

# Promising Results from the Medicare Chronic Care Practice Research Network Analysis

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# Main Message

Care coordination is not a panacea,  
but **some** care coordination programs  
reduce hospitalizations and costs  
for **certain** subgroups.



# Presentation Road Map

- Background and questions addressed
- Study description
- Findings
- Possible policy implications and challenges



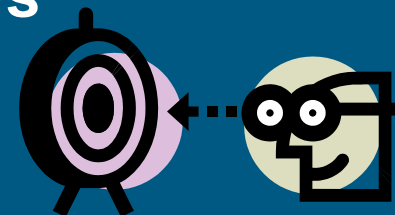
# Medicare Coordinated Care Demonstration

- Randomized controlled trial with 15 programs
- Third report to Congress found limited effects:
  - Two viable programs reduced hospitalizations
  - No cost savings
  - Limited improvements in quality of care



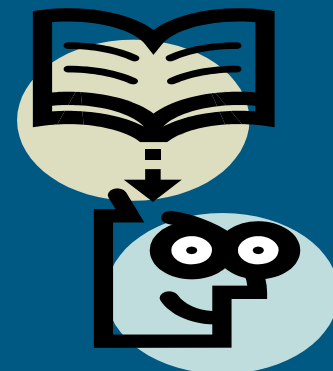
# Objective: Estimate Program Impacts

- On hospitalizations and costs for subgroups defined by:
  - Dx (Alzheimers, CAD, Diabetes, CHF, CHF+Diabetes)
  - Prior hospitalizations (1+ in prior year, 1+ in prior 2 years, 2+ in prior 2 years)
  - Combinations of Dx + hospitalizations
  - # of chronic conditions
  - Prior costs
- On mortality through 2007
- On rehospitalizations within 30/60/90 days
- By length of time enrolled



# About the Study

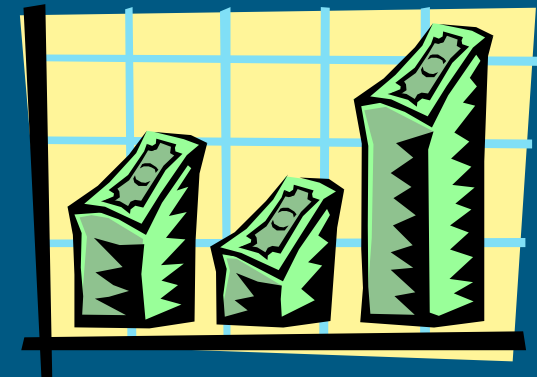
- **Sample:** Enrollees entering 2002 through 2006
- **Follow-up:** Through 2007 (potential range of 1- nearly 6 years, mean = 3.1 years)
- **Extends third report to Congress sample and follow-up by 1.5 years**



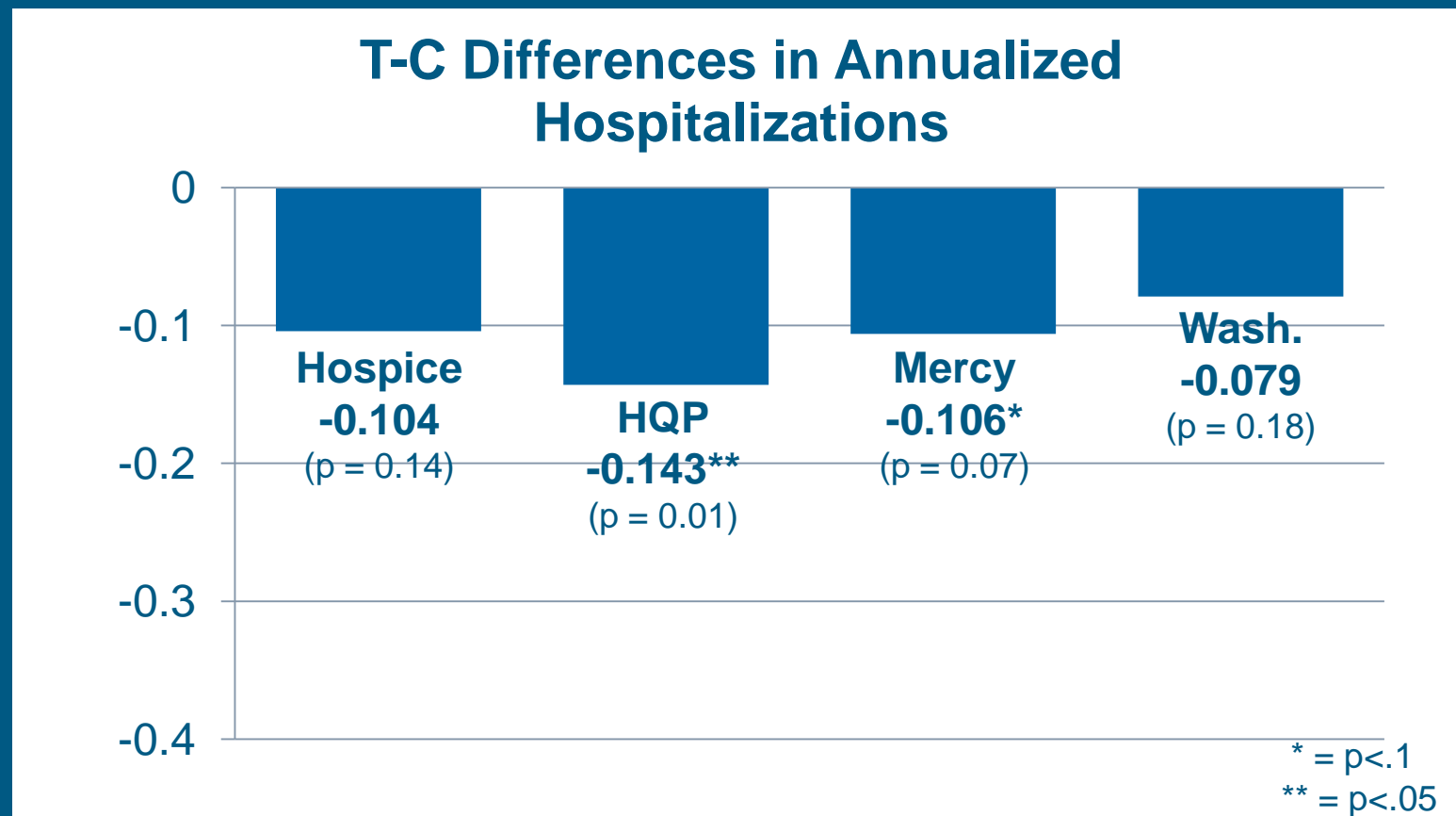
# Overall Results Remain Underwhelming

## Among the 15 sites:

- Only Mercy reduced hospitalizations (0.106 per year,  $p = 0.07$ )
- None definitively reduced A+B expenditures
- HQP may be cost neutral
- None generated net savings



# But 4 Sites Had Differences in Hospitalizations Suggesting Possible Masked Effects for Subgroups

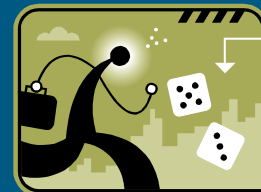


\*\*This difference is for beneficiaries in HQP's high-risk group. The differences for all enrollees is -0.037 ( $p=0.215$ ).

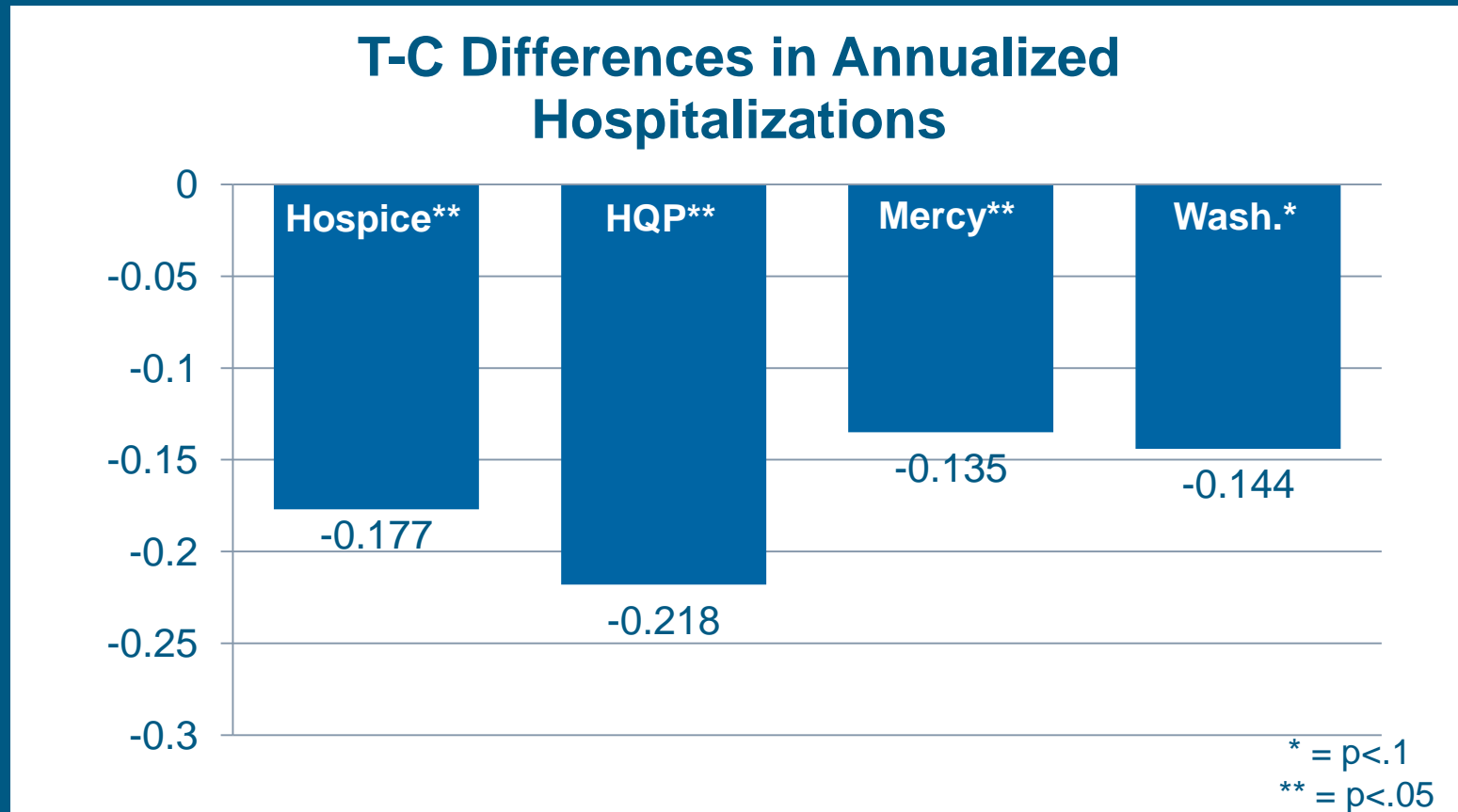


# Results Are Driven by High-Risk Patients

- No pattern of effects by diagnosis or prior use alone
- Most promising subgroup combines diagnosis and severity:
  - CHF, CAD, or COPD and 1 or more prior-year hospitalizations
  - OR
  - 2+ hospitalizations in the prior 2 years, any condition
  - This is a subgroup defined on top of each site's existing implicit and explicit targeting criteria
- Targeting this subgroup does not guarantee success—other programs had no effects for it

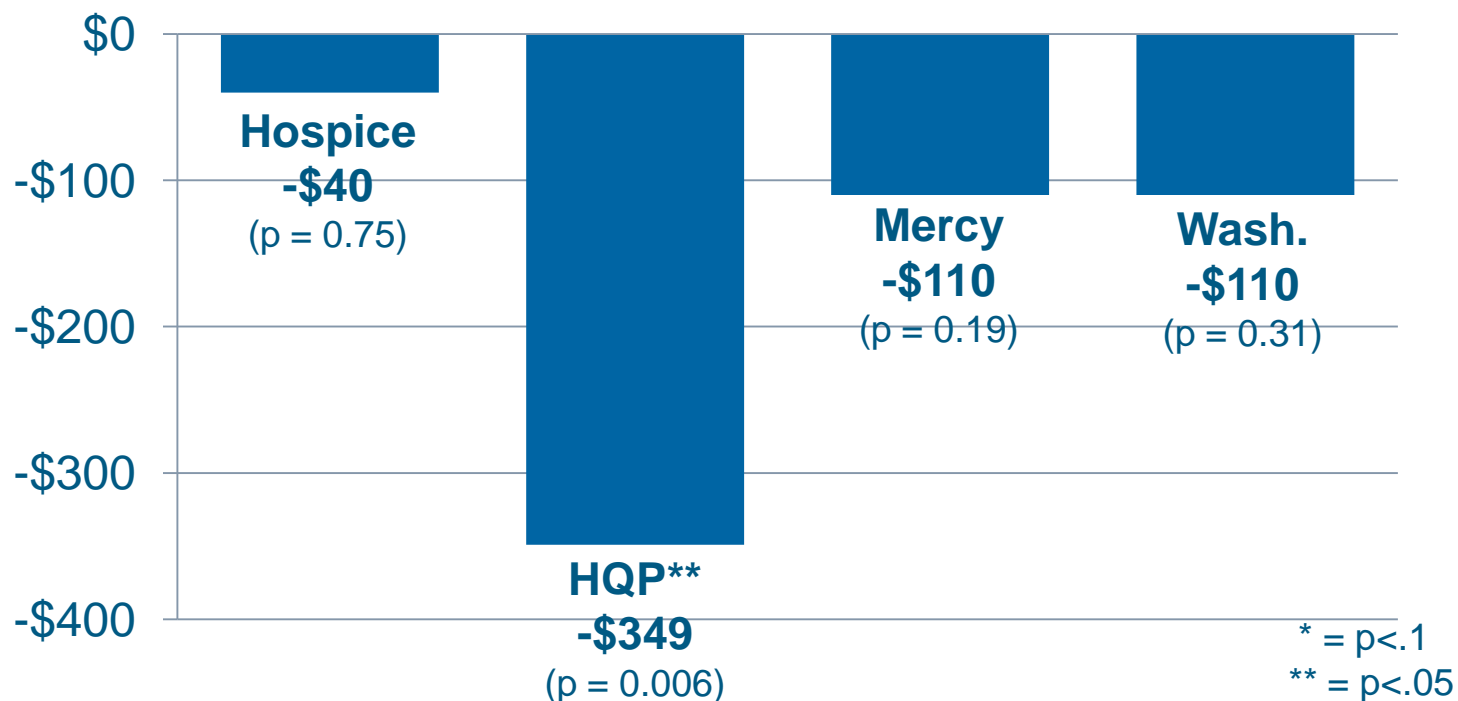


# The Subgroup Had Statistically Significant Reductions in Hospitalizations ( $p < 0.054$ for each)

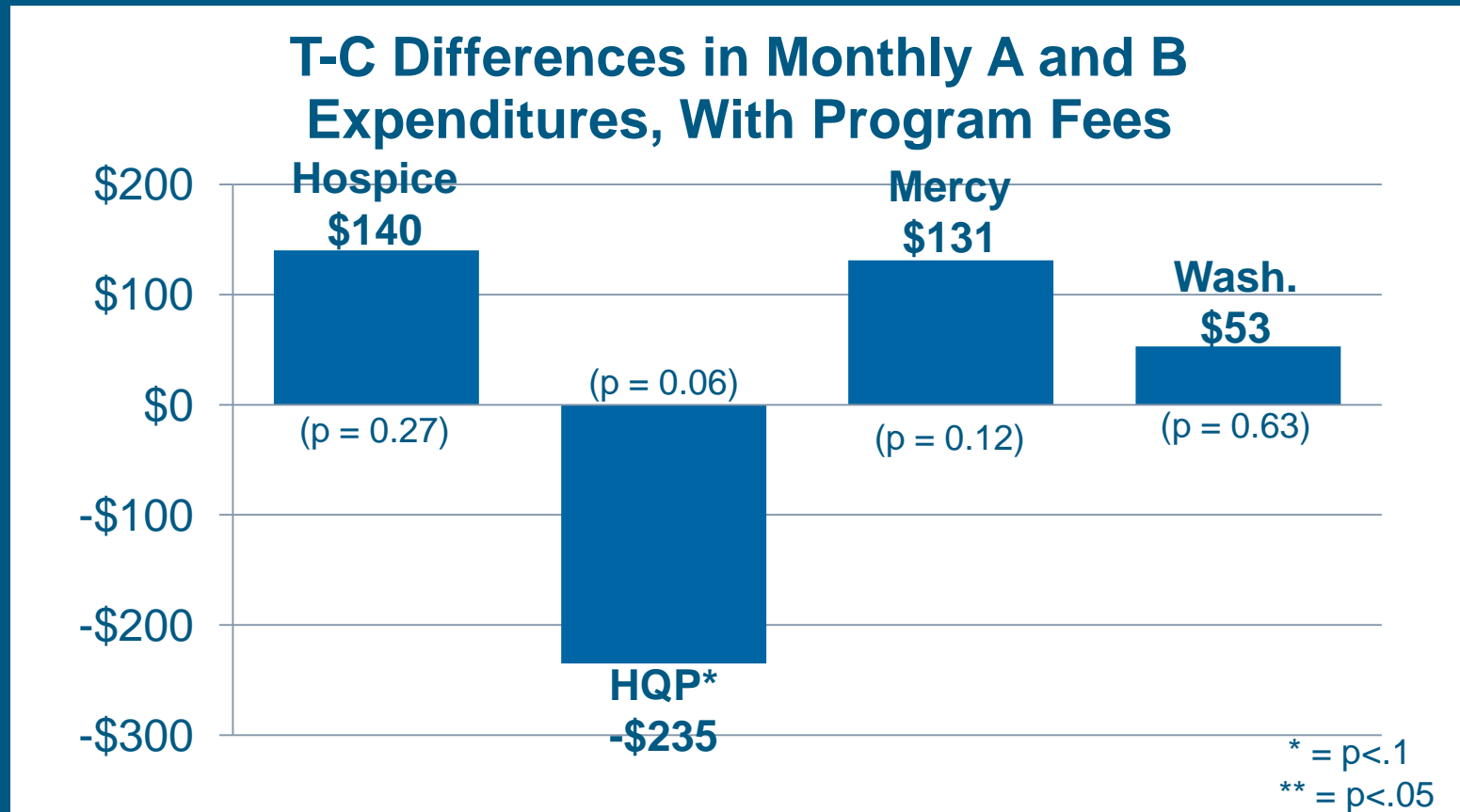


# Only HQP Reduced Regular Medicare Expenditures for the Subgroup ( $p = 0.006$ )

## T-C Differences in Monthly A and B Expenditures, Without Program Fees



# Only HQP Generated Net Savings for the Subgroup (p = 0.06)



# Together, the Four Programs Reduced Part A and B Expenditures But Increased Total Costs

- The four sites combined reduced costs by \$121 ( $p=0.07$ )
- With program fees, total costs increased by \$94 pmpm ( $p=0.08$ )
- Results not sensitive to outliers
- The sites need to reduce fees to be cost neutral or generate savings.

# Subgroup Contains a Majority of Enrollees, Except in HQP

- 66-76% for Hospice, Mercy, Washington U.
- 57% overall among the 15 programs
- Only 15% of HQP enrollees

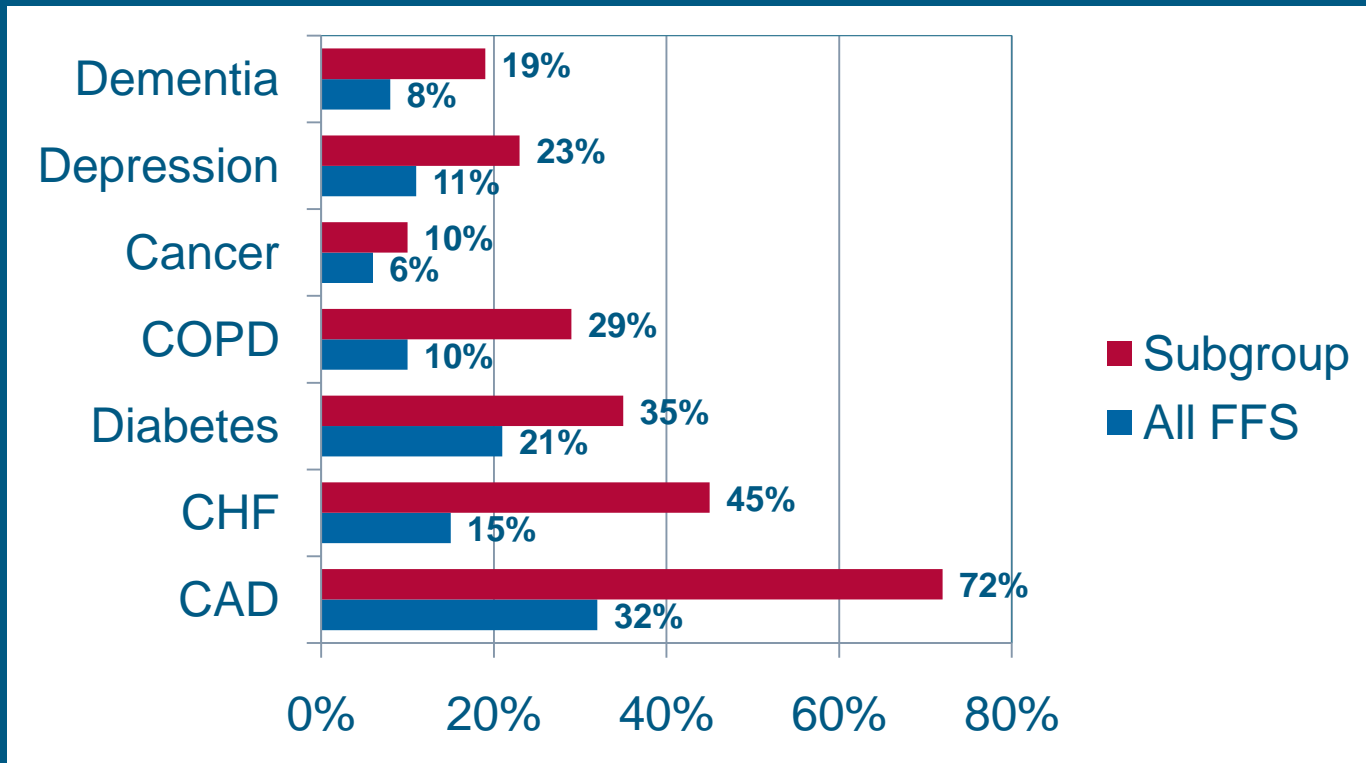


# Subgroup Accounts for Large Share of Medicare Costs

- 18.4% of all Medicare FFS beneficiaries
- 38% of all Medicare FFS expenditures during the year *after* identification
  - Average of 0.92 hospitalizations per year vs. 0.36 for all FFS beneficiaries
- 33% of Medicare FFS expenditures during 3 years *after* identification
  - Average of 0.86 hospitalizations per year vs. 0.37 for all FFS beneficiaries



# Beneficiaries in the Subgroup Are Sicker than Average





# Only HQP Reduced Mortality

- Overall, reduced by 3 percentage points ( $p=0.04$ )
- Effect concentrated among high-severity group:
  - Comprises 29% of all HQP enrollees
  - 20% of the control group vs. 15% of the treatment group died ( $p=0.03$ )
- Have not yet analyzed mortality among our smaller high-risk subgroup



# Minor Isolated Effects on 30/60/90 Day Rehospitalizations

- 4 programs had effects, 2 favorable and 2 unfavorable (at  $p < .1$  level)
- Favorable effects for Hospice and HQP relatively small: 2-3 percentage points
- Transitional care programs had much larger effects:
  - Coleman: 5.8 percentage points on 90-day rate
  - Naylor: 16.8 percentage points at 24 weeks
- Adding transitional care could increase impacts



# Effects Over Time

- **No clear pattern by length of beneficiary enrollment:**
  - Mercy strongest in year 1
  - Hospice strongest in year 2
  - Wash U. strongest in year 4 (but may be due to major program change in Jan. 2006)
- **Mercy and Wash U. improved over time:**
  - Those joining after program year 1 had stronger effects on hospitalizations: Mercy (-.218 vs. -.044); Wash U. (-.174 vs. -.027)
  - Estimates are conservative for future savings—attenuated by ineffective early experience

# Potential Policy Implications

- Care coordination programs **can** work, if targeted appropriately
- Worked in 4 very different environments (rural IDS, AMC, home health agency, QI provider)
- But targeting alone doesn't ensure success
- Successful programs had several common features, but hard to distinguish from others
- Crude calculations suggest there could be net savings for Medicare



# Subgroup Effects on PMPM Medicare Costs, 2002-2007

	Hospice	HQP	Mercy	Wash.	Average
<b>Impacts on hospitalizations</b> (per person per year)	-.177	-.218	-.135	-.144	-.169
<b>Implied effects on A + B costs</b>	-\$162	-\$200	-\$124	-\$132	-\$154 <sup>a</sup>
<b>Direct effects on A + B costs</b>	-\$40	-\$349	-\$110	-\$110	-\$152

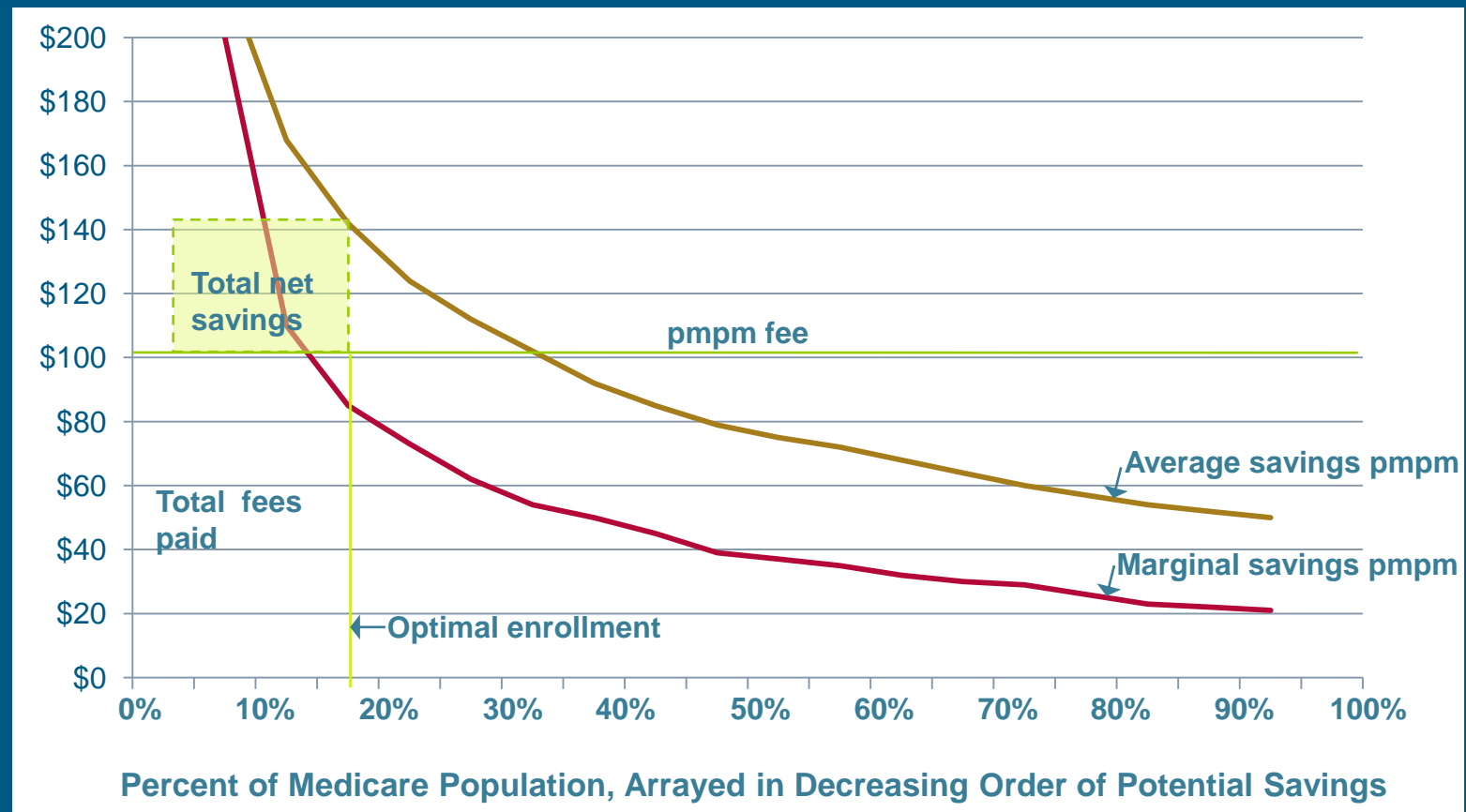
<sup>a</sup>\$198 in 2010 dollars

## Assumes:

No improvement from learning (same effect as first 5 years)

No increase from adding transitional care

# Figure 1: Targeting Criteria for Maximizing Net Savings to Medicare—Illustrative



<sup>a</sup>A savings of \$100 pmpm is consistent with a .11 reduction in number of hospitalizations per person year (assumes cost of \$11,000 per hospitalization, including Part A and Part B costs associated with the stay, plus post-discharge SNF and home health care, with no other cost effects).

# Challenges

- Developing an operational protocol for "optimal" intervention
- Adding a transitional care component
- Replicating success in other settings
- Doing intervention efficiently
- Enrolling enough beneficiaries in each site to cover fixed costs

