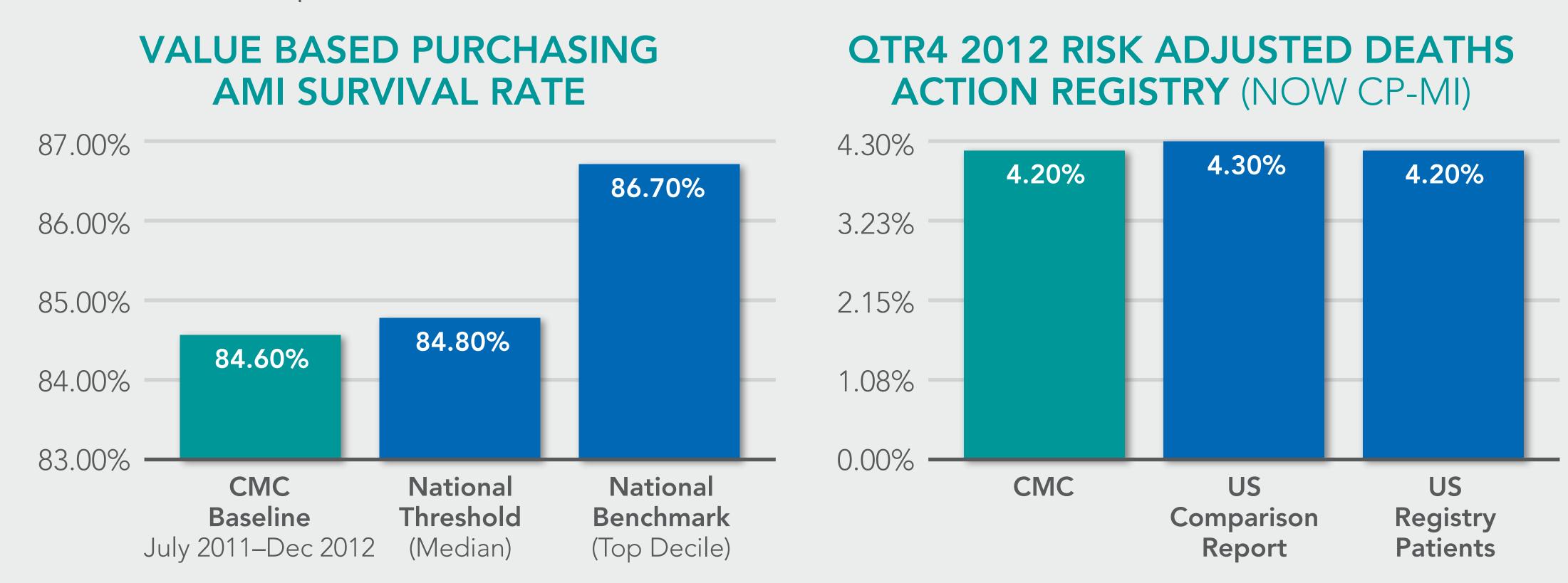# CLINICAL OUTCOMES:
REDUCING MORTALITY WITH DOCUMENTATION EXCELLENCE

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PROJECT SELECTION

The **2014 CMS Value Based Purchasing** (VBP) data reported an unexpectedly high rate for **30-day Acute Myocardial Infarction** (AMI) mortality at **Carolinas Medical Center** (CMC). These results were surprising in that they differed significantly from abstracted clinical data: as part of our quality program, **Sanger Heart & Vascular Institute** (SHVI) regularly reports abstracted AMI data to the **American College of Cardiology** (ACC) **National Cardiovascular Data Registry** (NCDR) **CP-MI** (formerly ACTION Registry). Benchmarked results from the NCDR registry have consistently demonstrated national top quartile/decile outcomes for CMC's AMI patients.

VALUE BASED PURCHASING AMI SURVIVAL RATE

QTR4 2012 RISK ADJUSTED DEATHS ACTION REGISTRY (NOW CP-MI)

2014 VBP reflects performance from 2011–2012. Data shown reflects AMI Survival Rate Performance below achievement and benchmark results in financial penalty for CMC.

To identify the root cause of this variance, during the first quarter of 2014 the team reviewed the records of 236 patients, 32 of which were classified as having sustained an AMI mortality. The review of these mortality cases identified that approximately 30% of the cases, AMI should not have been designated as the principal diagnosis for the inpatient admission. Had these cases been properly excluded from the AMI mortality dataset, CMC would instead have achieved top decile VBP performance for AMI mortality in 2014.

To rectify the discrepancy between clinically coded data and chart abstracted data, the team developed a multi-phased Clinical Documentation Excellence strategy. The aim of the project was to improve clinical documentation primarily for AMI patients with the secondary aim to apply learnings to all cardiovascular (CV) diagnoses. The project was implemented at Atrium Health's highest volume CV centers: AH-CMC, AH-Pineville, and AH-Cabarrus.

GOALS

There were three main goals of the **Clinical Documentation Excellence** project:

1 Improve outcome reporting (mortality and readmissions)

2 Identify accurate patient risk profiles (capture all co-morbidities)

3 Identify appropriate expected length of stay.

PLAN:

After reviewing the 2014 VBP Results and identifying Root Cause for variance, we proposed that a clinical documentation excellence strategy would improve outcome reporting for AMI. We implemented 2 key strategies:

Strategy 1: Develop a "hard stop" process so that records from all patients with a principal diagnosis of AMI are reviewed prior to final billing. This ensures that documentation and coding supports the most appropriate principal diagnosis.

Strategy 2: Develop a concurrent coding process at AH-CMC, AH-Pineville and AH-Cabarrus so that records are reviewed in real time. This allows coders and the Clinical Documentation Improvement (CDI) team to collaborate with providers while the patient is still in the hospital.

DO:

The hard stop process was initiated at all primary enterprise sites in September of 2015:

a When a patient met two conditions (1) coded with a principle diagnosis of AMI and (2) suffered in-patient mortality, the team initiated a "Hard Stop" for chart review.

b The chart was then sent to the CDI team as well to the Cardiology Physician Review (CPR) team for review.

c The CDI team reviewed the chart within 48 hours of the "Hard Stop" to determine if further clarification from the attending provider was needed.

d If clarification was needed, a member of the CDI team-initiated Physician-to-Physician communication to resolve any issues.

e The CDI team monitored the patient's chart for addendum as a result of the physician to physician communication.

f If no further clarification was required or after an addendum was dictated, the CDI Team finalized the coding and billing.

The concurrent coding process was initiated October 2016 and is outlined as follows:

a An Advanced Clinical Coder begins to assign ICD-10-CM and ICD-10-PCS codes to a patient record on the day after admission.

b A CDI RN reviews the record after coding is initiated.

c Using the 3M 360 tool, the Coder and RN communicate and share findings to ensure coding accuracy. When necessary, they determine when it is appropriate to ask physicians for clarification while patient is in-house.

d Upon discharge, the Coder completes final coding of the account.

In addition to the processes above, monthly monitoring and discussion of outcome reports was performed by a CV Clinical Documentation Excellence Steering Committee. This team included clinical coders, CDI teammates, key CV MD/ACP providers, and members of SHVI's quality and administrative teams.

AMI mortality data from Premier's Quality Advisor served as proxy for improvement in outcome results. We reasoned that improvement in Premier AMI mortality O/E, which reflects inpatient AMI mortality for all patients, would mirror an improvement in VBP results, which reflect risk adjusted 30-day AMI risk for Medicare patients.

STUDY:

The hard stop and concurrent coding strategy have led to early improvement, but further opportunities to improve and sustain results were identified:

1 Focusing only on cardiovascular providers did not cover all the stakeholders who are needed to be involved in this process. Hospitalists and Internal Medicine providers are the primary providers for many CV patients; linking them to these efforts was determined to be an important next step.

2 Aligning performance goals across provider disciplines was considered vital. For the CV providers, improving AMI mortality was an area of focus, but this was not a shared goal with the hospitalists or Internal Medicine providers.

3 Improving communication amongst all providers as to the reasons for these initiatives as well as the details of the action plans was identified as critical for sustaining provider buy-in to the project.
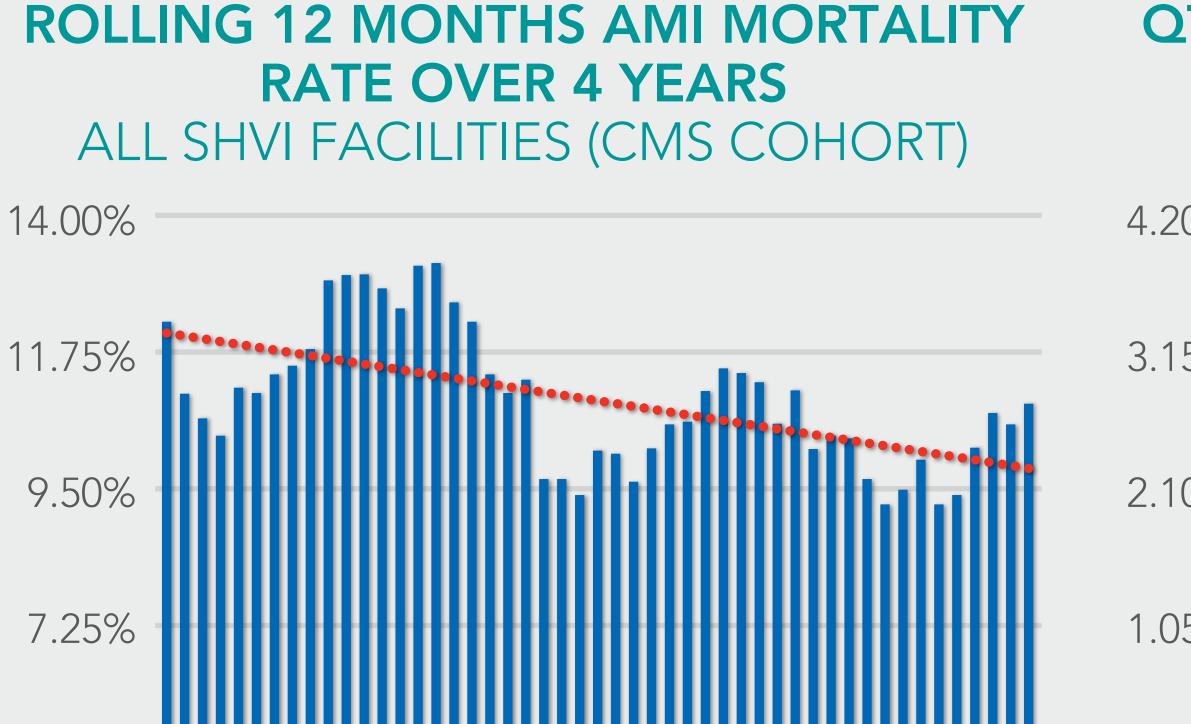
ACT:

a Continue with the hard stop AMI mortality process at all primary enterprise sites.

b Expand the Cardiac Concurrent Documentation Excellence process to all primary enterprise facilities.

c Develop a strategy for aligning CV goals with hospitalist/internal medicine goals.

d Continue with quarterly meetings of the CV Clinical Documentation Excellence Steering Committee.

e Develop a method to quantify the effect of Clinical Documentation Excellence on other metrics including risk profiles and length of stay.
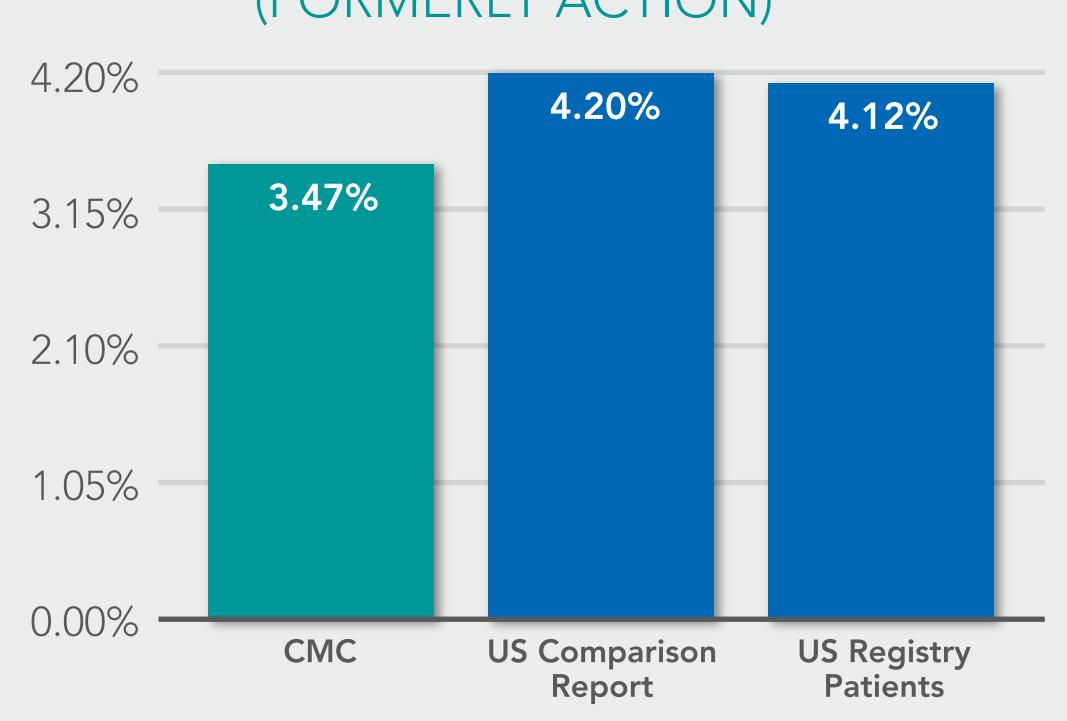
RESULTS

AMI 30-day CMS Cohort Mortality rate results showed continuous improvement and sustainability throughout the following years. In 2015, Atrium Health's internal data source shows rolling year results for AMI mortality through April 2015 being 12.26% (prior to the projects implementation) and through December 2018 (>3 years after implementation) was 9.40%. The mortality rate had decreased by 2.86% and 2.29% below the CMS FY 2019 National Observed Rate of 13.20%.

In addition, the risk adjusted deaths reported via NCDR's CP-MI Registry (Formerly ACTION registry) was 4.2% for Quarter 4 2012 and is now 3.47% as of Quarter 4 2018.

ROLLING 12 MONTHS AMI MORTALITY RATE OVER 4 YEARS
ALL SHVI FACILITIES (CMS COHORT)

QTR4 2018 RISK ADJUSTED DEATHS CP-MI REGISTRY (FORMERLY ACTION)

Achieving excellence in Documentation and Coding is integral to Atrium Health's Value Strategy in the Destination 2020 Roadmap. All publicly reported data, including VBP results, are benchmarked to regional and/or national performance. True comparisons of performance can only be drawn if the reported data are accurate and complete. This project identified current deficiencies in our practices and developed a corrective action plan to drive improvement.

The improvements in measured AMI mortality rates were accomplished through the development of key documentation excellence strategies (e.g., the hard stop and concurrent coding processes) as derived and implemented from the PDSA process. A multi-disciplinary team comprising of providers, administration, coding and documentation excellence specialists, quality, and data analytics teammates worked together to develop this improvement model. All members were stakeholders: all were deeply engaged in all facets of the project, and all were held accountable for the project results.

The approach taken to this project is novel and has already been recognized outside of AH through presentations in 2016 at the Association of Clinical Documentation Improvement Specialists National Conference, the American Health Information Management Association Conference, and the 3M National Client Summit. Presently, Atrium Health has begun to spread this 'best practice' to other service lines within Atrium Health with a comprehensive concurrent documentation/coding strategy. While this improvement in reported MI survival reflects a multipronged approach to quality improvement including multiple process improvements, the Documentation Excellence effort was critical to the accurate portrayal of our performance.