STS Congenital Heart Surgery Data Summary
All Patients

STS Period Ending 06/30/2017

Duke Clinical Research Institute

Table 1: All Patients number submitted, in analysis, and operative mortality

	STS	
	Last 1 Year Jul 2016 - Jun 2017	Last Four Years Jul 2013 - Jun 2017
Number of Operations/Patients		
Operations Submitted	38,057	157,471
Operations in Analysis[1]	29,673	122,212
Patients in Analysis[2]	24,484	101,769
Operative Mortality[3]		
Number of Mortalities	601	2,717
Number Eligible	22,045	91,796
Mortality Percent	2.7	3.0
Mortality (95% CI)	(2.5 , 2.9)	(2.9 , 3.1)

[1]Analysis includes only operations classified as "CPB" or "No CPB, Cardiovascular"
[2]Patient Numbers represent distinct patient admissions
[3]Mortality numbers are patient-based only for admission in the analysis population at sites with adequate mortality data

Table 2: Primary diagnosis, 35 Most Frequent for All Patients, Last 4 Years (Jul 2013 - Jun 2017)

Primary Diagnosis	STS N	STS % of All
VSD, Type 2 (Perimembranous) (Paramembranous) (Conoventricular)	7,613	6.2%
Hypoplastic left heart syndrome (HLHS)	7,248	5.9%
Open sternum with open skin (includes membrane placed to close skin)	5,896	4.8%
Patent ductus arteriosus	5,761	4.7%
ASD, Secundum	4,822	3.9%
TOF, Pulmonary stenosis	4,526	3.7%
Coarctation of aorta	4,385	3.6%
AVC (AVSD), Complete (CAVSD)	4,138	3.4%
Cardiac, Other	3,333	2.7%
Pulmonary insufficiency	2,949	2.4%
Aortic stenosis, Subvalvar	2,263	1.9%
Single ventricle, Tricuspid atresia	2,151	1.8%
TGA, IVS	2,073	1.7%
Conduit failure	1,910	1.6%
Pulmonary atresia, VSD (Including TOF, PA)	1,823	1.5%
Miscellaneous, Other	1,810	1.5%
Vascular ring	1,799	1.5%
Single ventricle, DILV	1,576	1.3%
Aortic insufficiency	1,540	1.3%
Mitral regurgitation	1,514	1.2%
TOF	1,489	1.2%
Pulmonary atresia, IVS	1,467	1.2%
ASD, Sinus venosus	1,372	1.1%
TGA, VSD	1,367	1.1%
Cardiomyopathy (including dilated, restrictive, and hypertrophic)	1,340	1.1%
Aortic arch hypoplasia	1,259	1.0%
Arrhythmia, Pacemaker, Indication for replacement	1,242	1.0%
AVC (AVSD), Partial (incomplete) (PAVSD) (ASD, primum)	1,230	1.0%
Single ventricle, Heterotaxia syndrome	1,149	0.9%
Aortic stenosis, Valvar	1,123	0.9%
DORV, TGA type	1,068	0.9%
Pulmonary atresia, VSD-MAPCA	1,023	0.8%
Truncus arteriosus	1,022	0.8%
Ebstein's anomaly	963	0.8%
Coronary artery anomaly, Anomalous aortic origin of coronary artery (AAOCA)	933	0.8%

Table 3: Primary procedure, 35 Most Frequent for All Patients, Last 4 Years (Jul 2013 - Jun 2017)

Primary Procedure	STS N	STS % of All	STS % Mort.
Delayed sternal closure	8,923	8.1%	0.2%
VSD repair, Patch	7,052	6.4%	0.5%
Mediastinal exploration	3,806	3.4%	0.5%
ASD repair, Patch	3,492	3.2%	0.2%
AVC (AVSD) repair, Complete (CAVSD)	3,111	2.8%	2.6%
Norwood procedure	2,795	2.5%	14.3%
Bidirectional cavopulmonary anastomosis (BDCPA) (bidirectional Glenn)	2,631	2.4%	2.0%
Pacemaker implantation, Permanent	2,535	2.3%	0.8%
Coarctation repair, End to end, Extended	2,466	2.2%	1.2%
RVOT procedure	2,375	2.1%	1.1%
PA banding (PAB)	2,371	2.1%	7.7%
TOF repair, Ventriculotomy, Transanular patch	2,262	2.0%	1.7%
Shunt, Systemic to pulmonary, Modified Blalock-Taussig Shunt (MBTS)	2,210	2.0%	6.1%
Aortic arch repair	2,035	1.8%	3.0%
PA, reconstruction (plasty), Branch, Central (within the hilar bifurcation)	1,964	1.8%	1.3%
Fontan, TCPC, External conduit, Fenestrated	1,861	1.7%	1.2%
Transplant, Heart	1,824	1.6%	4.1%
Pacemaker procedure	1,774	1.6%	0.3%
Arterial switch operation (ASO)	1,765	1.6%	2.0%
Valvuloplasty, Mitral	1,759	1.6%	1.6%
Valve replacement, Pulmonic (PVR)	1,703	1.5%	0.1%
Conduit placement, RV to PA	1,679	1.5%	1.7%
Vascular ring repair	1,564	1.4%	0.2%
TAPVC repair	1,524	1.4%	6.0%
PDA closure, Surgical	1,300	1.2%	3.8%
Fontan, TCPC, External conduit, Nonfenestrated	1,290	1.2%	0.9%
Aortic stenosis, Subvalvar, Repair	1,254	1.1%	0.2%
TOF repair, Ventriculotomy, Nontransanular patch	1,251	1.1%	1.0%
Superior Cavopulmonary anastomosis(es) + PA reconstruction	1,184	1.1%	1.5%
Valvuloplasty, Tricuspid	1,168	1.1%	1.4%
Valve replacement, Mitral (MVR)	1,144	1.0%	3.1%
TOF repair, No ventriculotomy	1,039	0.9%	0.1%
Shunt, Systemic to pulmonary, Central (shunt from aorta)	997	0.9%	7.3%
ASD repair, Primary closure	913	0.8%	0.1%
Conduit reoperation	865	0.8%	0.2%