Burden of Heart Failure

Paul Heidenreich MD, MS Director, CHF QUERI

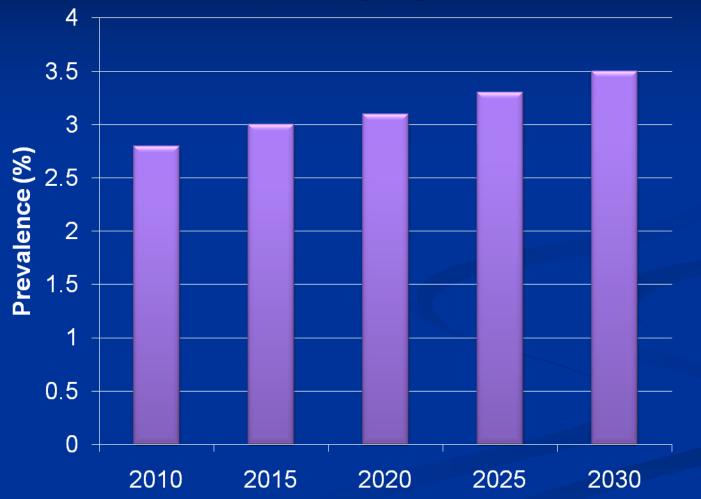
Background on U.S. Heart Failure

Population Group	Prevalence	Incidence	Mortality	Hospital Discharges	Cost
Total population	5,300,000	660,000	284,965	1,084,000	\$34.8 billion

VA prevalence near 140,000 or 2.6%

¹American Heart Association. 2008 Heart and Stroke Statistical Update. Dallas, TX: American Heart Association; 2008. ²Hunt SA et al. ACC/AHA guidelines for the evaluation and management of chronic heart failure in the adult. 2001.

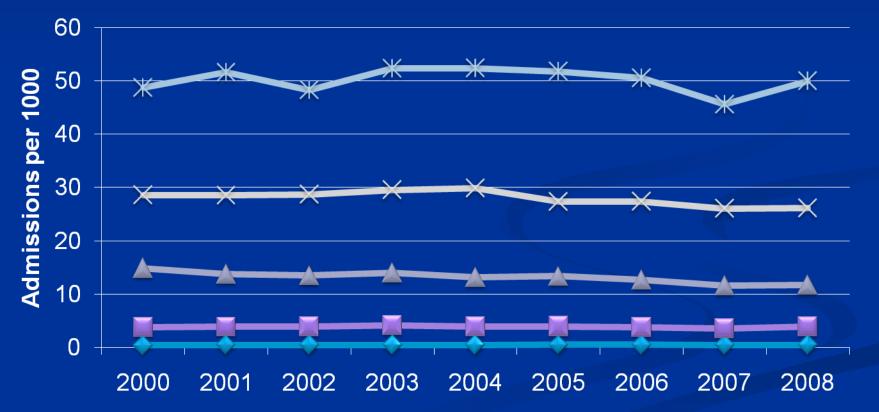
Projected Prevalence of Heart Failure



Heidenreich, Circulation 2011

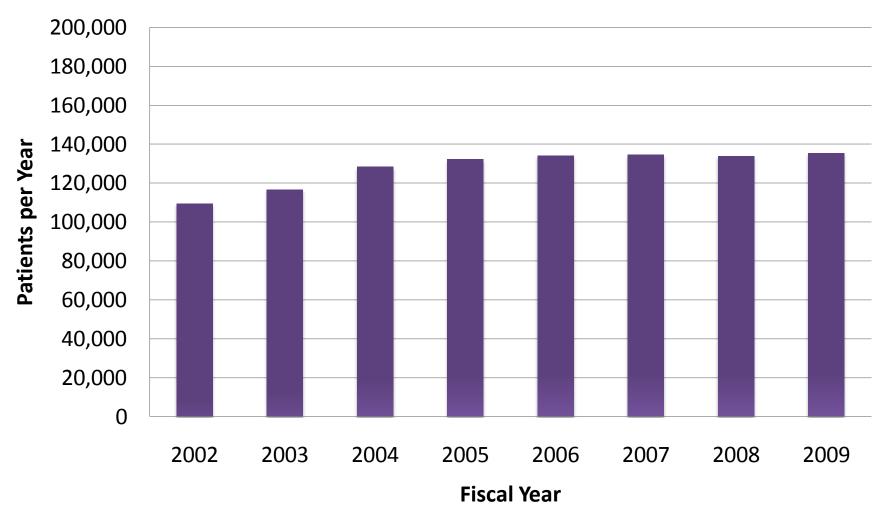
U.S. HF Hospitalization Rate Principal Diagnosis

→15-44 →45-64 →65-74 →75-84 →85+

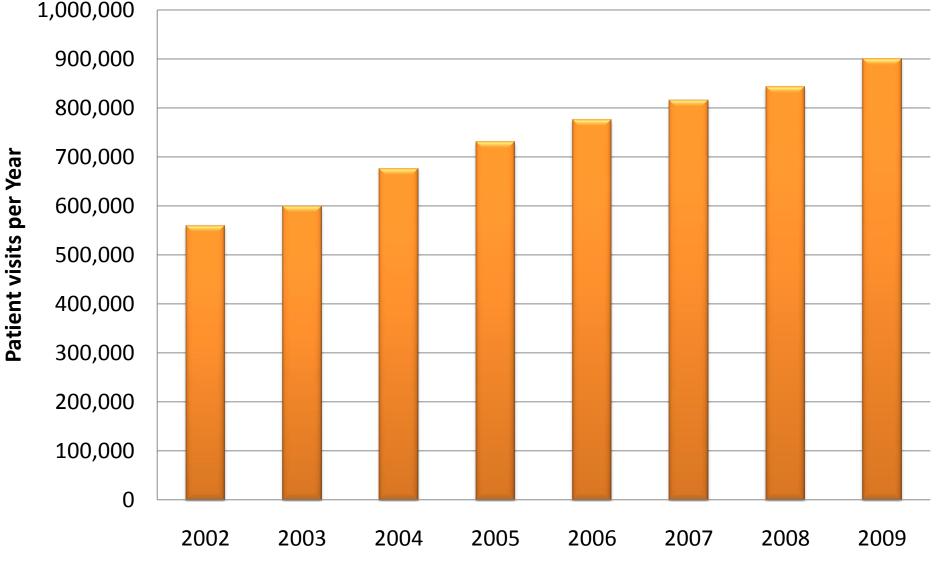


NHDS

Stable Number of Veteran Outpatients with Heart Failure

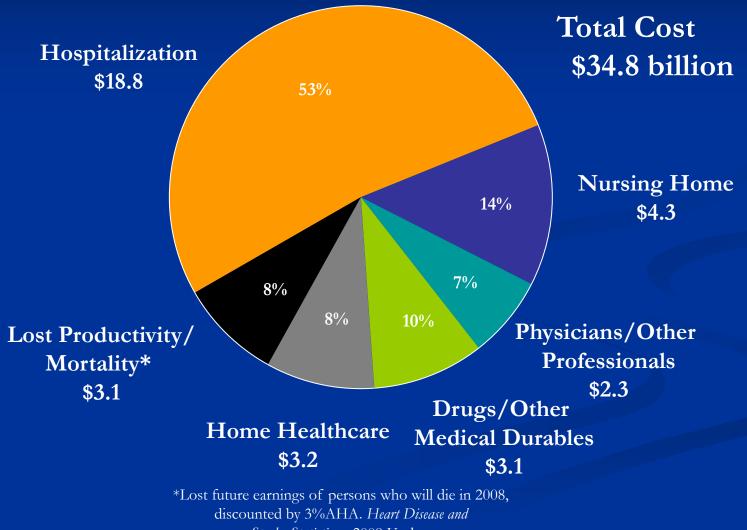


Increasing VA Burden: Outpatient Encounters for Heart Failure



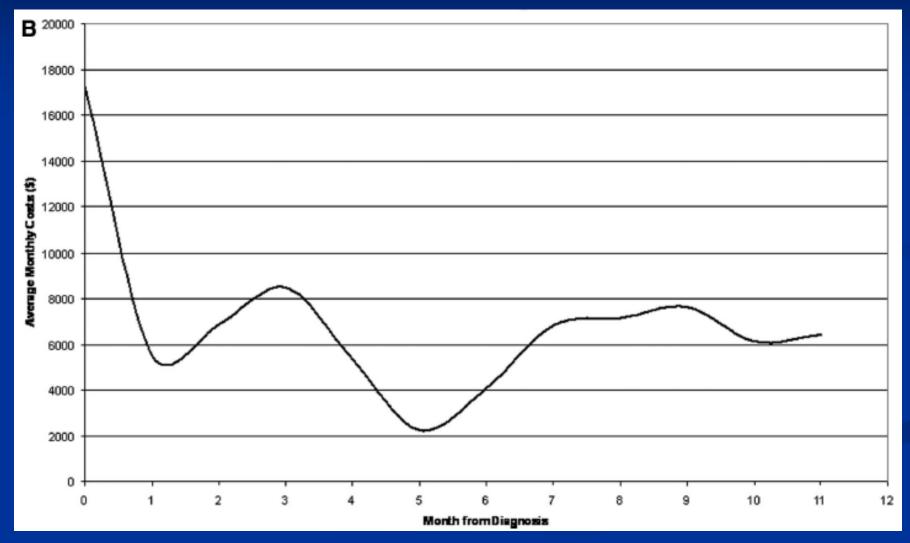
Fiscal Year

Estimated Direct and Indirect Costs of HF in US



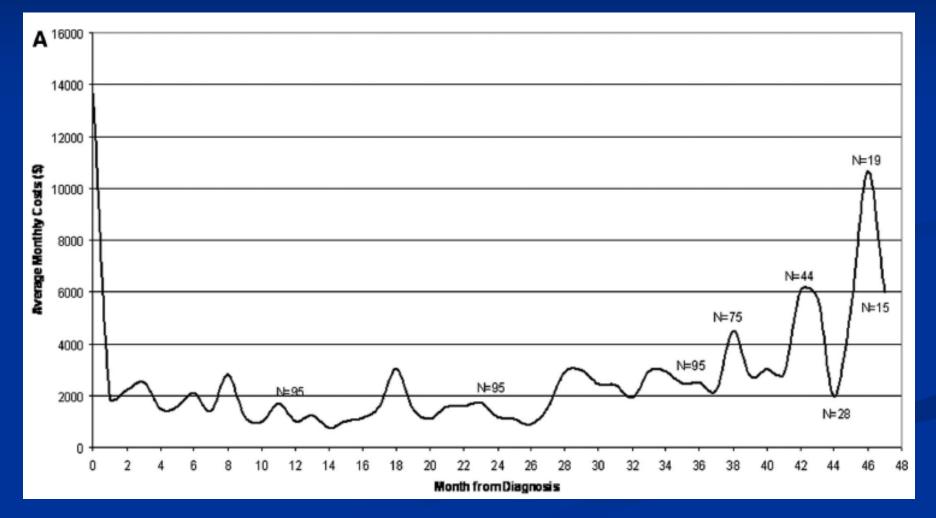
Stroke Statistics-2008 Update

Cost Following HF Diagnosis: Surviving < 12 months



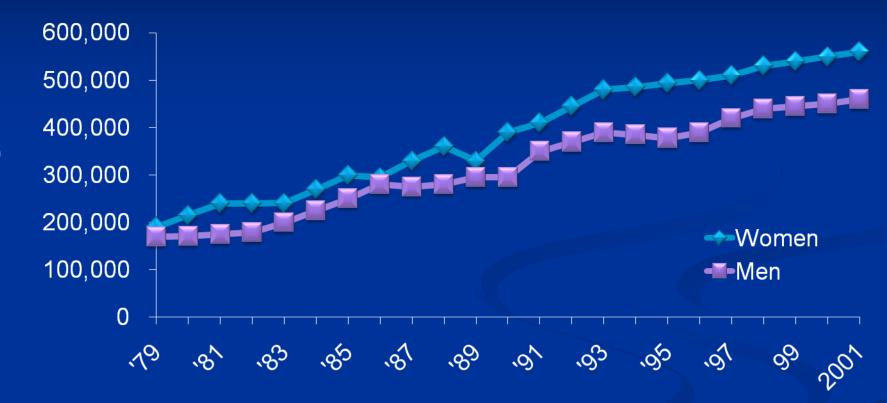
Dunlay, Circ CQO, 2011

Cost Following Diagnosis: Long Term Survivors



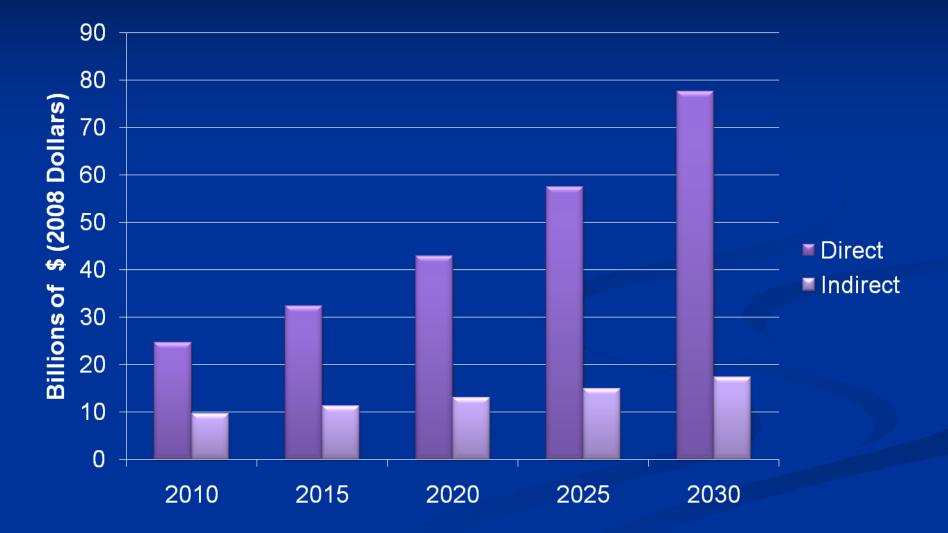
Dunlay, Circ CQO, 2011

Increasing Burden of Heart Failure in the U.S.



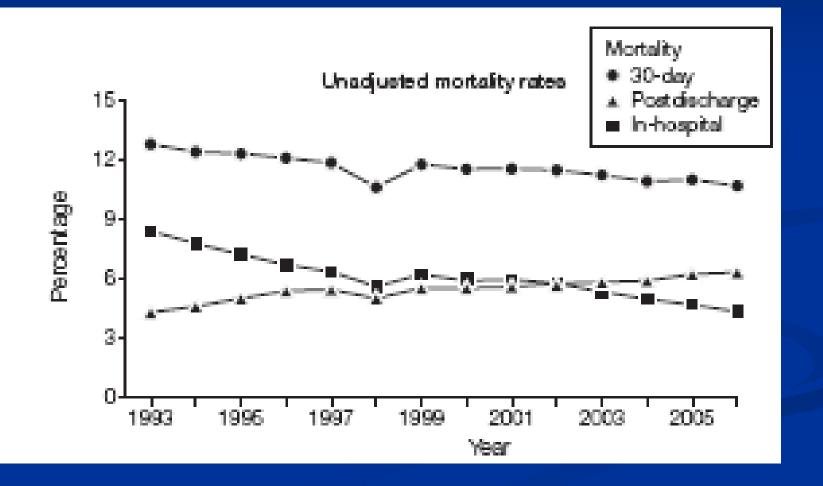
Discharges

Projected Costs of Heart Failure



Heidenreich, Circulation 2011

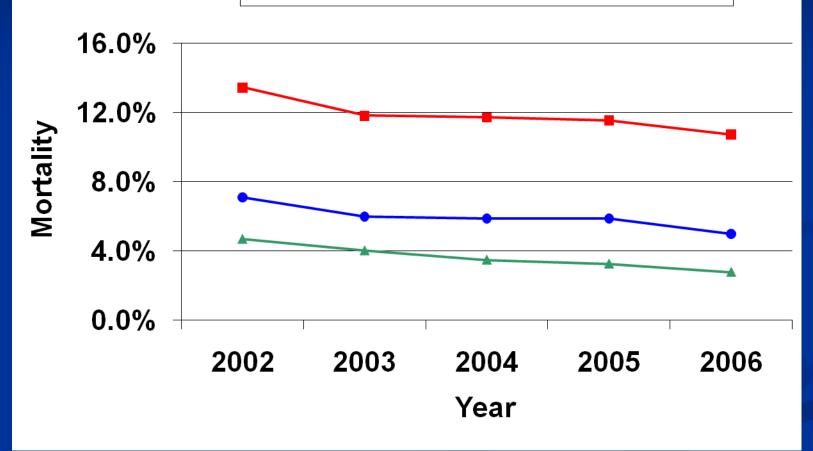
Mortality: US Medicare



Buenos, Circulation 2009

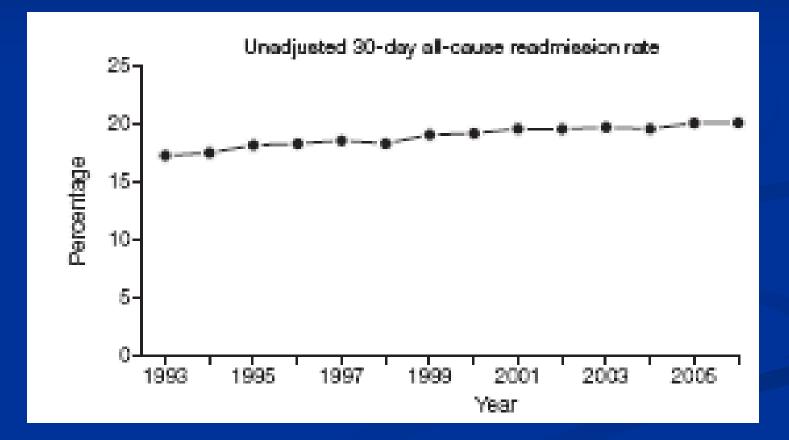
VA Trends in Mortality

In Hospital → 30-Day → 90-Day

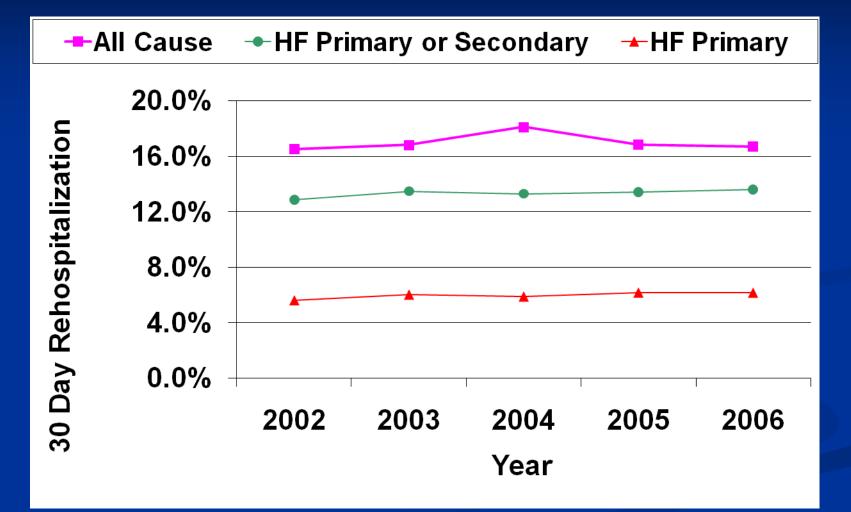


Heidenreich JACC, 2010

30-Day Readmission Rate: US Medicare

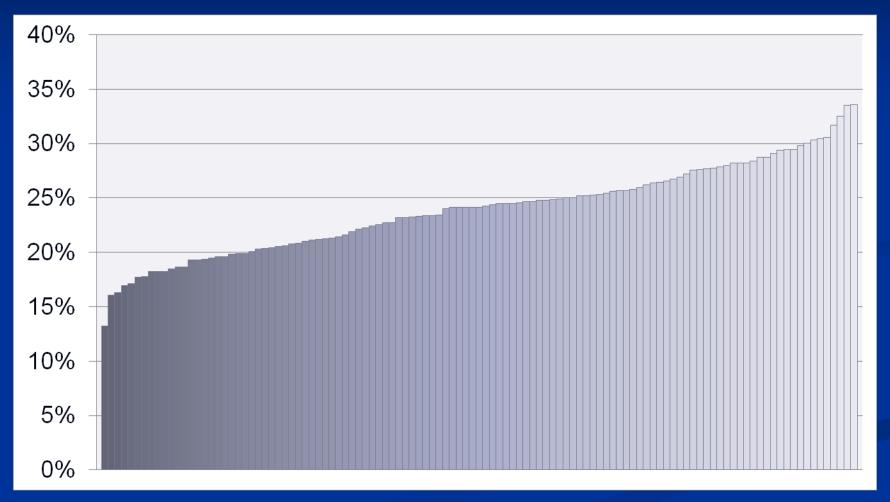


VA Trends in Readmission



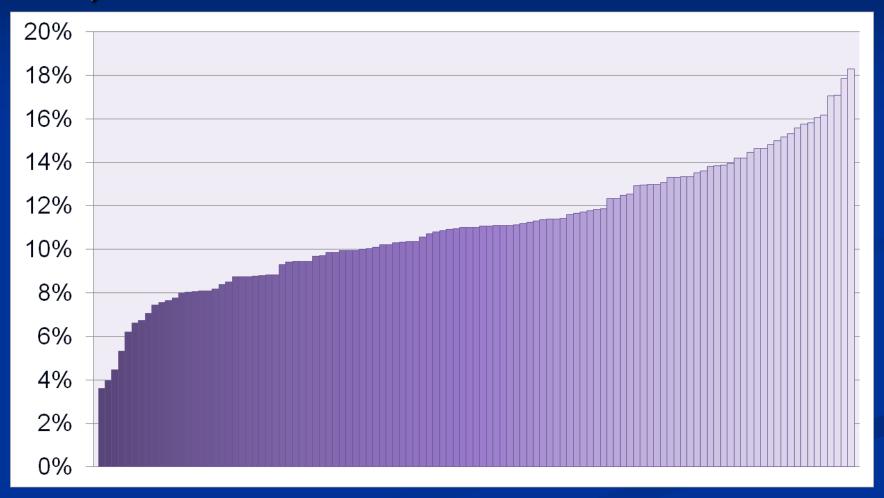
Heidenreich JACC, 2010

30-Day Readmissions (All Cause) Distribution for VA Facilities



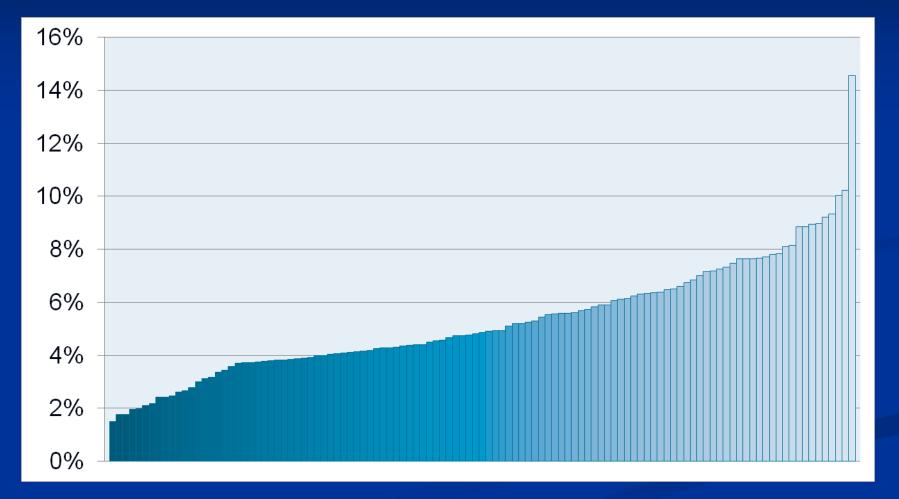
Excludes Facilities with < 100 HF discharges over 2 years.

30-Day Readmissions (HF Principal Dx) Distribution for VA Facilities



Excludes Facilities with < 100 HF discharges over 2 years.

30-Day Mortality Distribution for VA Facilities



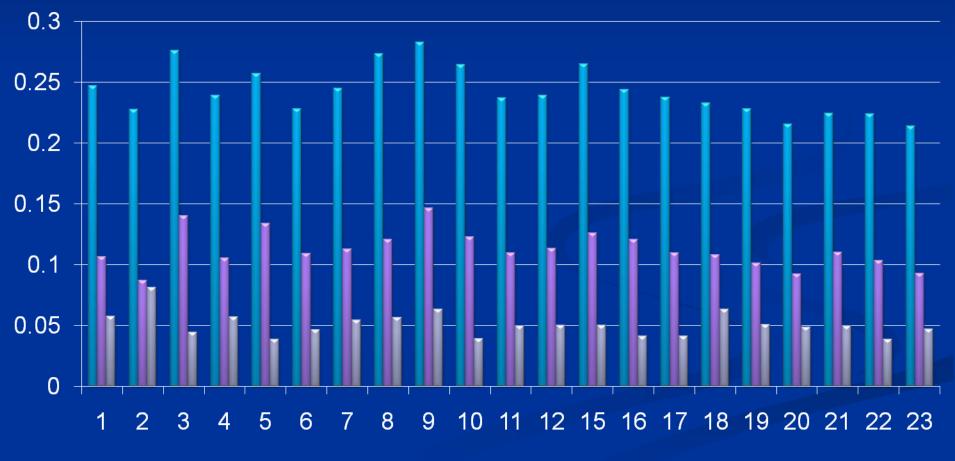
Excludes Facilities with < 100 HF discharges over 2 years.

VISN 30-Day Outcome Following a Heart Failure Discharge

Any Readmission

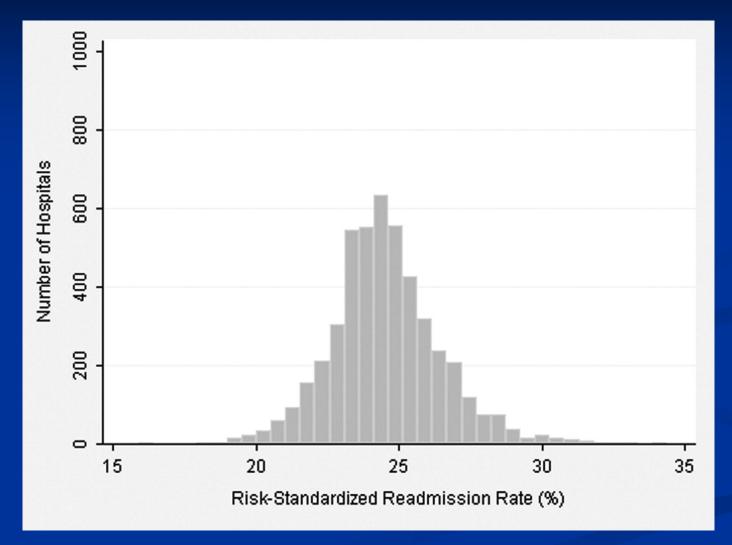
HF Readmission

Mortality



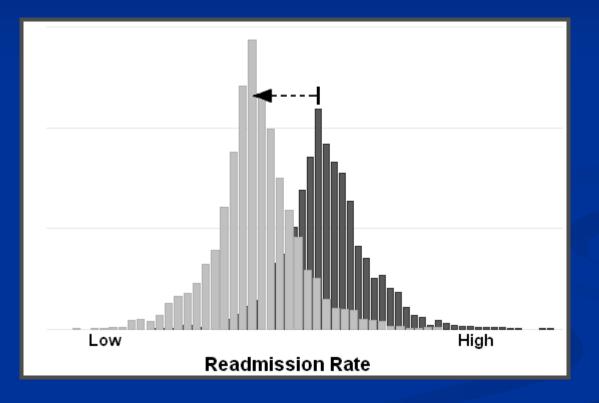
VISN

Heart failure 30-day Risk-Standardized Readmission Rate Distribution

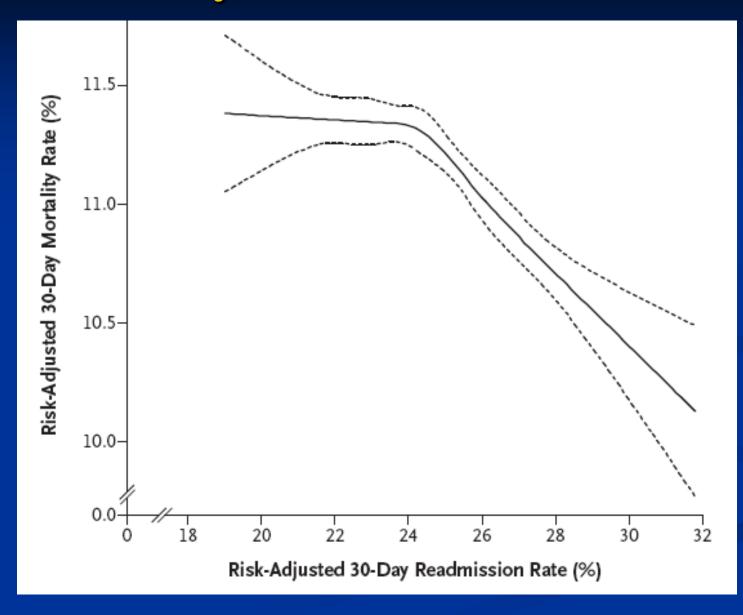


Krumholz, H. M. et al. Circ Cardiovasc Qual Outcomes 2009;2:407-413



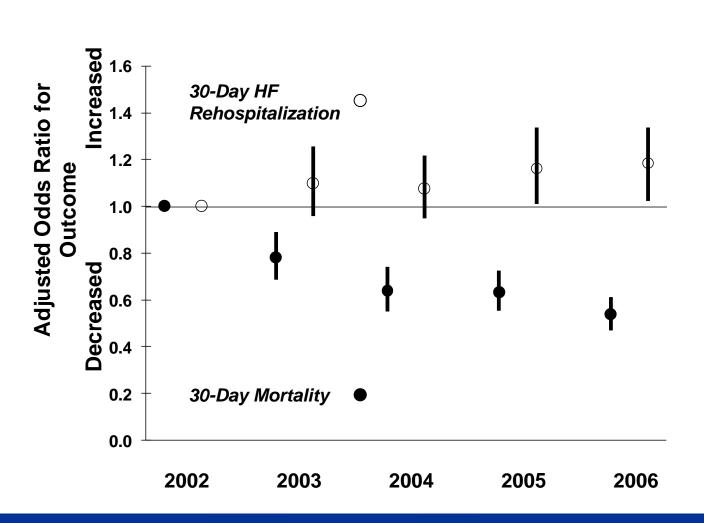


Mortality and Readmissions



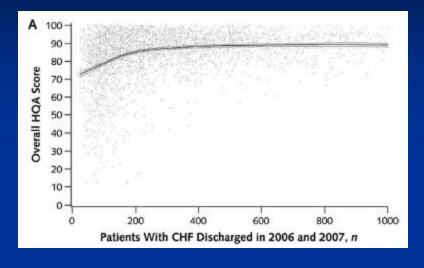
Gorodeski, NEJM 2010, 363 (3) 297

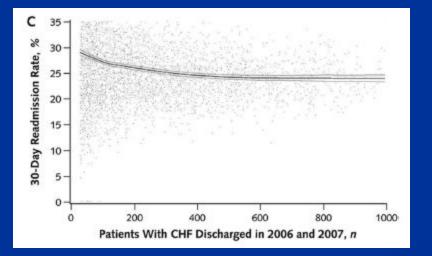
Mortality vs. Readmissions

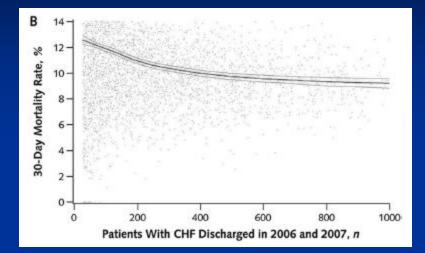


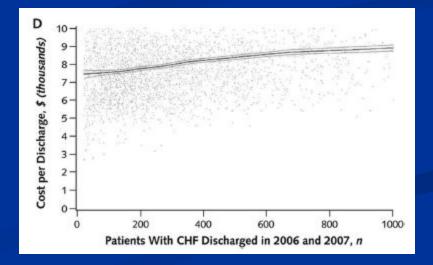
Heidenreich, JACC 2010

Hospital HF Volume, Outcome, Cost





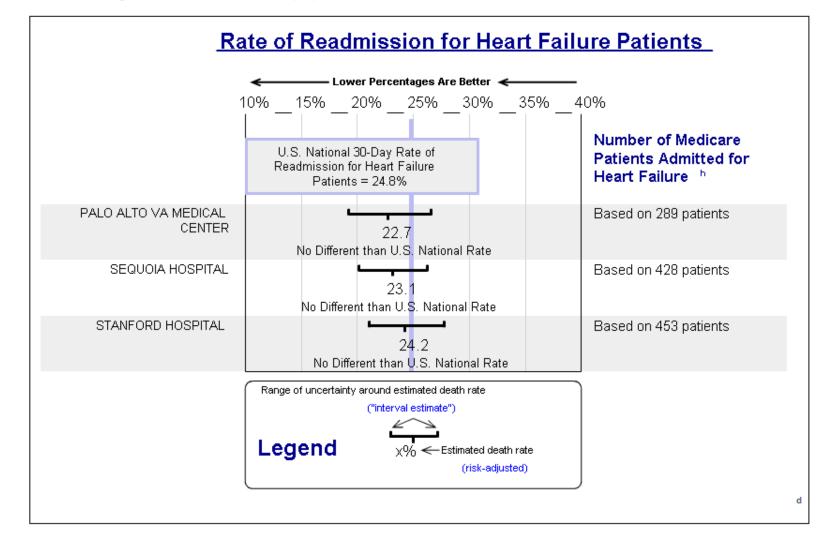




Joynt, Annals of Internal Medicine 2011

Hide Rate of Readmission for Heart Failure Patients
Information

These percentages were calculated from Medicare data on patients discharged between July 01,2007 and June 30, 2010. They don't include people in Medicare Advantage Plans (like an HMO or PPO) or people who don't have Medicare.

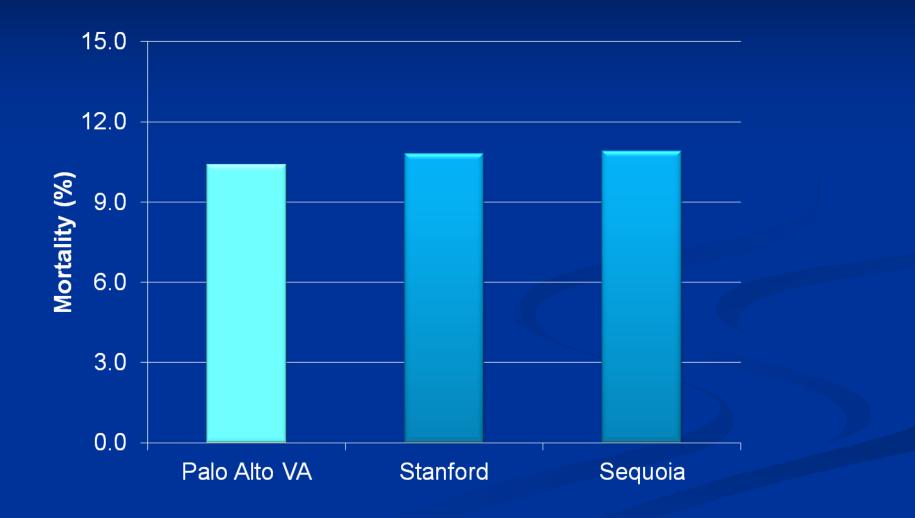


^hThis column shows the number of patients with Original Medicare who were admitted to the hospital for Rate of Readmission for Heart Failure Patients. The hospital may also have treated additional Medicare patients in Medicare health plans (like an HMO or PPO).

What does this show you? "Readmission" is when patients who have had a recent hospital stay need to go back into a hospital again. Medicare looks at how many Heart Failure natients need to be readmitted to the hospital within 30 days of their discharge. The information above tells you how the hospitals

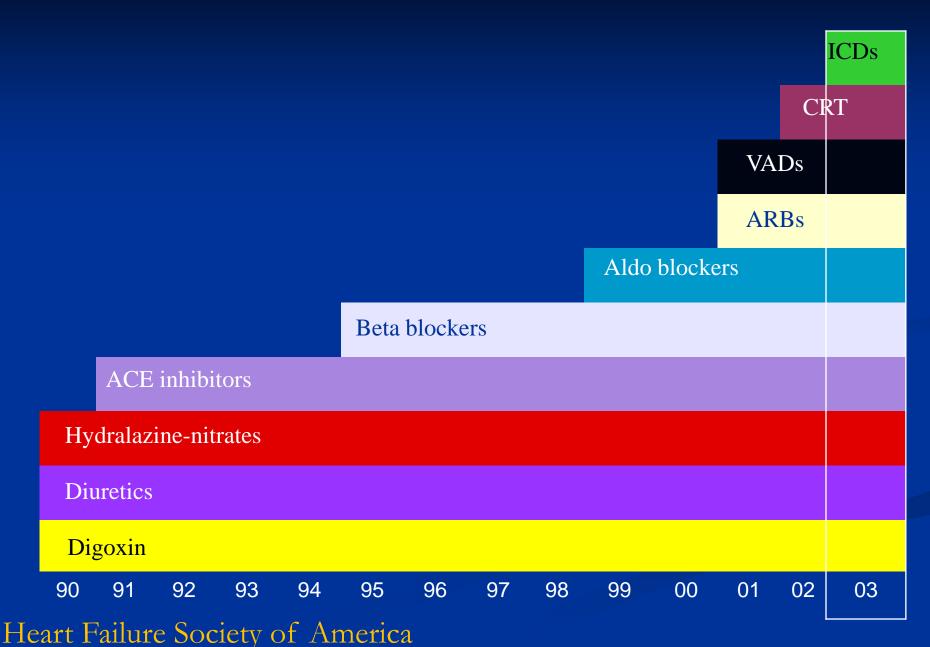
Trusted site:

Mortality at 30 Days



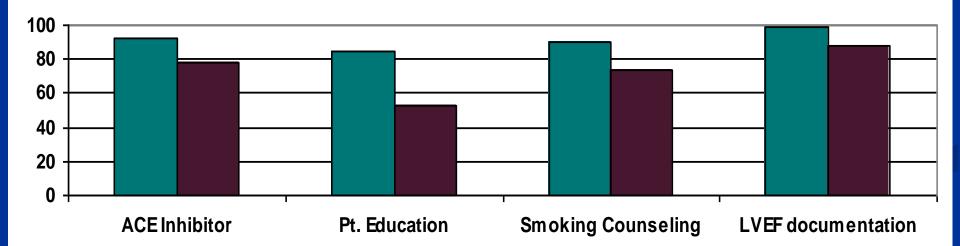
Hospital Compare 2012

Treatments for Heart Failure

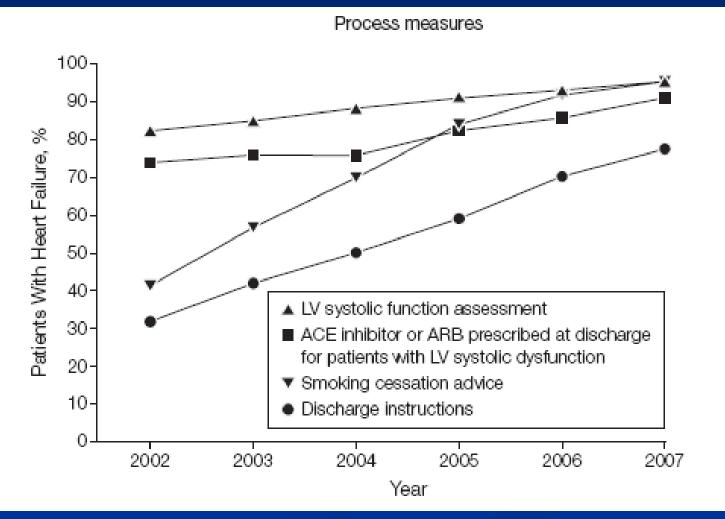


2005 Performance data for VA and Non-VA (Joint Commission mean) for Heart Failure Mission Critical Measures.

VA Joint Commission



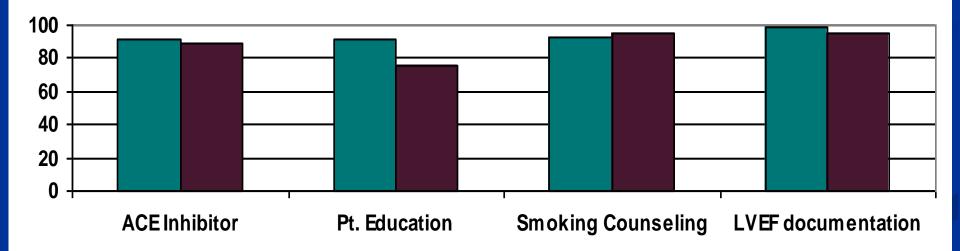
Improvement in Medicare Process of Care



Fonarow, Peterson, JAMA 2009

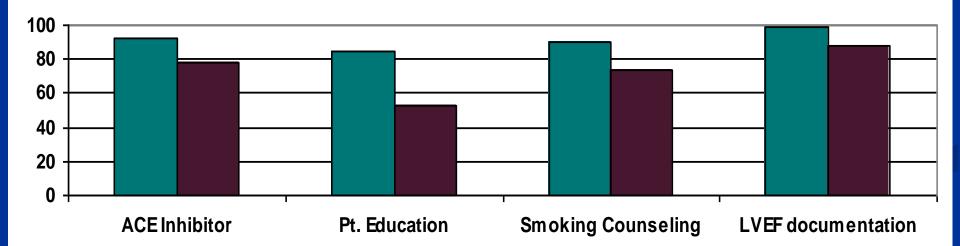
2007 Performance Data for VA and the Non-VA (Joint Commission mean) for HF Mission Critical Measures.





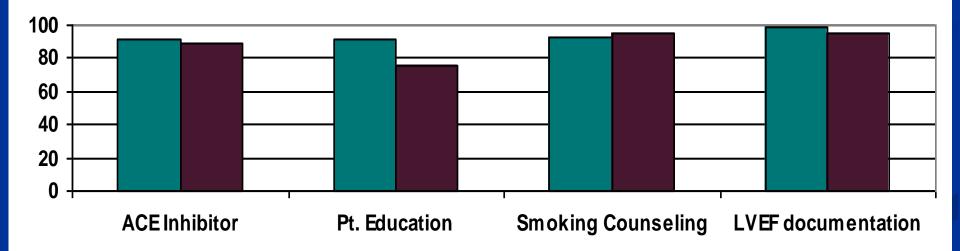
2005 Performance data for VA and Non-VA (Joint Commission mean) for Heart Failure Mission Critical Measures.

VA Joint Commission



2007 Performance Data for VA and the Non-VA (Joint Commission mean) for HF Mission Critical Measures.





Summary

- VA burden of heart failure care is growing
- Aging of the population will likely continue/accelerate this growth
- VA led in process of care but the rest of the country has caught up.
- Finding "preventable" costs/admissions is increasingly difficult