>	1 <i>4.1</i>	0 <i>0.0</i>	35 <i>1.8</i>	
Hypospadias	156 <i>31.8</i>	153 <i>37.4</i>	6 <i>14.4</i>	2 <i>15.9</i>	1 <i>19.3</i>	359 <i>37.2</i>	1
Interrupted aortic arch	37 <i>3.9</i>	30 <i>3.7</i>	0 <i>0.0</i>	0 <i>0.0</i>	2 <i>18.9</i>	71 <i>3.7</i>	

Mississippi
Birth Defects Counts and Prevalence 2014 - 2018 (Prevalence per 10,000 Live Births)

Defect	Maternal Race/Ethnicity					Total*	Notes
	White, Non-Hispanic	Black, Non-Hispanic	Hispanic	Asian or Pacific Islander, Non-Hispanic	American Indian or Alaska Native, Non-Hispanic		
Limb deficiencies (reduction defects)	7 <i>0.7</i>	10 <i>1.2</i>	1 <i>1.2</i>	0 <i>0.0</i>	0 <i>0.0</i>	21 <i>1.1</i>	
Omphalocele	17 <i>1.8</i>	23 <i>2.9</i>	0 <i>0.0</i>	1 <i>4.1</i>	0 <i>0.0</i>	45 <i>2.4</i>	
Pulmonary valve atresia and stenosis	41 <i>4.3</i>	55 <i>6.8</i>	0 <i>0.0</i>	0 <i>0.0</i>	0 <i>0.0</i>	105 <i>5.5</i>	
Pulmonary valve atresia	3 <i>0.3</i>	7 <i>0.9</i>	0 <i>0.0</i>	0 <i>0.0</i>	0 <i>0.0</i>	10 <i>0.5</i>	
Rectal and large intestinal atresia/stenosis	34 <i>3.5</i>	18 <i>2.2</i>	4 <i>4.9</i>	0 <i>0.0</i>	0 <i>0.0</i>	58 <i>3.1</i>	
Renal agenesis/hypoplasia	31 <i>3.2</i>	16 <i>2.0</i>	1 <i>1.2</i>	0 <i>0.0</i>	0 <i>0.0</i>	54 <i>2.9</i>	
Single ventricle	11 <i>1.1</i>	14 <i>1.7</i>	0 <i>0.0</i>	0 <i>0.0</i>	0 <i>0.0</i>	26 <i>1.4</i>	
Small intestinal atresia/stenosis	12 <i>1.3</i>	22 <i>2.7</i>	1 <i>1.2</i>	0 <i>0.0</i>	0 <i>0.0</i>	38 <i>2.0</i>	
Spina bifida without anencephalus	30 <i>3.1</i>	12 <i>1.5</i>	2 <i>2.5</i>	0 <i>0.0</i>	0 <i>0.0</i>	49 <i>2.6</i>	
Tetralogy of Fallot	31 <i>3.2</i>	28 <i>3.5</i>	4 <i>4.9</i>	0 <i>0.0</i>	0 <i>0.0</i>	69 <i>3.6</i>	
Total anomalous pulmonary venous connection	2 <i>0.2</i>	7 <i>0.9</i>	1 <i>1.2</i>	0 <i>0.0</i>	0 <i>0.0</i>	10 <i>0.5</i>	
Transposition of the great arteries (TGA)	24 <i>2.5</i>	4 <i>0.5</i>	2 <i>2.5</i>	0 <i>0.0</i>	0 <i>0.0</i>	32 <i>1.7</i>	
Dextro-transposition of great arteries (d-TGA)	22 <i>2.3</i>	4 <i>0.5</i>	2 <i>2.5</i>	0 <i>0.0</i>	0 <i>0.0</i>	30 <i>1.6</i>	
Tricuspid valve atresia and stenosis	50 <i>5.2</i>	30 <i>3.7</i>	0 <i>0.0</i>	0 <i>0.0</i>	0 <i>0.0</i>	100 <i>5.3</i>	
Tricuspid valve atresia	5 <i>0.5</i>	3 <i>0.4</i>	0 <i>0.0</i>	0 <i>0.0</i>	0 <i>0.0</i>	10 <i>0.5</i>	
Trisomy 13	51 <i>5.3</i>	88 <i>10.9</i>	0 <i>0.0</i>	2 <i>8.2</i>	3 <i>28.3</i>	157 <i>8.3</i>	
Trisomy 18	3 <i>0.3</i>	3 <i>0.4</i>	0 <i>0.0</i>	0 <i>0.0</i>	0 <i>0.0</i>	10 <i>0.5</i>	
Trisomy 21 (Down syndrome)	68 <i>7.1</i>	42 <i>5.2</i>	14 <i>17.2</i>	1 <i>4.1</i>	0 <i>0.0</i>	157 <i>8.3</i>	
Turner syndrome	70 <i>14.9</i>	0 <i>0.0</i>	10 <i>25.2</i>	0 <i>0.0</i>	0 <i>0.0</i>	100 <i>10.8</i>	2
Ventricular septal defect	409 <i>42.6</i>	341 <i>42.3</i>	37 <i>45.5</i>	7 <i>28.8</i>	11 <i>103.7</i>	888 <i>46.9</i>	
Total live births	95,957	80,613	8,137	2,427	1,061	189,440	
Male live births	48,993	40,866	4,166	1,257	517	96,420	
Female live births	46,964	39,747	3,971	1,170	544	93,020	

Mississippi
Birth Defects Counts and Prevalence 2014 - 2018 (Prevalence per 10,000 Live Births)

Defect	Maternal Age (Years)		Total*	Notes
	Less than 35	35+		
Gastroschisis	26 <i>1.5</i>	0 <i>0.0</i>	27 <i>1.4</i>	
Trisomy 13	112 <i>6.5</i>	42 <i>23.2</i>	157 <i>8.3</i>	
Trisomy 18	9 <i>0.5</i>	0 <i>0.0</i>	10 <i>0.5</i>	
Trisomy 21 (Down syndrome)	78 <i>4.6</i>	62 <i>34.3</i>	157 <i>8.3</i>	
Total live births	171,364	18,076	189,440	

Notes

1. Data for this condition include male and unknown gender cases only. Prevalence is calculated per 10,000 male live births.
2. Data for this condition include female and unknown gender cases only. Prevalence is calculated per 10,000 female live births.

General comments

*Data for totals include unknown and/or other.