

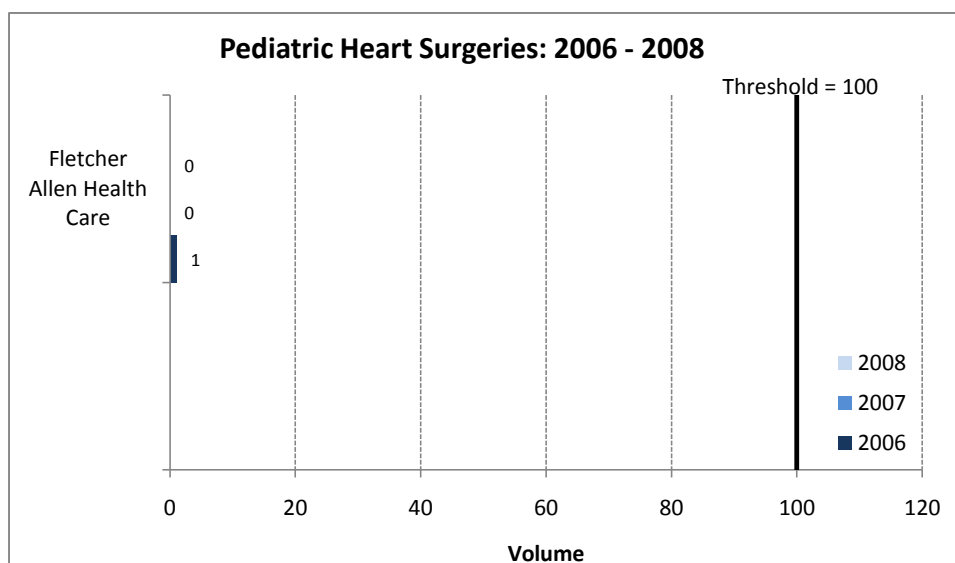
## PEDIATRIC HEART SURGERIES

Pediatric heart surgery includes many different types of heart surgeries performed on infants or children under the age of 18. These surgeries are performed to treat congenital heart disease or other conditions that develop before or at birth.

### Pediatric Heart Surgeries: Volume

Volume is measured as the number of pediatric patients who underwent heart surgeries. There are medical studies that suggest that patients who have their surgery at hospitals that perform higher volumes of these procedures have better medical outcomes (fewer deaths or complications) than patients who have surgery at hospitals that perform fewer procedures. For pediatric heart surgeries, the medical studies suggest that the minimum number of procedures is 100 procedures each year at a particular hospital (these numbers are shown as “Thresholds” in the graph below; see Technical Guide for more information). Volume data should always be considered together with medical outcomes, such as the mortality data shown in the table on the next page.

- Hospitals not shown had no cases in the reporting years.
- Hospital comments about this measure are listed below the mortality table.
- These volume data may include more patients than the mortality data on the following page. The mortality data exclude patients who were discharged (transferred) to another hospital or for whom discharge information is unknown.



### Pediatric Heart Surgeries: Mortality Rate

Mortality refers to the number of patients who underwent the procedure at a hospital and died at the same hospital (see Technical Guide for more information).

- Lower rates may represent better quality.
- These measures lack reliability and are influenced by random variation when the number of

procedures is small. Small numbers of reported cases are often not sufficient for establishing a pattern of care. For this reason, mortality rates are not calculated for hospitals with fewer than 30 cases in a reporting year. Even when there are more than 30 cases, caution should be used when interpreting rates.

- Hospitals not shown had no cases in any of the reporting years.
- Hospital comments about this measure are listed below the table.
- These mortality data may include fewer patients than the volume data on the previous page. The mortality data exclude patients who were discharged (transferred) to another hospital or for whom discharge information is unknown.

Hospitals performing procedures in 2005, 2006, and/or 2007	Number of Procedures			Number of Deaths			Mortality Rate					
							Observed Rate			Risk-Adjusted Rate		
	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008
Fletcher Allen Health Care	0	0	0									
Vermont Total	0	0	0									
National Total										4%	4%	NA

\* Rates for hospitals with fewer than 30 procedures are not presented because of concerns that small numbers result in statistically unreliable rates.

NA = "Not Available" - National mortality rates are not yet available for 2008 (<http://hcup.ahrq.gov>).

## Definitions

Number of Procedures	- The number of patients who underwent this procedure at the hospital (does not include patients who were transferred to another hospital or who have unknown discharge information).
Number of Deaths	- The number of patients who underwent this procedure at a hospital and died at the same hospital.
Mortality Rate	- The percentage of patients who underwent this procedure who died at the hospital. Two ways of measuring this rate are Observed Rate and Risk-Adjusted Rate.
Observed Rate	- The Number of Deaths divided by the Number of Procedures. This does not take into account age, gender, or the complexity of particular cases.
Risk-Adjusted Rate	- Mortality rate adjusted for age, gender, and complexity. This rate allows for better comparisons between hospitals. It is important to note, however, that it is difficult to draw firm conclusions from rates based on a small number of procedures.

The following hospitals provided additional comments about pediatric heart surgeries:

**Fletcher Allen Health Care:** As an academic institution, our goal is to provide the best patient care possible by bringing research and education to the bedside. Fletcher Allen Health Care does not have sufficient volume to support a separate pediatric heart surgery program. Our highly skilled Cardio Thoracic Surgery team can, in emergency situations, respond to emergent pediatric patient conditions where transport is not feasible. Our pediatric cardiologists do provide pediatric heart care utilizing a wide range of diagnostic and therapeutic procedures.

September 2010, report prepared by Monica Boyd, Vermont Program for Quality in Health Care