STS Congenital Heart Surgery Data Summary
Adults

STS Period Ending 06/30/2017

Duke Clinical Research Institute

Table 1: Adults 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 in Analysis[1]	2,391	9,820
Patients in Analysis[2]	2,271	9,245
Operative Mortality[3]		
Number of Mortalities	26	130
Number Eligible	2,200	9,007
Mortality Percent	1.2%	1.4%
Mortality (95% CI)	(0.8 , 1.7)	(1.2 , 1.7)

[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 Adults, Last 4 Years (Jul 2013 - Jun 2017)

Primary Diagnosis	STS N	STS % of All
Pulmonary insufficiency	1,281	13.0%
Aortic insufficiency	507	5.2%
ASD, Secundum	452	4.6%
Arrhythmia, Pacemaker, Indication for replacement	436	4.4%
Aortic aneurysm (including pseudoaneurysm)	375	3.8%
Cardiac, Other	350	3.6%
Aortic stenosis, Valvar	308	3.1%
Ebstein's anomaly	276	2.8%
Tricuspid regurgitation, non-Ebstein's related	267	2.7%
Aortic stenosis, Subvalvar	266	2.7%
Mitral regurgitation	262	2.7%
Conduit failure	241	2.5%
Aortic insufficiency and aortic stenosis	230	2.3%
ASD, Sinus venosus	218	2.2%
Partial anomalous pulmonary venous connection (PAPVC)	213	2.2%
TOF	179	1.8%
Coronary artery anomaly, Anomalous aortic origin of coronary artery (AAOCA)	178	1.8%
Aortic valve, Other	159	1.6%
TOF, Pulmonary stenosis	151	1.5%
VSD, Type 2 (Perimembranous) (Paramembranous) (Conoventricular)	141	1.4%
Pulmonary insufficiency and pulmonary stenosis	138	1.4%
Cardiomyopathy (including dilated, restrictive, and hypertrophic)	136	1.4%
AVC (AVSD), Partial (incomplete) (PAVSD) (ASD, primum)	132	1.3%
Endocarditis	129	1.3%
Pulmonary stenosis, Valvar	128	1.3%
Arrhythmia	121	1.2%
Open sternum with open skin (includes membrane placed to close skin)	111	1.1%
Miscellaneous, Other	105	1.1%
Arrhythmia, Atrial	96	1.0%
Pericardial effusion	78	0.8%
Single ventricle, Tricuspid atresia	73	0.7%
Arrhythmia, Heart block	73	0.7%
DCRV	72	0.7%
Arrhythmia, Heart block, Acquired	69	0.7%
Postoperative bleeding	69	0.7%

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

Primary Procedure	STS N	STS % of All	STS % Mort.
Valve replacement, Pulmonic (PVR)	776	8.1%	0.1%
Pacemaker procedure	564	5.9%	0.0%
RVOT procedure	461	4.8%	0.2%
Valvuloplasty, Tricuspid	404	4.2%	0.5%
ASD repair, Patch	332	3.5%	0.6%
Aortic aneurysm repair	314	3.3%	1.3%
Pacemaker implantation, Permanent	312	3.3%	1.6%
Valve replacement, Mitral (MVR)	305	3.2%	3.0%
Valve replacement, Tricuspid (TVR)	258	2.7%	3.1%
Conduit placement, RV to PA	253	2.6%	3.2%
PA, reconstruction (plasty), Branch, Central (within the hilar bifurcation)	249	2.6%	2.8%
Valve replacement, Aortic (AVR), Bioprosthetic	245	2.6%	0.4%
Arrhythmia surgery - atrial, Surgical Ablation	242	2.5%	0.4%
Mediastinal exploration	222	2.3%	0.9%
Valve replacement, Aortic (AVR), Mechanical	218	2.3%	0.0%
Valvuloplasty, Mitral	205	2.1%	2.0%
Transplant, Heart	187	2.0%	6.4%
Ebstein's repair	185	1.9%	2.7%
Delayed sternal closure	173	1.8%	1.2%
Anomalous aortic origin of coronary artery from aorta (AAOCA) repair	160	1.7%	0.0%
Aortic root replacement, Valve sparing	159	1.7%	0.0%
PA, reconstruction (plasty), Main (trunk)	147	1.5%	1.4%
ICD (AICD) implantation	139	1.5%	1.4%
Coronary artery bypass	132	1.4%	0.0%
Aortic stenosis, Subvalvar, Repair	123	1.3%	0.0%
Aortic root replacement, Mechanical	122	1.3%	3.3%
Explantation of pacing system	122	1.3%	0.8%
Conduit reoperation	120	1.3%	0.8%
ASD repair, Patch + PAPVC repair	115	1.2%	0.9%
Fontan revision or conversion (Re-do Fontan)	111	1.2%	8.1%
VSD repair, Patch	105	1.1%	0.0%
PAPVC repair	104	1.1%	0.0%
Valvuloplasty, Aortic	99	1.0%	0.0%
Aortic root replacement, Bioprosthetic	88	0.9%	0.0%
Aortic arch repair	81	0.8%	4.9%