Using AHRQ Prevention Quality Indicators to Assess Program Performance in Medicaid Managed Care

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Objectives

- **Why** use Prevention QIs?
- Using AHRQ Prevention QIs to evaluate Medicaid managed care programs- **examples**
- Prevention QIs **compliment** other quality information
- Prevention QIs **guide** quality improvement activities.

What Are Prevention Quality Indicators?

- Indicators derived from administrative hospital discharge data-Hospital dischagres for **Ambulatory Care Sensitive Conditions (ASCS)**
- Reflect quality of care management, care coordination and access to care in an outpatient setting
- Hospitalization ***may*** have been preventable with better outpatient care

Prevention QIs

Chronic Conditions

- **Uncontrolled diabetes without complications**
- **Short-term diabetes complications**
- **Long-term diabetes complications**
- **Lower-extremity amputation among patients with diabetes**
- **Congestive heart failure (CHF).**
- **Hypertension**
- **Angina without a procedure**
- **Asthma (Pediatric and Adult)**
- **Chronic obstructive pulmonary disease (COPD)**

Preventive QIs

Acute

- **Bacterial Pneumonia**
- **Urinary Tract Infection**
- **Ruptured Appendix**
- **Pelvic Inflammatory Disease**
- **Gastroenteritis (Pediatric)**

Why Use Prevention QIs?

- Hospital discharge data reliable and valid
- Independent sources of claims data
- Hospital admissions are measurable ***outcomes***
- National comparisons are available*
- Technical assessment and analysis supported by AHRQ gives added legitimacy

*Preventable Hospitalizations: A Window Into Primary and Preventive Care, 2000--www.ahrq.gov

Wisconsin Medicaid Managed Care Programs Using Prevention QIs for Quality Improvement

- **Programs serving the "frail elderly"**
  - PACE
  - Partnership
- **Programs serving the disabled (LTC eligible)**
  - Partnership
- **Programs serving persons with chronic disease and disabiltiies (SSI)**
  - I Care, SSI Managed Care

Quality Improvement Approach

- Goal focused
- Population relevant
- Information from multiple sources
  - Administrative/Claims
  - Surveys (Enrollees, Providers)
  - External Quality Review studies and PIPs
  - Linked data sets
- Dynamic and continuous process

Example A: Using Linked Data Sets to Evaluate Program Performance For PACE and Partnership

Hospital discharge data is collected by the Wisconsin Hospital Association and provided to the Department of Health and Family Services.

That hospital discharge database contains information about all state hospitalizations regardless of payor

Hospital discharge data is linked to the PACE and Wisconsin Partnership Program (WPP) enrollment database through a matching process

Example A: Cont'd.

A database of hospitalizations for persons in PACE and WPP is generated for a time period consisting of 12 months prior to and 12 months post enrollment in PACE and WPP (a two month window was allowed to give programs time to contact new members and initiate care management strategies)

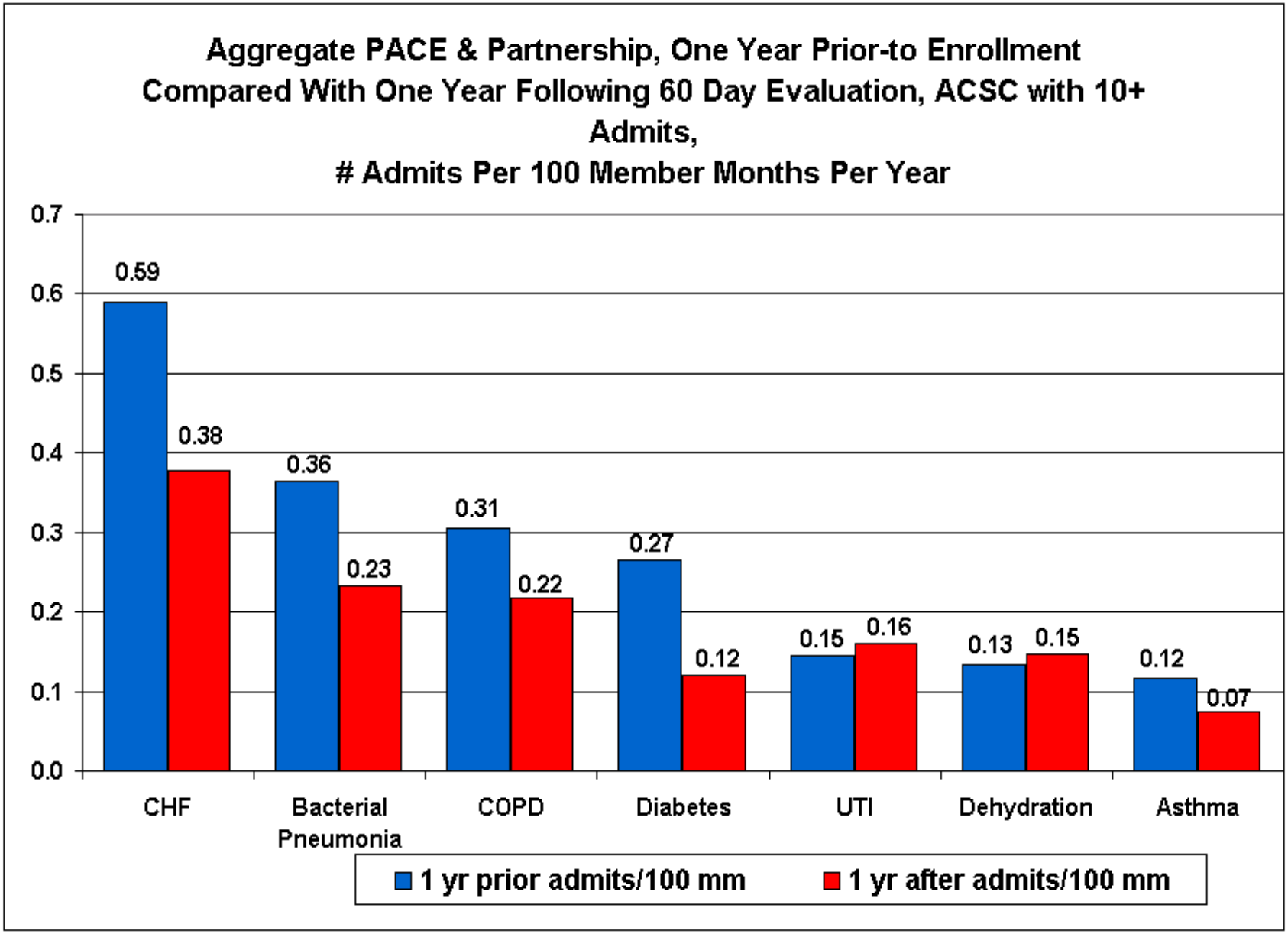
Prevention Indicators were selected from among all hospitalizations using the Agency for Health Research and Quality (AHRQ) specifications. These specifications identify appropriate CPT, ICD-9 and DRG codes for both inclusion and exclusion

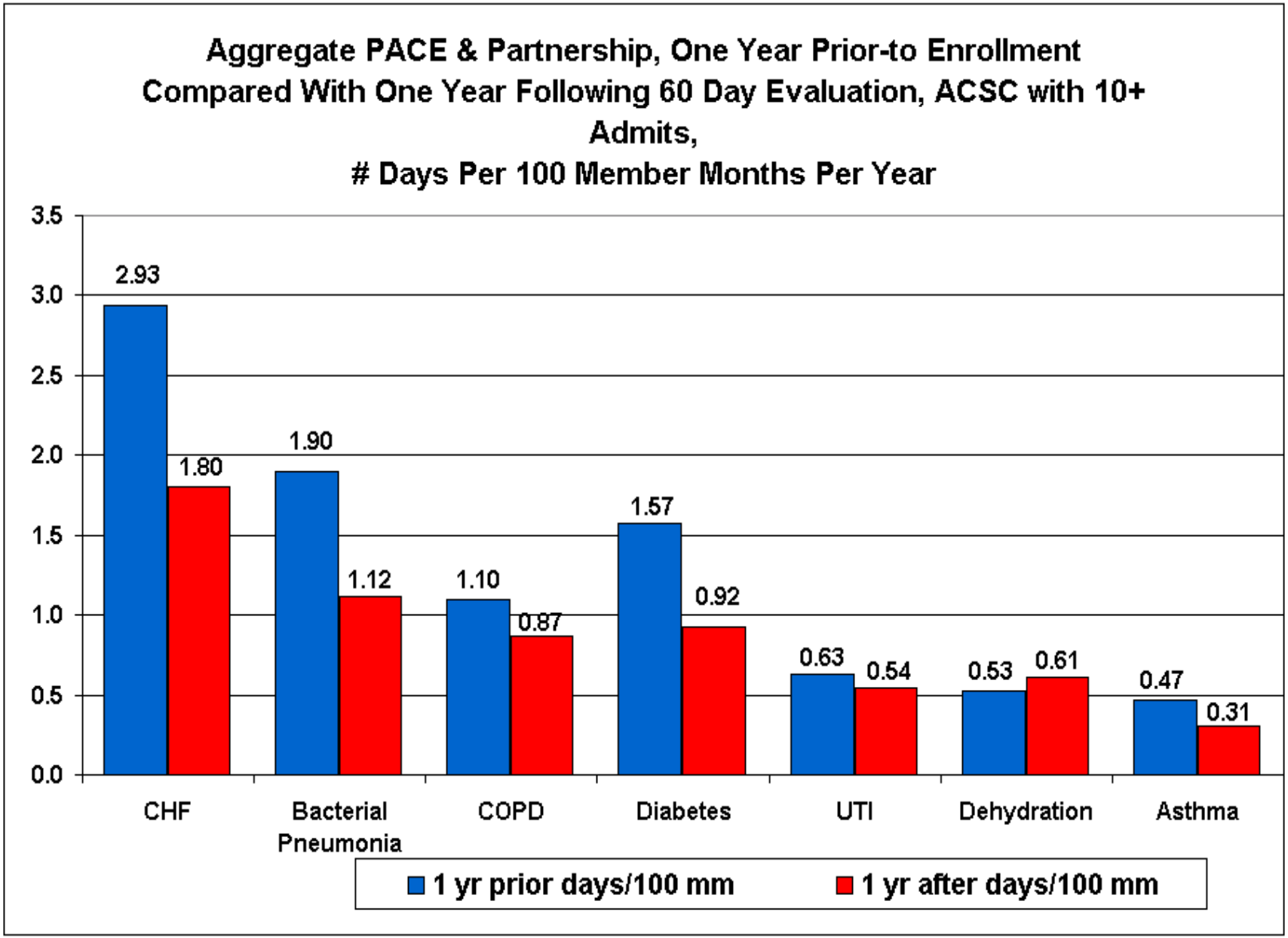
Example A: Cont'd.

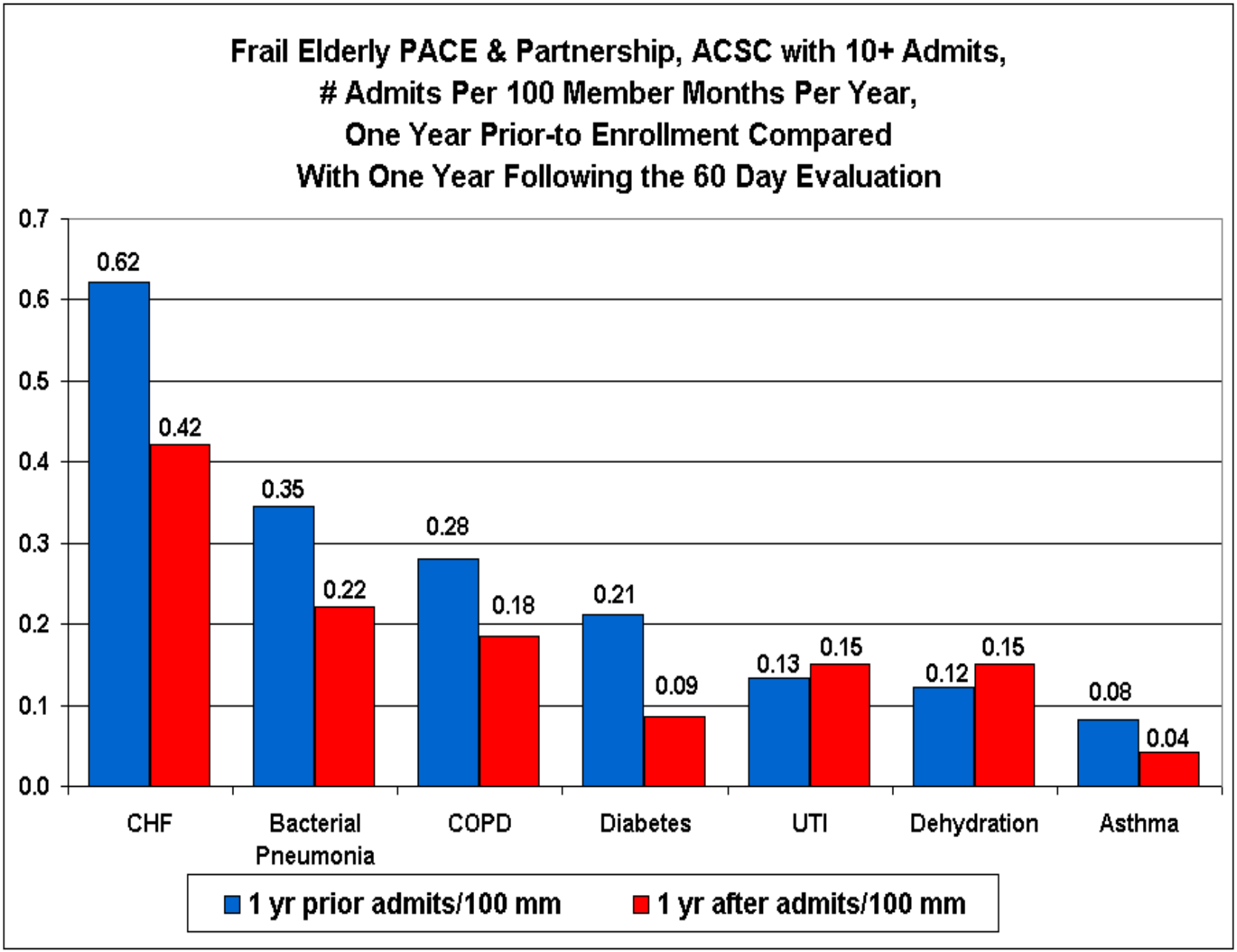
The following graphs illustrate hospital admission rates and overall numbers of hospital days associated with seven chronic and acute Prevention QIs (Ambulatory Care Sensitive Conditions) for Wisconsin PACE and Wisconsin Partnership Program (WPP).

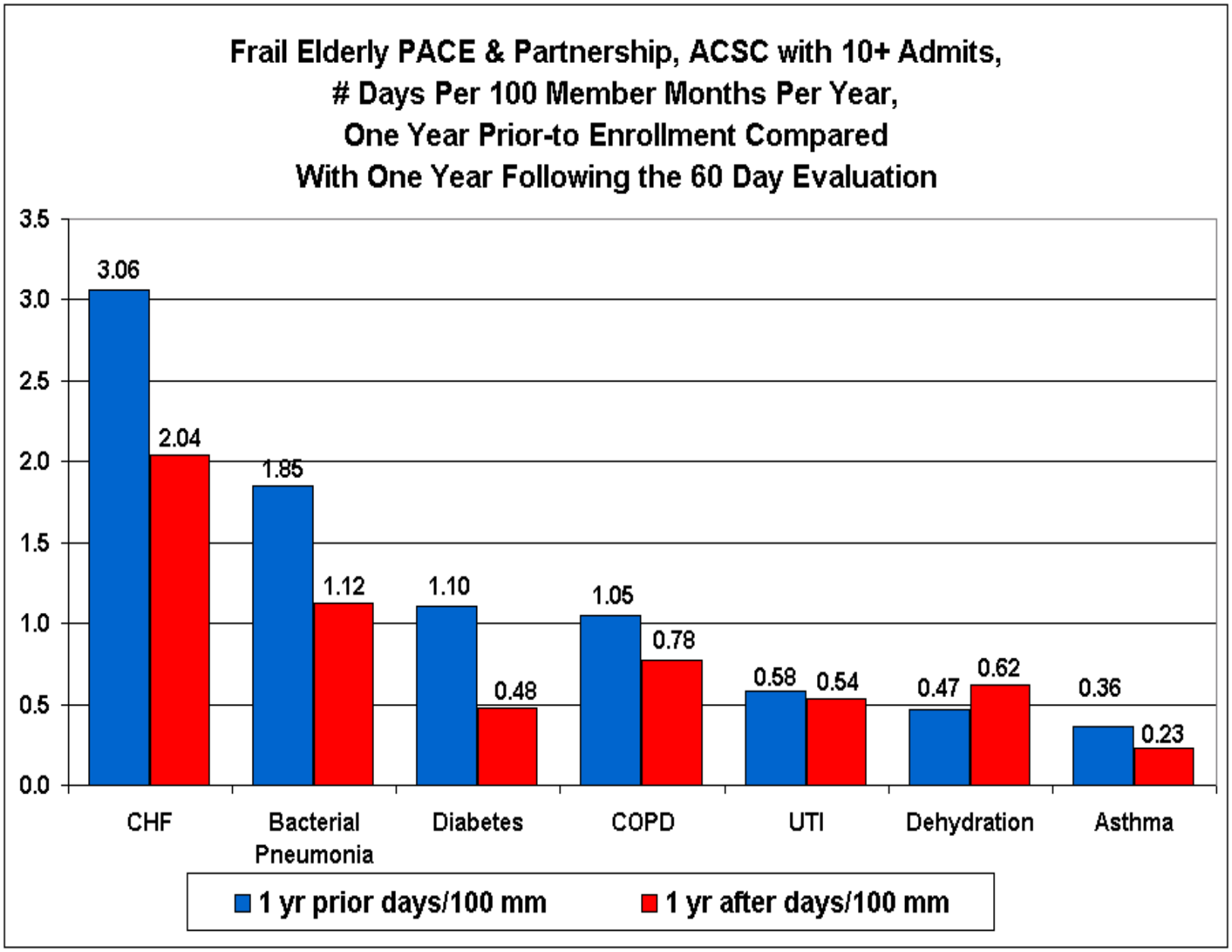
Hospitalization rates were reported for both one year prior to program enrollment and one year after program enrollment plus a 60 window.

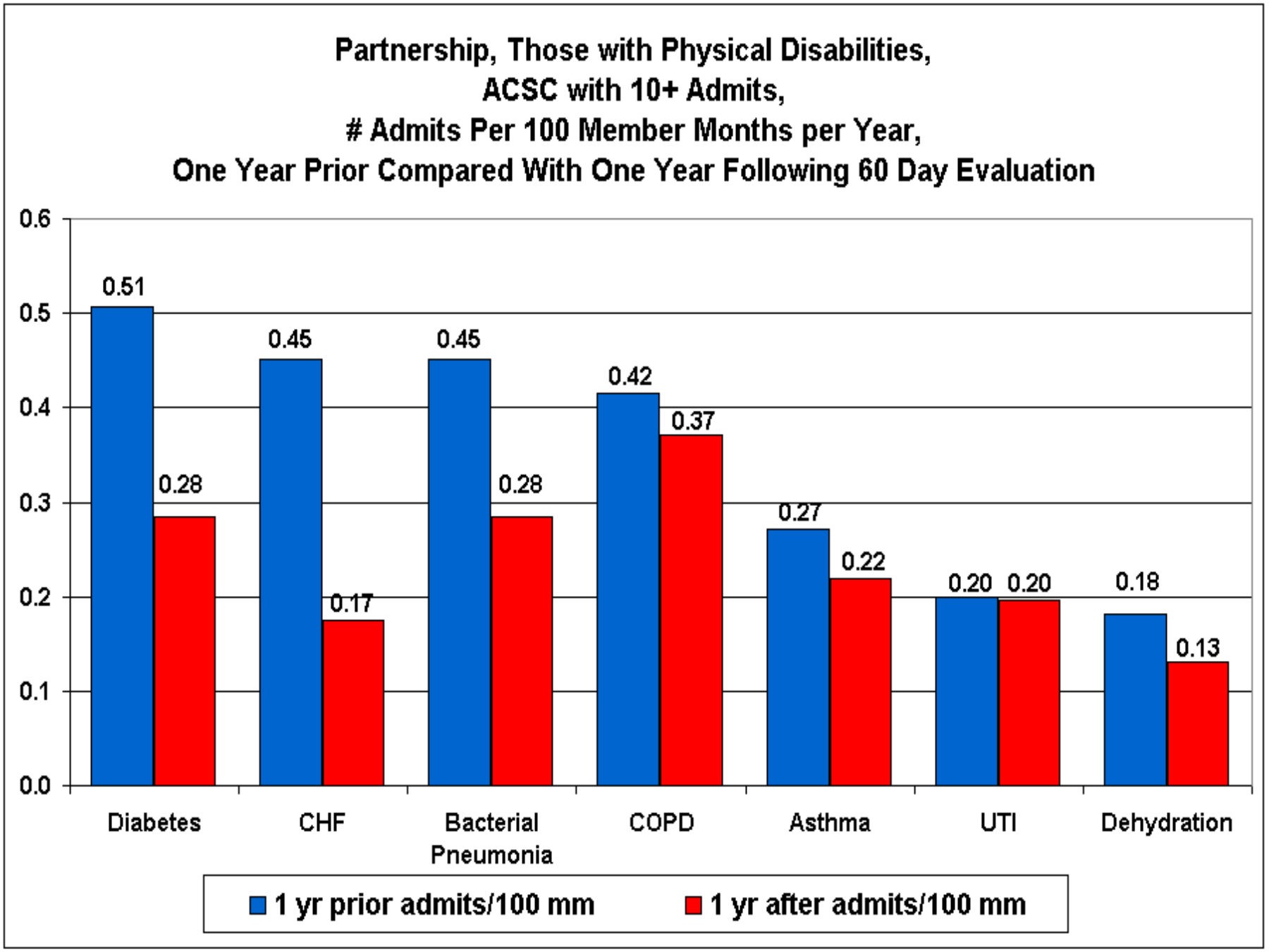
The 60-day window allowed the Wisconsin PACE and Wisconsin Partnership Program (WPP) a 60-day period to assess new members and institute care management plans.

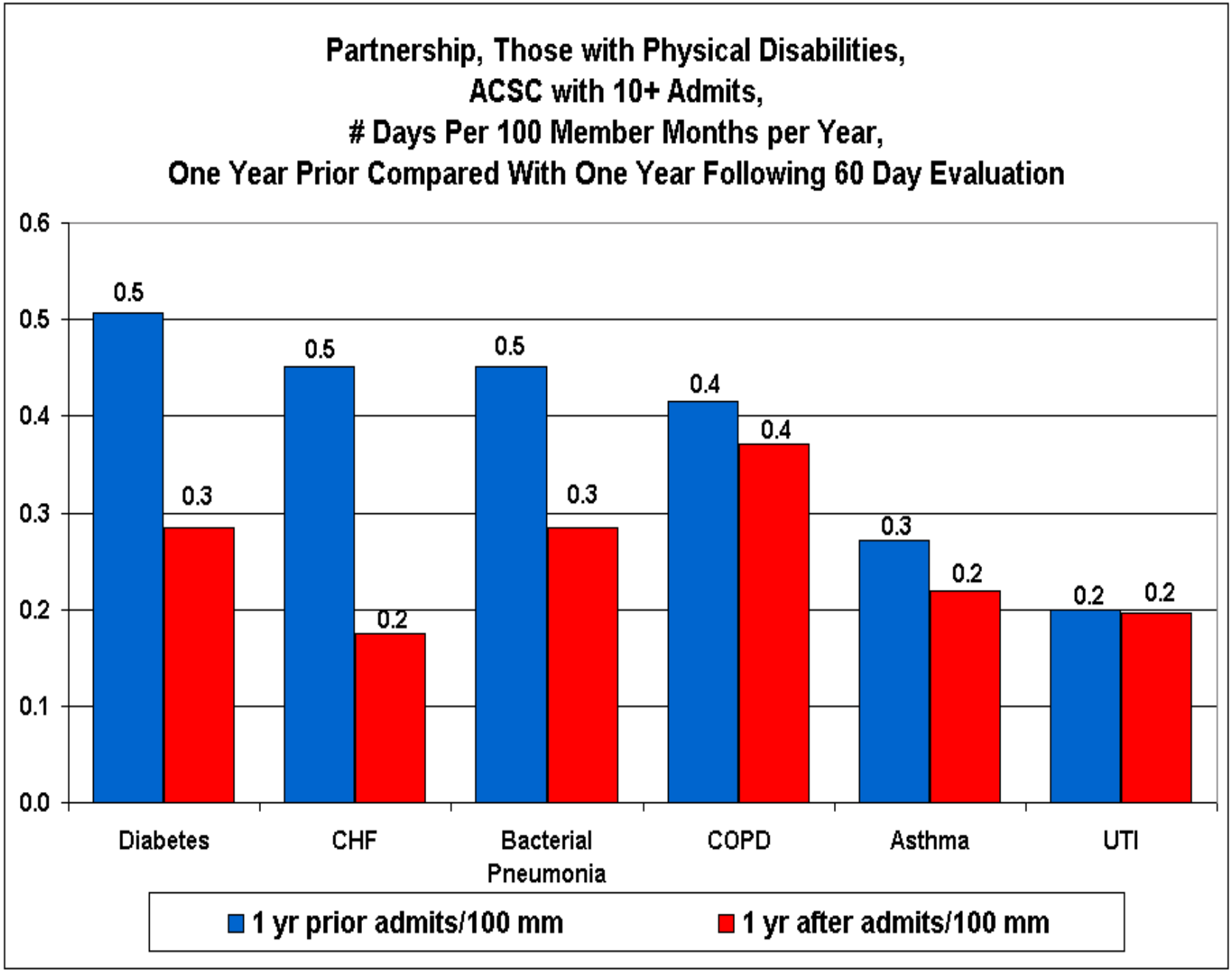

Aggregate PACE & Partnership, One Year Prior-to Enrollment
Compared With One Year Following 60 Day Evaluation, ACSC with 10+ Admits,
Admits Per 100 Member Months Per Year
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0.59
0.38
0.36
0.23
0.31
0.22
0.27
0.12
0.15
0.16
0.13
0.15
0.12
0.07
CHF
Bacterial Pneumonia
COPD
Diabetes
UTI
Dehydration
Asthma
1 yr prior admits/100 mm
1 yr after admits/100 mm


Aggregate PACE & Partnership, One Year Prior-to Enrollment
Compared With One Year Following 60 Day Evaluation, ACSC with 10+ Admits,
Days Per 100 Member Months Per Year
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
2.93
1.80
1.90
1.12
1.10
0.87
1.57
0.92
0.63
0.54
0.53
0.61
0.47
0.31
CHF
Bacterial Pneumonia
COPD
Diabetes
UTI
Dehydration
Asthma
1 yr prior days/100 mm
1 yr after days/100 mm


Frail Elderly PACE & Partnership, ACSC with 10+ Admits,
Admits Per 100 Member Months Per Year,
One Year Prior-to Enrollment Compared
With One Year Following the 60 Day Evaluation
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0.62
0.42
0.35
0.22
0.28
0.18
0.21
0.09
0.13
0.15
0.12
0.15
0.08
0.04
CHF
Bacterial Pneumonia
COPD
Diabetes
UTI
Dehydration
Asthma
1 yr prior admits/100 mm
1 yr after admits/100 mm


Frail Elderly PACE & Partnership, ACSC with 10+ Admits,
Days Per 100 Member Months Per Year,
One Year Prior-to Enrollment Compared
With One Year Following the 60 Day Evaluation
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
3.06
2.04
1.85
1.12
1.10
0.48
1.05
0.78
0.58
0.54
0.47
0.62
0.36
0.23
CHF
Bacterial Pneumonia
Diabetes
COPD
UTI
Dehydration
Asthma
1 yr prior days/100 mm
1 yr after days/100 mm

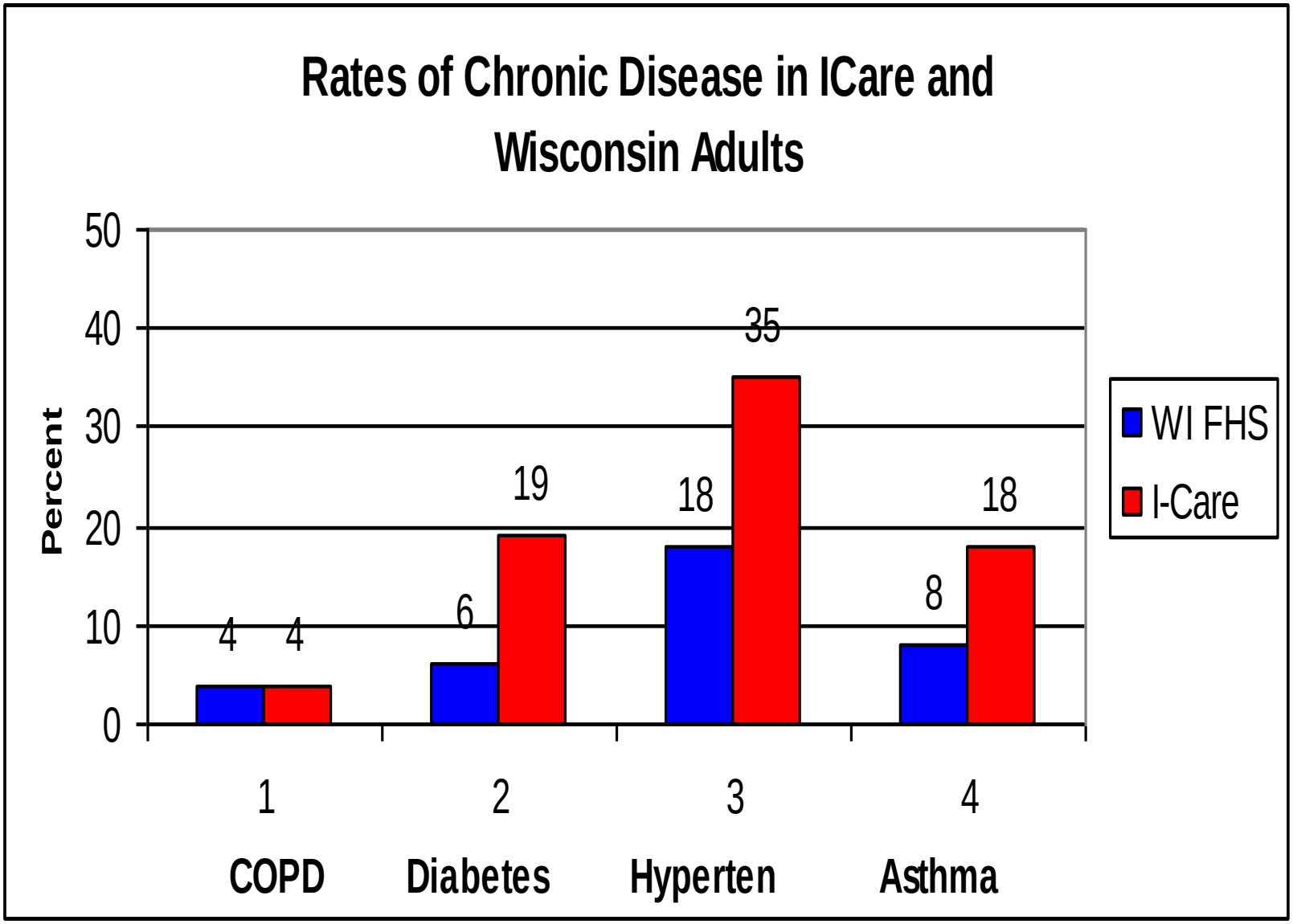

Partnership, Those with Physical Disabilities,
ACSC with 10+ Admits,
Admits Per 100 Member Months per Year,
One Year Prior Compared With One Year Following 60 Day Evaluation
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0.51
0.28
0.45
0.17
0.45
0.28
0.42
0.37
0.27
0.22
0.20
0.20
0.18
0.13
Diabetes
CHF
Bacterial Pneumonia
COPD
Asthma
UTI
Dehydration
1 yr prior admits/100 mm
1 yr after admits/100 mm


Partnership, Those with Physical Disabilities,
ACSC with 10+ Admits,
Days Per 100 Member Months per Year,
One Year Prior Compared With One Year Following 60 Day Evaluation
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0.5
0.3
0.5
0.2
0.5
0.3
0.4
0.4
0.3
0.2
0.2
0.2
Diabetes
CHF
Bacterial Pneumonia
COPD
Asthma
UTI
1 yr prior admits/100 mm
1 yr after admits/100 mm

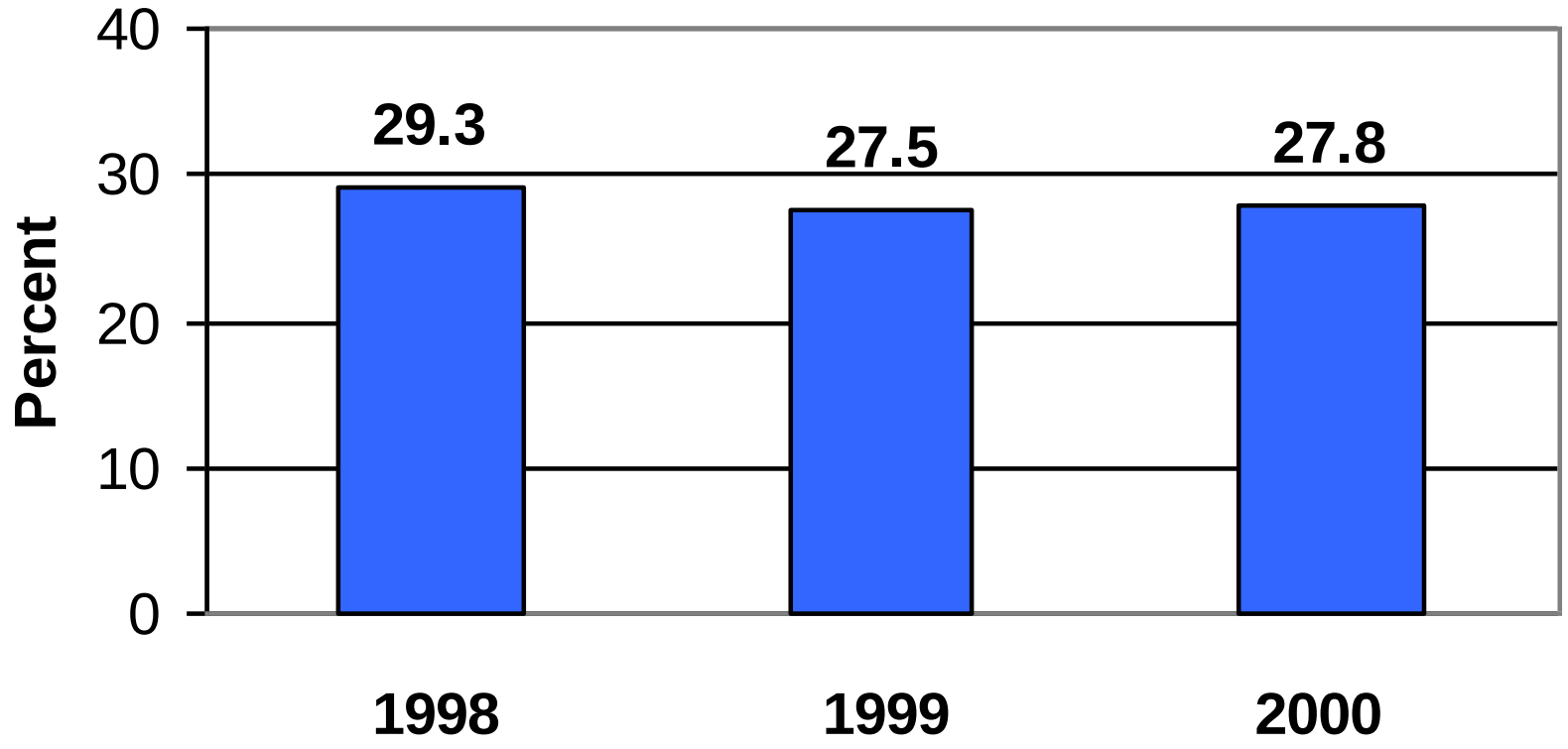
Example B: Using Prevention QIs to Assess Performance in SSI Medicaid Managed Care

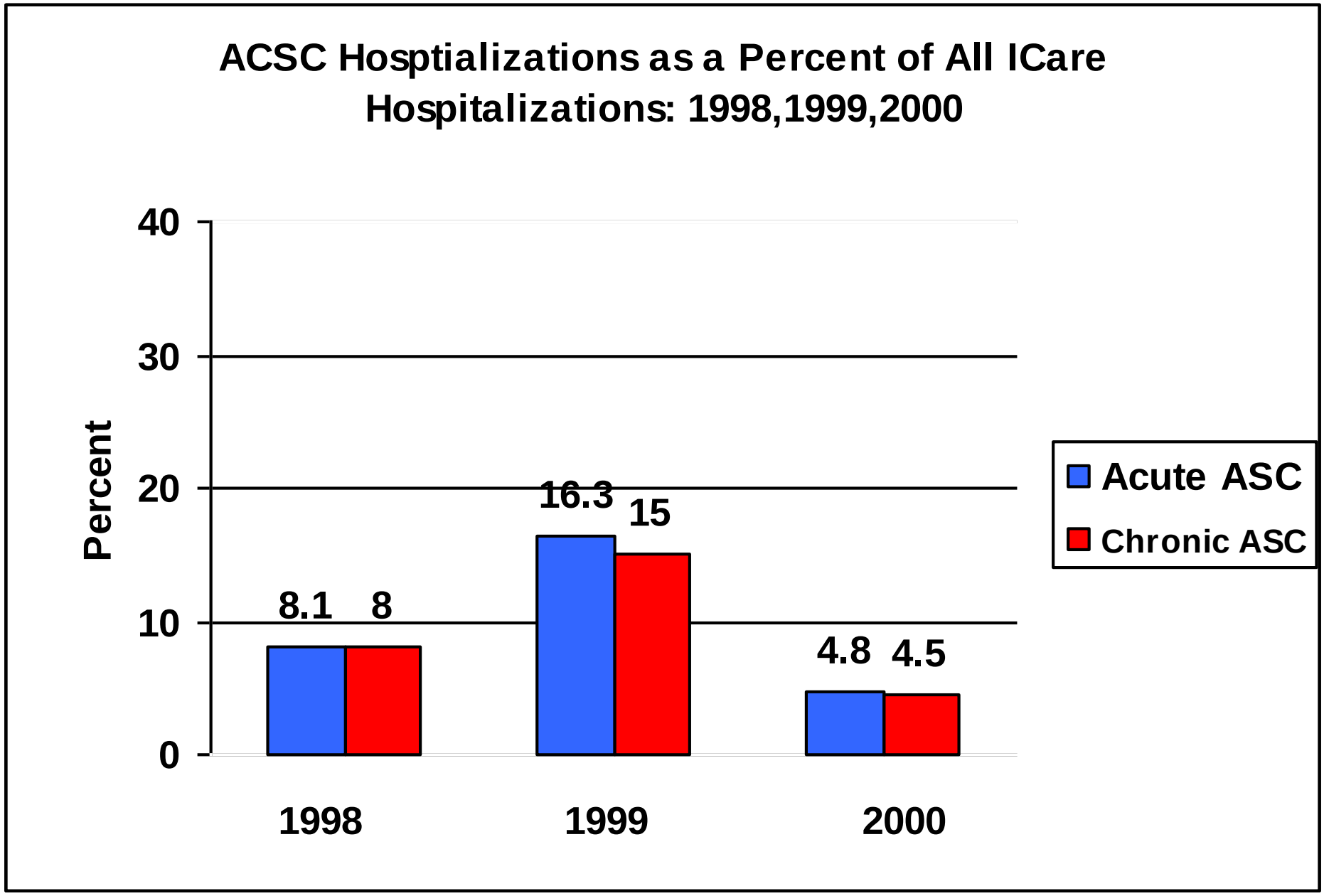
ICare is a Medicaid Manged Care program serving persons with a high prevalence of chronic illness as compared to the adult WI population as a whole.

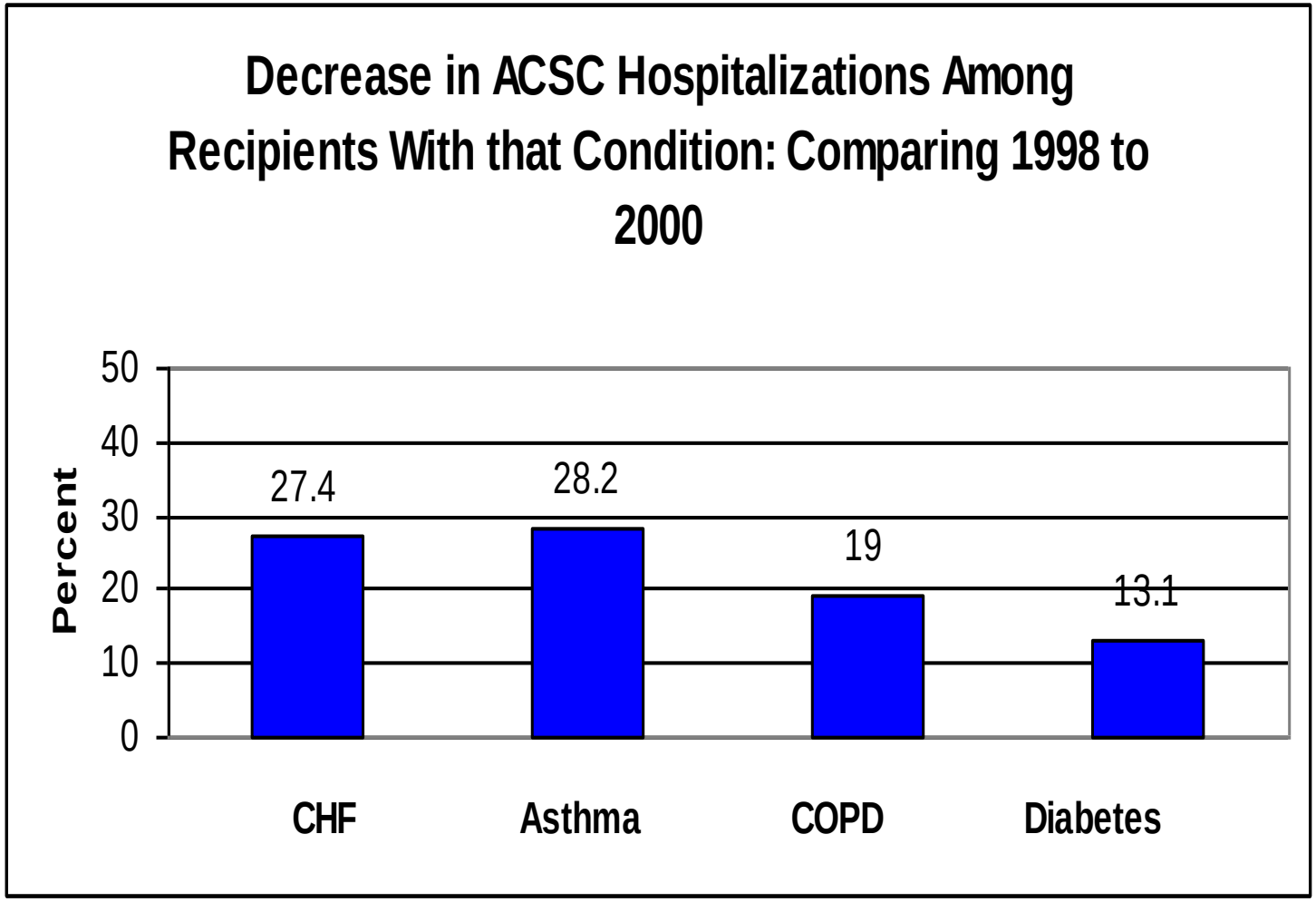
Wisconsin uses Medicaid claims data to construct Prevention QIs. Prevention QIs have been used to assess performance over time, among those most at risk, and for comparison with results in matched fee-for-service populations.

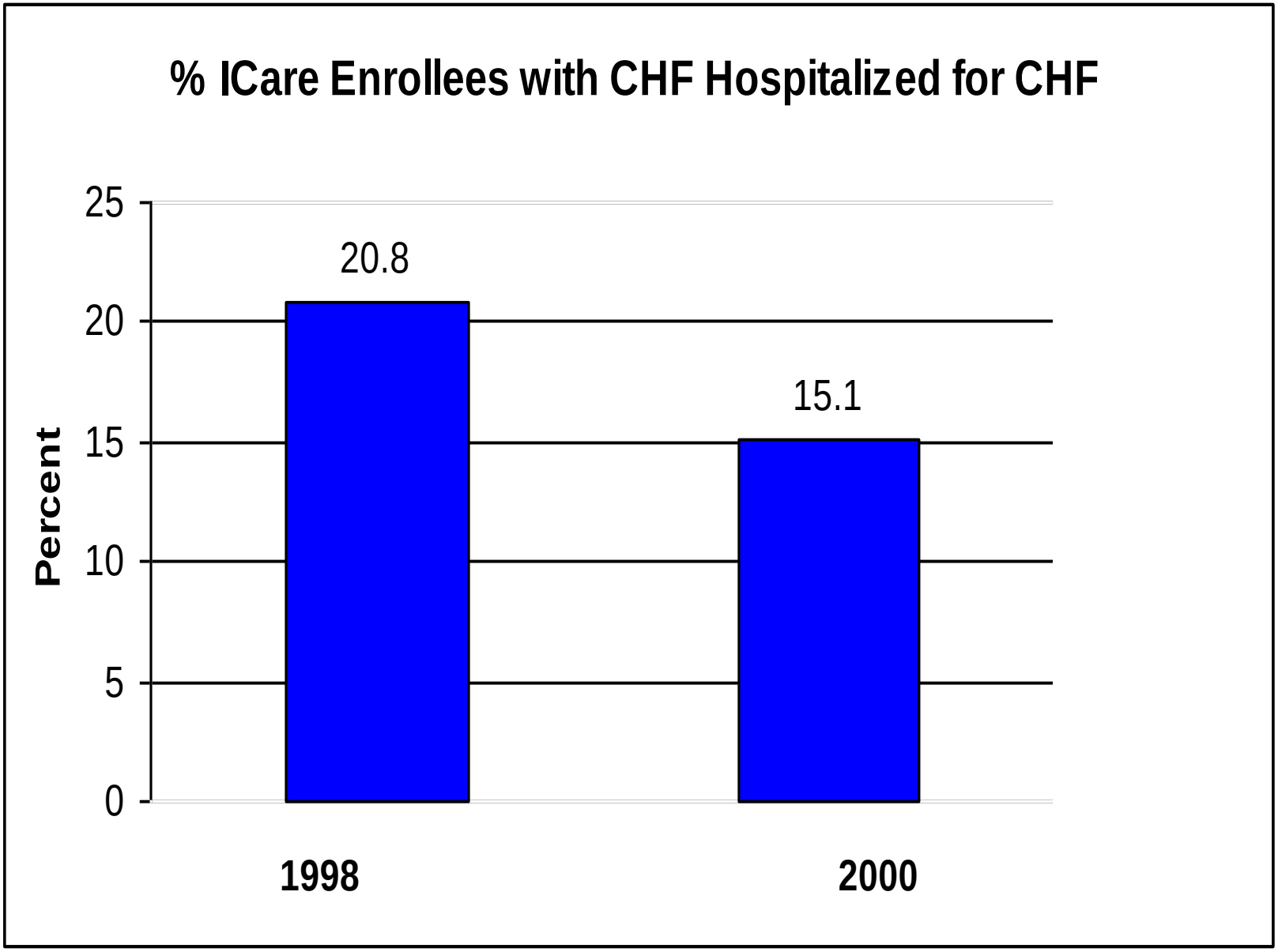

Rates of Chronic Disease in ICare and Wisconsin Adults
Percent
50
40
30
20
10
0
4
4
6
19
18
35
8
18
1
2
3
4
COPD
Diabetes
Hyperten
Asthma
WI FHS
I-Care

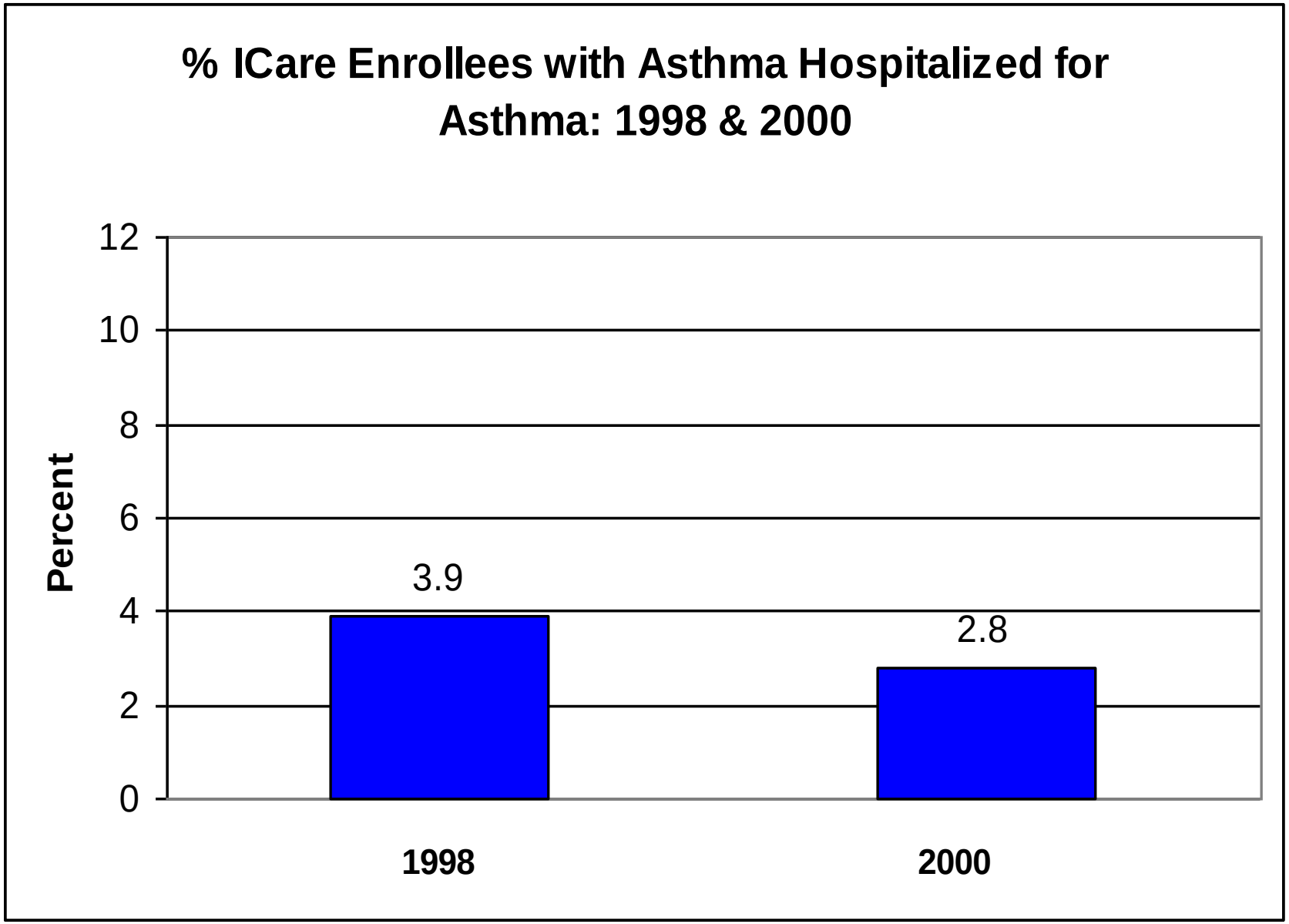
ACSC Hospitalizations as a Percent of Total ICare Hospitalizations: 1998, 1999, 2000



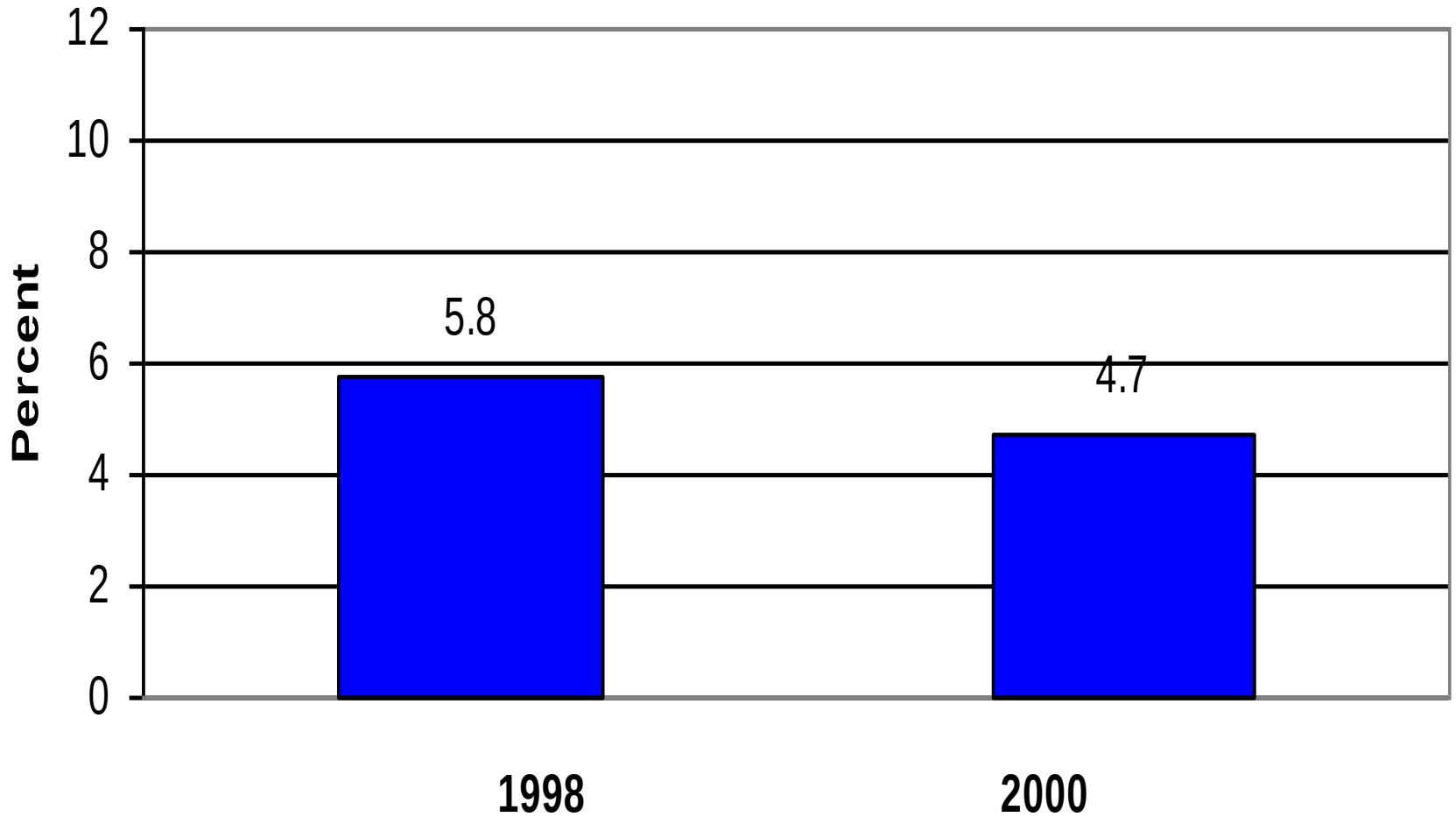

ACSC Hosptializations as a Percent of All ICare Hospitalizations: 1998,1999,2000
Percent
40
30
20
10
0
8.1
8
16.3
15
4.8
4.5
1998
1999
2000
Acute ASC
Chronic ASC

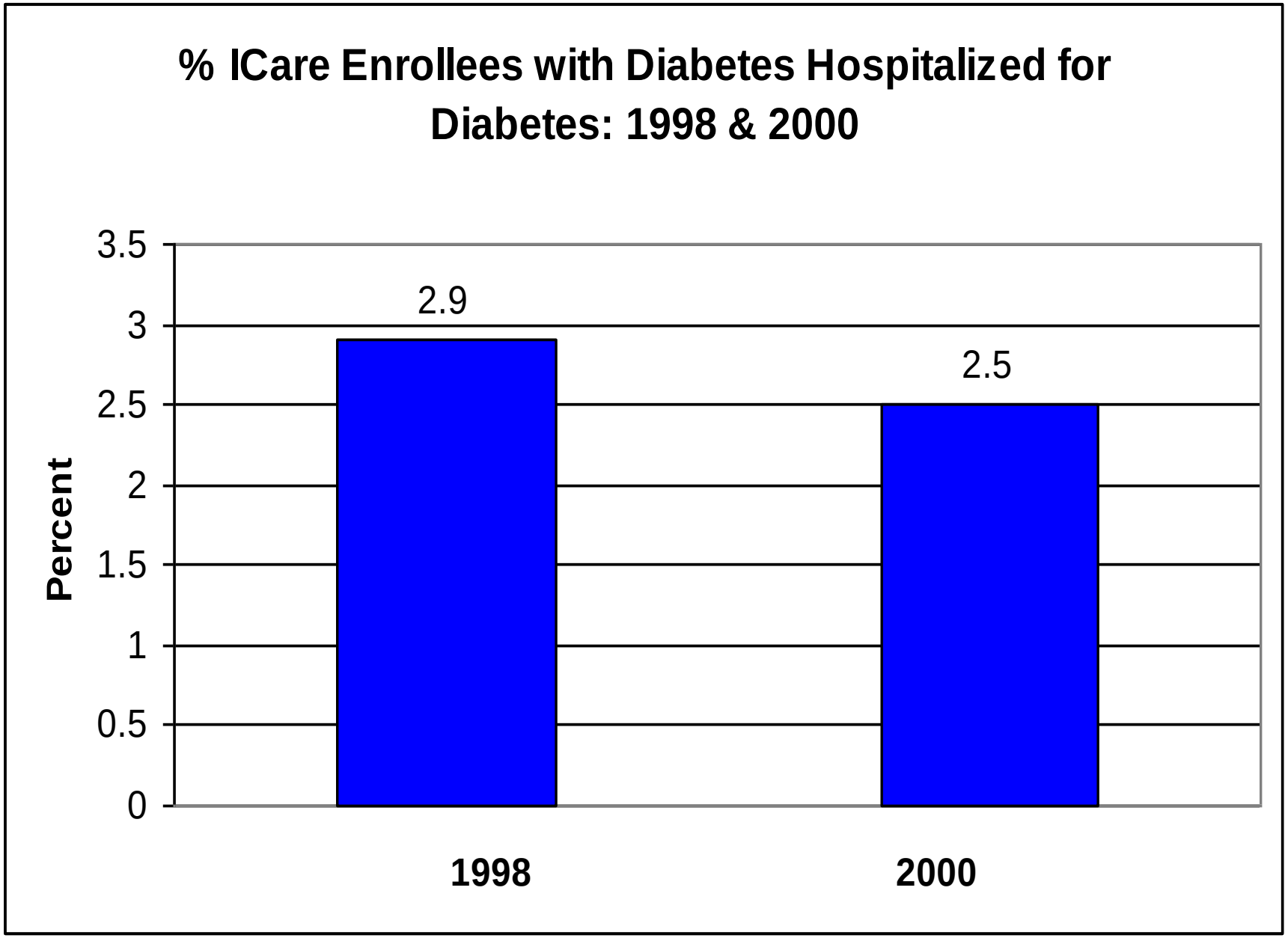

Decrease in ACSC Hospitalizations Among Recipients With that Condition: Comparing 1998 to 2000
Percent
50
40
30
20
10
0
27.4
28.2
19
13.1
CHF
Asthma
COPD
Diabetes


% ICare Enrollees with CHF Hospitalized for CHF
Percent
25
20
15
10
5
0
20.8
15.1
1998
2000


% ICare Enrollees with Asthma Hospitalized for Asthma: 1998 & 2000
Percent
12
10
8
6
4
2
0
3.9
2.8
1998
2000

% ICare Enrollees with COPD Hospitalized for COPD




% ICare Enrollees with Diabetes Hospitalized for Diabetes: 1998 & 2000
Percent
3.5
3
2.5
2
1.5
1
0.5
0
2.9
2.5
1998
2000

Example C: Prevention QIs Guide Quality Improvement Activities

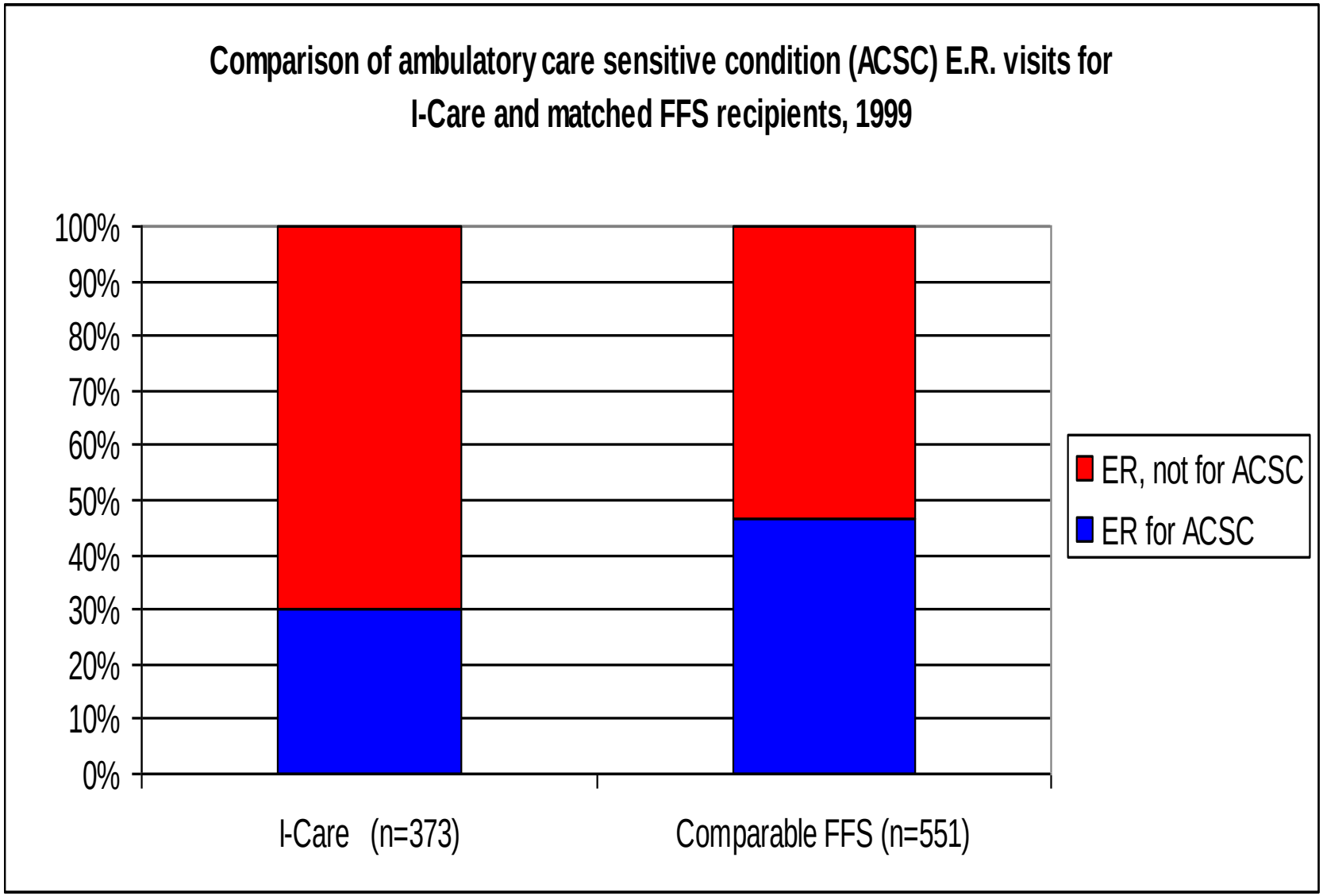
Wisconsin Medicaid used Prevention QIs to guide quality activities. For example, hospitalizations for Pneumonia were high across all PACE and Partnership programs in 2001. The State, in collaboration with the PACE and Partnership QI staffs, devloped a focused medical record review to determine whether those hospitalizations ***may*** have been prevented if:

- flu vaccines had been administered
- pneumonia vaccines had been administered
- persons at risk for pneumonia (e.g. persons with COPD and asthma) had been educated about warning signs of pneumonia
- timely access to care was available when symptoms developed

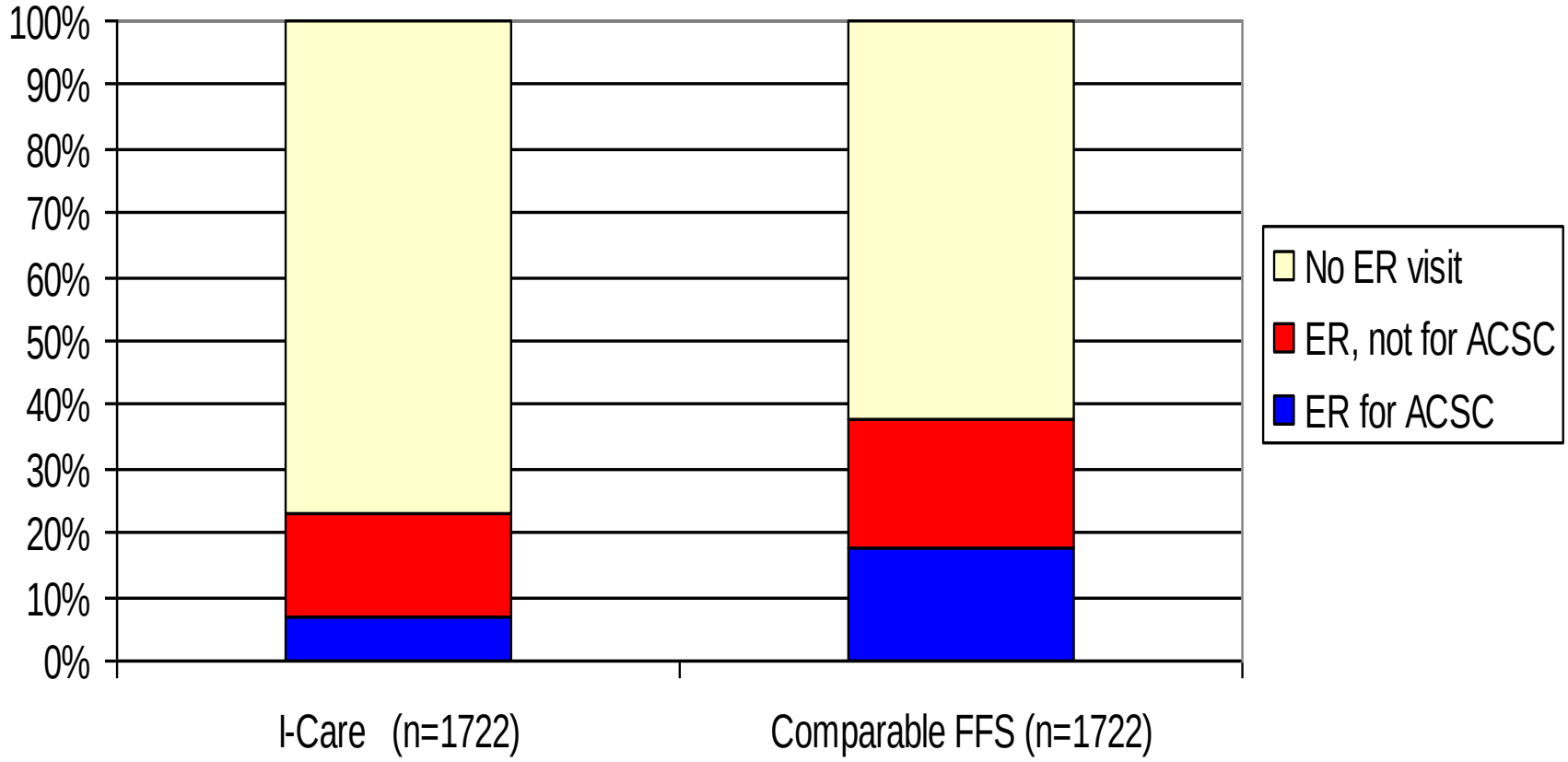
Example D: ED Visits for ACSCs

Used Prevention QI diagnoses (e.g. Asthma, COPD, Diabetes, Dehydration, CHF, etc) also used to assess quality of care in an outpatient setting.

Medicaid fee-for-service claims data and ICare administrative data was used to determine success in decreasing visits to the ED for ACSCs


Comparison of ambulatory care sensitive condition (ACSC) E.R. visits for I-Care and matched FFS recipients, 1999
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
I-Care (n=373)
Comparable FFS (n=551)
ER, not for ACSC
ER for ACSC

Comparison of total E.R. visits and ambulatory care sensitive condition (ACSC) E.R. visits for I-Care and matched FFS recipients, 1999



How Are Prevention QIs Used?

- **The state and managed care programs can assess their effectiveness in reducing ACSC hospitalizations <u>after</u> members enter their programs**
- **Allows managed care programs to compare their results with other similar Managed Care programs**
- **Allows programs and the state to track progress over time**
- **Provides information that allows programs to set quality improvement priorities**

How Are Prevention QIs Used?

- **Data provides information about variation among different populations--e.g. frail elderly versus persons with disabilities**
- **Information about rates of ACSC hospitalizations guides decisions about quality areas needing more in-depth reviews--e.g. reviews of member care records, data validity reviews, etc.**
- **Information that may be used to help determine best practices for care delivered in an outpatient setting**

Summary

- **Why** use Prevention QIs?
- Using AHRQ Prevention QIs to evaluate Medicaid managed care programs- **examples**
- Prevention QIs **compliment** other quality information
- Prevention QIs **guide** quality improvement activities.