

## Mandated report: Effects of the Hospital Readmissions Reduction Program

Craig Lisk and Jeff Stensland January 11, 2018



#### Background

- 2008: MedPAC recommended publicly reporting readmission rates and reducing payments to hospitals with relatively high readmission rates
- 2009: CMS publicly reported rates
- 2010: The Hospital Readmissions Reduction Program (HRRP) is enacted
- 2013: Payment rates are reduced for hospitals with high readmission rates during 2010 to 2012

## Literature finds readmission rates declined after passage of the HRRP

- Hospital administrators reported increasing their efforts to reduce unnecessary readmissions
- Readmissions declined on a raw and risk-adjusted basis
- Readmissions declined faster for conditions covered by the program (e.g., pneumonia, HF, AMI) than for other conditions
- Readmissions declined faster for hospitals covered by the program (PPS hospitals) than for critical access hospitals that are not covered by the program



#### Questions raised by the literature

- Were the reductions real, or were patients just being classified as observation stays rather than being admitted?
  - Did observation stays increase because of the HRRP?
  - Did emergency department visits increase because of the HRRP?
- Was the reduction in risk-adjusted readmissions primarily due to more intensive coding and higher risk scores?
- Did the program result in higher mortality?

## The 21<sup>st</sup> Century Cures Act mandated readmissions study

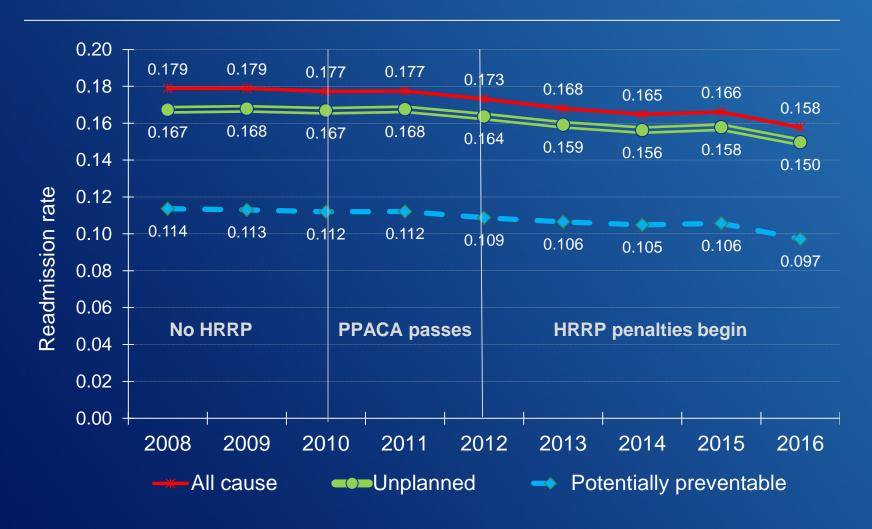
- Mandated study question: Are reduced readmissions "related to changes in outpatient and emergency services"?
- This report examines relationships between changes in readmissions and
  - Observation stays
  - Emergency department visits
  - Mortality

#### Methods

- Examine cases covered under the HRRP
  - FFS beneficiaries age 65 or older
  - Use same inclusion and exclusion criteria applied to readmission reduction program as of fiscal year 2016
  - Unplanned readmissions
- Risk-adjust readmission trends
  - Use three years of data for risk-adjustment (2010-2012)
  - Use clinical categorical models for risk-adjustment
  - Also show trends in raw non-risk-adjusted trends
- Examine correlations between changes in readmissions and changes in other variables

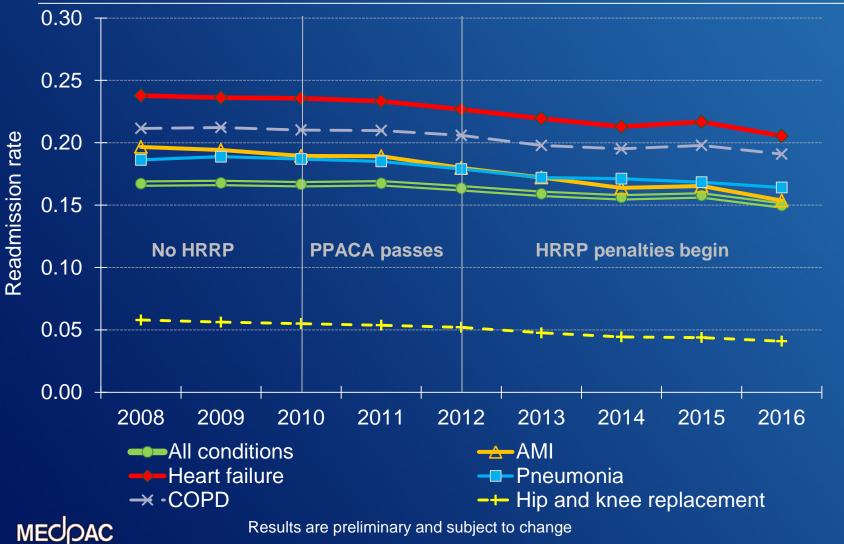


### Raw readmission rates declined for all three readmission measures

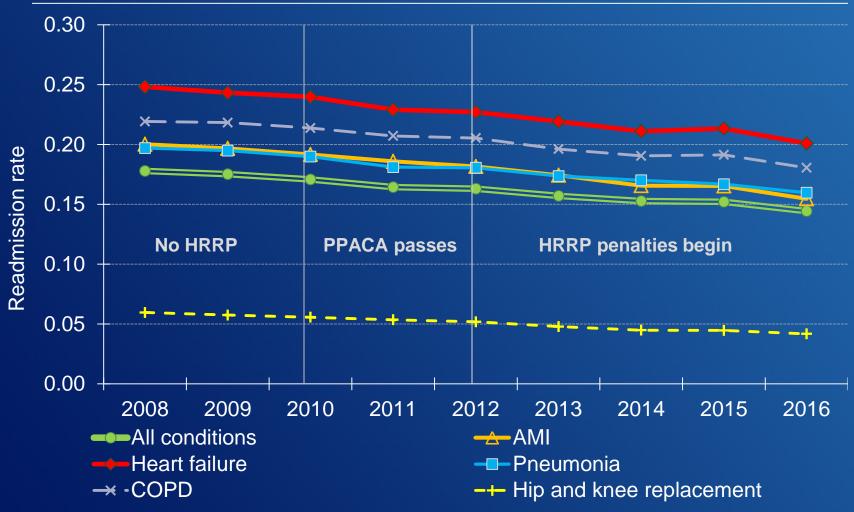




#### Raw readmission rates declined for each condition covered by HRRP



### Risk-adjusted readmission rates declined even more for conditions covered by the HRRP



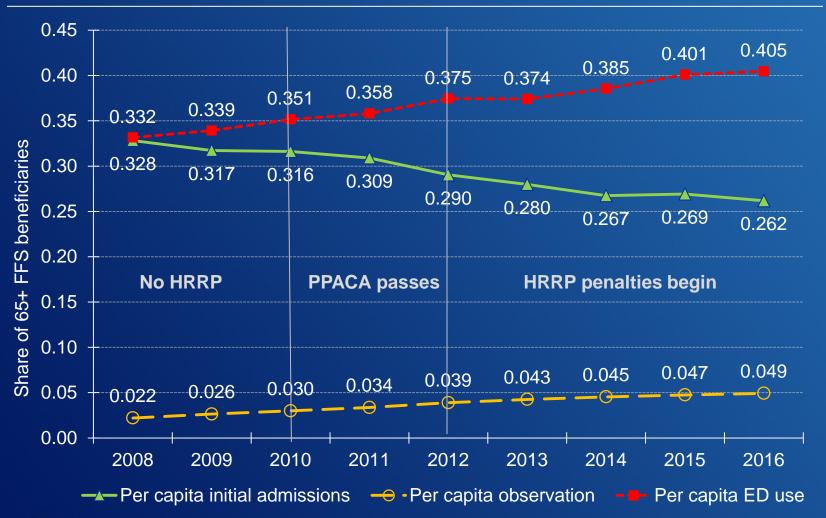


## Decline in risk-adjusted readmissions is largely real, not explained by coding

- There was a 17 percent decrease in admissions per capita from 2010 to 2016
  - We expect that some easier cases shifted to an outpatient setting
  - We observe a reduction in the share of cases that were one-day stays
  - The reduction in short-stay cases is consistent with incentives in the Recovery Audit Contractor (RAC) program and for ACOs
- While much of the increase in patient complexity likely is real, some may also be coding

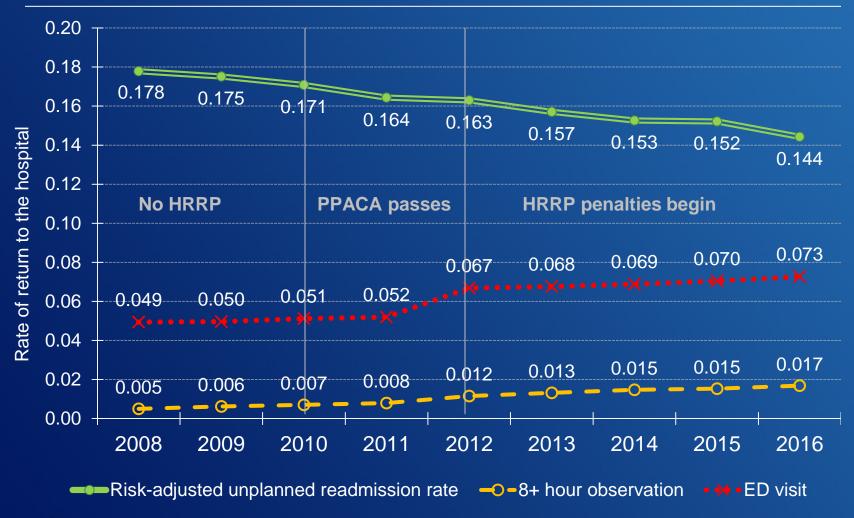


### While inpatient use has fallen, observation and ED use has climbed steadily



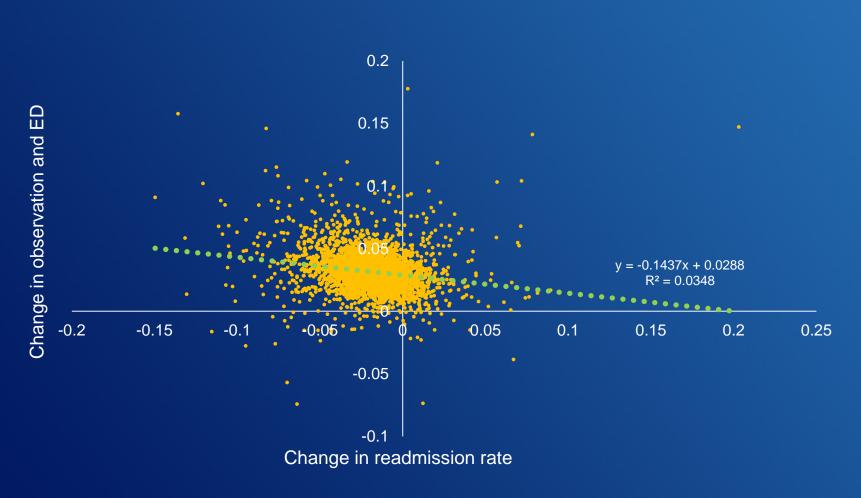


### Post-discharge readmissions decline, observation and ED visits increase



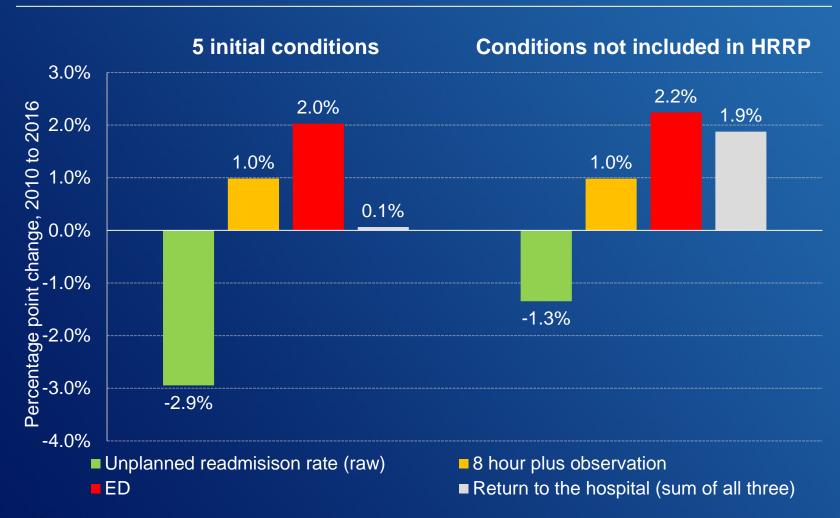


#### Lower readmission rates are only slightly correlated with higher observation stays and ED visits



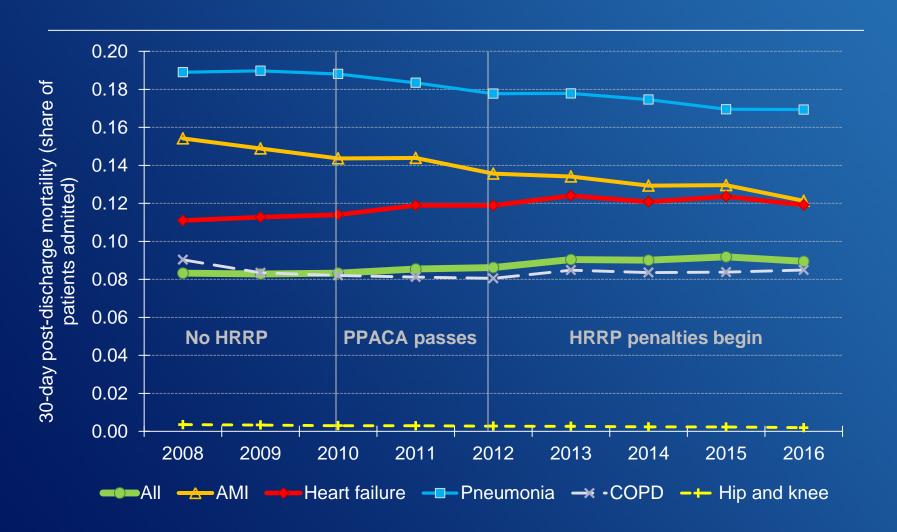


### Use of observation and ED grew the same for conditions covered and not covered by the HRRP



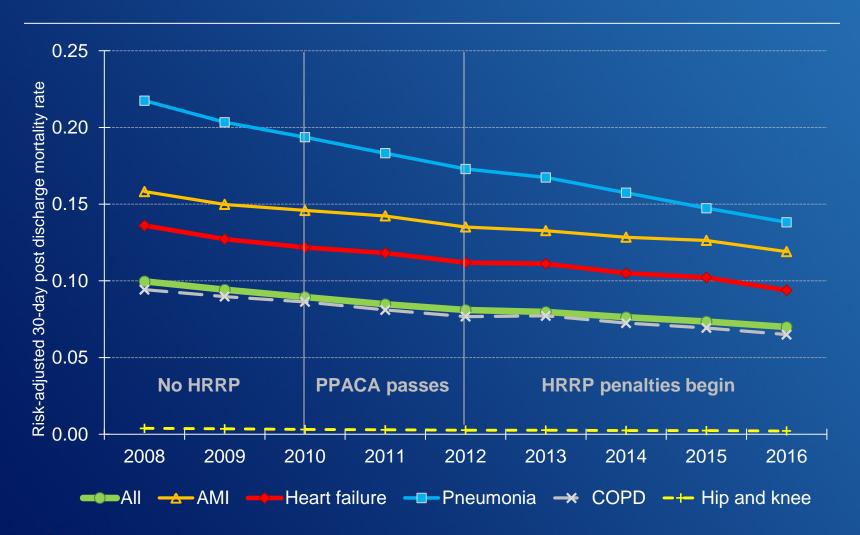


#### Raw mortality rates 2008 to 2016



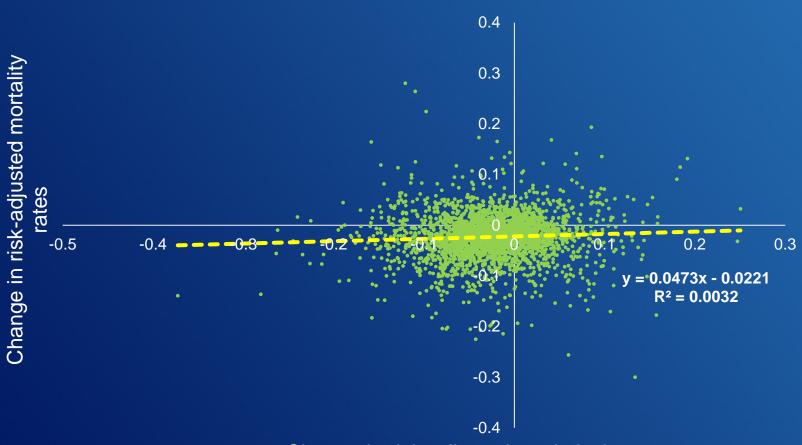


### Risk-adjusted mortality rates declined from 2008 to 2016





# Little relationship between changes in readmission rates and mortality rates for heart failure patients







### Effect of lower readmission rates on Medicare payments from 2010 to 2016

Type of care (post-discharge)	Change in payments (in billions)
Readmissions	\$ -2.28
Observation stays	0.17
ED visits	<u>0.07</u>
Annual change in spending	-2.04

Note: Change in the annual payments for readmissions, observation stays, and ED visits post-discharge includes the cost of all changes, even if they did not stem from the HRRP. The \$2 billion in reduced trust fund expenditures does not include reductions due to the penalties.



#### Summary

- The HRRP created an incentive to reduce readmissions
- Readmissions declined
- Observation increased, but not enough to offset the decline in readmissions
- Emergency visits increased, but may be largely due to reasons other than the HRRP
- HRRP did not appear to negatively effect mortality rates

#### Policy implications

- Positive impacts of the program
  - The HRRP has reduced readmissions that the patient must endure
  - It has generated savings for the Part A trust fund
- Potential improvements
  - Could refine the penalty formula
  - Could expand to all conditions to pay for fixing the penalty formula
  - Will discuss these in the spring