

## Findings from the 2015 edition of the *Medicare Hospital Quality Chartbook*.

### Overview

Welcome to the 2015 edition of the Centers for Medicare & Medicaid Services' (CMS's) *Medicare Hospital Quality Chartbook*. The *Medicare Hospital Quality Chartbook* provides a comprehensive overview of the national results on CMS's hospital mortality, complication, unplanned readmission, and payment measures. We have evolved the format of the *Medicare Hospital Quality Chartbook* in order to allow greater flexibility and responsiveness to policy makers' and stakeholders' concerns. This document provides an introduction to the .pdf documents contained in the zipped folder, representing the 2015 *Medicare Hospital Quality Chartbook*. New this year are focused areas of research interest: hospital characteristics, sociodemographic status (SDS), and payment measures.

We have included results from 15 quality measures and 3 payment measures in this year's *Medicare Hospital Quality Chartbook*:

#### Condition-specific measures:

- Acute myocardial infarction (AMI) mortality, readmission, and payment
- Heart failure mortality, readmission, and payment
- Pneumonia mortality, readmission, and payment
- Chronic obstructive pulmonary disease (COPD) mortality and readmission
- Ischemic stroke mortality and readmission

#### Procedure-specific measures:

- Elective primary total hip arthroplasty and/or total knee arthroplasty (THA/TKA) complication and readmission
- Isolated coronary artery bypass graft (CABG) surgery mortality and readmission

#### Hospital-wide measures:

- Hospital-wide readmission

In the 2015 *Medicare Hospital Quality Chartbook*, data from July 2011 through June 2014 were used for all condition-specific mortality, readmission, and payment measures, as well as the procedure-specific THA/TKA readmission measure and the CABG readmission and mortality measures. The THA/TKA complication measure used data from April 2011 through March 2014. The hospital-wide readmission measure used data from July 2013 through June 2014.

For additional information on how to interpret figures, please see the document "Figure Explanations\_2015.pdf".

## Hospital Characteristics

CMS periodically provides a comprehensive overview of national hospital quality outcome measure results and investigates select hospital characteristics that may impact those results. The following analyses were provided in the 2015 Medicare Hospital Quality Chartbook:

Variation in measure results reflects differences in performance among hospitals; wider distributions suggest more variation in quality and narrower distributions suggest less variation in quality.

### Variation in measure results

<i>Mortality Measures</i>	<i>File Names</i>
<i>Condition-Specific Measures</i>	
AMI	Hosp-Var_AMI-Mort_2015.pdf
Heart Failure	Hosp-Var_HF-Mort_2015.pdf
Pneumonia	Hosp-Var_PN-Mort_2015.pdf
COPD	Hosp-Var_COPD-Mort_2015.pdf
Stroke	Hosp-Var_STK-Mort_2015.pdf
<i>Procedure-Specific Measures</i>	
CABG	Hosp-Var_CABG-Mort_2015.pdf
<i>Complication Measures</i>	<i>File Names</i>
<i>Procedure-Specific Measures</i>	
THA/TKA	Hosp-Var_HK-Comp_2015.pdf
<i>Readmission Measures</i>	<i>File Names</i>
<i>Condition-Specific Measures</i>	
AMI	Hosp-Var_AMI-Rdmn_2015.pdf
Heart Failure	Hosp-Var_HF-Rdmn_2015.pdf
Pneumonia	Hosp-Var_PN-Rdmn_2015.pdf
COPD	Hosp-Var_COPD-Rdmn_2015.pdf
Stroke	Hosp-Var_STK-Rdmn_2015.pdf
<i>Procedure-Specific Measures</i>	
THA/TKA	Hosp-Var_HK-Rdmn_2015.pdf
CABG	Hosp-Var_CABG-Rdmn_2015.pdf
<i>Hospital-wide Measures</i>	
Hospital-wide	Hosp-Var_HW-Rdmn_2015.pdf

To understand the impact of being a safety-net, teaching, urban or rural hospital, the variation in measure results was examined.

**Measure results by hospital characteristics: safety-net status, teaching status, and urban or rural location.**

<i>Mortality Measures</i>	<i>File Names</i>
<i>Condition-Specific Measures</i>	
AMI	Pfmc-by-Char_AMI-Mort_2015.pdf
Heart Failure	Pfmc-by-Char_HF-Mort_2015.pdf
Pneumonia	Pfmc-by-Char_PN-Mort_2015.pdf
COPD	Pfmc-by-Char_COPD-Mort_2015.pdf
Stroke	Pfmc-by-Char_STK-Mort_2015.pdf
<i>Procedure-Specific Measures</i>	
CABG	Pfmc-by-Char_CABG-Mort_2015.pdf
<i>Complication Measures</i>	<i>File Names</i>
<i>Procedure-Specific Measures</i>	
THA/TKA	Pfmc-by-Char_HK-Comp_2015.pdf
<i>Readmission Measures</i>	<i>File Names</i>
<i>Condition-Specific Measures</i>	
AMI	Pfmc-by-Char_AMI-Rdmn_2015.pdf
Heart Failure	Pfmc-by-Char_HF-Rdmn_2015.pdf
Pneumonia	Pfmc-by-Char_PN-Rdmn_2015.pdf
COPD	Pfmc-by-Char_COPD-Rdmn_2015.pdf
Stroke	Pfmc-by-Char_STK-Rdmn_2015.pdf
<i>Procedure-Specific Measures</i>	
THA/TKA	Pfmc-by-Char_HK-Rdmn_2015.pdf
CABG	Pfmc-by-Char_CABG-Rdmn_2015.pdf
<i>Hospital-wide Measures</i>	
Hospital-wide	Pfmc-by-Char_HW-Rdmn_2015.pdf
<i>Payment Measures</i>	<i>File Names</i>
<i>Condition-Specific Measures</i>	
AMI	Rslt-by-Char_AMI-Pymt_2015.pdf
Heart Failure	Rslt-by-Char_HF-Pymt_2015.pdf
Pneumonia	Rslt-by-Char_PN-Pymt_2015.pdf

## Sociodemographic Status

CMS periodically investigates select hospital practices that may impact measure results. In recent months, there has been much discussion about the potential impact of patient sociodemographic status (SDS) on hospital outcome measures [1]. To investigate this, the following analyses are provided in the 2015 *Medicare Hospital Quality Chartbook*:

To understand the impact of caring for African-American patients, the variation in measure results was examined.

### Measure results for hospitals serving high and low proportions of African-American patients.

<i>Mortality Measures</i>	<i>File Names</i>
<i>Condition-Specific Measures</i>	
AMI	Pfmc-w-AA-Pts_AMI-Mort_2015.pdf
Heart Failure	Pfmc-w-AA-Pts_HF-Mort_2015.pdf
Pneumonia	Pfmc-w-AA-Pts_PN-Mort_2015.pdf
COPD	Pfmc-w-AA-Pts_COPD-Mort_2015.pdf
Stroke	Pfmc-w-AA-Pts_STK-Mort_2015.pdf
<i>Procedure-Specific Measures</i>	
CABG	Pfmc-w-AA-Pts_CABG-Mort_2015.pdf
<i>Complication Measures</i>	<i>File Names</i>
<i>Procedure-Specific Measures</i>	
THA/TKA	Pfmc-w-AA-Pts_HK-Comp_2015.pdf
<i>Readmission Measures</i>	<i>File Names</i>
<i>Condition-Specific Measures</i>	
AMI	Pfmc-w-AA-Pts_AMI-Rdmn_2015.pdf
Heart Failure	Pfmc-w-AA-Pts_HF-Rdmn_2015.pdf
Pneumonia	Pfmc-w-AA-Pts_PN-Rdmn_2015.pdf
COPD	Pfmc-w-AA-Pts_COPD-Rdmn_2015.pdf
Stroke	Pfmc-w-AA-Pts_STK-Rdmn_2015.pdf
<i>Procedure-Specific Measures</i>	
THA/TKA	Pfmc-w-AA-Pts_HK-Rdmn_2015.pdf
CABG	Pfmc-w-AA-Pts_CABG-Rdmn_2015.pdf
<i>Hospital-wide Measures</i>	
Hospital-wide	Pfmc-w-AA-Pts_HW-Rdmn_2015.pdf
<i>Payment Measures</i>	<i>File Names</i>
<i>Condition-Specific Measures</i>	
AMI	Rslt-w-AA-Pts_AMI-Pymt_2015.pdf
Heart Failure	Rslt-w-AA-Pts_HF-Pymt_2015.pdf
Pneumonia	Rslt-w-AA-Pts_PN-Pymt_2015.pdf

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To understand the impact of caring for Medicaid patients, the variation in measure results was examined.

**Measure results for hospitals serving high and low proportions of Medicaid patients.**

<i>Mortality Measures</i>	<i>File Names</i>
<i>Condition-Specific Measures</i>	
AMI	Pfmc-w-Med-Pts_AMI-Mort_2015.pdf
Heart Failure	Pfmc-w-Med-Pts_HF-Mort_2015.pdf
Pneumonia	Pfmc-w-Med-Pts_PN-Mort_2015.pdf
COPD	Pfmc-w-Med-Pts_COPD-Mort_2015.pdf
Stroke	Pfmc-w-Med-Pts_STK-Mort_2015.pdf
<i>Procedure-Specific Measures</i>	
CABG	Pfmc-w-Med-Pts_CABG-Mort_2015.pdf
<i>Complication Measures</i>	<i>File Names</i>
<i>Procedure-Specific Measures</i>	
THA/TKA	Pfmc-w-Med-Pts_HK-Comp_2015.pdf
<i>Readmission Measures</i>	<i>File Names</i>
<i>Condition-Specific Measures</i>	
AMI	Pfmc-w-Med-Pts_AMI-Rdmn_2015.pdf
Heart Failure	Pfmc-w-Med-Pts_HF-Rdmn_2015.pdf
Pneumonia	Pfmc-w-Med-Pts_PN-Rdmn_2015.pdf
COPD	Pfmc-w-Med-Pts_COPD-Rdmn_2015.pdf
Stroke	Pfmc-w-Med-Pts_STK-Rdmn_2015.pdf
<i>Procedure-Specific Measures</i>	
THA/TKA	Pfmc-w-Med-Pts_HK-Rdmn_2015.pdf
CABG	Pfmc-w-Med-Pts_CABG-Rdmn_2015.pdf
<i>Hospital-wide Measures</i>	
Hospital-wide	Pfmc-w-Med-Pts_HW-Rdmn_2015.pdf
<i>Payment Measures</i>	<i>File Names</i>
<i>Condition-Specific Measures</i>	
AMI	Rslt-w-Med-Pts_AMI-Pymt_2015.pdf
Heart Failure	Rslt-w-Med-Pts_HF-Pymt_2015.pdf
Pneumonia	Rslt-w-Med-Pts_PN-Pymt_2015.pdf

Examined hospitals identified as caring for a large proportion of vulnerable patients, as characterized by seven different SDS definitions.

**Measure results for hospitals serving high proportions of vulnerable populations as characterized by different definitions of Sociodemographic Status (SDS).**

<i>Mortality Measures</i>	<i>File Names</i>
<i>Condition-Specific Measures</i>	
AMI	Hosp-w-SDS-Pts_AMI-Mort_2015
Heart Failure	Hosp-w-SDS-Pts_HF-Mort_2015
Pneumonia	Hosp-w-SDS-Pts_PN-Mort_2015
COPD	Hosp-w-SDS-Pts_COPD-Mort_2015
Stroke	Hosp-w-SDS-Pts_STK-Mort_2015
<i>Procedure-Specific Measures</i>	
CABG	Hosp-w-SDS-Pts_CABG-Mort_2015
<i>Complication Measures</i>	<i>File Names</i>
<i>Procedure-Specific Measures</i>	
THA/TKA	Hosp-w-SDS-Pts_HK-Comp_2015
<i>Readmission Measures</i>	<i>File Names</i>
<i>Condition-Specific Measures</i>	
AMI	Hosp-w-SDS-Pts_AMI-Rdmn_2015
Heart Failure	Hosp-w-SDS-Pts_HF-Rdmn_2015
Pneumonia	Hosp-w-SDS-Pts_PN-Rdmn_2015
COPD	Hosp-w-SDS-Pts_COPD-Rdmn_2015
Stroke	Hosp-w-SDS-Pts_STK-Rdmn_2015
<i>Procedure-Specific Measures</i>	
THA/TKA	Hosp-w-SDS-Pts_HK-Rdmn_2015
CABG	Hosp-w-SDS-Pts_CABG-Rdmn_2015
<i>Hospital-wide Measures</i>	
Hospital-wide	Hosp-w-SDS-Pts_HW-Rdmn_2015
<i>Payment Measures</i>	<i>File Names</i>
<i>Condition-Specific Measures</i>	
AMI	Hosp-w-SDS-Pts_AMI-Pymt_2015
Heart Failure	Hosp-w-SDS-Pts_HF-Pymt_2015
Pneumonia	Hosp-w-SDS-Pts_PN-Pymt_2015

## Payment

In 2014, CMS began publicly reporting hospital-level risk-standardized payments (RSPs) associated with a 30-day episode of care for AMI. In 2015, CMS started publicly reporting RSPs associated with heart failure and pneumonia. The payment measures capture payments for Medicare patients across multiple care settings, services, and supplies [2]. Since the payment measures are newly developed, the following analyses are provided in the 2015 *Medicare Hospital Quality Chartbook*:

Variation in RSPs reflects differences in care decisions and resource utilization among hospitals for their patients both at the hospital and after they leave.

### Variation in measure results.

<i>Payment Measures</i>	<i>File Names</i>
<i>Condition-Specific Measures</i>	
AMI	Hosp-Var_AMI-Pymt_2015.pdf
Heart Failure	Hosp-Var_HF-Pymt_2015.pdf
Pneumonia	Hosp-Var_PN-Pymt_2015.pdf

Variation in RSPs reflects differences in care decisions and resource utilization among hospitals for their patients both at the hospital and after they leave. It is important to understand if the variation in RSPs is mostly due to variation in payment during the index hospitalization or in post-acute settings.

### Variation in standardized Payment for Index Hospitalizations and Post-Acute Care.

<i>Payment Measures</i>	<i>File Names</i>
<i>Condition-Specific Measures</i>	
AMI	Indx-vs-PostAct_AMI-Pymt_2015.pdf
Heart Failure	Indx-vs-PostAct_HF-Pymt_2015.pdf
Pneumonia	Indx-vs-PostAct_PN-Pymt_2015.pdf

1. National Quality Forum. Risk Adjustment for Socioeconomic Status or Other Sociodemographic Factors, Technical Report, August 15, 2014; [http://www.qualityforum.org/Publications/2014/08/Risk\\_Adjustment\\_for\\_Socioeconomic\\_Status\\_or\\_Other\\_Sociodemographic\\_Factors.aspx](http://www.qualityforum.org/Publications/2014/08/Risk_Adjustment_for_Socioeconomic_Status_or_Other_Sociodemographic_Factors.aspx). Accessed 9 July 2015.

2. Kim N, Ott L, Hsieh A, et al. 2015 Condition-Specific Measure Updates and Specifications Report Hospital-Level 30-Day Risk-Standardized Payment Measures: Acute Myocardial Infarction – Version 4.0, Heart Failure – Version 2.0, Pneumonia – Version 2.0; <https://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier4&cid=1228774267858>. Accessed 2 September 2015.