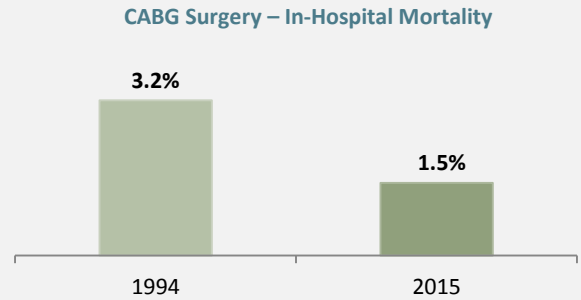


Statewide Statistics and Key Findings

Mortality Rate ↓ 53.4% for CABG Surgery

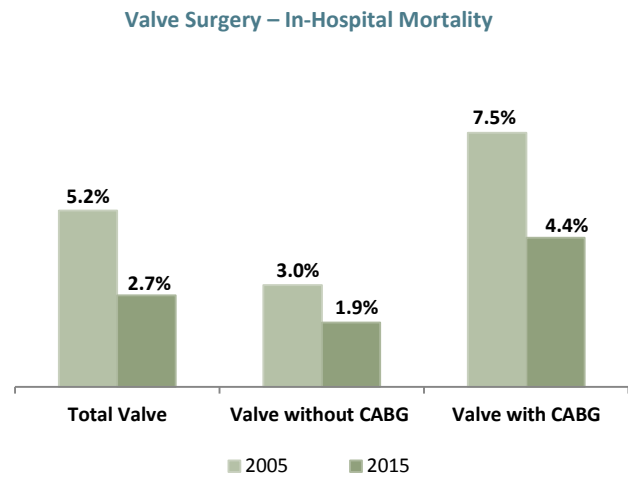
Statewide, the in-hospital mortality rate for coronary artery bypass graft (CABG) surgery (without a valve procedure) declined 53.4% between 1994 and 2015, from 3.2% to 1.5%



Mortality Rate ↓ 46.7% for Valve Surgery

Statewide, in-hospital mortality dropped for valve surgery patients between 2005, when PHC4 began reporting on valve procedures, and 2015:

- 46.7% decrease for the total valve procedure group, from 5.2% to 2.7%.
- 35.5% decrease in valve without CABG, from 3.0% to 1.9%.
- 40.5% decrease in valve with CABG, from 7.5% to 4.4%.



Medicare Fee-For-Service Payment Trends

Average Medicare Fee-For-Service Payment

Procedure Group	2005	2008	2011	2014
CABG without Valve	\$29,175	\$30,546	\$32,564	\$32,499
Total Valve	\$43,343	\$47,500	\$48,461	\$44,246
Valve without CABG	\$42,433	\$47,346	\$47,540	\$43,206
Valve with CABG	\$44,119	\$47,669	\$49,924	\$45,873

Note: 2014 Medicare payment data is the most recent available

Statewide Statistics and Key Findings

Readmission Rate ↓ 17.2% for CABG Surgery

Statewide, the 30-day readmission rate for coronary artery bypass graft (CABG) surgery (without a valve procedure) declined 17.2% between 2002/2003 and 2014/2015, from 12.8% to 10.6%.

CABG Surgery – Readmissions

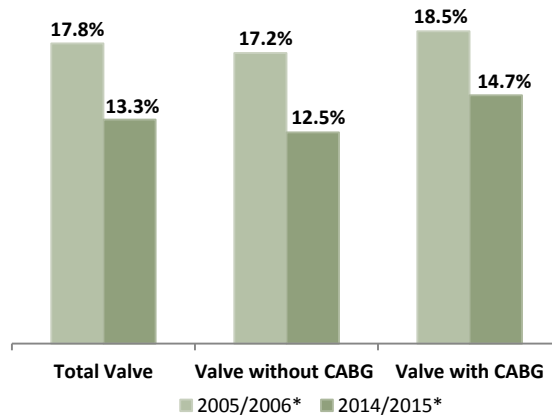


Readmission Rate ↓ 25.4% for Valve Surgery

Statewide, 30-day readmission rates dropped for valve surgery patients between 2005/2006 and 2014/2015:

- 25.4% decrease for the total valve procedure group, from 17.8% to 13.3%.
- 26.9% decrease in valve without CABG, from 17.2% to 12.5%.
- 20.4% decrease in valve with CABG, from 18.5% to 14.7%.

Valve Surgery – Readmissions



* Based on fiscal years July 1 to June 30. PHC4 first reported valve procedures in 2005.

Readmissions – Readmissions add to the overall cost of care through additional days spent in the hospital. Overall, 2,270 patients (11.7%) who underwent CABG and/or valve surgery between January 1, 2014 and August 31, 2015 were readmitted to the hospital within 30-days of discharge, adding 12,857 hospital days.

Procedure Group	Patients Readmitted within 30 Days		For patients readmitted within 30 days, the readmissions were associated with...		
	Number	Percent	Mortality Percent	Average Length of Stay (days)	Total Days
Total	2,270	11.7%	2.8%	5.7	12,857
CABG without Valve	1,126	10.2%	2.5%	5.6	6,277
Total Valve	1,144	13.7%	3.1%	5.8	6,580
Valve without CABG	733	13.3%	2.6%	5.2	3,838
Valve with CABG	411	14.5%	4.1%	6.7	2,742

Statewide Statistics and Key Findings

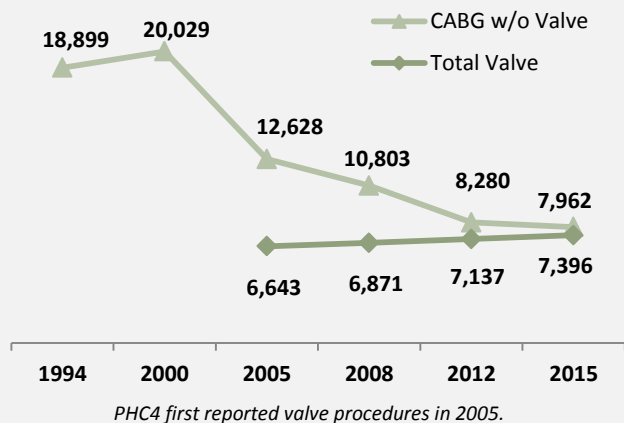
Number of CABG Procedures ↓ 57.9%

Statewide, the number of coronary artery bypass graft (CABG) procedures performed in Pennsylvania hospitals decreased 57.9% between 1994 and 2015, from 18,899 to 7,962.

Number of Total Valve Procedures ↑ 11.3%

The number of total valve procedures increased 11.3% between 2005 and 2015, from 6,643 to 7,396.

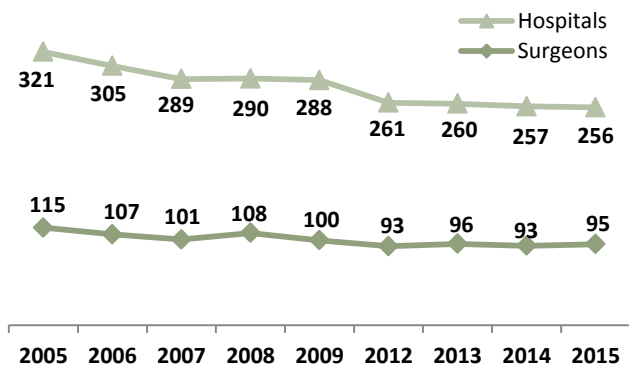
Number of CABG (1994-2015) and Total Valve (2005-2015) Procedures



Average Number of Procedures

The average number of CABG and/or valve procedures performed annually by hospitals and surgeons decreased between 2005 and 2015— from 321 to 256 for hospitals and from 115 to 95 for surgeons.

Average Number of CABG and/or Valve Procedures Performed Annually



Healthcare-Associated Surgical Site Infection Rates (2015 Data)

Reported by Pennsylvania Department of Health

15.5 per 1,000 procedures – Cardiac bypass graft surgery with one incision

18.3 per 1,000 procedures – Cardiac bypass graft surgery with two incisions

The Pennsylvania Department of Health (DOH) publicly reports hospital-specific healthcare-associated infection rates including surgical site infection rates for cardiac bypass graft surgery. The most recent report, *Healthcare-Associated Infections in Pennsylvania, 2015 Report*, can be found on DOH's website at www.health.state.pa.us.