

SUPPLEMENTAL MATERIAL

SUPPLEMENTAL MATERIAL

Table S1: CHD inclusions and exclusions

Severe Codes	
745.000	Common Truncus
745.010	Aortic septal defect (ASD) / Aortopulmonary window
745.100—745.190	Transposition (all types)
745.100	Transposition of great vessels, complete (no VSD)
745.110	Transposition of great vessels, incomplete (w/ VSD), Taussig Bing
745.120	Corrected transposition of great vessels, L transposition, vent inversion
745.190	Unspecified transposition of great vessels
745.200	Tetralogy of Fallot
745.210	Fallot's pentalogy (tetralogy plus ASD)
745.300	Single ventricle, common ventricle, cor triloculare biatriatum
745.620	Common atrioventricular canal with ventricular septal defect (VSD)
745.630	Common atrioventricular canal
745.680	Other specified cushion defect
745.690	Endocardial cushion defect, NOS
746.000	Pulmonary valve atresia, hypoplasia
746.100	Tricuspid atresia and stenosis
746.505	Absence, atresia, or hypoplasia of mitral valve
746.700	Hypoplastic Left Heart Syndrome (HLHS)
747.100—747.190	Coarctation of the aorta (all types)
747.100	Pre-ductal
747.110	Post-ductal
747.120	Ductal
747.200	Aortic atresia (including pseudotruncus arteriosus)
747.210	Aortic hypoplasia
747.215—747.217, or 747.285	Interrupted aortic arch
747.420	Total Anomalous Pulmonary Venus Return (TAPVR)

SUPPLEMENTAL MATERIAL

Table S1: CHD inclusions and exclusions

Non-severe: Shunt + Valve Codes	
745.520	Lutembacher syndrome
746.840	Trilogy of Fallot
<i>Other cases will be in this category if have codes in both Shunt and Valve categories.</i>	
Non-severe: Shunt Codes	
745.400—745.490	Ventricular Septal Defect (VSD), (all types)
745.400	Roger's disease
745.410	Eisenmenger's syndrome
745.420	Gerbode defect
745.480	Other specified ventricular septal defect
745.490	Ventricular septal defect, NOS
745.510	Secundum atrial septal defect
745.580	Other specified atrial septal defect
745.590	Atrial septal defect, NOS
745.600	Ostium primum defects
745.610	Single common atrium, cor triloculare biventriculare
745.800	Other bulbus cordis anomalies and anomalies of cardiac septal closure
745.900	Unspecified defect of septal closure
747.430	Partial anomalous pulmonary venous return (PAPVR)
Non-severe: Valve Codes	
746.010	Pulmonary valve stenosis
746.830	Pulmonary infundibular stenosis
746.080	Other specified anomalies of the pulmonary valve
746.090	Unspecified anomaly of pulmonary valve
746.200	Ebstein anomaly
746.300	Aortic valve stenosis (includes valvar and subvalvar)
747.220	Supra-aortic stenosis (supra-valvar)
746.480	Other specified anomalies of aortic valve (including aortic valve atresia)
746.790	Unspecified anomalies of aortic valve
746.500	Congenital mitral stenosis

SUPPLEMENTAL MATERIAL

Table S1: CHD inclusions and exclusions

746.900	Unspecified anomalies of heart valves
746.995	Pulmonic or pulmonary atresia, stenosis, or hypoplasia, NOS
747.300	Pulmonary artery atresia, absence, or agenesis
747.310	Pulmonary artery atresia with septal defect
Non-severe: Other Codes	
745.700	Cor biloculare
746.820	Cor triatriatum
746.881	Hypoplastic left ventricle
746.882	Hypoplastic right heart/ ventricle (Uhl's disease)
746.883	Hypoplastic ventricle, NOS
746.885	Coronary artery anomaly
746.887	Other defects of the atria
746.910	Anomalous bands of heart
746.920	Acyanotic congenital heart disease, NOS
746.930	Cyanotic congenital heart disease, NOS
747.230—747.290	Anomalies of aorta (all types)
747.230	Persistent right aortic arch
747.240	Aneurysm of sinus of Valsalva
747.250	Vascular ring (includes double aortic arch)
747.260	Overriding aorta
747.270	Aortic aneurysm
747.280	Other specified anomalies of aorta
747.290	Unspecified anomalies of aorta
747.400	Stenosis of vena cava (inferior or superior)
747.410	Persistent left superior vena cava

NOS: Not otherwise specified

CHD case is excluded if ONLY has **one or more** of these codes:

745.xx8, 746.xx8, 747.xx8 ANY CHD code which is considered “possible or probable,” designated by using an “8” as the 6th digit.

745.500 Patent Foramen Ovale

SUPPLEMENTAL MATERIAL

Table S1: CHD inclusions and exclusions

746.020	Pulmonary insufficiency
746.105	Tricuspid valve insufficiency
746.400	Aortic insufficiency/Bicuspid aortic valve
746.600	Mitral insufficiency
746.800	Dextrocardia
746.810	Levocardia
746.850	Anomalies of pericardium
746.860	Anomalies of myocardium
746.870	Congenital heart block
746.880	Other specified anomaly of heart
746.886	Ventricular hypertrophy
746.990	Unspecified anomalies of heart
747.000	Patent Ductus Arteriosus
747.320 – 747.399	This includes ALL of the following codes, and any designation of left or right-sidedness (a “1” or “2” is used as 6 th digit for this purpose)
747.320	Pulmonary artery stenosis
747.325	Peripheral pulmonary artery stenosis
747.330	Aneurysm of pulmonary artery
747.340	Pulmonary AVM
747.380	Other specified anomaly of pulmonary artery
747.390	Unspecified anomaly of pulmonary artery
747.440	Anomalous portal vein termination
747.450	Portal-hepatic vein fistula
747.480	Other specified anomalies of great veins
747.490	Unspecified anomalies of great veins
747.500	Single umbilical artery
747.6xx	Other anomalies of peripheral vascular system, including:
747.600	Stenosis of renal artery
747.610	Other anomalies of renal artery
747.620	Arteriovenous malformation (peripheral)
747.630	Congenital phlebectasia, congenital varix
747.640	Other anomalies of peripheral arteries, including aberrant subclavian artery
747.650	Other anomalies of peripheral veins
747.680	Other anomalies of peripheral vascular system
747.690	Unspecified anomalies of peripheral vascular system
747.8xx	Other specified anomalies of circulatory system, including:
747.800	Arteriovenous (malformation) aneurysm of brain
747.810	Other anomalies of cerebral vessels
747.880	OS anomalies of circulatory system
747.9xx	Unspecified anomaly of circulatory system

SUPPLEMENTAL MATERIAL

Table S2: CDC/BPA Codes to Identify Non-Cardiac Congenital Anomalies

90000	Syphilis, congenital	228000	Hemangioma - Unspecified site
155000	Neoplasms - Liver	228010	Hemangioma - Skin and subcutaneous, NOS
159800	Neoplasms - Abdomen	228020	Hemangioma - Intracranial
162800	Neoplasms - Lung, laterality unk	228030	Hemangioma - Retinal, laterality unk
162801	Neoplasms - Lung, left	228031	Hemangioma - Retinal, left
162802	Neoplasms - Lung, right	228032	Hemangioma - Retinal, right
162803	Neoplasms - Lung, unilateral NOS	228033	Hemangioma - Retinal, unilateral NOS
162804	Neoplasms - Lung, bilateral	228034	Hemangioma - Retinal, bilateral
171800	Neoplasms - Connective tissue	228040	Hemangioma - intra-abdominal
186000	Neoplasms - Testes, laterality unk	228090	Hemangioma - Other sites
186001	Neoplasms - Testes, left	228100	Cystic hygroma, laterality unk
186002	Neoplasms - Testes, right	228101	Cystic hygroma, left
186003	Neoplasms - Testes, unilateral NOS	228102	Cystic hygroma, right
186004	Neoplasms - Testes, bilateral	228103	Cystic hygroma, unilateral NOS
189000	Wilms tumor - laterality unk	228104	Cystic hygroma, bilateral
189001	Wilms tumor - left	237700	Neurofibromatosis
189002	Wilms tumor - right	238000	Teratoma - NOS
189003	Wilms tumor - unilateral NOS	238010	Teratoma - Head and face
189004	Wilms tumor - bilateral	238020	Teratoma - Neck
190500	Retinoblastoma - laterality unk	238030	Teratoma - Abdomen
190501	Retinoblastoma - left eye	238040	Teratoma - Sacral or coccygeal
190502	Retinoblastoma - right eye	238080	Teratoma - Other specified
190503	Retinoblastoma - unilateral NOS	239200	Neck cyst, laterality unk
190504	Retinoblastoma - both eyes	239201	Neck cyst, left
191000	Neoplasms - CNS	239202	Neck cyst, right
194000	Neuroblastoma	239203	Neck cyst, unilateral NOS
202300	Histiocytosis, malignant	239204	Neck cyst, bilateral
208000	Leukemia - Congenital, NOS	253280	Hypopituitarism, congenital
214000	Lipoma - Skin and subcutaneous tissue of face, laterality unk	253820	Diencephalic syndrome
214001	Lipoma - Skin and subcutaneous tissue of left face	255200	Adrenogenital syndrome
214002	Lipoma - Skin and subcutaneous tissue of right face	257800	Testicular feminization syndrome
214003	Lipoma - Skin and subcutaneous tissue of face, unilateral NOS	272700	Lysosomal storage diseases
214004	Lipoma - Skin and subcutaneous tissue of both sides of face	277400	Disorders of bilirubin excretion
214100	Lipoma - Other skin and subcutaneous tissue	277500	Mucopolysaccharidoses
214200	Lipoma - Intrathoracic organs	277510	Hurler syndrome
214300	Lipoma - Intra-abdominal organs	279110	DiGeorge syndrome
214400	Lipoma - Spermatic cord, laterality unk	279200	Combined immunodeficiency syndrome
214401	Lipoma - Spermatic cord, left	331890	Familial degenerative CNS disease
214402	Lipoma - Spermatic cord, right	335000	Werdnig-Hoffman disease
214403	Lipoma - Spermatic cord, unilateral NOS	345600	Infantile spasms, congenital
214404	Lipoma - Spermatic cord, bilateral	352600	Moebius syndrome
214800	Lipoma - Other specified sites	362600	Retinal degeneration, peripheral, laterality unk
214810	Lipoma - Lumbar or sacral lipoma	362601	Retinal degeneration, peripheral, left eye
214900	Lipoma - Unspecified	362602	Retinal degeneration, peripheral, right eye
216920	Hairy nevus	362603	Retinal degeneration, peripheral, unilateral NOS
		362604	Retinal degeneration, peripheral, both eyes
		362700	Retinitis pigmentosa
		363200	Chorioretinitis, laterality unk
		363201	Chorioretinitis, left eye
		363202	Chorioretinitis, right eye
		363203	Chorioretinitis, unilateral NOS

SUPPLEMENTAL MATERIAL

Table S2: CDC/BPA Codes to Identify Non-Cardiac Congenital Anomalies

741990	Spina bifida without hydrocephalus - Unspecified site	742580	Other specified anomalies of spinal cord and membranes
742000	Encephalocele - Occipital	742800	Jaw-winking syndrome
742080	Encephalocele - Other specified site	742810	Familial dysautonomia
742085	Encephalocele - Frontal	742880	Other specified anomalies of nervous system
742086	Encephalocele - Parietal	742900	Unspecified anomalies - Brain
742090	Encephalocele - Unspecified site	742910	Unspecified anomalies - Spinal cord
742100	Microcephalus	742990	Unspecified anomalies - Nervous system
742200	Anomalies of cerebrum	743000	Anophthalmos, laterality unk
742210	Anomalies of corpus callosum	743001	Anophthalmos, left eye
742220	Anomalies of hypothalamus	743002	Anophthalmos, right eye
742230	Anomalies of cerebellum	743003	Anophthalmos, unilateral NOS
742235	Cerebellar Hypoplasia	743004	Anophthalmos, both eyes
742240	Agyria and lissencephaly	743100	Microphthalmos, laterality unk
742250	Microgyria	743101	Microphthalmos, left eye
742260	Holoprosencephaly	743102	Microphthalmos, right eye
742270	Arhinencephaly	743103	Microphthalmos, unilateral NOS
742280	Other specified reduction defect of brain	743104	Microphthalmos, both eyes
742290	Unspecified reduction defect of brain	743200	Buphthalmos, laterality unk
742300	Anomalies of aqueduct of Sylvius	743201	Buphthalmos, left eye
742310	Dandy-Walker syndrome	743202	Buphthalmos, right eye
742320	Hydranencephaly	743203	Buphthalmos, unilateral NOS
742380	Other specified hydrocephaly	743204	Buphthalmos, both eyes
742390	Unspecified hydrocephaly	743210	Enlarged eye, NOS, laterality unk
742400	Enlarged brain or head	743211	Enlarged eye, NOS, left eye
742410	Porencephaly, laterality unk	743212	Enlarged eye, NOS, right eye
742411	Porencephaly, left side of brain	743213	Enlarged eye, NOS, unilateral NOS
742412	Porencephaly, right side of brain	743214	Enlarged eye, NOS, both eyes
742413	Porencephaly, unilateral NOS	743220	Enlarged cornea, laterality unk
742414	Porencephaly, both sides of brain	743221	Enlarged cornea, left eye
742420	Cerebral cyst, laterality unk	743222	Enlarged cornea, right eye
742421	Cerebral cyst, left side of brain	743223	Enlarged cornea, unilateral NOS
742422	Cerebral cyst, right side of brain	743224	Enlarged cornea, both eyes
742423	Cerebral cyst, unilateral NOS	743300	Lens - Absence, laterality unk
742424	Cerebral cyst, both sides of brain	743301	Lens - Absence, left eye
742480	Other specified anomalies of brain, laterality unk	743302	Lens - Absence, right eye
742481	Other specified anomalies of brain, left	743303	Lens - Absence, unilateral NOS
742482	Other specified anomalies of brain, right	743304	Lens - Absence, both eyes
742483	Other specified anomalies of brain, unilateral NOS	743310	Lens - Spherical, laterality unk
742484	Other specified anomalies of brain, bilateral	743311	Lens - Spherical, left eye
742485	Ventricular cysts	743312	Lens - Spherical, right eye
742486	Small brain	743313	Lens - Spherical, unilateral NOS
742500	Amyelia	743314	Lens - Spherical, both eyes
742510	Hypoplasia or dysplasia of spinal cord	743320	Cataract - NOS, laterality unk
742520	Diastematomyelia	743321	Cataract - NOS, left eye
742530	Other cauda equina anomalies	743322	Cataract - NOS, right eye
742540	Hydromyelia	743323	Cataract - NOS, unilateral NOS
		743324	Cataract - NOS, both eyes
		743325	Cataract - Anterior polar
		743326	Cataract - Other specified

SUPPLEMENTAL MATERIAL

Table S2: CDC/BPA Codes to Identify Non-Cardiac Congenital Anomalies

743330	Lens - Displaced, laterality unk	743482	Anterior segment - Other specified colobomas and anomalies, right eye
743331	Lens - Displaced, left eye	743483	Anterior segment - Other specified colobomas and anomalies, unilateral NOS
743332	Lens - Displaced, right eye	743484	Anterior segment - Other specified colobomas and anomalies, both eyes
743333	Lens - Displaced, unilateral NOS	743490	Anterior segment - Unspecified colobomas and anomalies, laterality unk
743334	Lens - Displaced, both eyes	743491	Anterior segment - Unspecified colobomas and anomalies, left eye
743340	Lens - Coloboma, laterality unk	743492	Anterior segment - Unspecified colobomas and anomalies, right eye
743341	Lens - Coloboma, left eye	743493	Anterior segment - Unspecified colobomas and anomalies, unilateral NOS
743342	Lens - Coloboma, right eye	743494	Anterior segment - Unspecified colobomas and anomalies, both eyes
743343	Lens - Coloboma, unilateral	743500	Vitreous humor - Specified anomalies, laterality unk
743344	Lens - Coloboma, both eyes	743501	Vitreous humor - Specified anomalies, left eye
743380	Lens - Other specified anomalies, laterality unk	743502	Vitreous humor - Specified anomalies, right eye
743381	Lens - Other specified anomalies, left eye	743503	Vitreous humor - Specified anomalies, unilateral NOS
743382	Lens - Other specified anomalies, right eye	743504	Vitreous humor - Specified anomalies, both eyes
743383	Lens - Other specified anomalies, unilateral	743510	Retina - Specified anomalies, laterality unk
743384	Lens - Other specified anomalies, both eyes	743511	Retina - Specified anomalies, left eye
743390	Lens - Unspecified anomalies, laterality unk	743512	Retina - Specified anomalies, right eye
743391	Lens - Unspecified anomalies, left eye	743513	Retina - Specified anomalies, unilateral NOS
743392	Lens - Unspecified anomalies, right eye	743514	Retina - Specified anomalies, both eyes
743393	Lens - Unspecified anomalies, unilateral NOS	743520	Optic disk - Specified anomalies, laterality unk
743394	Lens - Unspecified anomalies, both eyes	743521	Optic disk - Specified anomalies, left eye
743400	Cornea - Opacity, laterality unk	743522	Optic disk - Specified anomalies, right eye
743401	Cornea - Opacity, left eye	743523	Optic disk - Specified anomalies, unilateral NOS
743402	Cornea - Opacity, right eye	743524	Optic disk - Specified anomalies, both eyes
743403	Cornea - Opacity, unilateral NOS	743530	Choroid - Specified anomalies, laterality unk
743404	Cornea - Opacity, both eyes	743531	Choroid - Specified anomalies, left eye
743410	Cornea - Other anomalies, laterality unk	743532	Choroid - Specified anomalies, right eye
743411	Cornea - Other anomalies, left eye	743533	Choroid - Specified anomalies, unilateral NOS
743412	Cornea - Other anomalies, right eye	743534	Choroid - Specified anomalies, both eyes
743413	Cornea - Other anomalies, unilateral NOS	743535	Choroid - Coloboma
743414	Cornea - Other anomalies, both eyes	743580	Posterior segment - Other specified anomalies, laterality unk
743420	Iris - Absence, laterality unk	743581	Posterior segment - Other specified anomalies, left eye
743421	Iris - Absence, left eye	743582	Posterior segment - Other specified anomalies, right eye
743422	Iris - Absence, right eye	743583	Posterior segment - Other specified anomalies, unilateral NOS
743423	Iris - Absence, unilateral NOS	743584	Posterior segment - Other specified anomalies, both eyes
743424	Iris - Absence, both eyes	743590	Posterior segment - Unspecified anomalies, laterality unk
743430	Iris - Coloboma, laterality unk		
743431	Iris - Coloboma, left eye		
743432	Iris - Coloboma, right eye		
743433	Iris - Coloboma, unilateral NOS		
743434	Iris - Coloboma, both eyes		
743440	Iris - Other anomalies, laterality unk		
743441	Iris - Other anomalies, left eye		
743442	Iris - Other anomalies, right eye		
743443	Iris - Other anomalies, unilateral NOS		
743444	Iris - Other anomalies, both eyes		
743480	Anterior segment - Other specified colobomas and anomalies, laterality unk		
743481	Anterior segment - Other specified colobomas and anomalies, left eye		

SUPPLEMENTAL MATERIAL

Table S2: CDC/BPA Codes to Identify Non-Cardiac Congenital Anomalies

743591	Posterior segment - Unspecified anomalies, left eye	743674	Anomalies of orbit, both eyes
743592	Posterior segment - Unspecified anomalies, right eye	743800	Eye - Other specified anomalies , laterality unk
743593	Posterior segment - Unspecified anomalies, unilateral NOS	743801	Eye - Other specified anomalies , left eye
743594	Posterior segment - Unspecified anomalies, both eye	743802	Eye - Other specified anomalies , right eye
743600	Blepharoptosis, laterality unk	743803	Eye - Other specified anomalies , unilateral NOS
743601	Blepharoptosis, left eye	743804	Eye - Other specified anomalies, both eyes
743602	Blepharoptosis, right eye	743810	Epibulbar dermoid cyst, laterality unk
743603	Blepharoptosis, unilateral NOS	743811	Epibulbar dermoid cyst, left eye
743604	Blepharoptosis, both eyes	743812	Epibulbar dermoid cyst, right eye
743610	Ectropion, laterality unk	743813	Epibulbar dermoid cyst, unilateral NOS
743611	Ectropion, left eye	743814	Epibulbar dermoid cyst, both eyes
743612	Ectropion, right eye	743900	Eye - Unspecified anomalies, laterality unk
743613	Ectropion, unilateral NOS	743901	Eye - Unspecified anomalies, left eye
743614	Ectropion, both eyes	743902	Eye - Unspecified anomalies, right eye
743620	Entropion, laterality unk	743903	Eye - Unspecified anomalies, unilateral NOS
743621	Entropion, left eye	743904	Eye - Unspecified anomalies, both eyes
743622	Entropion, right eye	744000	Auditory canal - Absence or stricture, laterality unk
743623	Entropion, unilateral NOS	744001	Auditory canal - Absence or stricture, left ear
743624	Entropion, both eyes	744002	Auditory canal - Absence or stricture, right ear
743630	Eyelids - Other anomalies, laterality unk	744003	Auditory canal - Absence or stricture, unilateral NOS
743631	Eyelids - Other anomalies, left eye	744004	Auditory canal - Absence or stricture, both ears
743632	Eyelids - Other anomalies, right eye	744010	External ear - Absence, laterality unk
743633	Eyelids - Other anomalies, unilateral NOS	744011	External ear - Absence, left ear
743634	Eyelids - Other anomalies, both eyes	744012	External ear - Absence, right ear
743635	Blepharophimosis	744013	External ear - Absence, unilateral NOS
743636	Eyelids - Coloboma	744014	External ear - Absence, both ears
743640	Lacrimal apparatus - Absence or agenesis, laterality unk	744020	Middle ear - Anomaly, laterality unk
743641	Lacrimal apparatus - Absence or agenesis, left eye	744021	Middle ear - Anomaly, left ear
743642	Lacrimal apparatus - Absence or agenesis, right eye	744022	Middle ear - Anomaly, right ear
743643	Lacrimal apparatus - Absence or agenesis, unilateral NOS	744023	Middle ear - Anomaly, unilateral NOS
743644	Lacrimal apparatus - Absence or agenesis, both eyes	744024	Middle ear - Anomaly, both ears
743660	Lacrimal duct - Other anomalies, laterality unk	744030	Inner ear - Anomaly, laterality unk
743661	Lacrimal duct - Other anomalies, left eye	744031	Inner ear - Anomaly, left ear
743662	Lacrimal duct - Other anomalies, right eye	744032	Inner ear - Anomaly, right ear
743663	Lacrimal duct - Other anomalies, unilateral NOS	744033	Inner ear - Anomaly, unilateral NOS
743664	Lacrimal duct - Other anomalies, both eyes	744034	Inner ear - Anomaly, both ears
743670	Anomalies of orbit, laterality unk	744090	Ear - Unspecified anomalies with hearing impairment, laterality unk
743671	Anomalies of orbit, left eye	744091	Ear - Unspecified anomalies with hearing impairment, left ear
743672	Anomalies of orbit, right eye	744092	Ear - Unspecified anomalies with hearing impairment, right ear
743673	Anomalies of orbit, unilateral NOS	744093	Ear - Unspecified anomalies with hearing impairment, unilateral NOS
		744094	Ear - Unspecified anomalies with hearing impairment, both ears
		744100	External ear - Accessory auricle or polyotia
		744110	Preauricular (in front of ear canal) appendage, tag, or lobule

SUPPLEMENTAL MATERIAL

Table S2: CDC/BPA Codes to Identify Non-Cardiac Congenital Anomalies

744120	Other ear tag, appendage, lobule, or papilloma	744402	Branchial cleft, sinus, fistula, cyst, or pit, right
744200	Macrotia, laterality unk	744403	Branchial cleft, sinus, fistula, cyst, or pit, unilateral NOS
744201	Macrotia, left ear	744404	Branchial cleft, sinus, fistula, cyst, or pit, bilateral
744202	Macrotia, right ear	744480	Other branchial cleft anomalies, laterality unk
744203	Macrotia, unilateral NOS	744481	Other branchial cleft anomalies, left
744204	Macrotia, both ears	744482	Other branchial cleft anomalies, right
744210	Microtia, laterality unk	744483	Other branchial cleft anomalies, unilateral NOS
744211	Microtia, left ear	744484	Other branchial cleft anomalies, bilateral
744212	Microtia, right ear	744800	Macrostomia
744213	Microtia, unilateral NOS	744810	Microstomia
744214	Microtia, both ears	744880	Other specified anomalies of face or neck, laterality unk
744230	External ear - Other misshapen, laterality unk	744881	Other specified anomalies of face or neck, left
744231	External ear - Other misshapen, left ear	744882	Other specified anomalies of face or neck, right
744232	External ear - Other misshapen, right ear	744883	Other specified anomalies of face or neck, unilateral NOS
744233	External ear - Other misshapen, unilateral NOS	744884	Other specified anomalies of face or neck, bilateral
744234	External ear - Other misshapen, both ears	744900	Congenital anomaly of neck, NOS
744240	External ear - Misplaced, laterality unk	744910	Congenital anomaly of face, NOS
744241	External ear - Misplaced, left ear	748000	Choanal atresia, laterality unk
744242	External ear - Misplaced, right ear	748001	Choanal atresia, left
744243	External ear - Misplaced, unilateral NOS	748002	Choanal atresia, right
744244	External ear - Misplaced, both ears	748003	Choanal atresia, unilateral NOS
744250	Eustachian tube - Absence or anomaly, laterality unk	748004	Choanal atresia, bilateral
744251	Eustachian tube - Absence or anomaly, left ear	748100	Nose - Agenesis or underdevelopment, laterality unk
744252	Eustachian tube - Absence or anomaly, right ear	748101	Nose - Agenesis or underdevelopment, left
744253	Eustachian tube - Absence or anomaly, unilateral NOS	748102	Nose - Agenesis or underdevelopment, right
744254	Eustachian tube - Absence or anomaly, both ears	748103	Nose - Agenesis or underdevelopment, unilateral NOS
744280	Ear - Other specified anomalies, laterality unk	748104	Nose - Agenesis or underdevelopment, bilateral
744281	Ear - Other specified anomalies, left ear	748110	Nose - Accessory
744282	Ear - Other specified anomalies, right ear	748120	Nose - Fissured, notched, or cleft, laterality unk
744283	Ear - Other specified anomalies, unilateral NOS	748121	Nose - Fissured, notched, or cleft, left
744284	Ear - Other specified anomalies, both ears	748122	Nose - Fissured, notched, or cleft, right
744300	Ear - Unspecified anomalies, laterality unk	748123	Nose - Fissured, notched, or cleft, unilateral NOS
744301	Ear - Unspecified anomalies, left ear	748124	Nose - Fissured, notched, or cleft, bilateral
744302	Ear - Unspecified anomalies, right ear	748130	Sinus wall anomalies
744303	Ear - Unspecified anomalies, unilateral NOS	748140	Nasal septum - Perforated
744304	Ear - Unspecified anomalies, both ears	748180	Nose - Other specified anomalies, laterality unk
744400	Branchial cleft, sinus, fistula, cyst, or pit, laterality unk	748181	Nose - Other specified anomalies, left
744401	Branchial cleft, sinus, fistula, cyst, or pit, left	748182	Nose - Other specified anomalies, right
		748183	Nose - Other specified anomalies, unilateral NOS
		748184	Nose - Other specified anomalies, bilateral
		748185	Nose - Tubular, single, proboscis
		748190	Nose - Unspecified anomalies
		748205	Laryngeal web - Glottic
		748206	Laryngeal web - Subglottic

SUPPLEMENTAL MATERIAL

Table S2: CDC/BPA Codes to Identify Non-Cardiac Congenital Anomalies

748209	Laryngeal web - Site unspecified	748511	Lung - Hypoplasia, left
748300	Larynx and supporting cartilage - Other anomalies	748512	Lung - Hypoplasia, right
748310	Subglottic stenosis - Congenital	748513	Lung - Hypoplasia, unilateral NOS
748330	Trachea - Other anomalies	748514	Lung - Hypoplasia, bilateral
748340	Bronchus - Stenosis, laterality unk	748520	Lung - Sequestration, laterality unk
748341	Bronchus - Stenosis, left	748521	Lung - Sequestration, left
748342	Bronchus - Stenosis, right	748522	Lung - Sequestration, right
748343	Bronchus - Stenosis, unilateral NOS	748523	Lung - Sequestration, unilateral NOS
748344	Bronchus - Stenosis, bilateral	748524	Lung - Sequestration, bilateral
748350	Bronchus - Other anomalies, laterality unk	748580	Lung - Other specified dysplasia, laterality unk
748351	Bronchus - Other anomalies, left	748581	Lung - Other specified dysplasia, left
748352	Bronchus - Other anomalies, right	748582	Lung - Other specified dysplasia, right
748353	Bronchus - Other anomalies, unilateral NOS	748583	Lung - Other specified dysplasia, unilateral NOS
748354	Bronchus - Other anomalies, bilateral	748584	Lung - Other specified dysplasia, bilateral
748360	Laryngeal stridor - Congenital	748590	Lung - Unspecified dysplasia, laterality unk
748380	Larynx, bronchus - Other specified anomalies	748591	Lung - Unspecified dysplasia, left
748385	Larynx - Cleft	748592	Lung - Unspecified dysplasia, right
748390	Larynx, trachea, bronchus - Unspecified anomalies	748593	Lung - Unspecified dysplasia, unilateral NOS
748400	Lung - Single cyst, laterality unk	748594	Lung - Unspecified dysplasia, bilateral
748401	Lung - Single cyst, left	748600	Lung - Ectopic tissue, laterality unk
748402	Lung - Single cyst, right	748601	Lung - Ectopic tissue, left
748403	Lung - Single cyst, unilateral NOS	748602	Lung - Ectopic tissue, right
748410	Lung - Multiple cysts, laterality unk	748603	Lung - Ectopic tissue, unilateral NOS
748411	Lung - Multiple cysts, left	748604	Lung - Ectopic tissue, bilateral
748412	Lung - Multiple cysts, right	748610	Bronchiectasis, laterality unk
748413	Lung - Multiple cysts, unilateral NOS	748611	Bronchiectasis, left
748414	Lung - Multiple cysts, bilateral	748612	Bronchiectasis, right
748420	Lung - Honeycomb, laterality unk	748613	Bronchiectasis, unilateral NOS
748421	Lung - Honeycomb, left	748614	Bronchiectasis, bilateral
748422	Lung - Honeycomb, right	748620	Lung - Accessory lobe, laterality unk
748423	Lung - Honeycomb, unilateral NOS	748621	Lung - Accessory lobe, left
748424	Lung - Honeycomb, bilateral	748622	Lung - Accessory lobe, right
748480	Lung - Other specified congenital cystic, laterality unk	748623	Lung - Accessory lobe, unilateral NOS
748481	Lung - Other specified congenital cystic, left	748624	Lung - Accessory lobe, bilateral
748482	Lung - Other specified congenital cystic, right	748625	Bilobar right lung
748483	Lung - Other specified congenital cystic, unilateral NOS	748690	Lung - Other and unspecified anomalies, laterality unk
748484	Lung - Other specified congenital cystic, bilateral	748691	Lung - Other and unspecified anomalies, left
748500	Lung - Agenesis or aplasia, laterality unk	748692	Lung - Other and unspecified anomalies, right
748501	Lung - Agenesis or aplasia, left	748693	Lung - Other and unspecified anomalies, unilateral NOS
748502	Lung - Agenesis or aplasia, right	748694	Lung - Other and unspecified anomalies, bilateral
748503	Lung - Agenesis or aplasia, unilateral NOS	748800	Pleural anomaly, laterality unk
748504	Lung - Agenesis or aplasia, bilateral	748801	Pleural anomaly, left
748510	Lung - Hypoplasia, laterality unk	748802	Pleural anomaly, right
		748803	Pleural anomaly, unilateral NOS
		748804	Pleural anomaly, bilateral
		748810	Mediastinum - Congenital cyst
		748880	Respiratory system - Other specified anomalies, laterality unk

SUPPLEMENTAL MATERIAL

Table S2: CDC/BPA Codes to Identify Non-Cardiac Congenital Anomalies

748881	Respiratory system - Other specified anomalies, left	750310	Esophageal atresia - With tracheoesophageal (T-E) fistula (TEF)
748882	Respiratory system - Other specified anomalies, right	750320	Tracheoesophageal (T-E) fistula (TEF) - Without esophageal atresia
748883	Respiratory system - Other specified anomalies, unilateral NOS	750325	Tracheoesophageal (T-E) fistula (TEF) - "H" type
748884	Respiratory system - Other specified anomalies, bilateral	750330	Bronchoesophageal fistula - With or without esophageal atresia
748900	Respiratory system - Unspecified anomalies	750340	Esophagus - Stenosis or stricture
749000	Cleft hard palate - Unilateral, without cleft lip	750350	Esophageal web
749010	Cleft hard palate - Bilateral, without cleft lip	750380	Trachea and esophagus - Other anomalies
749020	Cleft hard palate - Central, without cleft lip	750400	Esophagus - Congenital dilatation
749030	Cleft hard palate - NOS, without cleft lip	750410	Esophagus - Displaced
749040	Cleft soft palate - Unilateral, without cleft lip	750420	Esophagus - Diverticulum
749050	Cleft soft palate - Bilateral, without cleft lip	750430	Esophagus - Duplication
749060	Cleft soft palate - Central, without cleft lip	750480	Esophagus - Other specified anomalies
749070	Cleft soft palate - NOS, without cleft lip	750510	Pyloric stenosis - Congenital hypertrophic
749080	Cleft uvula, without cleft lip	750580	Pyloric obstruction - Other congenital
749090	Cleft palate - NOS, hard or soft not specified, without cleft lip	750600	Hiatal hernia - Congenital
749100	Cleft lip - Unilateral, without cleft palate	750700	Stomach - Microgastria
749110	Cleft lip - Bilateral, without cleft palate	750710	Stomach - Megalogastric
749120	Cleft lip - Central, without cleft palate	750720	Stomach - Cardiospasm
749190	Cleft lip - NOS, without cleft palate	750730	Stomach - Displacement or transposition
749200	Cleft lip - Unilateral, with any cleft palate	750740	Stomach - Diverticulum
749210	Cleft lip - Bilateral, with any cleft palate	750750	Stomach - Duplication
749220	Cleft lip - Central, with any cleft palate	750780	Stomach - Other specified anomalies
749290	Cleft lip - NOS, with any cleft palate	750800	Upper alimentary tract - Other specified anomalies
750000	Ankyloglossia	750900	Mouth and pharynx - Unspecified anomalies
750100	Tongue - Absence	750910	Esophagus - Unspecified anomalies
750110	Tongue - Small	750920	Stomach - Unspecified anomalies
750120	Tongue - Large	750990	Upper alimentary tract - Unspecified anomalies
750130	Tongue - Dislocation or displacement	751000	Omphalomesenteric duct - persistent
750140	Tongue - Cleft or split	751100	Duodenum - Stenosis, atresia or absence
750180	Tongue - Other specified anomalies	751110	Jejunum - Stenosis, atresia or absence of jejunum
750190	Tongue - Unspecified anomalies	751120	Ileum - Stenosis, atresia or absence
750200	Pharyngeal pouch	751190	Small intestine, NOS - Stenosis, atresia or absence
750210	Pharynx - Other anomalies	751195	Small intestine, NOS - Stenosis, atresia or absence, with fistula
750230	Salivary glands or ducts - Other anomalies	751200	Large intestine - Stenosis, atresia or absence
750250	Palate - Other anomalies	751210	Rectum - Stenosis, atresia or absence, with fistula
750260	Lip - fistulae or pits	751220	Rectum - Stenosis, atresia or absence without mention of fistula
750270	Lip - Other anomalies	751230	Anus - Stenosis, atresia or absence, with fistula
750280	Mouth and pharynx - Other specified anomalies	751240	Anus - Stenosis, atresia or absence, without mention of fistula
750300	Esophageal atresia - Without tracheoesophageal (T-E) fistula (TEF)	751300	Hirschsprung's disease - Total intestinal aganglionosis

SUPPLEMENTAL MATERIAL

Table S2: CDC/BPA Codes to Identify Non-Cardiac Congenital Anomalies

751310	Hirschsprung's disease - Long-segment (aganglionosis beyond the rectum)	752003	Ovary - Absence or agenesis, unilateral NOS
751320	Hirschsprung's disease - Short-segment (aganglionosis involving no more than the anal sphincter and the rectum)	752004	Ovary - Absence or agenesis, bilateral
751330	Hirschsprung's disease - NOS	752010	Ovary - Streak, laterality unk
751340	Megacolon - congenital	752011	Ovary - Streak, left
751400	Malrotation - cecum and/or colon	752012	Ovary - Streak, right
751410	Mesentery anomalies	752013	Ovary - Streak, unilateral NOS
751420	Congenital adhesions or bands of omentum and peritoneum	752014	Ovary - Streak, bilateral
751490	Malrotation - Other specified and unspecified	752020	Ovary - Accessory, laterality unk
751495	Malrotation - small intestine only	752021	Ovary - Accessory, left
751500	Duplication of anus, rectum, appendix, cecum, or intestine	752022	Ovary - Accessory, right
751510	Transposition of appendix, colon, or intestine	752023	Ovary - Accessory, unilateral NOS
751520	Microcolon	752024	Ovary - Accessory, bilateral
751530	Anus - Ectopic	752080	Ovary - Other specified anomalies, laterality unk
751540	Anal fistula - Congenital	752081	Ovary - Other specified anomalies, left
751550	Cloaca - Persistent cloaca	752082	Ovary - Other specified anomalies, right
751555	Cloaca - Exstrophy	752083	Ovary - Other specified anomalies, unilateral NOS
751560	Duodenum - Web	752084	Ovary - Other specified anomalies, bilateral
751580	Intestine - Other specified anomalies	752085	Ovary - Multiple cysts
751590	Intestine - Unspecified anomalies	752090	Ovary - Unspecified anomalies, laterality unk
751600	Liver - Absence or agenesis, total or partial	752091	Ovary - Unspecified anomalies, left
751610	Liver - Cystic or fibrocystic disease	752092	Ovary - Unspecified anomalies, right
751620	Liver - Other anomalies	752093	Ovary - Unspecified anomalies, unilateral NOS
751630	Gallbladder - Agenesis or hypoplasia	752094	Ovary - Unspecified anomalies, bilateral
751640	Gallbladder - Other anomalies	752100	Fallopian tube - Absent, laterality unk
751650	Hepatic or bile ducts - Agenesis or atresia	752101	Fallopian tube - Absent, left
751660	Choledochal cyst	752102	Fallopian tube - Absent, right
751670	Hepatic or bile ducts - Other anomalies	752103	Fallopian tube - Absent, unilateral NOS
751680	Biliary tract - Other anomalies	752104	Fallopian tube - Absent, bilateral
751700	Pancreas - Absence, agenesis or hypoplasia	752110	Cyst - Mesenteric remnant
751710	Pancreas - accessory	752120	Cyst - Fimbrial cyst, laterality unk
751720	Pancreas - Annular	752121	Cyst - Fimbrial cyst, left
751730	Pancreas - Ectopic	752122	Cyst - Fimbrial cyst, right
751740	Pancreas - Cyst	752123	Cyst - Fimbrial cyst, unilateral NOS
751780	Pancreas - Other specified anomalies	752124	Cyst - Fimbrial cyst, bilateral
751790	Pancreas - Unspecified anomalies	752190	Fallopian tube - Other and unspecified anomalies, laterality unk
751800	Alimentary tract - Absence, complete or partial, NOS	752191	Fallopian tube - Other and unspecified anomalies, left
751810	Alimentary tract - Duplication, NOS	752192	Fallopian tube - Other and unspecified anomalies, right
751880	Digestive system - Other specified anomalies	752193	Fallopian tube - Other and unspecified anomalies, unilateral NOS
751900	Digestive system - Unspecified anomalies	752194	Fallopian tube - Other and unspecified anomalies, bilateral
752000	Ovary - Absence or agenesis, laterality unk	752200	Uterus - Double
752001	Ovary - Absence or agenesis, left	752300	Uterus - Absence or agenesis
752002	Ovary - Absence or agenesis, right	752310	Uterus - Displaced
		752320	Uterus - Fistula with digestive or urinary tract
		752380	Uterus - Other anomalies
		752390	Uterus - Unspecified anomalies

SUPPLEMENTAL MATERIAL

Table S2: CDC/BPA Codes to Identify Non-Cardiac Congenital Anomalies

752400	Cervix - Absence, atresia or agenesis	752804	Testicle - Absent, bilateral
752410	Vagina - Absence or atresia	752810	Testicle and scrotum - Aplasia, laterality unk
752420	Fistula - Congenital rectovaginal	752811	Testicle and scrotum - Aplasia, left
752440	Vulva - Absence or other anomaly	752812	Testicle and scrotum - Aplasia, right
752450	Clitoris - Absence or other anomaly	752813	Testicle and scrotum - Aplasia, unilateral NOS
752470	Vagina - Other cyst	752814	Testicle and scrotum - Aplasia, bilateral
752480	External female genitalia - Other specified anomalies	752820	Testicle and scrotum - Other anomalies
752490	External female genitalia - Unspecified anomalies	752830	Vas deferens - Atresia, laterality unk
752500	Testicle - Undescended or unpalpable, unilateral NOS	752831	Vas deferens - Atresia, left
752501	Testicle - Undescended or unpalpable, left	752832	Vas deferens - Atresia, right
752502	Testicle - Undescended or unpalpable, right	752833	Vas deferens - Atresia, unilateral NOS
752514	Testicle - Undescended or unpalpable, bilateral	752834	Vas deferens - Atresia, bilateral
752520	Testicle - Undescended or unpalpable, laterality unk	752840	Vas deferens and prostate - Other anomalies
752530	Testicle - Ectopic, laterality unk	752850	Penis - Absence or aplasia
752531	Testicle - Ectopic, left	752860	Penis - Other anomalies
752532	Testicle - Ectopic, right	752865	Penis - small or hypoplastic
752533	Testicle - Ectopic, unilateral NOS	752870	Cysts of embryonic remnants
752534	Testicle - Ectopic, bilateral	752880	Genital organs, male - Other specified anomalies
752600	Hypospadias without chordee - Degree not specified	752900	Genital organs, male - Unspecified anomalies
752605	Hypospadias without chordee - First-degree (glandular or coronal)	753000	Kidneys - Absence, agenesis, dysplasia, or hypoplasia - Bilateral
752606	Hypospadias without chordee - Second-degree (penile)	753009	Kidneys - Absence, agenesis, dysplasia, or hypoplasia - NOS
752607	Hypospadias without chordee - Third-degree (perineal or scrotal)	753010	Kidney - Absence, agenesis, dysplasia, or hypoplasia, laterality unk
752610	Epispadias	753011	Kidney - Absence, agenesis, dysplasia, or hypoplasia, unilateral, left
752620	Chordee, congenital, with hypospadias - Degree not specified	753012	Kidney - Absence, agenesis, dysplasia, or hypoplasia, unilateral, right
752621	Chordee, congenital, alone (no hypospadias)	753013	Kidney - Absence, agenesis, dysplasia, or hypoplasia, unilateral, NOS
752625	Chordee, congenital, with first-degree hypospadias (glandular or coronal)	753100	Kidney - Single cyst, laterality unk
752626	Chordee, congenital, with second-degree hypospadias (penile)	753101	Kidney - Single cyst, left
752627	Chordee, congenital, with third-degree hypospadias (perineal or scrotal)	753102	Kidney - Single cyst, right
752700	True hermaphroditism	753103	Kidney - Single cyst, unilateral NOS
752710	Pseudohermaphroditism in a male	753110	Kidneys, polycystic - Infantile type, laterality unk
752720	Pseudohermaphroditism in a female	753111	Kidneys, polycystic - Infantile type, left
752730	Pseudohermaphroditism, sex not specified	753112	Kidneys, polycystic - Infantile type, right
752790	Indeterminate sex, NOS	753113	Kidneys, polycystic - Infantile type, unilateral NOS
752800	Testicle - Absent, laterality unk	753114	Kidneys, polycystic - Infantile type, bilateral
752801	Testicle - Absent, left	753120	Kidneys, polycystic - Adult type, Laterality Unk
752802	Testicle - Absent, right	753121	Kidneys, polycystic - Adult type, Left
752803	Testicle - Absent, unilateral NOS	753122	Kidneys, polycystic - Adult type, Right
		753123	Kidneys, polycystic - Adult type, Unilateral NOS
		753124	Kidneys, polycystic - Adult type, Bilateral
		753130	Kidneys, polycystic -Type not specified, Laterality Unk
		753131	Kidneys, polycystic - Type not specified, Left
		753132	Kidneys, polycystic - Type not specified, Right

SUPPLEMENTAL MATERIAL

Table S2: CDC/BPA Codes to Identify Non-Cardiac Congenital Anomalies

753133	Kidneys, polycystic - Type not specified, Unilateral NOS	753214	Ureter - Atresia, stricture, or stenosis, Bilateral
753134	Kidneys, polycystic - Type not specified, Bilateral	753220	Megaloureter, NOS, Laterality Unk
753140	Kidneys, medullary cystic disease - Juvenile type, Laterality Unk	753221	Megaloureter, NOS, Left
753141	Kidneys, medullary cystic disease - Juvenile type, Left	753222	Megaloureter, NOS, Right
753142	Kidneys, medullary cystic disease - Juvenile type, Right	753223	Megaloureter, NOS, Unilateral NOS
753143	Kidneys, medullary cystic disease - Juvenile type, Unilateral NOS	753224	Megaloureter, NOS, Bilateral
753144	Kidneys, medullary cystic disease - Juvenile type, Bilateral	753290	Renal pelvis and ureter - Other and unspecified obstructive defects, Laterality Unk
753150	Kidneys, medullary cystic disease - Adult type, Laterality Unk	753291	Renal pelvis and ureter - Other and unspecified obstructive defects, Left
753151	Kidneys, medullary cystic disease - Adult type, Left	753292	Renal pelvis and ureter - Other and unspecified obstructive defects, Right
753152	Kidneys, medullary cystic disease - Adult type, Right	753293	Renal pelvis and ureter - Other and unspecified obstructive defects, Unilateral NOS
753153	Kidneys, medullary cystic disease - Adult type, Unilateral NOS	753294	Renal pelvis and ureter - Other and unspecified obstructive defects, Bilateral
753154	Kidneys, medullary cystic disease - Adult type, Bilateral	753300	Kidney - Accessory kidney, Laterality Unk
753160	Kidneys, multicystic dysplasia, Laterality Unk	753301	Kidney - Accessory kidney, Left
753161	Kidneys, multicystic dysplasia, Left	753302	Kidney - Accessory kidney, Right
753162	Kidneys, multicystic dysplasia, Right	753303	Kidney - Accessory kidney, Unilateral NOS
753163	Kidneys, multicystic dysplasia, Unilateral NOS	753304	Kidney - Accessory kidney, Bilateral
753164	Kidneys, multicystic dysplasia, Bilateral	753310	Kidney - Double or triple, Laterality Unk
753180	Kidneys, cystic - Other specified types, Laterality Unk	753311	Kidney - Double or triple, Left
753181	Kidneys, cystic - Other specified types, Left	753312	Kidney - Double or triple, Right
753182	Kidneys, cystic - Other specified types, Right	753313	Kidney - Double or triple, Unilateral NOS
753183	Kidneys, cystic - Other specified types, Unilateral NOS	753314	Kidney - Double or triple, Bilateral
753184	Kidneys, cystic - Other specified types, Bilateral	753320	Kidney - Lobulated, fused, or horseshoe, Laterality Unk
753200	Hydronephrosis, congenital, Laterality Unk	753321	Kidney - Lobulated, fused, or horseshoe, Left
753201	Hydronephrosis, congenital, Left	753322	Kidney - Lobulated, fused, or horseshoe, Right
753202	Hydronephrosis, congenital, Right	753323	Kidney - Lobulated, fused, or horseshoe, Unilateral NOS
753203	Hydronephrosis, congenital, Unilateral NOS	753324	Kidney - Lobulated, fused, or horseshoe, Bilateral
753204	Hydronephrosis, congenital, Bilateral	753330	Kidney - Ectopic, Laterality Unk
753210	Ureter - Atresia, stricture, or stenosis, Laterality Unk	753331	Kidney - Ectopic, Left
753211	Ureter - Atresia, stricture, or stenosis, Left	753332	Kidney - Ectopic, Right
753212	Ureter - Atresia, stricture, or stenosis, Right	753333	Kidney - Ectopic, Unilateral NOS
753213	Ureter - Atresia, stricture, or stenosis, Unilateral NOS	753334	Kidney - Ectopic, Bilateral
		753340	Kidney - Enlarged, hyperplastic, or giant, Unilaterality Unk
		753341	Kidney - Enlarged, hyperplastic, or giant, Left
		753342	Kidney - Enlarged, hyperplastic, or giant, Right
		753343	Kidney - Enlarged, hyperplastic, or giant, Unilateral NOS
		753344	Kidney - Enlarged, hyperplastic, or giant, Bilateral
		753350	Renal calculi, congenital, Laterality Unk
		753351	Renal calculi, congenital, Left
		753352	Renal calculi, congenital, Right
		753353	Renal calculi, congenital, Unilateral NOS
		753354	Renal calculi, congenital, Bilateral

SUPPLEMENTAL MATERIAL

Table S2: CDC/BPA Codes to Identify Non-Cardiac Congenital Anomalies

753380	Kidney - Other specified anomalies, Laterality Unk	753383	Kidney - Other specified anomalies, Unilateral NOS
753381	Kidney - Other specified anomalies, Left	753384	Kidney - Other specified anomalies, Bilateral
753382	Kidney - Other specified anomalies, Right	753400	Ureter - Absent, Laterality Unk
753383	Kidney - Other specified anomalies, Unilateral NOS	753401	Ureter - Absent, Left
753384	Kidney - Other specified anomalies, Bilateral	753402	Ureter - Absent, Right
753400	Ureter - Absent, Laterality Unk	753403	Ureter - Absent, Unilateral NOS
753401	Ureter - Absent, Left	753404	Ureter - Absent, Bilateral
753402	Ureter - Absent, Right	753410	Ureter - Accessory, Laterality Unk
753403	Ureter - Absent, Unilateral NOS	753411	Ureter - Accessory, Left
753404	Ureter - Absent, Bilateral	753412	Ureter - Accessory, Right
753410	Ureter - Accessory, Laterality Unk	753413	Ureter - Accessory, Unilateral NOS
753411	Ureter - Accessory, Left	753414	Ureter - Accessory, Bilateral
753412	Ureter - Accessory, Right	753420	Ureter - Ectopic, Laterality Unk
753413	Ureter - Accessory, Unilateral NOS	753421	Ureter - Ectopic, Left
753414	Ureter - Accessory, Bilateral	753422	Ureter - Ectopic, Right
753320	Kidney - Lobulated, fused, or horseshoe, Laterality Unk	753423	Ureter - Ectopic, Unilateral NOS
753321	Kidney - Lobulated, fused, or horseshoe, Left	753424	Ureter - Ectopic, Bilateral
753322	Kidney - Lobulated, fused, or horseshoe, Right	753480	Ureter - Other specified anomalies, Laterality Unk
753323	Kidney - Lobulated, fused, or horseshoe, Unilateral NOS	753481	Ureter - Other specified anomalies, Left
753324	Kidney - Lobulated, fused, or horseshoe, Bilateral	753482	Ureter - Other specified anomalies, Right
753330	Kidney - Ectopic, Laterality Unk	753483	Ureter - Other specified anomalies, Unilateral NOS
753331	Kidney - Ectopic, Left	753484	Ureter - Other specified anomalies, Bilateral
753332	Kidney - Ectopic, Right	753485	Vesicoureteral reflux
753333	Kidney - Ectopic, Unilateral NOS	753500	Exstrophy of urinary bladder
753334	Kidney - Ectopic, Bilateral	753600	Posterior urethral valves, congenital
753340	Kidney - Enlarged, hyperplastic, or giant, Unilaterality Unk	753610	Bladder - Other atresia, or stenosis of neck
753341	Kidney - Enlarged, hyperplastic, or giant, Left	753620	Urethra - Anterior obstruction, atresia or stenosis
753342	Kidney - Enlarged, hyperplastic, or giant, Right	753630	Urinary meatus - Obstruction, atresia or stenosis
753343	Kidney - Enlarged, hyperplastic, or giant, Unilateral NOS	753690	Urethra and bladder neck - Other and unspecified atresia or stenosis
753344	Kidney - Enlarged, hyperplastic, or giant, Bilateral	753700	Urachus - Patent
753350	Renal calculi, congenital, Laterality Unk	753710	Urachus - Cyst
753351	Renal calculi, congenital, Left	753790	Urachus - Other and unspecified anomaly
753352	Renal calculi, congenital, Right	753800	Bladder or urethra - Absent
753353	Renal calculi, congenital, Unilateral NOS	753810	Bladder - Ectopic
753354	Renal calculi, congenital, Bilateral	753820	Bladder - Congenital diverticulum or hernia
753380	Kidney - Other specified anomalies, Laterality Unk	753830	Bladder - Congenital prolapse
753381	Kidney - Other specified anomalies, Left	753840	Urethra or urinary meatus - Double
753382	Kidney - Other specified anomalies, Right	753850	Urethra or urethral orifice - Ectopic
		753860	Fistula of digestive-urinary tract, congenital
		753870	Fistula of urethra, NOS
		753880	Bladder and urethra - Other specified anomalies
		753900	Kidney - Unspecified anomaly, Laterality Unk
		753901	Kidney - Unspecified anomaly, Left
		753902	Kidney - Unspecified anomaly, Right
		753903	Kidney - Unspecified anomaly, Unilateral NOS
		753904	Kidney - Unspecified anomaly, Bilateral

SUPPLEMENTAL MATERIAL

Table S2: CDC/BPA Codes to Identify Non-Cardiac Congenital Anomalies

753910	Ureter - Unspecified anomaly, Laterality Unk	754403	Femur - Bowed, Unilateral NOS
753911	Ureter - Unspecified anomaly, Left	754404	Femur - Bowed, Bilateral
753912	Ureter - Unspecified anomaly, Right	754410	Tibia and/or fibula - Bowed, Laterality Unk
753913	Ureter - Unspecified anomaly, Unilateral NOS	754411	Tibia and/or fibula - Bowed, Left
753914	Ureter - Unspecified anomaly, Bilateral	754412	Tibia and/or fibula - Bowed, Right
753920	Bladder - Unspecified anomaly	754413	Tibia and/or fibula - Bowed, Unilateral NOS
753930	Urethra - Unspecified anomaly	754414	Tibia and/or fibula - Bowed, Bilateral
753990	Urinary system - Unspecified anomaly, NOS	754420	Legs - Bowed, NOS, Laterality Unk
754000	Face - Asymmetry	754421	Legs - Bowed, NOS, Left
754010	Facies - Compression	754422	Legs - Bowed, NOS, Right
754030	Dolichocephaly	754423	Legs - Bowed, NOS, Unilateral NOS
754040	Skull - Depressions	754424	Legs - Bowed, NOS, Bilateral
754050	Plagiocephaly, laterality unk	754430	Genu recurvatum, Laterality Unk
754051	Plagiocephaly, left	754431	Genu recurvatum, Left
754052	Plagiocephaly, right	754432	Genu recurvatum, Right
754053	Plagiocephaly, unilateral NOS	754433	Genu recurvatum, Unilateral NOS
754054	Plagiocephaly, bilateral	754434	Genu recurvatum, Bilateral
754055	Asymmetric head	754440	Knee - Congenital dislocation, Laterality Unk
754060	Scaphocephaly	754441	Knee - Congenital dislocation, Left
754070	Trigonocephaly	754442	Knee - Congenital dislocation, Right
754080	Skull - Other specified deformity	754443	Knee - Congenital dislocation, Unilateral NOS
754090	Skull - Deformity, NOS	754444	Knee - Congenital dislocation, Bilateral
754100	Sternocleidomastoid muscle - Anomalies, laterality unk	754490	Leg - Deformity, NOS, Laterality Unk
754101	Sternocleidomastoid muscle - Anomalies, left	754491	Leg - Deformity, NOS, Left
754102	Sternocleidomastoid muscle - Anomalies, right	754492	Leg - Deformity, NOS, Right
754103	Sternocleidomastoid muscle - Anomalies, unilateral NOS	754493	Leg - Deformity, NOS, Unilateral NOS
754104	Sternocleidomastoid muscle - Anomalies, bilateral	754494	Leg - Deformity, NOS, Bilateral
754200	Scoliosis - Congenital postural	754500	Talipes equinovarus, Laterality Unk
754210	Lordosis - Congenital postural	754501	Talipes equinovarus, Left
754220	Curvature of spine - Congenital postural, NOS	754502	Talipes equinovarus, Right
754300	Hip - Congenital dislocation, laterality unk	754503	Talipes equinovarus, Unilateral NOS
754301	Hip - Congenital dislocation, left	754504	Talipes equinovarus, Bilateral
754302	Hip - Congenital dislocation, right	754510	Talipes calcaneovarus, Laterality Unk
754303	Hip - Congenital dislocation, unilateral NOS	754511	Talipes calcaneovarus, Left
754304	Hip - Congenital dislocation, bilateral	754512	Talipes calcaneovarus, Right
754310	Hip - Unstable hip , Laterality Unk	754513	Talipes calcaneovarus, Unilateral NOS
754311	Hip - Unstable hip, Left	754514	Talipes calcaneovarus, Bilateral
754312	Hip - Unstable hip, Right	754530	Feet - Varus deformities, complex, Laterality Unk
754313	Hip - Unstable hip, Unilateral NOS	754531	Feet - Varus deformities, complex, Left
754314	Hip - Unstable hip, Bilateral	754532	Feet - Varus deformities, complex, Right
754400	Femur - Bowed, Laterality Unk	754533	Feet - Varus deformities, complex, Unilateral NOS
754401	Femur - Bowed, Left	754534	Feet - Varus deformities, complex, Bilateral
754402	Femur - Bowed, Right	754590	Feet - Unspecified varus deformities, Laterality Unk
		754591	Feet - Unspecified varus deformities, Left
		754592	Feet - Unspecified varus deformities, Right
		754593	Feet - Unspecified varus deformities, Unilateral NOS
		754594	Feet - Unspecified varus deformities, Bilateral

SUPPLEMENTAL MATERIAL

Table S2: CDC/BPA Codes to Identify Non-Cardiac Congenital Anomalies

754600	Talipes calcaneovalgus, Laterality Unk	754783	Ankle and/or toes - Other specified deformities, Unilateral NOS
754601	Talipes calcaneovalgus, Left	754784	Ankle and/or toes - Other specified deformities, Bilateral
754602	Talipes calcaneovalgus, Right	754800	Pectus carinatum
754603	Talipes calcaneovalgus, Unilateral NOS	754810	Pectus excavatum
754604	Talipes calcaneovalgus, Bilateral	754820	Chest - Other anomalies
754610	Congenital pes planus, Laterality Unk	754825	Chest - Shield
754611	Congenital pes planus, Left	754830	Elbow - Congenital dislocation, Laterality Unk
754612	Congenital pes planus, Right	754831	Elbow - Congenital dislocation, Left
754613	Congenital pes planus, Unilateral NOS	754832	Elbow - Congenital dislocation, Right
754614	Congenital pes planus, Bilateral	754833	Elbow - Congenital dislocation, Unilateral NOS
754615	Pes valgus	754834	Elbow - Congenital dislocation, Bilateral
754680	Feet - Other specified valgus deformities, Laterality Unk	754840	Hand or fingers - Clubbed, congenital, Laterality Unk
754681	Feet - Other specified valgus deformities, Left	754841	Hand or fingers - Clubbed, congenital, Left
754682	Feet - Other specified valgus deformities, Right	754842	Hand or fingers - Clubbed, congenital, Right
754683	Feet - Other specified valgus deformities, Unilateral NOS	754843	Hand or fingers - Clubbed, congenital, Unilateral NOS
754684	Feet - Other specified valgus deformities, Bilateral	754844	Hand or fingers - Clubbed, congenital, Bilateral
754690	Feet - Unspecified valgus deformities, Laterality Unk	754850	Hand - Spade-like, Laterality Unk
754691	Feet - Unspecified valgus deformities, Left	754851	Hand - Spade-like, Left
754692	Feet - Unspecified valgus deformities, Right	754852	Hand - Spade-like, Right
754693	Feet - Unspecified valgus deformities, Unilateral NOS	754853	Hand - Spade-like, Unilateral NOS
754694	Feet - Unspecified valgus deformities, Bilateral	754854	Hand - Spade-like, Bilateral
754700	Pes cavus, Laterality Unk	754880	Hands - Other specified deformity of hands, Laterality Unk
754701	Pes cavus, Left	754881	Hands - Other specified deformity of hands, Left
754702	Pes cavus, Right	754882	Hands - Other specified deformity of hands, Right
754703	Pes cavus, Unilateral NOS	754883	Hands - Other specified deformity of hands, Unilateral NOS
754704	Pes cavus, Bilateral	754884	Hands - Other specified deformity of hands, Bilateral
754720	Achilles tendon - Short, Laterality Unk	755005	Polydactyly, fingers - Postaxial, Type A
754721	Achilles tendon - Short, Left	755006	Polydactyly, fingers or toes - Postaxial, Type B
754722	Achilles tendon - Short, Right	755007	Polydactyly, fingers - Postaxial, type (finger vs. skin tag) not specified.
754723	Achilles tendon - Short, Unilateral NOS	755010	Polydactyly, fingers - Preaxial, Laterality Unk
754724	Achilles tendon - Short, Bilateral	755011	Polydactyly, fingers - Preaxial, Left
754730	Clubfoot, NOS, Laterality Unk	755012	Polydactyly, fingers - Preaxial, Right
754731	Clubfoot, NOS, Left	755013	Polydactyly, fingers - Preaxial, Unilateral NOS
754732	Clubfoot, NOS, Right	755014	Polydactyly, fingers - Preaxial, Bilateral
754733	Clubfoot, NOS, Unilateral NOS	755020	Polydactyly, toes - Postaxial, Laterality Unk
754734	Clubfoot, NOS, Bilateral	755021	Polydactyly, toes - Postaxial, Left
754735	Foot - Congenital deformities, NOS	755022	Polydactyly, toes - Postaxial, Right
754780	Ankle and/or toes - Other specified deformities, Laterality Unk	755023	Polydactyly, toes - Postaxial, Unilateral NOS
754781	Ankle and/or toes - Other specified deformities, Left	755024	Polydactyly, toes - Postaxial, Bilateral
754782	Ankle and/or toes - Other specified deformities, Right	755030	Polydactyly, toes - Preaxial, Laterality Unk
		755031	Polydactyly, toes - Preaxial, Left
		755032	Polydactyly, toes - Preaxial, Right

SUPPLEMENTAL MATERIAL

Table S2: CDC/BPA Codes to Identify Non-Cardiac Congenital Anomalies

755033	Polydactyly, toes - Preaxial, Unilateral NOS	755214	Absent upper arm and forearm, bilateral
755034	Polydactyly, toes - Preaxial, Bilateral	755220	Absent upper arm only or forearm only, laterality unk
755090	Polydactyly, hand/foot not specified, Laterality Unk	755221	Absent upper arm only or forearm only, left
755091	Polydactyly, hand/foot not specified, Left	755222	Absent upper arm only or forearm only, right
755092	Polydactyly, hand/foot not specified, Right	755223	Absent upper arm only or forearm only, unilateral NOS
755093	Polydactyly, hand/foot not specified, Unilateral NOS	755224	Absent upper arm only or forearm only, bilateral
755094	Polydactyly, hand/foot not specified, Bilateral	755230	Absent forearm and hand, laterality unk
755095	Polydactyly, fingers - Preaxial/postaxial not specified	755231	Absent forearm and hand, left
755096	Polydactyly, toes - Preaxial/postaxial not specified	755232	Absent forearm and hand, right
755100	Syndactyly, fingers - Fused, Laterality Unk	755233	Absent forearm and hand, unilateral NOS
755101	Syndactyly, fingers - Fused, Left	755234	Absent forearm and hand, bilateral
755102	Syndactyly, fingers - Fused, Right	755240	Absent hand or fingers, laterality unk
755103	Syndactyly, fingers - Fused, Unilateral NOS	755241	Absent hand or fingers, left
755104	Syndactyly, fingers - Fused, Bilateral	755242	Absent hand or fingers, right
755110	Syndactyly, fingers - Webbed, Laterality Unk	755243	Absent hand or fingers, unilateral NOS
755111	Syndactyly, fingers - Webbed, Left	755244	Absent hand or fingers, bilateral
755112	Syndactyly, fingers - Webbed, Right	755250	Split-hand malformation, laterality unk
755113	Syndactyly, fingers - Webbed, Unilateral NOS	755251	Split-hand malformation, left
755114	Syndactyly, fingers - Webbed, Bilateral	755252	Split-hand malformation, right
755120	Syndactyly, toes - Fused, Laterality Unk	755253	Split-hand malformation, unilateral NOS
755121	Syndactyly, toes - Fused, Left	755254	Split-hand malformation, bilateral
755122	Syndactyly, toes - Fused, Right	755260	Preaxial longitudinal reduction defect - Upper limb, laterality unk
755123	Syndactyly, toes - Fused, Unilateral NOS	755261	Preaxial longitudinal reduction defect - Upper limb, left
755124	Syndactyly, toes - Fused, Bilateral	755262	Preaxial longitudinal reduction defect - Upper limb, right
755130	Syndactyly, toes - Webbed, Laterality Unk	755263	Preaxial longitudinal reduction defect - Upper limb, unilateral NOS
755131	Syndactyly, toes - Webbed, Left	755264	Preaxial longitudinal reduction defect - Upper limb, bilateral
755132	Syndactyly, toes - Webbed, Right	755265	Longitudinal reduction defect, type not specified - Upper limb
755133	Syndactyly, toes - Webbed, Unilateral NOS	755270	Postaxial longitudinal reduction defect - Upper limb, laterality unk
755134	Syndactyly, toes - Webbed, Bilateral	755271	Postaxial longitudinal reduction defect - Upper limb, left
755190	Syndactyly - Unspecified	755272	Postaxial longitudinal reduction defect - Upper limb, right
755193	Syndactyly, thumb and/or fingers - Webbed vs. fused unspecified	755273	Postaxial longitudinal reduction defect - Upper limb, unilateral NOS
755196	Syndactyly, toes - Webbed vs. fused unspecified	755274	Postaxial longitudinal reduction defect - Upper limb, bilateral
755200	Absent upper limb, laterality unk	755280	Other specified reduction defect - Upper limb, laterality unk
755201	Absent upper limb, left	755281	Other specified reduction defect - Upper limb, left
755202	Absent upper limb, right	755282	Other specified reduction defect - Upper limb, right
755203	Absent upper limb, unilateral NOS		
755204	Absent upper limb, bilateral		
755210	Absent upper arm and forearm, laterality unk		
755211	Absent upper arm and forearm, left		
755212	Absent upper arm and forearm, right		
755213	Absent upper arm and forearm, unilateral NOS		

SUPPLEMENTAL MATERIAL

Table S2: CDC/BPA Codes to Identify Non-Cardiac Congenital Anomalies

755283	Other specified reduction defect - Upper limb, unilateral NOS	755361	Longitudinal reduction defect, NOS - Lower limb, left
755284	Other specified reduction defect - Upper limb, bilateral	755362	Longitudinal reduction defect, NOS - Lower limb, right
755285	Transverse reduction defect - Upper limb, NOS	755363	Longitudinal reduction defect, NOS - Lower limb, unilateral NOS
755290	Unspecified reduction defect - Upper limb, laterality unk	755364	Longitudinal reduction defect, NOS - Lower limb, bilateral
755291	Unspecified reduction defect - Upper limb, left	755365	Preaxial longitudinal reduction defect - Lower limb
755292	Unspecified reduction defect - Upper limb, right	755366	Postaxial longitudinal reduction defect - Lower limb
755293	Unspecified reduction defect - Upper limb, unilateral NOS	755380	Other specified reduction defect - Lower limb, laterality unk
755294	Unspecified reduction defect - Upper limb, bilateral	755381	Other specified reduction defect - Lower limb, left
755300	Absent lower limb, laterality unk	755382	Other specified reduction defect - Lower limb, right
755301	Absent lower limb, left	755383	Other specified reduction defect - Lower limb, unilateral NOS
755302	Absent lower limb, right	755384	Other specified reduction defect - Lower limb, bilateral
755303	Absent lower limb, unilateral NOS	755385	Transverse reduction defect, NOS - Lower limb
755304	Absent lower limb, bilateral	755390	Unspecified reduction defect - Lower limb, laterality unk
755310	Absent thigh and lower leg, laterality unk	755391	Unspecified reduction defect - Lower limb, left
755311	Absent thigh and lower leg, left	755392	Unspecified reduction defect - Lower limb, right
755312	Absent thigh and lower leg, right	755393	Unspecified reduction defect - Lower limb, unilateral NOS
755313	Absent thigh and lower leg, unilateral NOS	755394	Unspecified reduction defect - Lower limb, bilateral
755314	Absent thigh and lower leg, bilateral	755400	Absent limb, NOS, Laterality Unk
755320	Absent femur only or lower leg only, laterality unk	755401	Absent limb, NOS, Left
755321	Absent femur only or lower leg only, left	755402	Absent limb, NOS, Right
755322	Absent femur only or lower leg only, right	755403	Absent limb, NOS, Unilateral NOS
755323	Absent femur only or lower leg only, unilateral NOS	755404	Absent limb, NOS, Bilateral
755324	Absent femur only or lower leg only, bilateral	755410	Phocomelia, NOS, Laterality Unk
755330	Absent lower leg and foot, laterality unk	755411	Phocomelia, NOS, Left
755331	Absent lower leg and foot, left	755412	Phocomelia, NOS, Right
755332	Absent lower leg and foot, right	755413	Phocomelia, NOS, Unilateral NOS
755333	Absent lower leg and foot, unilateral NOS	755414	Phocomelia, NOS, Bilateral
755334	Absent lower leg and foot, bilateral	755420	Transverse reduction defect, NOS, Laterality Unk
755340	Absent foot or toes, laterality unk	755421	Transverse reduction defect, NOS, Left
755341	Absent foot or toes, left	755422	Transverse reduction defect, NOS, Right
755342	Absent foot or toes, right	755423	Transverse reduction defect, NOS, Unilateral NOS
755343	Absent foot or toes, unilateral NOS	755424	Transverse reduction defect, NOS, Bilateral
755344	Absent foot or toes, bilateral	755430	Longitudinal reduction defect, NOS, Laterality Unk
755350	Split-foot malformation, laterality unk	755620	Anomalies of ankle, Laterality Unk
755351	Split-foot malformation, left	755621	Anomalies of ankle, Left
755352	Split-foot malformation, right		
755353	Split-foot malformation, unilateral NOS		
755354	Split-foot malformation, bilateral		
755360	Longitudinal reduction defect, NOS - Lower limb, laterality unk		

SUPPLEMENTAL MATERIAL

Table S2: CDC/BPA Codes to Identify Non-Cardiac Congenital Anomalies

755622	Anomalies of ankle, Right	756000	Craniosynostosis, NOS, laterality unk
755623	Anomalies of ankle, Unilateral NOS	756001	Craniosynostosis, NOS, left
755624	Anomalies of ankle, Bilateral	756002	Craniosynostosis, NOS, right
755630	Anomalies of lower leg, Laterality Unk	756003	Craniosynostosis, NOS, unilateral NOS
755631	Anomalies of lower leg, Left	756004	Craniosynostosis, NOS, bilateral
755632	Anomalies of lower leg, Right	756005	Craniosynostosis - Sagittal
755633	Anomalies of lower leg, Unilateral NOS	756006	Craniosynostosis - Metopic
755634	Anomalies of lower leg, Bilateral	756010	Craniosynostosis - Coronal, laterality unk
755640	Anomalies of knee, Laterality Unk	756011	Craniosynostosis - Coronal, left
755641	Anomalies of knee, Left	756012	Craniosynostosis - Coronal, right
755642	Anomalies of knee, Right	756013	Craniosynostosis - Coronal, unilateral NOS
755643	Anomalies of knee, Unilateral NOS	756014	Craniosynostosis - Coronal, bilateral
755644	Anomalies of knee, Bilateral	756020	Craniosynostosis - Lambdoidal, laterality unk
755645	Genu valgum	756021	Craniosynostosis - Lambdoidal, left
755646	Genu varum	756022	Craniosynostosis - Lambdoidal, right
755647	Absent or rudimentary patella	756023	Craniosynostosis - Lambdoidal, unilateral NOS
755650	Anomalies of upper leg, Laterality Unk	756024	Craniosynostosis - Lambdoidal, bilateral
755651	Anomalies of upper leg, Left	756030	Craniosynostosis - Other types
755652	Anomalies of upper leg, Right	756040	Craniofacial dysostosis
755653	Anomalies of upper leg, Unilateral NOS	756045	Mandibulofacial dysostosis
755654	Anomalies of upper leg, Bilateral	756046	Other craniofacial syndromes
755660	Anomalies of hip, Laterality Unk	756050	Acrocephalosyndactyly, NOS
755661	Anomalies of hip, Left	756055	Acrocephalosyndactyly, types I or II
755662	Anomalies of hip, Right	756056	Acrocephalosyndactyly, type III
755663	Anomalies of hip, Unilateral NOS	756057	Acrocephalosyndactyly - Other specified types
755664	Anomalies of hip, Bilateral	756060	Goldenhar syndrome
755665	Hip dysplasia, NOS.	756065	Hemifacial microsomia
755670	Anomalies of pelvis	756080	Other specified skull and face bone anomalies
755680	Other specified anomalies of lower limb, Laterality Unk	756085	Hypertelorism
755681	Other specified anomalies of lower limb, Left	756090	Unspecified skull and face bone anomalies.
755682	Other specified anomalies of lower limb, Right	756100	Spina bifida occulta
755683	Other specified anomalies of lower limb, Unilateral NOS	756110	Klippel-Feil syndrome
755684	Other specified anomalies of lower limb, Bilateral	756120	Kyphosis
755685	Hypoplasia of lower limb	756130	Congenital spondylolisthesis
755690	Unspecified anomalies of legs, Laterality Unk	756140	Anomalies of cervical vertebrae
755691	Unspecified anomalies of legs, Left	756145	Hemivertebrae of cervical vertebrae
755692	Unspecified anomalies of legs, Right	756146	Agenesis of cervical vertebrae
755693	Unspecified anomalies of legs, Unilateral NOS	756150	Anomalies of thoracic vertebrae
755694	Unspecified anomalies of legs, Bilateral	756155	Hemivertebrae of thoracic vertebrae
755800	Arthrogyposis multiplex congenita	756156	Agenesis of thoracic vertebrae
755810	Larsen's syndrome	756160	Anomalies of lumbar vertebrae
755880	Other specified anomalies of unspecified limb	756165	Hemivertebrae of lumbar vertebrae
755900	Unspecified anomalies of unspecified limb	756166	Agenesis of lumbar vertebrae
		756170	Sacroccygeal anomalies
		756175	Sacral agenesis
		756179	Sacral mass, NOS
		756180	Other specified vertebral anomalies
		756185	Hemivertebrae, NOS
		756190	Unspecified anomalies of spine
		756300	Rib - Absent, laterality unk
		756301	Rib - Absent, left

SUPPLEMENTAL MATERIAL

Table S2: CDC/BPA Codes to Identify Non-Cardiac Congenital Anomalies

756302	Rib - Absent, right	756580	Other specified osteodystrophies
756303	Rib - Absent, unilateral NOS	756590	Unspecified osteodystrophies
756304	Rib - Absent, bilateral	756600	Absent diaphragm
756310	Rib - Misshapen, laterality unk	756610	Diaphragmatic hernia - Congenital, NOS
756311	Rib - Misshapen, left	756615	Diaphragmatic hernia - Bochdalek
756312	Rib - Misshapen, right	756616	Diaphragmatic hernia - Morgagni
756313	Rib - Misshapen, unilateral NOS	756617	Hemidiaphragm
756314	Rib - Misshapen, bilateral	756620	Eventration of diaphragm, laterality unk
756320	Rib - Fused, laterality unk	756621	Eventration of diaphragm, left
756321	Rib - Fused, left	756622	Eventration of diaphragm, right
756322	Rib - Fused, right	756623	Eventration of diaphragm, unilateral NOS
756323	Rib - Fused, unilateral NOS	756624	Eventration of diaphragm, bilateral
756324	Rib - Fused, bilateral	756680	Other specified anomalies of diaphragm, laterality unk
756330	Rib - Extra, laterality unk	756681	Other specified anomalies of diaphragm, left
756331	Rib - Extra, left	756682	Other specified anomalies of diaphragm, right
756332	Rib - Extra, right	756683	Other specified anomalies of diaphragm, unilateral NOS
756333	Rib - Extra, unilateral NOS	756684	Other specified anomalies of diaphragm, bilateral
756334	Rib - Extra, bilateral	756690	Unspecified anomalies of diaphragm, laterality unk
756340	Rib - Other anomalies, laterality unk	756691	Unspecified anomalies of diaphragm, left
756341	Rib - Other anomalies, left	756692	Unspecified anomalies of diaphragm, right
756342	Rib - Other anomalies, right	756693	Unspecified anomalies of diaphragm, unilateral NOS
756343	Rib - Other anomalies, unilateral NOS	756694	Unspecified anomalies of diaphragm, bilateral
756344	Rib - Other anomalies, bilateral	756700	Omphalocele
756350	Absence of sternum	756710	Gastroschisis
756360	Misshapen sternum	756720	Prune belly syndrome
756380	Other anomalies of sternum	756790	Other and unspecified anomalies of abdominal wall
756390	Unspecified anomalies of thoracic cage	756795	Epigastric hernia
756400	Asphyxiating thoracic dystrophy	756800	Poland syndrome or anomaly, laterality unk
756410	Chondrodysplasia	756801	Poland syndrome or anomaly, left
756420	Chondrodysplasia with hemangioma	756802	Poland syndrome or anomaly, right
756430	Dwarfism - Achondroplastic	756803	Poland syndrome or anomaly, unilateral NOS
756445	Dwarfism - Diastrophic	756804	Poland syndrome or anomaly, bilateral
756446	Dwarfism - Metatrophic	756810	Other absent or hypoplastic muscle, laterality unk
756447	Dwarfism - Thanatophoric	756811	Other absent or hypoplastic muscle, left
756450	Metaphyseal dysostosis	756812	Other absent or hypoplastic muscle, right
756460	Spondyloepiphyseal dysplasia	756813	Other absent or hypoplastic muscle, unilateral NOS
756470	Exostosis	756814	Other absent or hypoplastic muscle, bilateral
756480	Other specified chondrodystrophy	756820	Absent tendon, laterality unk
756490	Unspecified chondrodystrophy	756821	Absent tendon, left
756500	Osteogenesis imperfecta	756822	Absent tendon, right
756505	Osteosarthyrosis	756823	Absent tendon, unilateral NOS
756506	Fragilitas ossium	756824	Absent tendon, bilateral
756510	Polyostotic fibrous dysplasia	756830	Nail-patella syndrome
756520	Chondroectodermal dysplasia		
756525	Ellis-van Creveld syndrome		
756530	Infantile cortical hyperostosis		
756540	Osteopetrosis		
756550	Progressive diaphyseal dysplasia		
756560	Osteopoikilosis		
756570	Multiple epiphyseal dysplasia		
756575	Conradi syndrome		

SUPPLEMENTAL MATERIAL

Table S2: CDC/BPA Codes to Identify Non-Cardiac Congenital Anomalies

756840	Amyotrophia congenita	757502	Anonychia, congenital, right
756850	Ehlers-Danlos syndrome	757503	Anonychia, congenital, unilateral NOS
756860	Congenital torticollis, laterality unk	757504	Anonychia, congenital, bilateral
756861	Congenital torticollis, left	757510	Nails - Enlarged or hypertrophic, laterality unk
756862	Congenital torticollis, right	757511	Nails - Enlarged or hypertrophic, left
756863	Congenital torticollis, unilateral NOS	757512	Nails - Enlarged or hypertrophic, right
756864	Congenital torticollis, bilateral	757513	Nails - Enlarged or hypertrophic, unilateral NOS
756880	Other specified anomalies of muscle, tendon, fascia and connective tissue	757514	Nails - Enlarged or hypertrophic, bilateral
756900	Unspecified anomalies of muscle	757515	Onychauxis
756910	Unspecified anomalies of tendon	757516	Pachyonychia
756920	Unspecified anomalies of bone	757520	Koilonychia, congenital
756930	Unspecified anomalies of cartilage	757530	Leukonychia, congenital
756940	Unspecified anomalies of connective tissue	757540	Club nail, laterality unk
756990	Unspecified anomalies of musculoskeletal system	757541	Club nail, left
757000	Hereditary edema of legs, laterality unk	757542	Club nail, right
757001	Hereditary edema of legs, left	757543	Club nail, unilateral NOS
757002	Hereditary edema of legs, right	757544	Club nail, bilateral
757003	Hereditary edema of legs, unilateral NOS	757580	Nails - Other specified anomalies
757004	Hereditary edema of legs, bilateral	757585	Nails - Hypoplastic
757100	Ichthyosis, congenital - Harlequin fetus	757600	Breast - Absent, with absent nipple, laterality unk
757110	Ichthyosis, congenital - Collodion baby	757601	Breast - Absent, with absent nipple, left
757115	Ichthyosis, congenital - Bullous type	757602	Breast - Absent, with absent nipple, right
757120	Ichthyosis, congenital - Sjogren-Larsson syndrome	757603	Breast - Absent, with absent nipple, unilateral NOS
757190	Ichthyosis, congenital - Other and unspecified	757604	Breast - Absent, with absent nipple, bilateral
757195	Ichthyosis, congenital - Ichthyosis vulgaris	757610	Breast - Hypoplastic, with hypoplastic nipple, laterality unk
757196	Ichthyosis, congenital - X-linked ichthyosis	757611	Breast - Hypoplastic, with hypoplastic nipple, left
757197	Ichthyosis, congenital - Ichthyosiform erythroderma	757612	Breast - Hypoplastic, with hypoplastic nipple, right
757300	Specified syndromes involving skin, not elsewhere classified	757613	Breast - Hypoplastic, with hypoplastic nipple, unilateral NOS
757320	Urticaria pigmentosa	757614	Breast - Hypoplastic, with hypoplastic nipple, bilateral
757330	Epidermolysis bullosa	757620	Breast - Accessory, with nipple, laterality unk
757340	Ectodermal dysplasia, NOS	757621	Breast - Accessory, with nipple, left
757345	Ectodermal dysplasia, X-linked type	757622	Breast - Accessory, with nipple, right
757346	Ectodermal dysplasia, Other specified	757623	Breast - Accessory, with nipple, unilateral NOS
757350	Incontinentia pigmenti	757624	Breast - Accessory, with nipple, bilateral
757360	Xeroderma pigmentosum	757630	Nipple - Absent, laterality unk
757370	Cutis laxa hyperelastica	757631	Nipple - Absent, left
757390	Skin - Other specified anomalies	757632	Nipple - Absent, right
757395	Skin - Absence	757633	Nipple - Absent, unilateral NOS
757400	Alopecia, congenital	757634	Nipple - Absent, bilateral
757410	Hair - Beaded	757640	Nipple - Small or hypoplastic, laterality unk
757420	Hair - Twisted	757641	Nipple - Small or hypoplastic, left
757430	Hair - Taenzer's	757642	Nipple - Small or hypoplastic, right
757480	Hair - Other specified anomalies	757643	Nipple - Small or hypoplastic, unilateral NOS
757500	Anonychia, congenital, laterality unk	757644	Nipple - Small or hypoplastic, bilateral
757501	Anonychia, congenital, left	757680	Breast - Other specified anomalies, laterality unk

SUPPLEMENTAL MATERIAL

Table S2: CDC/BPA Codes to Identify Non-Cardiac Congenital Anomalies

757681	Breast - Other specified anomalies, left	758400	Balanced autosomal translocation in normal individual
757682	Breast - Other specified anomalies, right	758500	Trisomy 8
757683	Breast - Other specified anomalies, unilateral NOS	758510	Trisomy C - Other
757684	Breast - Other specified anomalies, bilateral	758520	Trisomy - Other total
757800	Skin - Other specified anomalies	758530	Trisomy - Partial
757900	Skin - Unspecified anomalies	758540	Translocation - Other
757910	Hair - Unspecified anomalies	758580	Autosomes - Other specified anomalies, NOS
757920	Nail - Unspecified anomalies	758585	Polyploidy
757990	Integument - Unspecified anomalies	758586	Triploidy
758000	Trisomy 21 - karyotype documented	758590	Autosomes - Unspecified anomalies
758010	Trisomy G, NOS - karyotype documented	758600	Turner phenotype - Karyotype 45,X or 45,XO
758020	Translocation trisomy 21	758610	Turner phenotype - Variant karyotypes.
758030	Translocation trisomy G, NOS	758690	Turner syndrome - Unspecified karyotype
758040	Mosaic trisomy 21 syndrome	758790	Klinefelter syndrome, NOS
758090	Trisomy 21, NOS	758800	Sex chromosome - Mosaic XO/XY
758100	Trisomy 13 - karyotype documented	758810	Sex chromosome - Mosaic XO/XX
758110	Trisomy D, NOS	758820	Sex chromosome - Mosaic XY/XXY
758120	Translocation trisomy 13	758830	Sex chromosome - Mosaic that includes XXXXY
758130	Translocation trisomy D, NOS	758840	Sex chromosome - XYY in a male
758190	Trisomy 13, NOS	758850	Sex chromosome - XXX in a female
758200	Trisomy 18 - karyotype documented	758860	Sex chromosome - Additional, NOS
758210	Trisomy E, NOS	758880	Sex chromosome - Other specified anomaly
758220	Translocation trisomy 18	758890	Sex chromosome - Unspecified anomaly
758230	Translocation trisomy E, NOS	758900	Chromosome - Mosaicism, NOS
758290	Trisomy 18, NOS	758910	Chromosome - Additional, NOS
758295	Edwards phenotype with normal karyotype	758920	Chromosome - Deletion, NOS
758300	Antimongolism syndrome/clinical antimongolism syndrome with karyotype partial or total deletion of 21 or a G-group chromosome, NOS	758930	Chromosome - Duplication, NOS
758310	Cri du chat syndrome / clinical Cri du chat syndrome with karyotype deletion of 5 or a B-group chromosome, NOS	758990	Chromosome - Unspecified anomaly
758320	Wolff-Hirschorn syndrome / clinical Wolff-Hirschorn syndrome with karyotype deletion of 4 or a B-group chromosome, NOS	759000	Spleen - Absence
758330	Deletion of long arm of 13 / deletion of long arm of a D-group, NOS	759005	Ivemark syndrome
758340	Deletion of long arm of E / deletion long arm of 17 or 18	759010	Spleen - Hypoplasia
758350	Deletion of short arm of E/deletion short arm of 17 or 18	759030	Spleen - Misshapen
758360	Monosomy G mosaicism	759040	Spleen - Accessory, laterality unk
758370	Deletion in band 11 of long arm of chromosome 22	759041	Spleen - Accessory, left
758380	Other loss of autosomal material / microdeletion	759042	Spleen - Accessory, right
758390	Unspecified autosomal deletion syndromes	759043	Spleen - Accessory, unilateral NOS
		759044	Spleen - Accessory, bilateral
		759050	Spleen - Ectopic, laterality unk
		759051	Spleen - Ectopic, left
		759052	Spleen - Ectopic, right
		759053	Spleen - Ectopic, unilateral NOS
		759054	Spleen - Ectopic, bilateral
		759080	Spleen - Other specified anomalies
		759090	Spleen - Unspecified anomalies
		759100	Adrenal gland - Absence, laterality unk
		759101	Adrenal gland - Absence, left
		759102	Adrenal gland - Absence, right
		759103	Adrenal gland - Absence, unilateral NOS
		759104	Adrenal gland - Absence, bilateral
		759110	Adrenal gland - Hypoplasia, laterality unk

SUPPLEMENTAL MATERIAL

Table S2: CDC/BPA Codes to Identify Non-Cardiac Congenital Anomalies

759111	Adrenal gland - Hypoplasia, left	759390	Situs inversus - Unspecified
759112	Adrenal gland - Hypoplasia, right	759400	Conjoined twins - Dicephalus (two heads)
759113	Adrenal gland - Hypoplasia, unilateral NOS	759410	Conjoined twins - Craniopagus (head-joined)
759114	Adrenal gland - Hypoplasia, bilateral	759420	Conjoined twins - Thoracopagus (thorax-joined)
759120	Adrenal gland - Accessory, laterality unk	759430	Conjoined twins - Xiphopagus (xiphoid- and pelvis-joined)
759121	Adrenal gland - Accessory, left	759440	Conjoined twins - Pygopagus (buttock-joined)
759122	Adrenal gland - Accessory, right	759480	Conjoined twins - Other specified
759123	Adrenal gland - Accessory, unilateral NOS	759490	Conjoined twins - Unspecified
759124	Adrenal gland - Accessory, bilateral	759500	Tuberous sclerosis
759130	Adrenal gland - Ectopic, laterality unk	759600	Peutz-Jeghers syndrome
759131	Adrenal gland - Ectopic, left	759610	Angiomatosis - Encephalocutaneous
759132	Adrenal gland - Ectopic, right	759620	Von Hippel-Lindau syndrome
759133	Adrenal gland - Ectopic, unilateral NOS	759630	Gardner syndrome
759134	Adrenal gland - Ectopic, bilateral	759680	Hamartoma - Other specified hamartoma
759180	Adrenal gland - Other specified anomaly, laterality unk	759690	Hamartoma - Unspecified
759181	Adrenal gland - Other specified anomaly, left	759700	Multiple congenital anomalies, NOS
759182	Adrenal gland - Other specified anomaly, right	759800	Congenital malformation syndromes affecting facial appearance
759183	Adrenal gland - Other specified anomaly, unilateral NOS	759820	Congenital malformation syndromes associated with short stature
759184	Adrenal gland - Other specified anomaly, bilateral	759840	Congenital malformation syndromes involving limbs
759190	Adrenal gland - Unspecified anomaly, laterality unk	759860	Congenital malformation syndromes with other skeletal changes
759191	Adrenal gland - Unspecified anomaly, left	759870	Congenital malformation syndromes with metabolic disturbances
759192	Adrenal gland - Unspecified anomaly, right	759890	Other specified anomalies
759193	Adrenal gland - Unspecified anomaly, unilateral NOS	759900	Umbilical anomalies
759194	Adrenal gland - Unspecified anomaly, bilateral	759910	Embryopathy, NOS
759200	Pituitary gland anomalies	759990	Congenital anomaly, NOS
759210	Thyroid gland anomalies	760710	Fetal alcohol syndrome (FAS)
759220	Thyroglossal duct anomalies	760750	Fetal hydantoin (Dilantin) syndrome
759230	Parathyroid gland anomalies, laterality unk	771000	Infection, congenital - rubella
759231	Parathyroid gland anomalies, left	771090	Infection, congenital - TORCH unspecified
759232	Parathyroid gland anomalies, right	771100	Infection, congenital - cytomegalovirus (CMV)
759233	Parathyroid gland anomalies, unilateral NOS	771210	Infection, congenital - toxoplasmosis
759234	Parathyroid gland anomalies, bilateral	771220	Infection, congenital - herpes simplex
759240	Thymus anomalies	771230	Infection, congenital - Zika virus
759280	Endocrine gland, other - Specified anomalies	771280	Infection, congenital - other specified
759290	Endocrine gland, other - Unspecified anomalies	774480	Hepatitis, neonatal - specified
759300	Dextrocardia with complete situs inversus	774490	Hepatitis, neonatal - NOS
759310	Situs inversus with levocardia	999999	Other, unspecified diagnostic code
759320	Situs inversus thoracis		NOS: Not otherwise specified; Unk: Unknown
759330	Situs inversus abdominis		
759340	Kartagener syndrome		

SUPPLEMENTAL MATERIAL

Table S3: Global Physical Health and Global Mental Health Items

Items contributing to global **physical** health:

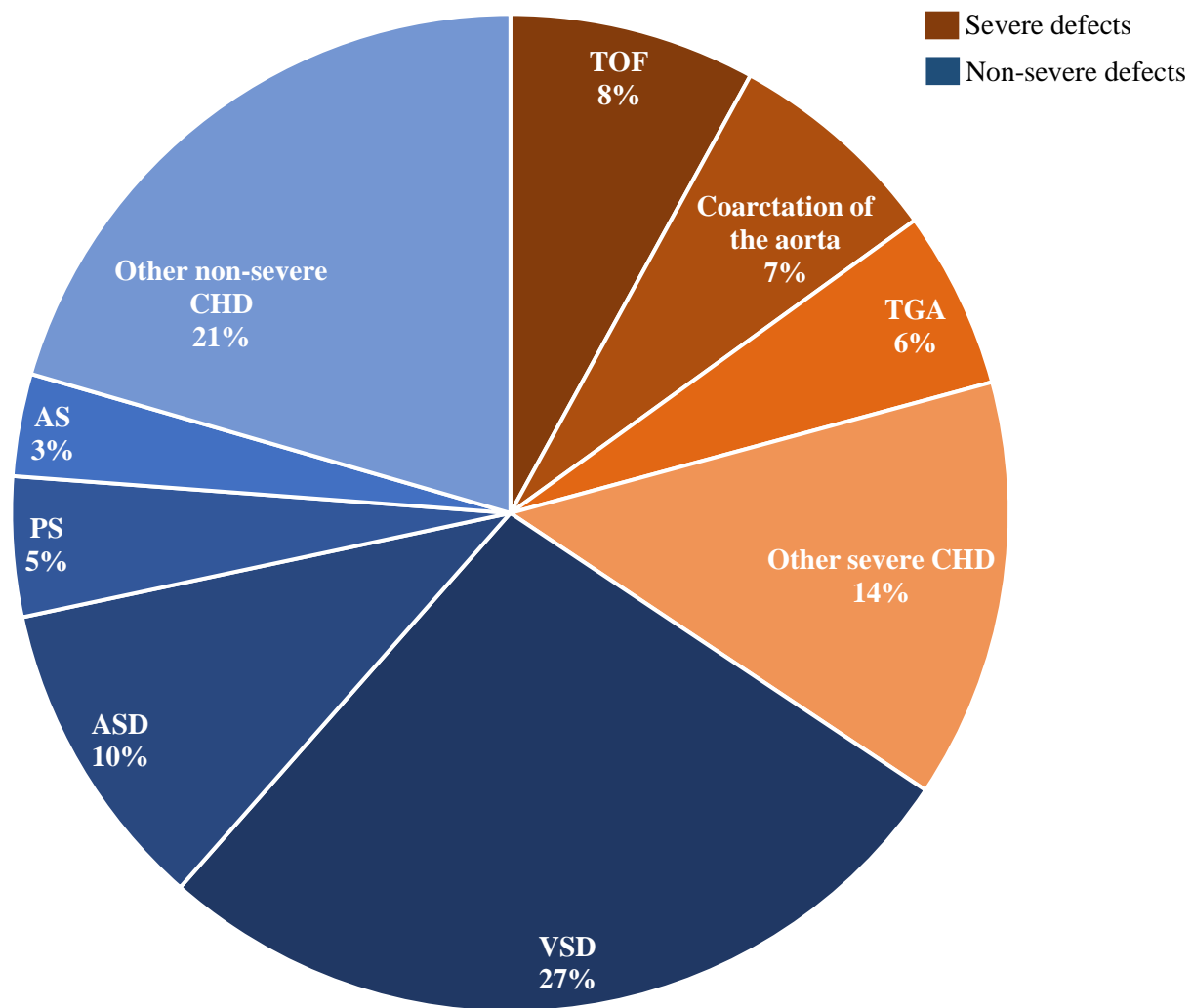
In general, how would you rate your physical health?	Excellent	Very Good	Good	Fair	Poor					
To what extent are you able to carry out your everyday physical activities such as walking, climbing stairs, carrying groceries, or moving a chair?	Completely	Mostly	Moderately	A little	Not at all					
<u>In the past 7 days</u> , how would you rate your pain on average?	0 10 No Worst Pain Pain Imaginable	1	2	3	4	5	6	7	8	9
<u>In the past 7 days</u> , how would you rate your fatigue on average?	None	Mild	Moderate	Severe	Very Severe					

Items contributing to global **mental** health:

In general, would you say your quality of life is:	Excellent	Very Good	Good	Fair	Poor
In general, how would you rate your mental health, including your mood and your ability to think?	Excellent	Very Good	Good	Fair	Poor
In general, how would you rate your satisfaction with your social activities and relationships?	Excellent	Very Good	Good	Fair	Poor
<u>In the past 7 days</u> , how often have you been bothered by emotional problems such as feeling anxious, depressed or irritable?	Never	Rarely	Sometimes	Often	Always

SUPPLEMENTAL MATERIAL

Figure S1. Distribution of CHD diagnoses in the CH STRONG analytic sample



AS=Aortic Stenosis; ASD=Atrial Septal Defect; CHD=Congenital Heart Defect; PS=Pulmonary Stenosis; TGA=Transition of the Great Arteries; TOF=Tetralogy of Fallot; VSD=Ventricular Septal Defect

SUPPLEMENTAL MATERIAL

Figure S2. Standardized Prevalence of Disability among Adults with Severe and Non-severe CHD in 2016-2019 Congenital Heart Survey to Recognize Outcomes, Needs, and well-being Compared to 2017 ACS Participants – Excluding 567 CH STRONG participants with non-cardiac congenital anomalies or proxy-reported surveys.

