About the Report

The Pennsylvania Health Care Cost Containment Council's (PHC4) *Common Procedures Report* provides volume and outcome information for common surgical procedures performed in the Pennsylvania general acute care hospitals that typically perform these procedures on adults. The *Common Procedures Report* can assist consumers and purchasers in making more informed health care decisions. The report can serve as an aid to providers in highlighting additional opportunities for quality improvement and cost containment.

In this report

- This report includes hospital-specific outcomes for common surgical procedures, as defined by ICD-10-PCS (International Classification of Diseases, Tenth Revision, Procedure Coding System) codes. The total number of cases includes clinically complex cases. These complex cases are not included in the hospital-specific outcomes. Technical Notes relevant to this report provide additional detail. They are posted to PHC4's website at www.phc4.org.
- This report covers adult inpatient hospital discharges for a given procedure, regardless of payer, during the period reported for that procedure. Patients 18 years and older are included in the volume calculations for all procedures reported. The outcome analyses include patients 18 years and older for all procedures, except for CABG outcomes, which include patients 30 years and older.
- All Pennsylvania general acute care hospitals that performed a particular procedure on adults during the reported time period are included, except hospitals that closed or merged with other facilities.
- Hospital names have been shortened in many cases for formatting purposes. Hospital names may be different today than they were during the period covered in this report due to mergers and name changes.

About the data

Hospital discharge data compiled for this report was submitted to PHC4 by Pennsylvania hospitals. The data was subject to standard validation processes by PHC4 and verified for accuracy by the hospitals at the individual case level. The ultimate responsibility for data accuracy and completeness lies with each individual hospital.

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Medicare fee-for-service payment data was obtained from the Centers for Medicare and Medicaid Services (CMS).

Accounting for high-risk patients

Included in the data PHC4 receives from Pennsylvania hospitals is information indicating, in simple terms, "how sick the patient was" on admission to the hospital—information that is used to account for high-risk patients. Even though two patients may be admitted to the hospital for the same procedure, there may be differences in the seriousness of their conditions. In order to report fair comparisons among hospitals, PHC4 uses a complex mathematical formula to risk adjust the outcome measures reported (e.g., mortality, complications, and extended postoperative length of stay ratings), meaning that hospitals receive "extra credit" for treating patients who are more seriously ill or at a greater risk than others. Risk adjusting the data is important because sicker patients may be more likely to die, experience a complication, or have a longer postoperative length of stay.

PHC4 uses clinical laboratory data, patient characteristics such as age, gender, race/ethnicity, and socioeconomic status, and billing codes that describe the patient's medical conditions such as the presence of arthritis, coronary artery disease, etc., to calculate risk for the patients in this report.

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What is measured in this report and why is it important?

In the hospital results section of the report, outcomes are displayed for the measures below that are appropriate to the procedure reported. The total number of cases and the average hospital charge are reported for all procedures.

- ***Total Number of Cases.*** This is the number of hospitalizations during which the procedure was performed before exclusion of clinically complex cases. This can give a patient or a purchaser an idea of the experience each facility has in performing this surgery. Studies

have suggested that, in at least some areas, the volume of cases treated by a physician or hospital can be a factor in the success of the treatment. The number of cases represents separate hospital admissions, not individual patients. A patient admitted several times for the same procedure would be included each time in the number of cases. If the patient underwent multiple procedures during the same hospitalization, the case was only counted once.

- ***Risk-Adjusted In-Hospital Mortality.*** This measure is reported as a statistical rating that represents the number of patients who died during the hospital stay in which the procedure was performed. To determine the mortality rating, PHC4 compares the number of patients one could reasonably expect to die, after accounting for patient risk, with the actual number of deaths. (Please see "Understanding the Symbols" box.) A rating is reported for hospitals with five or more cases.

- ***Risk-Adjusted Complication.*** These measures are reported as statistical ratings that represent the number of patients who:

  - 1) developed a complication or died during the hospital stay in which the procedure was performed,

  or

  - 2) were readmitted to a Pennsylvania general acute care hospital for a complication within 7, 30, or 90 days (depending on the complication) of being discharged from the hospitalization during which the procedure was performed. A complication is only counted when the complication is the principal reason for readmission.

Understanding the Symbols

The symbols displayed in this report represent a comparison of a hospital's actual outcome rate to what is expected after accounting for patient risk.

Using complications as an example:

- ○ **Hospital's rate was significantly lower than expected.** Fewer patients experienced complications than could be attributed to patient risk and random variation.
- ⊙ **Hospital's rate was not significantly different than expected.** The number of patients who experienced complications was within the range anticipated based on patient risk and random variation.
- ● **Hospital's rate was significantly higher than expected.** More patients experienced complications than could be attributed to patient risk and random variation.

To determine the risk-adjusted rating for these measures, PHC4 compares the number of patients one could reasonably expect to experience a complication, after accounting for

patient risk, with the actual number that occurred. Ratings were reported for hospitals with five or more cases. (See "Understanding the Symbols" box.) Details of how complication measures were defined for each procedure are available in the Technical Notes on PHC4's website at www.phc4.org.

- ***Extended Postoperative Length of Stay (risk adjusted for postoperative length of stay).*** This measure is reported as a statistical rating that represents patients whose length of stay following the procedure was significantly longer than what one could reasonably expect, after accounting for patient risk. To determine the extended postoperative length of stay statistical rating, PHC4 compares the number of patients with an extended postoperative length of stay statewide with the hospital's actual number of patients with an extended postoperative length of stay. Ratings were reported for hospitals with five or more cases. (See "Understanding the Symbols" box.) Further detail regarding the development and calculation of this new measure is available in the Technical Notes on PHC4's website at www.phc4.org.

- ***Case-Mix Adjusted Average Hospital Charge.*** This report also includes the average hospital charge for each procedure reported. The average hospital charge represents the entire length of the hospital stay. It does not include professional fees (e.g., physician fees) or other additional post-discharge costs, such as rehabilitation treatment, long-term care and/or home health care. The average charge is adjusted for the mix of cases that are specific to each hospital. (For more information, please refer to the Technical Notes at www.phc4.org). While charges are what the hospital reports on the billing form, they may not accurately represent the amount a hospital receives in payment for the services it delivers. Hospitals usually receive less in actual payments than the listed charge.

In the payments section of the report is information about Medicare payments:

- ***Medicare Payments.*** This section of the report displays the average payments made by Medicare fee-for service for each procedure included in this report. This information is also broken down by the MS-DRGs associated with each procedure.

Uses of this report

This report can be used as a tool to examine hospital performance in specific treatment categories. It is not intended to be a sole source of information for making decisions about health care, nor should it be used to generalize about the overall quality of care provided by a

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hospital. Readers of this report should use it in discussions with their physicians who can answer specific questions and concerns about their care.

- ***Patients/Consumers*** can use this report as an aid in making decisions about where to seek treatment for the conditions detailed in this report. This report should be used in conjunction with a physician or other health care provider when making health care decisions.
- ***Group Benefits Purchasers/Insurers*** can use this report as part of a process in determining where employees, subscribers, members, or participants should go for their health care.
- ***Health Care Providers*** can use this report as an aid in identifying opportunities for quality improvement and cost containment.
- ***Policymakers/Public Officials*** can use this report to enhance their understanding of health care issues, to ask provocative questions, to raise public awareness of important issues, and to help constituents identify health care options.
- ***Everyone*** can use this information to raise important questions about why differences exist in the quality and efficiency of care.

About PHC4

Created by the PA General Assembly in 1986, the PA Health Care Cost Containment Council (PHC4) is an independent state agency charged with collecting, analyzing and reporting information that can be used to improve the quality and restrain the cost of health care in the state. Today, PHC4 is a recognized national leader in public health care reporting, and nearly 100 organizations and individuals annually utilize PHC4's special requests process to access and use data. PHC4 is governed by a 25-member board of directors, representing business, labor, consumers, health care providers, insurers, and state government.

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