

PENNSYLVANIA: A STATE IN GOOD HEALTH

October 2013

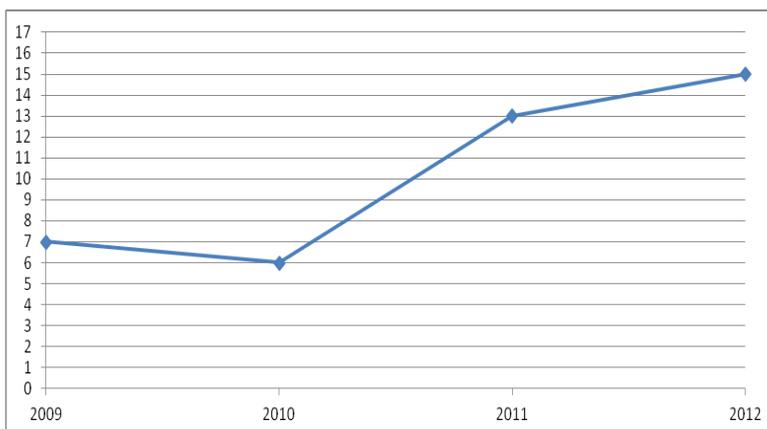
State of the State Report

Summer 2013

The “State of the State” analysis by the Pennsylvania Health Care Quality Alliance (PHCQA) summarizes the improvement of Pennsylvania’s hospitals on a year to year basis and shows how well PA hospitals are competing on the national level. The report is compiled from data collected by the Centers for Medicare & Medicaid Services (CMS) and the Joint Commission. PHCQA has been reviewing data since July 2007, and this report includes data up to July 2012. The data presented is reviewed across four major clinical areas: heart attack, heart failure, pneumonia, and the prevention of surgical infections as well as patient experience, hospital performance, outcome, and overall care. Additional data collected by CMS in the report measures patients’ assessment of hospital care and patient satisfaction. In this year’s 2013 report, PHCQA added new data that evaluates disease prevention, as well as emergency department and hospital efficiency. The measures used in this report can be found on PHCQA’s free public website, www.pahealthcarequality.org, where patients can view PA hospital quality performance.

*NB: abbreviations for all measures used in this report are from CMS.

PA Hospitals show consistent improvement in measure rates



Process Measures

The analysis for process measures establishes indicators on how well medical professionals follow the checklist of the best practices for delivering care. Process measures score how often certain protocols are followed such as: how often a patient is given an aspirin following a heart attack, or the percentage of patients who had antibiotics properly administered before and after surgery, ect. In 2013, 2/3 of the hospitals in the state had rates that improved from last year. As predicted, the PA rates were higher than the PA averages. The total rates for measure scores do not take the number of hospitals into account and are therefore expected to be higher than the state averages. The average PA hospital rates were greater than or equal to the national benchmarks for 10 out of 18 measures, and PA increases were consistent with national increases. PA hospitals had average rates above the national top 10% for 16 out of the 18 measures. All PA hospitals lowered the standard deviation for 9 out of 16 measures, indicating increased quality (because of new measure additions, only 16 out of 18 measures had data from 2011-2012). The number of PA hospitals that performed above the national top 10% has steadily increased since 2009 (Fig.1). As of 2012, all process measures had rates above 90% - consistent with 2011 findings. In PHCQA’s 3-year analysis of process measures (2009-2012), PA rates show constant improvement in the majority of measures.

Figure1. Graph shows the increase over time in the number of process measures that had 10% or more of Pennsylvania hospitals (<16) performing above the U.S. benchmarks. The benchmarks are specific to each measure and are reported on the PHCQA website. Graph excludes measures that were discontinued in 2012.

HCAHPS

Hospital Consumer Assessment of Healthcare Providers & Systems

10 HCAHPS Patient experience measures were reviewed in 2013 – there were no changes in the measures from last year. Patient assessment measures consist of patient surveys that evaluate doctor and nurse communication, hospital quietness and cleanliness, and the patient’s overall rating and recommendation for the hospital, as well as other aspects of patient care. The patient experience analysis for 2012 data showed improvements from 2011; however, overall HCAHPS rates still remain relatively low. The year-over-year analysis of PA hospital rates shows statewide improvement in all measures except doctor communication and responsiveness of hospital staff. Consistent with the 2011 report, all measures had ratings under the U.S. top 10%, except in the patients receiving discharge information measure (H_COMP_6) which was equal to the U.S. top 10% rating. Hospitals were categorized by type (rural vs. urban vs. large urban, teaching vs. non-teaching, high volume vs. low volume) in order to analyze statewide patient satisfaction. Rural hospitals had higher overall scores than urban and large urban hospitals.

Patient satisfaction was slightly higher in non-teaching hospitals than teaching hospitals in PA, but only by a very small margin. PHCQA did not have data for all 167 hospitals in the state. Hospitals with high patient volumes (>9,000 patients discharged) had rates that were very comparable to the overall average of the state and slightly higher than hospitals with low volumes (<800 patients discharged). A correlation analysis shows that high hospital ratings (9 or higher out of 10) are most strongly correlated with doctor communication, pain control, and patients having their medicine explained. As predicted, high ratings were almost 100% correlated with whether a patient would recommend the hospital to family and friends (Fig.2). There is still a lot of room for improvement with patient experience measures. The results are also subject to the number of surveys that hospitals were able to fill out.

Figure2. HCAHPS Correlation analysis: Table displays the degree to which measures correlate to each other. The most significant correlations are which measures most affect high patient hospital ratings.

*Measure definitions can be found in the glossary at the end of this report.

	H_COMP_1	H_COMP_2	H_COMP_3	H_COMP_4	H_COMP_5	H_COMP_6	H_CLEAN_HSP	H_QUIET_HSP	HSP_RATING	H-RECMND
H-COMP-1	1									
H-COMP-2	0.757	1								
H-COMP-3	0.220	0.238	1							
H-COMP-4	0.839	0.700	0.242	1						
H-COMP-5	0.868	0.765	0.255	0.763	1					
H-COMP-6	0.610	0.493	0.136	0.498	0.560	1				
H-CLEAN-HSP	0.484	0.471	0.104	0.323	0.534	0.209	1			
H-QUIET-HSP	0.567	0.547	0.124	0.496	0.643	0.347	0.555	1		
H-HSP-RATING	0.830	0.643	0.189	0.702	0.782	0.611	0.504	0.591	1	
H-RECMND	0.719	0.514	0.187	0.605	0.670	0.570	0.331	0.489	0.936	1

Correlation Key:

- =Perfect Correlation (1.0)
- =Very Strong Correlation (0.7-0.999)
- =Strong Correlation (0.5-0.699)
- =Medium Correlation (0.3-0.499)
- =Poor Correlation (0.01-0.299)

Appropriate Care Measures

PHCQA collects a uniquely reported set of data on Appropriate Care Measures (ACM) and compiles a multi-year analysis of changes in order to assess what percentage of patients (with a specified clinical condition) received all of the clinical interventions deemed appropriate under the circumstances. The ACM measures include four topic-specific scores (heart attack, heart failure, pneumonia, and surgical care) that are based on process measures collected from CMS and the Joint Commission. The 4-year analysis shows that hospitals have been consistently improving on the delivery of heart attack care, heart failure care, pneumonia care, and surgical care (Fig.4). The ongoing success reflected in the trend analysis shows that PA hospitals have been consistently improving the administration of appropriate care. Since 2006, state improvements have been consistent with national improvements (Fig. 3, 5). Starting in 2012, the ACM composite score changed from 27 measures to 25 measures. 6 measures were removed - 1 heart attack measure, 4 pneumonia measures, and 1 heart failure measure; and 4 measures were added - 2 immunization measures, 1 pneumonia measure, and 1 surgical care measure. However, the provider level immunization measures were not available to PHCQA as of the summer of 2013, and thus the ACM overall composite score only includes the 23 measures from the heart attack, heart failure, pneumonia, and surgical care categories. The added measures can be found in the glossary.

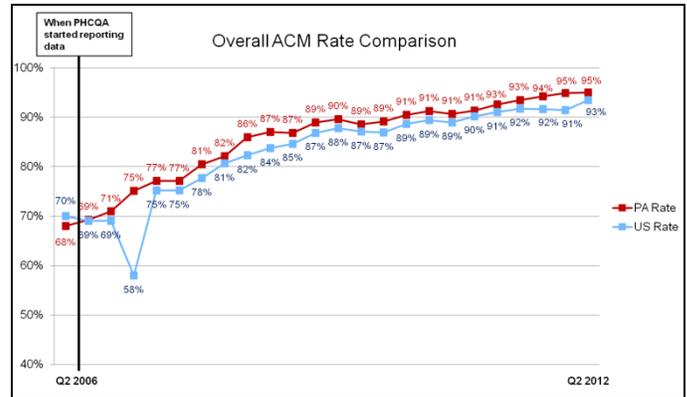


Figure3. Overall ACM rate from 2006-2012. Results show a steady and consistent increase throughout the years.

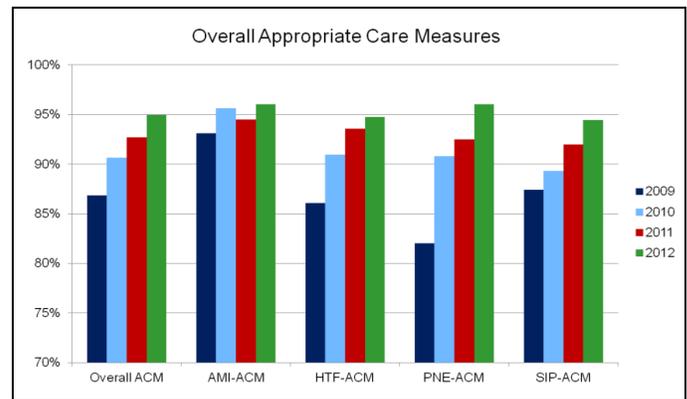


Figure4. Graph of improvement of rates in all Appropriate Care Measures from 2009-2012. Improvements are consistent for heart attack, heart failure, pneumonia, and SCIP measures.

Outcome Measures

This report compares CMS Outcome measures over the past 6 years (2006-2012). The data spans 6 years but the rates were distributed over 4 data analysis periods. CMS readmission rates were not available as of August 2013 and as a result this report only includes mortality measures. Results indicate that mortality rates have remained consistent in PA over the course of the study, and PA hospitals performed better than U.S. hospital benchmark rates for all mortality measures. The 30-day heart attack mortality measure had the largest percentage point improvement over the 6-year analysis period. From 2006-2011, the readmission rates have stayed relatively consistent. Readmission data is scheduled to be released in the October 2013 Hospital Compare release and will be added to report subsequently, as there were issues related to the categorization of hospitals as “better than,” “worse than,” and “no different than” the national average.

Data from Q2 of each year	PA Rate	U.S. Rate
2007	75%	58%
2008	82%	81%
2009	89%	87%
2010	91%	89%
2011	93%	91%
2012	95%	93%

Figure5. Table shows PA and national rates for the overall ACM scores from 2007-2012. Higher rates are indicative of better quality. Table shows that on average, PA (highlighted in blue) is able to perform better than the overall national rate.

Hospital Performance

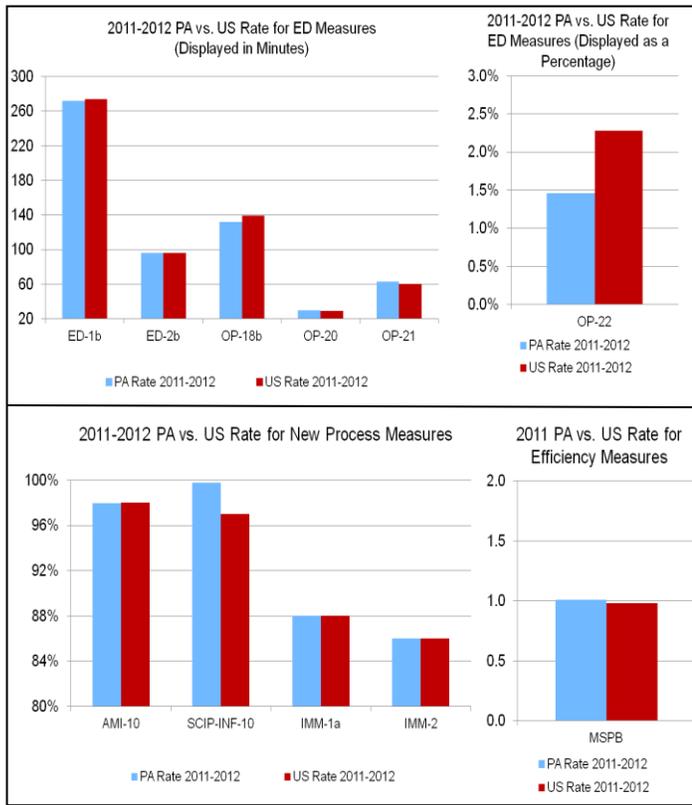


Figure 6. Graphs show how new hospital performance measures compare with national averages. 2013 is the first year that these measures are included in the State of the State report.

CMS added new process and “system” measures to the database in 2012. The new process measures were added as part of the heart attack (1 measure) and surgical care (1 measure) categories, as well as a new category called “prevention” (2 measures). In addition to the 4 aforementioned process measures, 7 “system” measures, including 6 emergency department measures and 1 efficiency measure were added to the database. System measures (emergency department, readmissions, and efficiency measures) reflect the way in which whole “systems” of care work. Data from these measures indicate the quality of care in hospitals, private practices, nursing homes, ect. The measures are not specifically indicative of hospital quality, but reflect the efficiency of the hospital as an operating system. Data for these measures can now be found on the PHCQA website, www.pahealthcarequality.org. As of June 2012, Pennsylvania rates for emergency department (ED) measures were almost equal to the national rates for 4 out of 6 measures. PA hospitals performed better than the national rate in the measure that quantifies the median time from ED arrival to departure for discharged patients (Fig.6, OP-18). PA hospitals also had a lower rate of patients who left the ED without being seen by a medical professional (Fig. 6, OP-22). The process and efficiency measures were almost equal to the national rate for 4 out of 5 measures. PA hospitals performed better than the national rate in surgery patients with perioperative temperate management (SCIP-Inf-10) (Fig. 6).

Addition and Removal of Measures

Since the 2012 State of the State report, PHCQA’s measure content has undergone significant transformation based on the nature of publicly available data. PHCQA suspended the update of 7 process measures on its website (6 CMS measures and 1 Joint Commission measure) for the pneumonia and heart attack categories. These measures were removed from the Hospital Compare and Joint Commission databases because the scores were “topping out” and making provider rates too similar to continue as an indication of quality. The leveling out of these scores indicates that scores for these measures have stayed relatively consistent and have thus been integrated into hospital procedures as a standard aspect of quality care. 11 new process measures have been added to the website. (Fig.7).

New Measures 2013	
AMI-10	Statin prescribed at discharge
SCIP-10	Surgery patients with perioperative temperature management
MSPB-1	Medicare spending per beneficiary
ED-1b	Time from emergency department arrival to departure for admitted patients
ED-2b	Time for admit decision to departure time from ED for admitted patients
OP-18	Median time from ED arrival to ED departure for discharged patients
OP-20	Door to diagnostic evaluation by qualified medical professional
OP-21	Median time to pain management for long bone fracture
OP-22	Patients left without being seen
IMM-1a	Percent of patients who are considered high risk for pneumococcal infection and were screened for vaccine or vaccinated prior to discharge
IMM-2	Percent of acute care hospitalized patients age 6 months and older screened for seasonal influenza immunization status or vaccinated prior to discharge

Figure 7. List of new measures that are being reported on PHCQA website.

In Conclusion...

The existence of a system that enables the measurement of health care quality is drastically changing health care administration in America. Prior to the existence of a public reporting system, there was no definitive way to “rate” hospital performance, and all conclusions were based on “word of mouth” reputations. Now, the existence of quality measures allows hospitals all over the country to have a standard to keep when practicing health care. PHCQA’s annual State of the State report creates a comprehensive system that tracks the changes and improvements of quality care statewide through measure ratings on a year to year basis. The 2013 report concludes that Pennsylvania hospitals are continuing to perform at high levels. When compared to the rest of the country, PA hospitals are competitive with the best in the nation. Across the board in areas from patient prescribed antibiotics to patients given discharge information after heart failure related hospital visits, PA is performing at or above national benchmarks. Patient satisfaction has also been consistently improving over time, as the 2013 report shows the highest ratings to date.

Consistently improving measure rates are a positive sign that PA health care quality is improving and will continue to do so. These patterns of improvement prognosticate a bright future for health care in PA.

With the passing of new legislation and the implementation value-based purchasing (VBP) under the Affordable Care Act (ACA), health care practitioners now have a higher incentive to increase their quality of care. Pennsylvania hospitals are in a good position to continue administering high quality care to patients and health systems, and physicians will be able to receive rewarding benefits as a result. Clinical Process of Care measures make up 70% of the total performance score for VBP, which determines how incentive (or penalty) payments to hospitals will be assessed. The remaining 30% is based on results from Patient Experience of Care measures. The report concludes that Pennsylvania hospitals are currently in a good position in both measured areas and will most likely continue to improve the quality of care given.

Pennsylvania Health Care Quality Alliance



www.pahealthcarequality.org

@PHCQA

Glossary

Measure Category & Shorthand	Description
Heart Attack Measures	
AMI-1	Heart attack patients given aspirin at arrival
AMI-2	Heart attack patients given aspirin at discharge
AMI-3	Heart attack patients given ACE inhibitor or ARB for left ventricular systolic dysfunction (LVSD)
AMI-5	Heart attack patients given beta blocker at discharge
AMI-8a	Heart attack patients given PCI within 90 minutes of arrival
AMI-10	Statin prescribed at discharge
Heart Failure Measures	
HF-1	Heart failure patients given discharge instructions
HF-3	Heart failure patients given ACE inhibitor or ARB for left ventricular systolic dysfunction (LVSD)
Pneumonia Measures	
PN-2	Pneumonia patients assessed and given pneumococcal vaccination
PN-3a (JC)	Blood cultures for pneumonia patients in intensive care units
PN-3b	Pneumonia patients whose initial emergency room blood culture was performed prior to the administration of the first hospital dose of antibiotics
PN-5c	Pneumonia patients given initial antibiotics within 6 hours of infection
PN-6	Pneumonia patients given the most appropriate antibiotics
PN-6a	Initial antibiotic selection for CAP in immunocompetent – ICU patient
PN-6b	Initial antibiotic selection for CAP in immunocompetent – non ICU patient
PN-7	Pneumonia patients assessed and given influenza vaccination
Surgical Care Measures	
SCIP-CARD-2	Surgery patients who were taking beta blockers before coming to the hospital and were kept on beta blockers before and after surgery
SCIP-INF-1	Surgery patients who were given antibiotic within one hour before surgery
SCIP-INF-2	Surgery patients who were given the right kind of antibiotic
SCIP-INF-3	Surgery patients whose preventive antibiotics were stopped 24 hours after surgery
SCIP-INF-4	Heart surgery patients whose blood glucose level is controlled in days after surgery
SCIP-INF-9	Surgery patients whose urinary catheters were removed on the first or second day after surgery
SCIP-INF-10	Surgery patients with perioperative temperature management
SCIP-VTE-2	Surgery patients whose doctors ordered treatments to prevent blood clots after certain types of surgeries
SCIP-VTE-2	Patients who got treatment within 24 hours before or after surgery to prevent blood clots

Glossary

Efficiency Measures

MSPB	Medicare spending per beneficiary
-------------	-----------------------------------

HCAHPS Patient Satisfaction

H-COMP-1	Nurses always communicated well
H-COMP-2	Doctors always communicated well
H-COMP-3	Patients always received help as soon as they wanted it
H-COMP-4	Patient pain was always well controlled
H-COMP-5	Staff always explained medicines before giving them to patients
H-COMP-6	Patients were given information about what to do during their recovery at home
H-CLEAN-HSP	Rooms and bathrooms were always clean
H-QUIET-HSP	Rooms were always quiet at night
H-HSP-RATING	Patients who gave a rating of 9 or 10 overall out of 10
H-RECMND	Patients who would definitely recommend the hospital to family and friends

Prevention Measures

IMM-1a	Percent of patients who are considered high risk for pneumococcal infection and were screened for vaccine or vaccinated prior to discharge
IMM-2	Percent of acute care hospitalized patients age 6 months and older screen for seasonal influenza immunization status or vaccinated prior to discharge

Emergency Department Measures

ED-1b	Time from emergency department arrival to departure for admitted patients
ED-2b	Time from admit decisions to departure time from ED for admitted patients
OP-18	Median time from ED arrival to ED departure for discharged patients
OP-20	Door to diagnostic evaluation by qualified medical professional
OP-21	Median time to pain management for long bone fracture
OP-22	Patients left without being seen