Despite the challenges facing health care today, patient needs must be addressed with a renewed sense of professionalism to ensure a better future for cardiothoracic surgery. John E. Mayer, Jr., MD, said in his Presidential Address, “Professionalism Within The Health Care System” during the recent STS 44th Annual Meeting in Fort Lauderdale, Florida. Dr. Mayer outlined the current crisis in health care, including issues of cost and quality, government interference, and a growing loss of public respect for the medical profession.

“One important way the profession has improved its standing is through participation in the STS National Database,” Dr. Mayer said. “With more than 3 million patient records and more than 80 percent of the adult cardiac surgical centers participating, the Database is becoming known as an effective tool for improving outcomes and reducing complications, and has gone a significant way toward improving the credibility of cardiothoracic surgeons in Washington, DC.” He also discussed the Medicare reimbursement system, arguing for the creation of specialty-specific conversion factors for reimbursement rather than the single conversion factor that currently exists for all of medicine.

In addition to Dr. Mayer’s Presidential Address, there were many other highlights at the Annual Meeting. W. Randolph Chitwood Jr., MD, was elected STS President. Dr. Chitwood’s goals for the year include taking a more active role in international cardiothoracic surgery issues; working on government policy issues related to reimbursement and malpractice; furthering development of clinical guidelines; and increasing efforts to better foster upcoming generations of cardiothoracic surgeons.

Elizabeth O. Teisberg, PhD, co-author of the ground-breaking book, Redefining Health Care: Creating Value-Based Competition on Results, presented the Thomas B. Ferguson Lecture, “Improving the Value of Health Care.” Professor Teisberg believes that incremental change and waste reduction in the current system will not be enough to ensure quality care for all Americans, and that significant restructuring of care delivery is needed to enable dramatic and ongoing improvements in value. She discussed these issues, along with the need to refocus health care on improving the value by keeping people healthier and improving treatment outcomes.

Presentations related to the STS National Database were also a part of the STS 44th Annual Meeting. These presentations included:

- Quality Improvement: The STS General Thoracic Surgery Database
- Predictors of Prolonged Length of Stay After Lobectomy for Lung Cancer: An STS General Thoracic Surgery Database Risk Adjustment Model
- Regional Congenital Heart Surgery Outcomes Analysis Under the Auspices of the State of Florida (5,026 operations) and The Society of Thoracic Surgeons Database (45,635 operations)

Congratulations New STS Associate Members!

With the expansion of STS membership categories in 2007, allied health professionals, including data managers, who support and work directly with cardiothoracic surgeons, are now able to become Associate Members of the Society. Through Associate Membership, data managers can become more involved in the Society and receive the benefits of membership, including updates and publications.

Congratulations to the following data managers on being accepted for Associate Membership at the STS 44th Annual Meeting in Fort Lauderdale, Florida. If you are not yet an STS Associate Member, contact Sonia Armendariz, Manager of Member Services, at sarmendariz@sts.org or (312) 202-5843.

<table>
<thead>
<tr>
<th>Data Manager</th>
<th>City/State</th>
<th>Database</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diane E. Alejo</td>
<td>Baltimore, MD</td>
<td>Adult Cardiac</td>
</tr>
<tr>
<td>Linda L. Beezley</td>
<td>Olathe, KS</td>
<td>Adult Cardiac</td>
</tr>
<tr>
<td>Katherine F. Cornelius</td>
<td>Philadelphia, PA</td>
<td>Adult/General Thoracic</td>
</tr>
<tr>
<td>Armond J. Darcangelo, Jr.</td>
<td>Miami, FL</td>
<td>Adult Cardiac</td>
</tr>
<tr>
<td>Shannon R. Foiles</td>
<td>Peoria, IL</td>
<td>General Thoracic</td>
</tr>
<tr>
<td>Michael T. Gardocki</td>
<td>Bronx, NY</td>
<td>Adult Cardiac</td>
</tr>
<tr>
<td>Melissa K. S. Gilliland</td>
<td>Bloomington, IN</td>
<td>Adult Cardiac</td>
</tr>
<tr>
<td>Ann C. Guercio</td>
<td>Houston, TX</td>
<td>Adult Cardiac</td>
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<tr>
<td>Carolyn M. Kilgore</td>
<td>Kansas City, KS</td>
<td>Adult Cardiac</td>
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<tr>
<td>Sylvia M. Laudun</td>
<td>Norfolk, VA</td>
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<tr>
<td>Deborah P. Liverman</td>
<td>St. Petersburg, FL</td>
<td>Congenital</td>
</tr>
<tr>
<td>Tina M. Merola</td>
<td>Seattle, WA</td>
<td>Congenital</td>
</tr>
<tr>
<td>Andrea R. Morscheck</td>
<td>Milwaukee, WI</td>
<td>Congenital</td>
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<tr>
<td>Kathleen A. Mussatto</td>
<td>Dallas, TX</td>
<td>Adult Cardiac</td>
</tr>
<tr>
<td>Michelle C. Paul</td>
<td>Dallas, TX</td>
<td>Adult Cardiac</td>
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<tr>
<td>Syma L. Prince</td>
<td>Concord, CA</td>
<td>Adult Cardiac</td>
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<tr>
<td>Eileen P. Pummer</td>
<td>Lima, OH</td>
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<tr>
<td>Vicki L. Reindel</td>
<td>Waukesha, WI</td>
<td>Adult Cardiac</td>
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<tr>
<td>Jean C. Sesing</td>
<td>West Monroe, LA</td>
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</tr>
<tr>
<td>Karen H. Sinclair</td>
<td>Lubbock, TX</td>
<td>Adult Cardiac</td>
</tr>
<tr>
<td>William N. Springer</td>
<td>Erie, PA</td>
<td>Adult Cardiac</td>
</tr>
<tr>
<td>Susan M. Stroz</td>
<td>Searcy, AR</td>
<td>Adult/General Thoracic</td>
</tr>
<tr>
<td>Michael L. Valentine</td>
<td>Pensacola, FL</td>
<td>Adult Cardiac</td>
</tr>
<tr>
<td>Connie J. Via</td>
<td>Indianapolis, IN</td>
<td>General Thoracic</td>
</tr>
<tr>
<td>Mary Ann Wiesler</td>
<td>Denver, CO</td>
<td>Adult Cardiac</td>
</tr>
<tr>
<td>Debra E. Wilcox</td>
<td>Davenport, IA</td>
<td>Adult Cardiac</td>
</tr>
<tr>
<td>Marie J. Williams</td>
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</tbody>
</table>

Clarification: Readmission with Deep Sternal Wound Infection in the Adult Cardiac Surgery Database, v2.61

Several Adult Cardiac Surgery Database data managers have asked for clarification regarding how to capture patients who are readmitted within 30 days with a deep sternal wound infection. The Adult Cardiac Surgery Database v2.61 data definition for the complication [deep sternal wound infection (sequence #2780)] includes whether the patient, **within 30 days postoperatively**, had a deep sternal wound infection (as determined by the specific criteria listed). The time period, within 30 days postoperatively, is a change (addition) from the v2.52.1 data specifications. The Deep Sternal Wound Infection data field is the only complication that includes a 30-day postoperative time frame.

Should a patient be readmitted within 30 days postoperatively with a deep sternal wound infection (defined by the criteria in sequence #2780), please capture this information in the data collection form as follows:

- Complications section, sequence #2780, Comps-Infect-Stern Deep, code “Yes” and:
- Readmission section, sequence #3220, Readmit<=30 Days from DOP, code “Yes” and:
- Readmission section, sequence #3230, Readmit Reason, code “Infection – Deep Sternum” and:
- Readmission section, sequence #3240, Readmit Reason – Primary Procedure, code “OR for Sternal Debridement/Muscle Flap.”
PQRI Update

STS National Database participants will continue to benefit this year from efforts by STS leadership regarding the CMS Physician Quality Reporting Initiative (PQRI).

PQRI participants may be aware that they can report on two performance measures specific to CABG surgery, and four peri-operative care measures that apply to various procedures performed by cardiothoracic surgeons.

The inclusion of three additional cardiac surgery measures in the 2009 PQRI is currently being pursued. The proposed measures would cover orders for anti-platelet, beta blockade, and anti-lipid medications at discharge.

STS leadership continues to work to expand the list of measures for 2008 PQRI. In particular, STS obtained AQA endorsement of several process measures specifically developed to improve the quality of care for general thoracic surgery patients. However, regulatory procedural delays prevented CMS from implementing the newly-endorsed measures for 2008. Now these measures are expected to be endorsed by the National Quality Forum for inclusion in the 2009 PQRI. These new measures are:

- Recording of clinical stage prior to surgery for lung cancer and esophageal cancer resection;
- Participation in a systematic national database for general thoracic surgery;
- Recording of performance status prior to lung or esophageal cancer resection; and
- Pulmonary function tests before major anatomic lung resection.

Since pay for reporting/performance is ultimately about improving outcomes, STS continues to show leadership in the area of quality measurement by asking NQF also to endorse two risk-adjusted general thoracic outcome measures:

- Risk-adjusted morbidity: Length of stay >14 days after elective lobectomy for lung cancer. (This measure recently was added to the General Thoracic Surgery Database report).
- Risk-adjusted morbidity and mortality for esophagectomy for cancer.

In an exciting new development, CMS has chosen STS as a test registry for a 2008 PQRI reporting project. The goal of this project is to make it possible for registry participants to enter data simultaneously into a database, such as the Adult Cardiac Surgery Database, and to CMS, thus reducing the reporting burden and the cost to physicians for participating in PQRI.

Finally, STS is striving to develop meaningful quality measures for congenital heart surgery as well. PQRI and future pay for performance initiatives have been developed with Medicare patients in mind. However, there is every expectation that pay for performance will not be limited to patients covered by Medicare, so STS is preparing for this eventuality now. To improve quality of care and to position Congenital Heart Surgery Database participants for anticipated pay for performance initiatives, efforts are underway to develop NQF indicators for pediatric cardiac surgery.

Through quality initiatives led by dedicated surgeon volunteers, STS is committed to continually improving the benefits of participation in all the Databases. Such quality initiatives will provide participants with the tools needed for pay for performance initiatives while fulfilling the goal of improving the overall quality of patient care.

DCRI Update: Changes for 2008

More Frequent Harvests

A common refrain heard by DCRI over the past several years is that data feedback used by a hospital or surgical practice for quality improvement purposes must be as real-time as possible for any process of care changes to have a lasting impact. In response to this and other Database participant requests over the past few years, DCRI is now able to receive data on a more frequent basis.

As of 2008, the Adult Cardiac Surgery Database is harvesting four times per year and the Congenital Heart Surgery and General Thoracic Surgery Databases are harvesting twice annually. The 2008 first quarterly harvest of the Adult Cardiac Surgery Database is already underway and going strong. The harvest and report schedules in 2008 for all three Databases are provided in this newsletter. The same information is posted on the STS Web site under STS National Database, Data Managers Section. Look for the link “Harvest Information” for each of the Databases.

While this change in harvest frequency may mean additional work for the operations and resources of Database participants, software vendors, and the STS data warehouse, STS leadership and DCRI feel that the benefits are substantial. The most immediate advantage of more frequent harvests is that Database participants will have double the opportunity to receive data quality feedback via the Data Quality Report.

Reporting on STS Adult Cardiac Database v2.61 Data

DCRI is currently working in consultation with the STS surgeon leadership to update the harvest analysis reports to accommodate the v2.61 data specifications. When appropriate, the necessary mapping of data values will be performed to ensure that results for a given data element are consistent through time. In those cases when the clinical definition for a variable between v2.52.1 and v2.61 has substantially changed, an attempt will not be made to analyze those variables through time, but will likely be reported separately for the two data versions. In these cases, labels and footnotes will be used to clearly indicate which data version has been used for analysis. Data elements that were introduced to the Database for the first time with data v2.61 will be included in the harvest analysis reports when a sufficient amount of v2.61 data is available for analysis.

STS and DCRI sincerely appreciate the flexibility, cooperation, and support of Database participants as these important steps forward are taken!
The data specifications are the first documents data managers use to complete the data collection for patients undergoing cardiothoracic surgery. For the most efficient collection of data, there are several points to consider.

The v2.61 Training Manual and the v2.61 data specifications were recently published and are not expected to be changed or amended until the next upgrade in three years. That is not the case for the Frequently Asked Questions (FAQ) document. The FAQs are the only document that provides for active clarification regarding the data specifications.

By now, most data managers have had a chance to review the FAQs for v2.61. Note that the document has been updated and has a new look. When searching this document, look for the date the question was posted at the far left of the FAQ. The section and sequence number are identified next, and the data specification itself follows. The questions and responses are at the far right. Remember the FAQs are a valuable resource for answers about data specifications.

### Frequently Asked Questions of the Adult Cardiac Surgery Database v2.61

<table>
<thead>
<tr>
<th>Date</th>
<th>Section</th>
<th>Seq#</th>
<th>Field Name</th>
<th>Data Specification</th>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan-08</td>
<td>B</td>
<td>171</td>
<td>Health Insurance Claim Number</td>
<td>Health Insurance Claim (HIC) number of the primary beneficiary. This is an 11-digit number that uniquely identifies an individual for a claim. This field should be collected in compliance with state/local privacy laws.</td>
<td>Does it have to be 11 digits? Medicare is typically the 9 numbers (SS#) and 1 letter (a,b,c) + 10 not eleven.</td>
<td>The HIC number consists of the SS# and an alpha-numeric identifier. This identifier is usually just one digit (but in few instances may be two digits). You may only have 10 digits to enter - 3 is the number found on patient's Medicare cards. If the patient is not a Medicare patient, they will not have a HIC number. This is a new field and may be changed in the next upgrade to be a &quot;child&quot; of the Payor-Government Health Insurance fields.</td>
</tr>
<tr>
<td>Jan-08</td>
<td>C</td>
<td>248</td>
<td>Payor Government Health Insurance - Medicare</td>
<td>Indicate whether the government insurance used by the patient to pay for part or all of this admission included Medicare.</td>
<td>What do I code if a patient has a Medicare HMO?</td>
<td>All payor fields are &quot;Select all that apply&quot; as indicated on the Data Collection Form. Please code &quot;Yes&quot; to Seq# 248 re Medicare AND &quot;Yes&quot; to Seq# 255 re HMO.</td>
</tr>
<tr>
<td>Jan-08</td>
<td>D</td>
<td>412</td>
<td>NP - HbA1c level</td>
<td>Indicate the pre-operative HbA1c level closest to the date and time prior to surgery.</td>
<td>In the data specifications, HbA1c is a child field to Diabetes. Is it correct that you would not enter the A1c value unless you answer &quot;Yes&quot; to Diabetes?</td>
<td>That is correct. Diabetes must be coded &quot;Yes&quot; in order to complete the child field HbA1c.</td>
</tr>
<tr>
<td>Mar-08</td>
<td>D</td>
<td>424</td>
<td>Hypothyroidism</td>
<td>Indicate if the patient has a prior history of dyslipidemia diagnosed and/or treated by a physician. As per National Cholesterol Education Program criteria there are no specific guidelines to code hypothyroidism. If treatment was initiated prior to surgery this would qualify as a &quot;Yes&quot;.</td>
<td>Is it correct to code &quot;No&quot; for dyslipidemia? The 2.61 specification does not include Hypothyroidism. If the total cholesterol, LDL, and HDL do not meet the criteria for dyslipidemia but the triglycerides are ≥200 would we code &quot;No&quot; for dyslipidemia?</td>
<td>Yes, code &quot;No&quot; for hypothyroidism. This change in the data specification is to provide consistency with the ACC.</td>
</tr>
</tbody>
</table>

### Need help with a clinical question related to the STS National Database? Here is how to get an answer:

Due to the growth of the STS National Databases, which now have more than 1,000 participants, it is unfortunately no longer possible to answer clinical questions through phone calls to STS Headquarters. Instead, please submit any clinical questions via the Clinical Question Submission Form located on the Data Managers Section of the STS Web site. Submission via any other means will only result in delay as data managers will be instructed to submit the question via the Clinical Question Submission Form.

In order to answer questions in a timely manner, it is very important that the sequence number be included in the question. Remember, when a complicated background scenario is provided, the query can be vague, so all questions should be clearly stated. Please be sure to complete all areas of the form. The STS Database Core Groups work cooperatively to answer complex questions; STS surgeons are consulted when needed to ensure the responses to questions are accurate.

The goal is to have responses to all clinical questions answered within 30 days of submission. To meet this timeline and provide an answer as quickly as possible, all information will be answered on the Clinical Question Submission Form. This form can be located via www.sts.org/datamanager, look for "Clinical Support" under the appropriate Database.
Coding for Heart Failure  By Dorothy J. Latham, RN, STS Independent Consultant

Heart failure is a disease of epidemic proportions. Approximately 4.6 million Americans are currently living with heart failure, and it is estimated that 450,000 cases will be diagnosed in 2008.

Although heart failure can strike at any age, it is more common in people over the age of 65. The risk factors of heart failure can include hypertension, heart attack, valve disease, enlarged heart, and diabetes. (Note: A low ejection fraction without the clinical presentation does not qualify as heart failure.)

Heart failure can be difficult to diagnose because the symptoms can be mistaken for normal signs of aging. Symptoms that may signify heart failure are:

• Breathing difficulties, such as shortness of breath from walking stairs or simple activities (dyspnea); trouble breathing when resting or lying down; waking up breathless at night (paroxysmal nocturnal dyspnea); or needing more than two pillows to sleep (orthopnea).
• Fatigue/exercise intolerance, such as tiring easily; swelling of feet, ankles or legs (edema); or general feeling of fatigue.
• Coughing, especially including frequent coughing; coughing that produces a mucous or pink, blood-tinged sputum; and dry, hacking cough when lying flat in bed.

In order to determine the best course of therapy, physicians assess the stage of heart failure according to the New York Heart Association (NYHA) functional classification system. This system relates symptoms to everyday activities and the patient's quality of life as indicated in the table below.

Both heart failure and the NYHA system are addressed in The Society of Thoracic Surgeons (STS) Adult Cardiac Surgery Database v2.61 data specifications.

NYHA Classifications

<table>
<thead>
<tr>
<th>Class</th>
<th>Patient Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class I (Mild)</td>
<td>No limitation of physical activity. Ordinary physical activity does not cause undue fatigue, palpitation, or dyspnea (shortness of breath).</td>
</tr>
<tr>
<td>Class II (Mild)</td>
<td>Slight limitation of physical activity. Comfortable at rest, but ordinary physical activity results in fatigue, palpitation, or dyspnea.</td>
</tr>
<tr>
<td>Class III (Moderate)</td>
<td>Marked limitation of physical activity. Comfortable at rest, but less than ordinary activity causes fatigue, palpitation, or dyspnea.</td>
</tr>
<tr>
<td>Class IV (Severe)</td>
<td>Unable to carry out any physical activity without discomfort. Symptoms of cardiac insufficiency at rest. If any physical activity is undertaken, discomfort is increased.</td>
</tr>
</tbody>
</table>

Heart failure is defined in sequence #770: Indicate whether, within 2 weeks prior to the initial surgical procedure, a physician has diagnosed that the patient is currently in heart failure (HF). HF can be diagnosed based on careful history and physical exam, or by one of the following criteria:

1. Paroxysmal nocturnal dyspnea (PND);
2. Dyspnea on exertion (DOE) due to heart failure;
3. Chest X-ray (CXR) showing pulmonary congestion;
4. Pedal edema or dyspnea and receiving diuretics; or
5. Pulmonary edema.

Note: A low ejection fraction without clinical presentation does not qualify for history of heart failure.

The intent of the heart failure data definition is to capture the current diagnosis or exacerbation of an existing condition. Stable or non-symptomatic compensated failure is not to be coded as heart failure in the Database.

It is important to note that NYHA, sequence #775 is a “child” field to Heart Failure, sequence #770. The NYHA field represents a functional class for heart failure ONLY. If the patient presents without heart failure (Heart Failure=No), the NYHA field is not coded.

Risk model variables for heart failure and NYHA have been combined to derive a new categorical variable. This new variable is included in most of the adult cardiac risk models, and it is in all of the isolated CAB models except stroke. For Isolated Valve and CAB + Valve, the variable is in all of the models except stroke and deep sternal wound infection. For questions or clarifications on this matter, contact Linda Breen, STS Senior Manager of Quality and Patient Safety, at lbreen@sts.org.

AQO CEU certificates were mailed in January. Those who have not received a certificate should contact Amy Dancisak at adancisak@sts.org.
Effective Collaboration to Improve Outcomes in Cardiac Surgery

By the Quality Committee of the Virginia Cardiac Surgery Quality Initiative
Submitted by Edwin Fonner, Jr., DrPH, Executive Director

Efforts by the Virginia Cardiac Surgery Quality Initiative (VCSQI) to implement a standardized protocol to prevent the incidence of post-operative atrial fibrillation were included in the Spring 2007 issue of STS National Database News (Volume 5, Issue 1). As VCSQI continues its work to improve outcomes, below are two additional initiatives which relate to work on timely extubation and blood product use.

Background. VCSQI is a voluntary consortium that has grown to 17 hospitals and 13 cardiac surgical practices providing open heart surgery in the Commonwealth of Virginia. VCSQI’s members perform more than 99 percent of Virginia’s open heart procedures. The group has convened since 1996. VCSQI’s goal is to improve clinical quality across the state in heart surgery programs of all sizes through outcomes analysis and process improvements. VCSQI members have a unique database linking STS clinical data and financial outcomes. The collaborative model includes a process for convening leaders, use of technology for regional information sharing, educational programs to replicate best practices, and targeted systems changes to improve care processes.

Model for 2008-2009. There is interest among some of the group’s physician and administrative leaders to evolve beyond, not abandon, documenting and passive diffusion of best practices in cardiac surgery. Actively spearheading voluntary improvement efforts at specific under-performing sites using small teams to introduce a best practice is a goal. Initially, the VCSQI database would be employed to evaluate variances for specific post-operative outcomes and identify better performers and less optimal performers. Currently, this analysis is conducted with blinded/de-identified data. Agreement would be sought at a site with better-than-average outcomes to share its methods with others. On a confidential basis, a surgeon would conduct on-site interviews to document the best practice then help replicate them at sites requesting assistance in improving their outcomes in that particular area.

Underpinning these more targeted interventions, VCSQI intends to continue focusing on data quality assurance, benchmarking and reporting, and best practice discussions. With 40,000 records in our data repository (25,000 CABG cases), accurate coding and measurement of risk factors and clinical performance indicators is a cornerstone to QI efforts. Along with production of an annual Virginia Chart Book of hospital-specific process and outcomes measures and statewide norms, numerous queries are expected for addressing specific questions. The quarterly meetings will continue to focus on defining best practices and evaluating replication potential. The Quality Committee will continue to provide a valuable clearinghouse function for members posing questions and discussing various clinical issues among peers.

Timely-Extubation. While hospitals in Virginia have above-average risk-adjusted performance for a number of post-operative complications and operative mortality, prolonged ventilation has been a growing issue. In 2007, one of VCSQI’s surgeons visited three member hospitals to review their practices in extubating patients. One of the three sites had low risk-adjusted rates for prolonged ventilation. The other sites were controls for comparative purposes. First, the surgeon reviewed cardiac anesthesia procedures for narcotic induction, sedation, use of muscle relaxants, and volatile agents. The objective was to determine the extent to which the hospitals’ practices facilitated early extubation. With the goal of extubation within 4 to 8 hours, some of the observations included the following:

- Use less sedation and shorter-acting muscle relaxants;
- Bispectral Index Monitoring of patients should be an integral part of a cardiac anesthesia protocol;
- Wean and extubate patients on IABP;
- With moderate hypothermia, there is less need for all of the anesthesia agents;
- More aggressive re-warming facilitates earlier waking up and extubation;
- Using the same standing orders for all surgeons ensures consistency;
- Promote understanding by tracking extubation times for all anesthesiologists and discussing results at quarterly meetings.

Next, the surgeon reviewed hospitals’ cardiac ICU practices related to progressively decreasing ventilator rates as patients awakened after surgery. Barriers to early extubation included respiratory therapists (RTs) not being available or not in the ICU, RTs covering multiple units, and new RTs unfamiliar with hospital practices. A preferred practice was to give nurses more autonomy to do all weaning from the ventilator along with annual competency checks and orientations on respiratory management. Patient issues impeding extubation in the ICU include heavy bleeding, patient instability and patients on multiple inotropes. Having an anesthesiologist available outside the OR assists the team and results in more aggressive early extubation.

Blood Product Use. The second clinical topic drawing the attention of VCSQI’s Quality Committee relates to blood product usage. Interest was stimulated by an outstanding presentation on the topic made to the group in 2006 by Dr. Bruce Speiss, Medical College of Virginia. Responding to another issue, at about the same time, VCSQI conducted a retrospective study matching STS records with hospital pharmacy data for 2005 to determine whether or not there were adverse outcomes associated with the use of aprotinin. The results of this study of 3,731 isolated CABG cases were not conclusive because one of the confounding factors related to the occurrence of transfusions at participating hospitals. Further, it was pointed out that the comparability of data on blood product use from one site to another is impeded due to the absence of a standard for measuring units of blood.

The group then began to formulate a set of objectives related to blood product use for VCSQI members. The objectives relate to (1) creating uniform definitions for more comparable measure-
ment, (2) adopting the same transfusion triggers, (3) striving to improve coordination between surgeons and other providers for requesting blood, and (4) designating a transfusion gatekeeper to help lower rates of transfusions. One VCSQI member forged ahead reducing their transfusion rate from in excess of 60 percent to below 30 percent, resulting in significant cost reductions and improved patient outcomes.

Currently, a survey is being conducted of all cardiothoracic surgeons in Virginia to learn more about individual practices in ordering blood products. Survey questions focus on practices in the OR, in the ICU, and in the post-op step-down unit. Focusing on the OR, surgeons are being asked whether cardiac anesthesia and/or perfusionists order blood and at what hemoglobin and hematocrit levels. Similarly, respondents are being asked to identify the roles played by the surgeon, intensivist, cardiologist, and/or anesthesiologist in ordering blood products in the ICU and step-down units. Respondents will also be asked to identify the hemoglobin and hematocrit triggers used where patients aren’t actively bleeding. Finally, surgeons are being asked for the lowest hemoglobin levels at which they allow patients to be discharged, looking at patients over and under 70 years of age. Results of this survey will be summarized and presented at the next VCSQI quarterly meeting.

Attributes of an Effective Regional Collaboration. Among regional groups across the country, some of the acknowledged obstacles to effective collaboration of surgeons and heart programs include a reticence to reveal hospital and physician identities in comparative reports, a need for more in-depth data auditing due to suspicions about data quality, minimal standardization of best practices across sites, absence of physician leadership, and lack of funding for pursuing common initiatives. On the other hand, here is a set of attributes of more effective group efforts:
1. **Focus** – The group concentrates on topics of relevance and strategic importance. They share a common interest and understand their mission.
2. **Champions** – There is a presence in the group of several committed and energetic leaders who are highly regarded and listened to by the group.
3. **Evident Need to Improve** – The group strives to make improvements in a number of areas impacting patient health, resource use, and reduced variations in outcomes.
4. **Options** – Participants are not locked into one track and have options to select from based on their organizational needs and constraints.
5. **Track Record** – There is evidence of early and consistent wins. Leaders are convinced that there is or will be a favorable return-on-investment.
6. **Positive Working Relations** – There exists long-standing positive working relationships among participants. The group is compatible and mutually respectful.

7. **Low Turnover** – There is moderate to low turnover among participants. Efforts are made to engage new leaders as they emerge and replace retiring ones.
8. **(Some) Transparency** – The group is willing to share data, best practices, and information on their strengths and weaknesses. There is a degree of trust among participants.
9. **Information Technology** – Advanced technology is available to the group to facilitate their communications and analytic work.
10. **Multidisciplinary Composition** – Recognizing that surgery is a team sport, the group is representative of the whole. It has sufficient depth, breadth, and balance.
11. **Communications** – Participants engage in regular formal and informal communications, which are characterized as non-hierarchical and serve a clearinghouse function.
12. **Manageable Size and Proximity** – The group has a limited number of participants and manageable geographic proximity (i.e., not too near each other or too far away either).
13. **Methodology** – There is a process for identifying key issues, reviewing evidence, comparing relative performance, introducing and replicating best practices.
14. **Arbitration** – The group has a mechanism for resolving conflicts, preserving confidentiality, and for trying best practice performers to those needing help.
15. **Tolerance** – There is a spirit of acceptance, tolerance for new ideas, a willingness to test innovations, and adaptability to new circumstances.
16. **Dedicated Facilitation** – There are one or more individuals serving as neutral facilitators, motivating participants, solving problems, and helping to build trust.

**Happiness Is.** In closing, what are some of the keys that project directors should look for as they launch collaborative activities in 2008? Here are several reasons for happiness and optimism. Happiness is having 30 participants in the year’s first quality conference call and having to pay for more than 1,800 minutes of long-distance charges. Happiness is having 80 percent of the annual membership dues collected by February 15. Happiness is getting a call late Saturday afternoon from a surgeon requesting some data for a PowerPoint presentation (due Sunday afternoon). After jumping up and volunteering on an initiative at the December meeting, happiness is having several surgeons follow-through on their commitments in January prior to the next meeting. Finally, happiness is having a sense of a shared vision and collective mission backed by a functioning set of bylaws and a participative governance process. The members of the VCSQI Quality Committee hope that other groups striving for similar successes will make progress in 2008.
New 2008 STS Database Harvest Schedules

STS is pleased to offer all participants in the STS National Database increased opportunities to harvest data. Starting in 2008, Adult Cardiac Surgery Database harvests are now quarterly, allowing four opportunities in a calendar year for data submission. The General Thoracic Surgery and Congenital Heart Surgery Databases have also increased harvest opportunities by offering semi-annual (two per year) harvest schedules.

This new harvest schedule will allow outcomes to be reported closer to realtime than previous schedules. STS encourages all participants to take advantage of this opportunity. The 2008 dates for the new harvest schedule for all three Databases are as follows:

### ADULT CARDIAC SURGERY

**FIRST QUARTER - 2008**
Harvest Window - Jan 1, 2007 through Dec 31, 2007
January 28, 2008 - Harvest notifications sent
February 11, 2008 - First day to submit data file
February 29, 2008 - Harvest data submissions end
March 7, 2008 - Final sign-off paperwork due late-March 2008 - Final Report distribution

**SECOND QUARTER - 2008**
Harvest Window - Apr 1, 2007 through Mar 31, 2008
April 14, 2008 - Harvest notifications sent
May 12, 2008 - First day to submit data file
May 30, 2008 - Harvest data submissions end
June 6, 2008 - Final sign-off paperwork due late-June 2008 - Final Report distribution

**THIRD QUARTER - 2008**
Harvest Window - Jul 1, 2007 through Jun 30, 2008
July 14, 2008 - Harvest notifications sent
August 11, 2008 - First day to submit data file
August 29, 2008 - Harvest data submissions end
September 5, 2008 - Final sign-off paperwork due late-September 2008 - Final Report distribution

**FOURTH QUARTER - 2008**
Harvest Window - Oct 1, 2007 through Sep 30, 2008
October 13, 2008 - Harvest notifications sent
November 10, 2008 - First day to submit data file
November 28, 2008 - Harvest data submissions end
December 5, 2008 - Final sign-off paperwork due late-December 2008 - Final Report distribution

### CONGENITAL HEART SURGERY

**SPRING - 2008**
Harvest Window - Jan 1, 2006 through Dec 31, 2007
February 11, 2008 - Harvest notifications sent
March 10, 2008 - First day to submit data file
March 28, 2008 - Harvest data submissions end
April 4, 2008 - Final sign-off paperwork due late-April 2008 - Final Report distribution

**FALL - 2008**
Harvest Window - Jul 1, 2006 through Jun 30, 2008
August 11, 2008 - Harvest notifications sent
September 8, 2008 - First day to submit data file
September 26, 2008 - Harvest data submissions end
October 3, 2008 - Final sign-off paperwork due late-October 2008 - Final Report distribution

### GENERAL THORACIC SURGERY

**SPRING - 2008**
Harvest Window - Jan 1, 2006 through Dec 31, 2007
February 11, 2008 - Harvest notifications sent
March 10, 2008 - First day to submit data file
March 28, 2008 - Harvest data submissions end
April 4, 2008 - Final sign-off paperwork due late-April 2008 - Final Report distribution

**FALL - 2008**
Harvest Window - Jul 1, 2006 through Jun 30, 2008
August 11, 2008 - Harvest notifications sent
September 8, 2008 - First day to submit data file
September 26, 2008 - Harvest data submissions end
October 3, 2008 - Final sign-off paperwork due late-October 2008 - Final Report distribution
## 2008 CALENDAR OF EVENTS

### Regional Core Group Meetings

<table>
<thead>
<tr>
<th>Date/Time</th>
<th>Location</th>
<th>For more information, contact:</th>
<th>Date/Time</th>
<th>Location</th>
<th>For more information, contact:</th>
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<tbody>
<tr>
<td><strong>California STS</strong></td>
<td></td>
<td></td>
<td><strong>November 2008</strong></td>
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<tr>
<td>TBD</td>
<td></td>
<td>Edwin Fonner, Jr., DrPH</td>
<td>November 2008</td>
<td>(Tentative)</td>
<td>Beth Moran</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(913) 888-2179</td>
<td></td>
<td></td>
<td>(507) 255-4045</td>
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<td></td>
<td></td>
<td><a href="mailto:edfonner@aol.com">edfonner@aol.com</a></td>
<td></td>
<td></td>
<td><a href="mailto:moran.beth@mayo.edu">moran.beth@mayo.edu</a></td>
</tr>
<tr>
<td><strong>Colorado/Wyoming</strong></td>
<td></td>
<td></td>
<td><strong>Missouri/Kansas Regional CV Data Managers</strong></td>
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<td>April 8, 2008</td>
<td>Aurora, CO</td>
<td>Linda Taylor, RN</td>
<td>April 25, 2008</td>
<td></td>
<td>Carrie Kilgore, RN</td>
</tr>
<tr>
<td>Time: TBD</td>
<td></td>
<td>(719) 776-2797</td>
<td></td>
<td></td>
<td>(913) 508-9731</td>
</tr>
<tr>
<td></td>
<td></td>
<td><a href="mailto:lindataylor@centura.org">lindataylor@centura.org</a></td>
<td></td>
<td></td>
<td><a href="mailto:ckilgore@mac.md">ckilgore@mac.md</a></td>
</tr>
<tr>
<td><strong>Delaware Valley Quality Improvement Initiative</strong></td>
<td></td>
<td>Angela de Albuquerque, RN, BSN</td>
<td><strong>Ohio</strong></td>
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<tr>
<td>TBD</td>
<td></td>
<td>(215) 345-2486</td>
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<tr>
<td></td>
<td></td>
<td><a href="mailto:ADeAlbuquerque@dh.org">ADeAlbuquerque@dh.org</a></td>
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<tr>
<td><strong>Florida Regional STS Data Managers Group</strong></td>
<td></td>
<td>Pam Chapin, RN</td>
<td><strong>Virginia Cardiac Surgery Quality Initiative</strong></td>
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<tr>
<td>TBD</td>
<td></td>
<td>(727) 298-6953</td>
<td>June 5 or 12, 2008</td>
<td></td>
<td>Edwin Fonner, Jr., DrPH</td>
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<tr>
<td></td>
<td></td>
<td><a href="mailto:pamela.chapin@baycare.org">pamela.chapin@baycare.org</a></td>
<td>5:30 p.m.</td>
<td></td>
<td>(913) 888-2179</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Richmond, VA</td>
<td></td>
<td><a href="mailto:edfonner@aol.com">edfonner@aol.com</a></td>
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<tr>
<td><strong>Iowa/Nebraska</strong></td>
<td></td>
<td>Mary Schrader</td>
<td>September 25, 2008</td>
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<td>Edwin Fonner, Jr., DrPH</td>
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<tr>
<td>TBD</td>
<td></td>
<td>(505) 223-2891</td>
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<td>(913) 888-2179</td>
</tr>
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<td></td>
<td></td>
<td><a href="mailto:Mschrader@izglo.sdps.org">Mschrader@izglo.sdps.org</a></td>
<td>Charlottesville, VA</td>
<td></td>
<td><a href="mailto:edfonner@aol.com">edfonner@aol.com</a></td>
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<tr>
<td><strong>Massachusetts Cardiac Surgery Data Managers</strong></td>
<td></td>
<td>Ann Lovett</td>
<td>December 4, 2008</td>
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<td>Edwin Fonner, Jr., DrPH</td>
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<tr>
<td>September 18, 2008</td>
<td>Cape Cod Hospital Hyannis, MA</td>
<td>(617) 432-0005</td>
<td>5:30 p.m.</td>
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<td>(913) 888-2179</td>
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<td>10:00 a.m.-2:00 p.m.</td>
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<td><a href="mailto:Lovett@hcp.med.harvard.edu">Lovett@hcp.med.harvard.edu</a></td>
<td>RSVP suggested</td>
<td></td>
<td><a href="mailto:edfonner@aol.com">edfonner@aol.com</a></td>
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<tr>
<td>November 19, 2008</td>
<td>Charlton Hospital Fall River, MA</td>
<td>(617) 432-0005</td>
<td>Charlottesville, VA</td>
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<td>10:00 a.m.-2:00 p.m.</td>
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<td><a href="mailto:Lovett@hcp.med.harvard.edu">Lovett@hcp.med.harvard.edu</a></td>
<td>RSVP suggested</td>
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<td><strong>Michigan STS Data Managers</strong></td>
<td></td>
<td>Jaelene Williams, RN, MS</td>
<td><strong>Washington STS Data Managers Group</strong></td>
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<td>May 30, 2008</td>
<td>Ann Arbor, MI</td>
<td>(734) 712-7278</td>
<td>May 2008</td>
<td></td>
<td>Jillian Harrington</td>
</tr>
<tr>
<td>10:00 a.m.—4:00 p.m.</td>
<td></td>
<td><a href="mailto:williamj@trinity-health.org">williamj@trinity-health.org</a></td>
<td>Date: TBA</td>
<td>Swedish Medical Center</td>
<td>(206) 543-1842</td>
</tr>
<tr>
<td>August 7 &amp; 8, 2008</td>
<td>Traverse City, MI</td>
<td>Jaelene Williams, RN, MS</td>
<td>10:00 a.m.-2:00 p.m.</td>
<td></td>
<td><a href="mailto:jillianh@u.washington.edu">jillianh@u.washington.edu</a></td>
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<tr>
<td>Time: TBD</td>
<td></td>
<td>(734) 712-7278</td>
<td>Harrison Medical Center</td>
<td></td>
<td>(206) 543-1842</td>
</tr>
<tr>
<td></td>
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<td><a href="mailto:williamj@trinity-health.org">williamj@trinity-health.org</a></td>
<td>November 2008</td>
<td></td>
<td><a href="mailto:jillianh@u.washington.edu">jillianh@u.washington.edu</a></td>
</tr>
<tr>
<td>December 5, 2008</td>
<td>Ann Arbor, MI</td>
<td>Jaelene Williams, RN, MS</td>
<td>Date: TBA</td>
<td></td>
<td>Jillian Harrington</td>
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<tr>
<td>10:00 a.m.-4:00 p.m.</td>
<td></td>
<td>(734) 712-7278</td>
<td>TBA</td>
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<td>(206) 543-1842</td>
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<td><a href="mailto:williamj@trinity-health.org">williamj@trinity-health.org</a></td>
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<td></td>
<td><a href="mailto:jillianh@u.washington.edu">jillianh@u.washington.edu</a></td>
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<tr>
<td><strong>Minnesota STS</strong></td>
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<td><strong>Wisconsin Cardiac Data Managers</strong></td>
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<tr>
<td>June 26, 2008</td>
<td>(tentative)</td>
<td>Beth Moran</td>
<td>April 24, 2008</td>
<td></td>
<td>Jean Sesing, RN</td>
</tr>
<tr>
<td>Time: TBD</td>
<td></td>
<td>(507) 255-4045</td>
<td>Time: TBD</td>
<td>Waukesha Memorial Hospital</td>
<td>(262) 928-2621</td>
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<tr>
<td></td>
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<td><a href="mailto:moran.beth@mayo.edu">moran.beth@mayo.edu</a></td>
<td></td>
<td></td>
<td><a href="mailto:Jean.sesing@phci.org">Jean.sesing@phci.org</a></td>
</tr>
</tbody>
</table>
Database Operations Questions and Answers for New (and ‘Seasoned’) Primary and Backup Data Managers

1) Does STS have my new contact information?
If you are new to the position of primary or backup data and file manager for your site, please make sure STS has the ability to contact you. Visit the Contact Us section of the STS National Database, URL: http://www.sts.org/sections/stsnationaldatabase/contact/. Print the Participant Contact Form and fax it to our data warehouse, Duke Clinical Research Institute (DCRI), at (919) 668-7074.

Please keep all contact information up-to-date in order to receive e-mails from STS Headquarters, DCRI communications and your reports, to name just a few important reasons. If you are not sure who is listed for each role on the Contact Form, please contact your Clinical Data Specialist (see Question #7 below).

2) How do I add a surgeon to the Database?
If a cardiothoracic surgeon at your site has recently joined, STS requires his/her original signature on a Schedule A (part of the STS Participation Agreement) as well as his/her contact information. Please visit the Contact Us section of the STS National Database, http://www.sts.org/sections/stsnationaldatabase/contact/ to obtain and submit the Schedule A. Also inform STS when a surgeon leaves and update your Participant Contact Form (as above) so that your site’s report is accurate.

3) Can I submit the data for all surgeons at my site?
You may do so only if you have previously submitted a Schedule A to STS with the signatures of all the surgeons. If a surgeon signature does not appear on a Schedule A, do not submit this surgeon’s data. Please remember that all participants in the STS National Database are contractually required to inform STS of any additions or deletions in the composition of their cardiothoracic surgeon groups. The Schedule A surgeon signature sheet can be located at http://www.sts.org/sections/stsnationaldatabase/contact/.

4) How do I inform STS about a change in software vendors?
If your site is switching software vendors, please contact Gerry Tarafa at STS via e-mail at gtarafa@sts.org with your new software vendor information and the effective date of the vendor change.

5) Is my Adult Cardiac Surgery Database Participation Agreement valid for the General Thoracic Surgery Database and/or Congenital Heart Surgery Database as well?
No. A separate Participation Agreement and Business Associate Contract and Data Use Agreement are required for each Database joined. Refer to the “Steps to Participation” in the STS National Database at www.sts.org/participate. Download the Participant Contact Form and send to Gerry Tarafa at STS via fax at (312) 202-5801.

6) Where can I find information on the new 2008 harvest schedule?
Each of the three STS National Databases—the Adult Cardiac Surgery Database, the General Thoracic Surgery Database, and the Congenital Heart Surgery Database—has a new 2008 harvest schedule. Please visit the Harvest Information page at www.sts.org/datamanager for harvest dates. These dates are also included in this issue of STS National Database News.

7) Who is my Clinical Data Specialist?
All STS National Database participants have an assigned Clinical Data Specialist to assist them with any harvest related matters. For the Adult Cardiac Surgery Database, the Clinical Data Specialist is assigned according to the participant’s state. Please refer to the map of DCRI Clinical Data Specialists located at www.sts.org/participate to determine if Carolyn Lumpkins, (919) 668-8762, or Haywood Allen (919) 668-8303, is your Clinical Data Specialist. Leigh Ann Jones (919) 668-8299 is the Clinical Data Specialist for all General Thoracic Surgery Database and Congenital Heart Surgery Database participants.

8) What is the participation fee for the STS National Database?
Each of the three Databases has a separate fee structure. Please refer to the STS National Database Participation Manual at www.sts.org/participate regarding fees for the Adult Cardiac Surgery Database, the General Thoracic Surgery Database, and the Congenital Heart Surgery Database.

Question #7 below).

STNS National Database Contacts

Questions regarding national collaborative opportunities, STS Database data, and third party payors?
Contact Cynthia M. Shewan, PhD, Director, Quality, Research and Patient Safety, (312) 202-5812, cshewan@sts.org.

Questions regarding Database revisions, upgrades, audit processes, newsletters, and clinical issues?
Contact Linda S. Breen, RN, MPH, CPHQ, Senior Manager, Quality and Patient Safety, (312) 202-5842, lbre@sts.org.

Questions regarding how to participate in the Databases, obtain participation agreements and other contracts, or update STS/DCRI contact information?
Contact Gerry Tarafa, MBA, Operations Administrator, STS National Databases, (312) 202-5833, gtarafa@sts.org.

Questions regarding general administrative activities or if unsure who to contact?
Contact Amy Dancisak, Quality, Research and Patient Safety Coordinator, (312) 202-5818 or adancisak@sts.org.

Questions relating to the General Thoracic Surgery Database, the Congenital Heart Surgery Database, and the STS National Database?
Visit the Contact Us section of the STS National Database at www.sts.org/sections/stsnationaldatabase/contact/.

Questions for the Adult Cardiac Surgery Database?
Download the Participant Contact Form and send to your Clinical Data Specialist. The Adult Cardiac Surgery Database can be found at http://www.sts.org/sections/stsnationaldatabase/contact/.

Questions related to the Congenital Heart Surgery Database?
Print the Participant Contact Form and fax it to your Clinical Data Specialist. The Congenital Heart Surgery Database can be found at http://www.sts.org/sections/stsnationaldatabase/contact/.