Cardiac Surgery in Pennsylvania 2005 - Key Findings

- In 2000, the in-hospital mortality rate for patients undergoing a CABG procedure (without a valve procedure) was 2.39 percent; the rate had declined to 1.98 percent in 2004, and further declined to 1.90 percent in 2005.
- The 7-day readmission rate for patients undergoing a CABG procedure (without a valve procedure) declined from 6.2 percent in 2000 to 5.2 percent in 2004 and then increased slightly to 5.5 percent in 2005. The 30-day readmission rate declined from 14.5 percent in 2000 to 13.2 percent in 2004 and then increased slightly to 13.6 percent in 2005.
- Between 2004 and 2005, the average number of open heart procedures performed by surgeons declined from 131 cases per surgeon to 121 cases per surgeon-down from 149 in 2000. The average number of open heart procedures per hospital declined from 376 cases per hospital to 346 cases per hospital-down from 499 in 2000.
- Patients who underwent both valve and CABG surgery during the same hospitalization had the highest mortality rates and the highest readmission rates, while those patients who underwent CABG, but did not have a valve procedure, had the lowest mortality and readmission rates (see table below).

Statewide Figures by Reporting Group

	Reporting Group			
	CABG without Valve	Valve without CABG	Valve with CABG	Total Valve
Number of Cases	11,875	2,846	2,610	5,456
In-Hospital Mortality Rate	1.9%	3.0%	7.5%	5.2%
30-Day Mortality Rate	2.3%	3.6%	8.6%	6.0%
7-Day Readmission Rate	5.5%	6.6%	7.8%	7.2%
30-Day Readmission Rate	13.6%	17.8%	19.2%	18.4%

- The top three reasons for readmission within 7 days of discharge after undergoing CABG and/or valve procedures were heart failure (21.2 percent), infections (16.9 percent), and cardiac dysrhythmias (10.6 percent). These were also the top three reasons for readmission within 30 days of discharge, with infections at 21.0 percent, heart failure at 20.1 percent, and cardiac dysrhythmias at 10.7 percent.
- In 2005, the average commercial payment and the average Medicare payment for CABG and/or valve surgeries were similar. However, there were differences in the number of days that patients with commercial insurance and those covered by Medicare stayed in the hospital. The differences in total length of stay appear to stem from differences in post-surgical length of stay, rather than differences in time spent in the hospital prior to surgery. The average payment reported is for the entire length of stay.

Average Payments and Length of Stay (LOS) by Reporting Group

	Reporting Group							
	CABG without Valve		Valve without CABG		Valve with CABG		Total Valve	
Payor	Average Payment	Average Post-Surgical LOS	Average Payment	Average Post-Surgical LOS	Average Payment	Average Post-Surgical LOS	Average Payment	Average Post-Surgical LOS
Commercial Insurance	$30,247	5.6 days	$41,651	6.7 days	$47,471	8.6 days	$43,500	7.3 days
Medicare	$29,175	7.5 days	$42,433	9.4 days	$44,119	10.6 days	$43,343	10.0 days

- In 2005, hospitals submitted data on the following hospital-acquired infections: urinary tract infections, surgical site infections, pneumonias, and bloodstream infections. Of the 17,331 patients who underwent CABG and/or valve surgery, hospitals reported that 755 (4.4 percent) contracted one or more of these infections during their stay. Patients who underwent both CABG surgery and a valve procedure during the same hospitalization were the most likely to contract a hospital-acquired infection (8.0 percent), and patients who underwent CABG with no valve procedures were the least likely to contract a hospital-acquired infection (3.6 percent). The following table displays the differences in outcomes for patients who did and those who did not contract an infection during their hospital stay.

Patients...	In-Hospital Mortality Rate	Average Post-Surgical Length of Stay	Average Hospital Charge	Average Commercial Payment	Average Medicare Payment
With a Hospital-Acquired Infection	13.5%	21.7 days	$328,992	$65,514	$57,883
Without a Hospital-Acquired Infection	2.4%	7.1 days	$122,454	$32,764	$32,911