

*The Fifth National
Pay for Performance Summit
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***Reducing Hospital
Readmissions of Seniors***

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Brown & Toland Physician Organization Overview

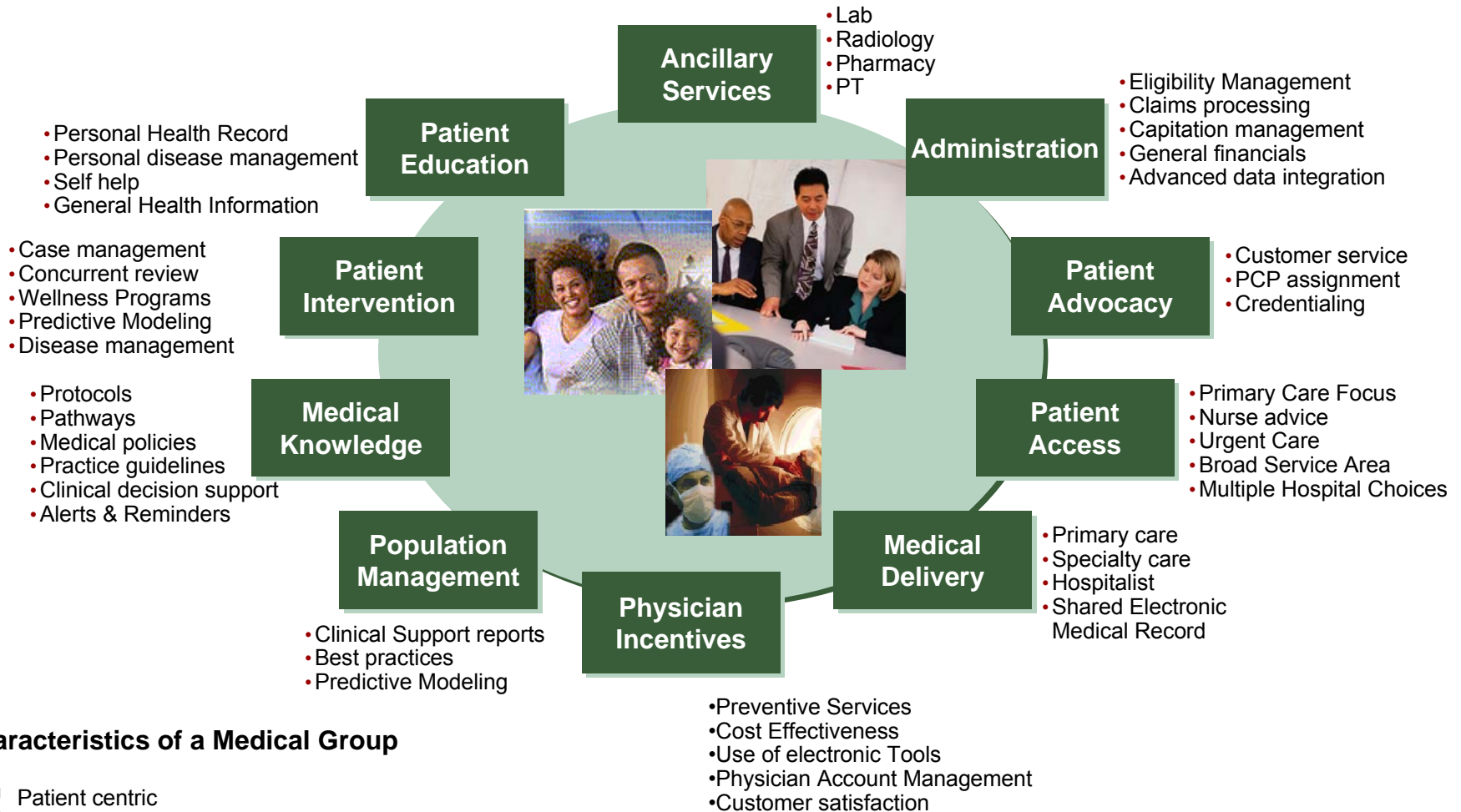
- Independent Practice Association (IPA) (formed in 1993)
- 850 physicians in San Francisco area
- Network Relationships: Sutter-CPMC / UCSF / CHW / Seton Medical Center / Chinese Hospital / Stanford
- 160,000 HMO members (commercial and senior)
- 185,000 PPO members
- Health plans by product: 7 HMO, 11 PPO
- 250 employees
- Perform delegated and non-delegated activities

Strategies for Success

- Engaged physician network
- Patient centric case management & disease management
- Physician level clinical outcome and patient satisfaction measurements
- Use of financial rewards based on clinical performance, efficiency and customer satisfaction
- Use of information technology to deliver integrated systems of care to share clinical results, promote patient safety and improve clinical outcomes
- Participation in industry state-wide collaboratives

Brown & Toland Future State

Medical Group Characteristics



Characteristics of a Medical Group

- Patient centric
- Accessible services
- Care & care management is coordinated across the continuum
- Clinical & administrative data is accessible enterprise-wide
- Consolidated Practice Management
- Enterprise-wide reporting

Clinical Data Management

- **Brown & Toland Physicians hosts a sophisticated Information Technology platform that creates an advanced clinically integrated EHR and practice management system for independent community physicians**
- **This IT infrastructure allows for clinical data from multiple hospital systems, laboratories and hundreds of physicians offices to be aggregated and ultimately shared among our physicians**
- **Clinical integration presents all the available clinical data to our risk stratification and predictive modeling technology**
- **Our case management and disease management programs utilize this aggregated risk stratified information to best organize the daunting task of coordinating care for thousands of frail seniors**
- **Hospitalist, E.R. physicians, Hospital discharge planners, Home Visiting Physicians have access to robust clinical results reporting**

Predictive Modeling

- Brown and Toland Utilizes Adjusted Clinical Group (ACG) Case-Mix Adjustment to stratify patients for care management interventions and to demonstrate effectiveness of Disease Management
- Predictive modeling provides an objective assessment of a member's future costs based upon their historical conditions as captured through claims
- It is a method for prioritizing members for care management and stratifying them based upon their financial risk
- Equitable measurement of provider performance
- Actionable quality information

Program Highlights

Medical Group/ Hospital Care Management Collaboration

- **Coordinate continuum of patient care with E.R. physician, hospitalist, hospital discharge planners, case managers, PCPs and home visit physician**
- **Utilize enterprise electronic medical record to maximize knowledge of and support of member**
- **To identify patients at high risk for readmission and enrollment into Disease Management or Complex Case Management Programs**
- **Institutionalize Observation Status, direct to SNF admits and Home Health hand offs**
- **Multidisciplinary rounds**
- **Assurance of timely post discharge PCP appointment**
- **Assure rapid access to timely outpatient care with PCP**
- **All major stakeholders on both Medical Group and hospital Utilization Management Committees**

Brown & Toland Programs

- ER Over Utilization Pilot
- Discharge Follow-up Program
- Intensive Home Medical Management

ER Over Utilization Pilot

- Case Managers call patients with more than two visits to emergency departments within a six month period to assess:
 - Need of Brown & Toland's Case Management Program or Disease Management Programs (HIV, Asthma, CHF, or Diabetes)
 - Need of further education regarding accessing their PCP timely
 - Further notification to PCP when issues are identified

ER Interventions

- PCP/Specialist care coordination on medication adherence and ER usage.
- Avoiding additional ER visits by communication of how to contact PCP after hours. Education on an urgent care resource.
- Enroll patients into programs: Case Management/Disease Management

ER Utilization Pre-Post Analysis

	UM*	# ER Visits (Pre)	# ER Visits (Post)	Mean Change/UM*	p-value**
Comm	168	491	141	2.1	<.0001
Senior	49	196	116	1.6	.001

*UM – unique member

**pre-post analysis performed using paired t-test methodology

Summary ER Utilization Pilot

- Identify high-risk members
- Targeted as a Case Management intervention
- Redirection of patient care to more appropriate setting
- Not developed to address overall ER usage
- ER visits are trending down for this group

Senior Hospital Discharge Program

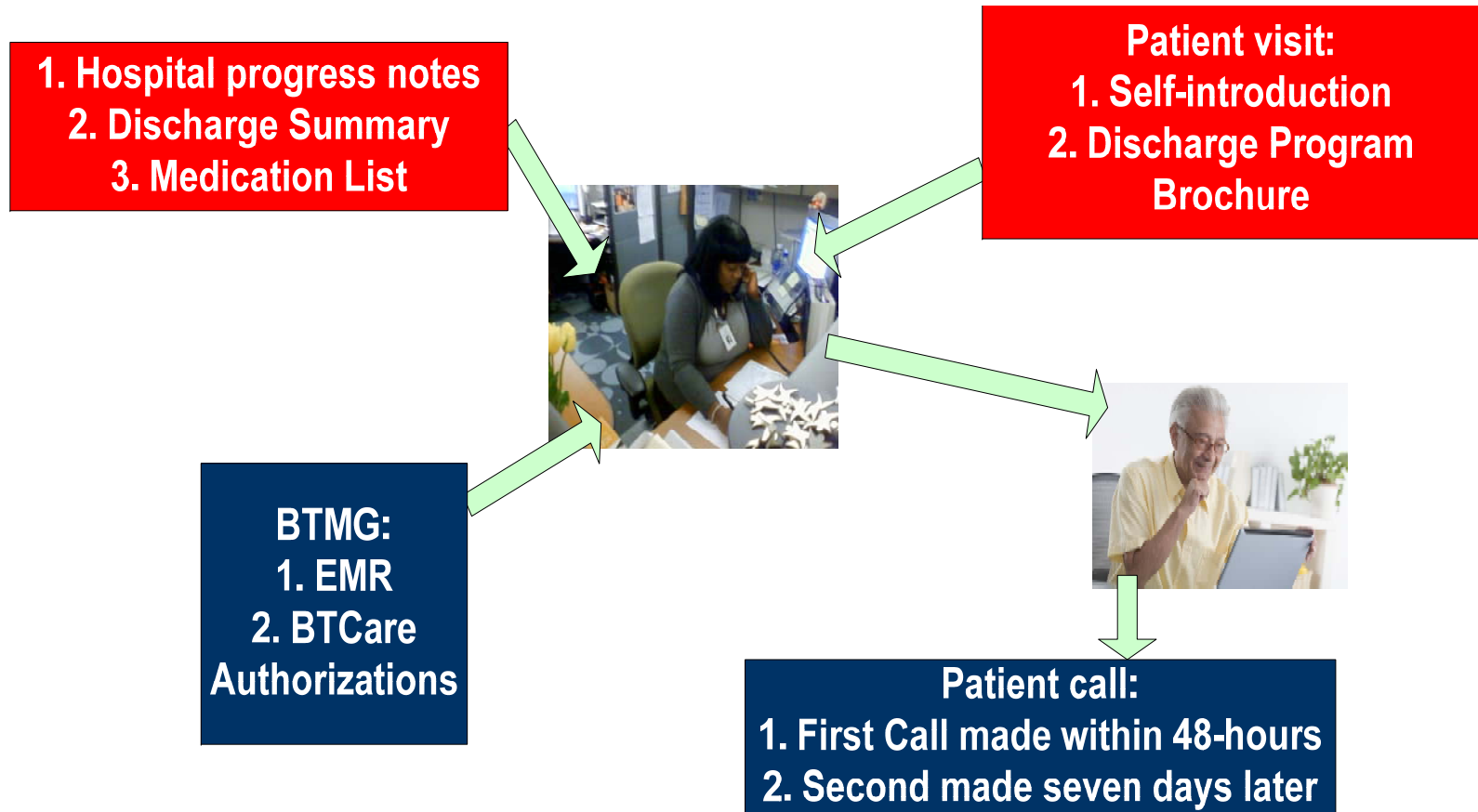
- Case Managers contact senior members upon discharge home from hospital or SNF
- coordination and continuity of health care as patients transfer between different levels of care
- Our integrated EHR allows our case managers to review hospital based consultations, operative summaries, discharge summaries, discharge orders/medications and other relevant information prior to engaging the discharged senior
- program is critical to assure that the patient, their care givers, attending physicians and our case managers are all engaged to avoid a readmission

Post Discharge Focus

Case Management has standing orders for multiple Home Health visits for all complex patients discharged and all patients with history of prior admission

- Care giver assessment and support
- Medication reconciliation
- Safety evaluation
- Coordination of home therapeutic services
- Assessment of patient's progress
- Communication to PCP and assure access to timely outpatient follow up

Discharge Follow-up: Workflow



D/C Follow-up Sample Survey Questions

- Were you given and do you understand your hospital discharge instructions?
- Did you get your prescription(s) filled after you left the hospital? Are you still taking those medication(s)?
- Do you have a follow up appointment with your physician?
- Did you receive any medical equipment? Did you receive any home health services?

Senior Discharge Follow-up Program Analysis

Methodology

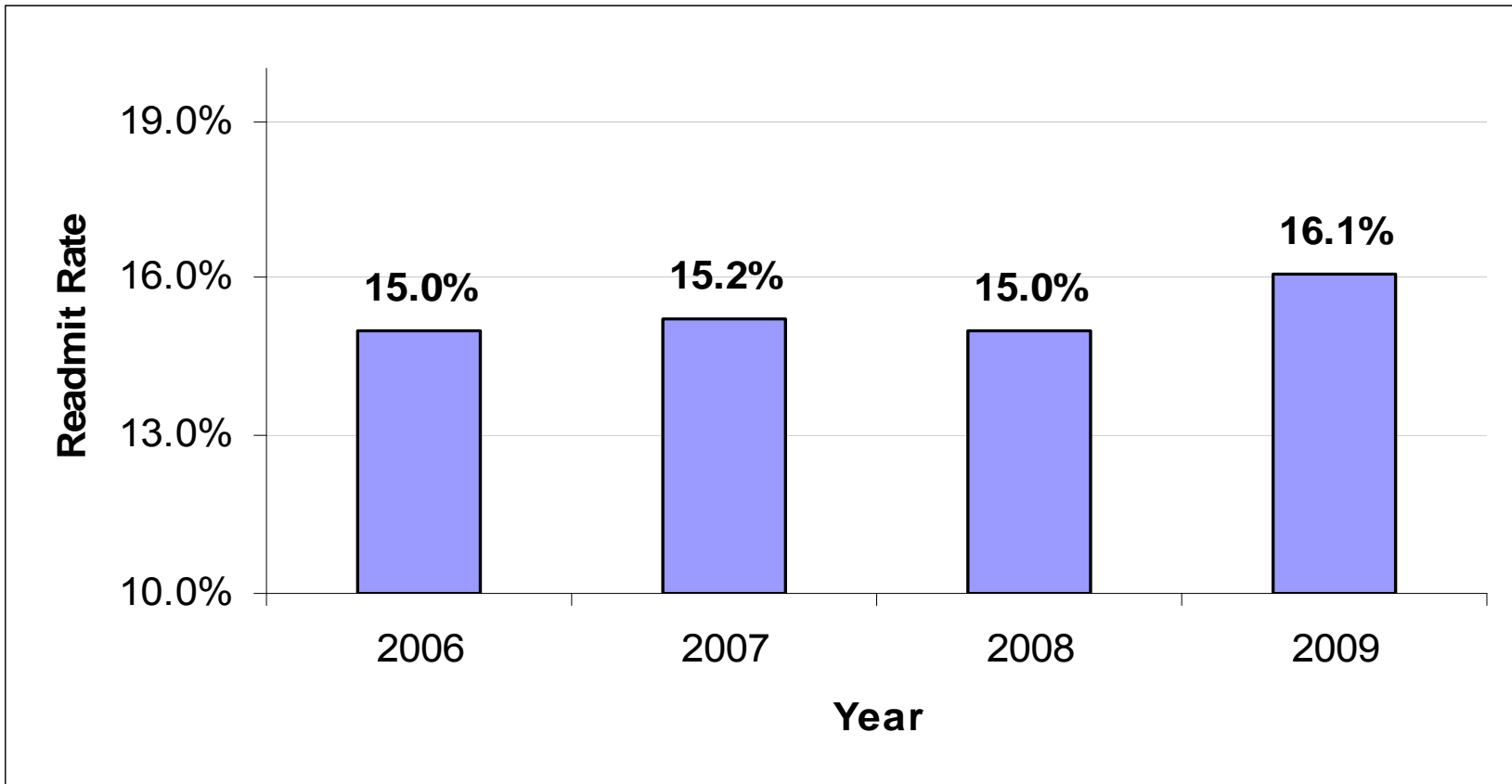
- Study population: patients who received at least one follow-up call (if within 3 days of D/C)
- Intervention Date = date the first follow-up call was made
- Analysis period: 9 months pre/post intervention date (enrollees must have B&T eligibility throughout analysis period)
- Outcomes evaluated: Readmissions, ER utilization, Outpatient follow-up

Discharge Follow-up Program Population Characteristics

# Unique Members	568
Average Age	80.1
Percent male	42.6
Average Risk*	11.2

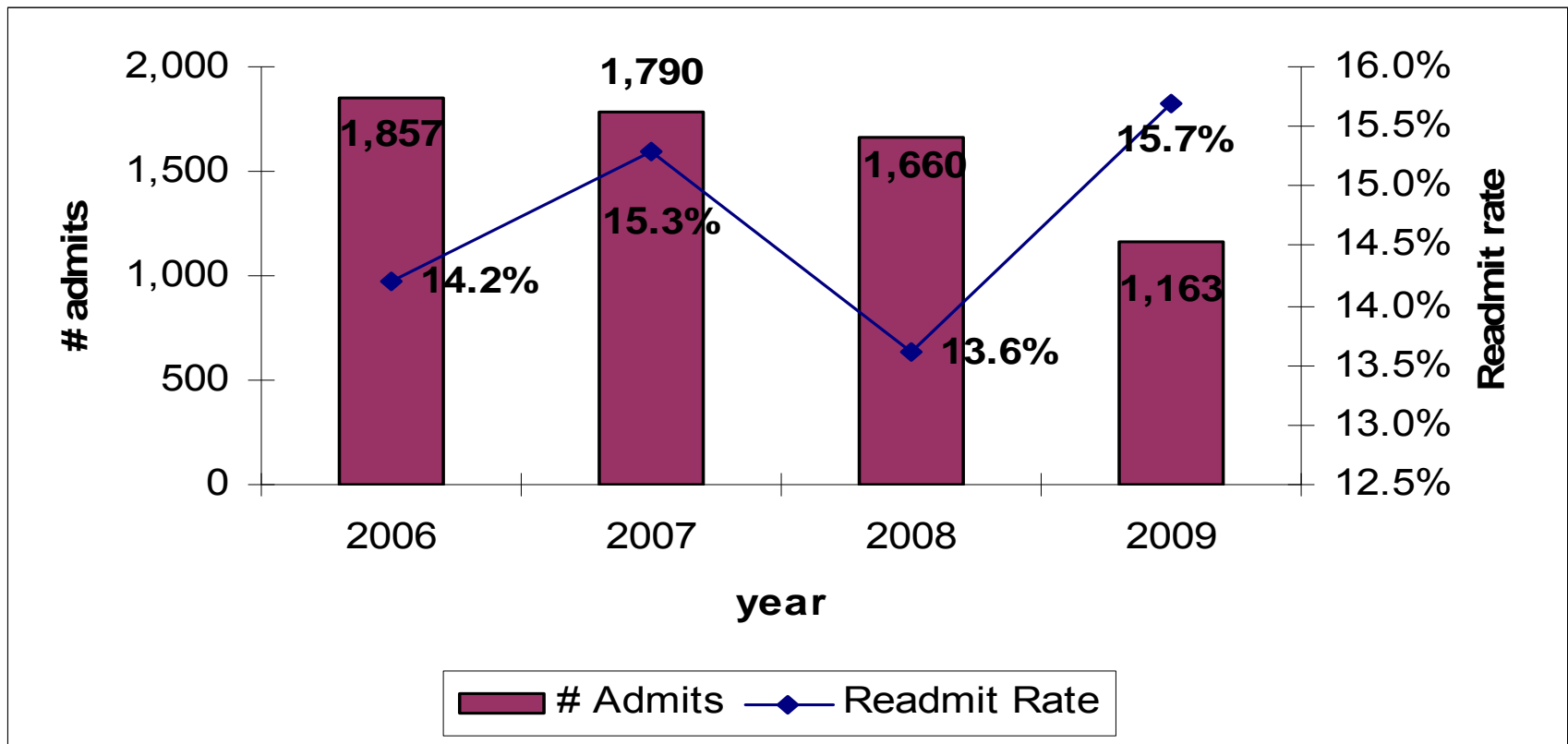
***Represents the morbidity burden derived from the Johns Hopkins ACG® Risk Adjustment System**

Overall B&T Senior Readmit Rate*



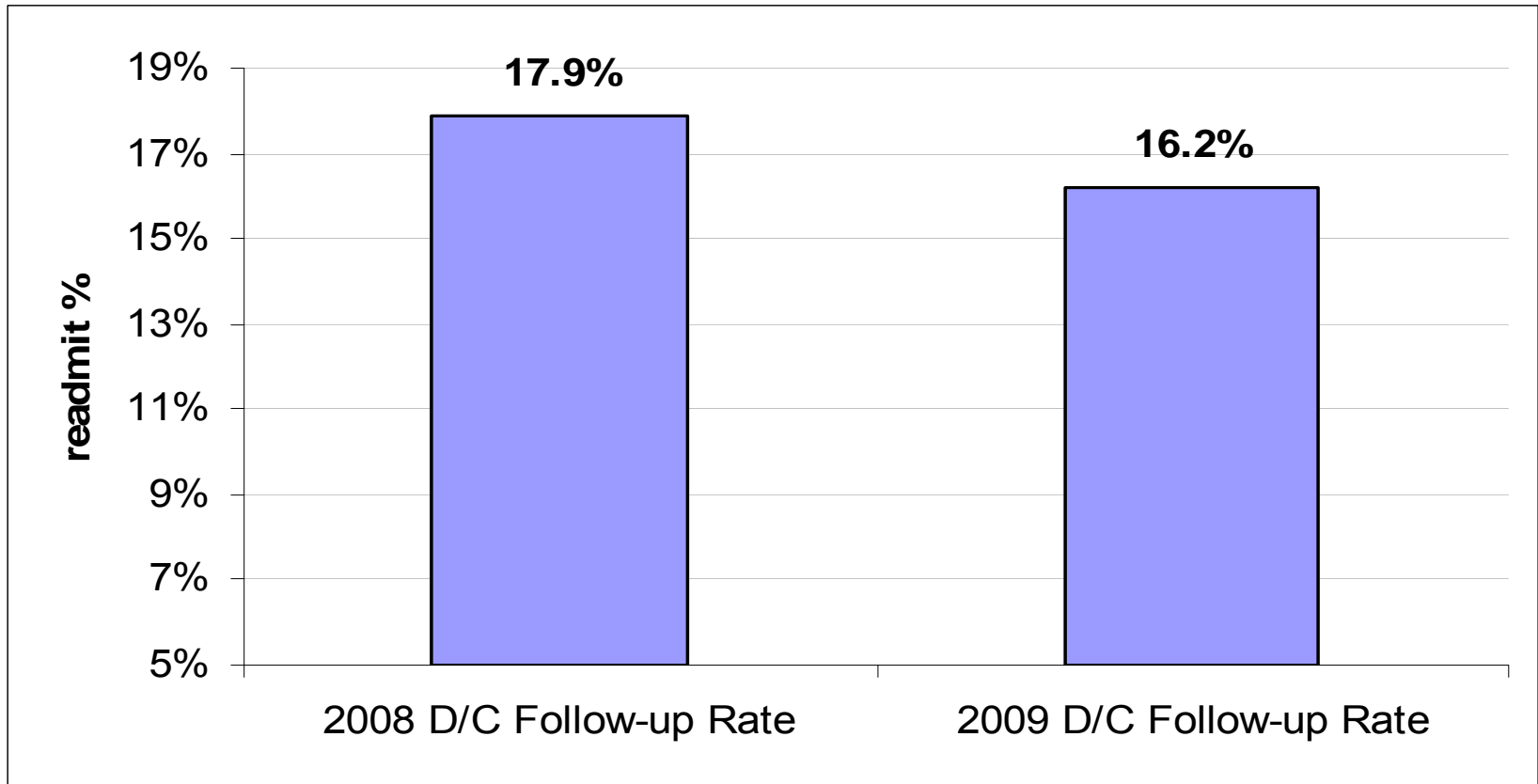
*Readmits are attributed to the facility where the readmit occurred

Non-Study B&T Senior Admissions vs. Readmit Rate*



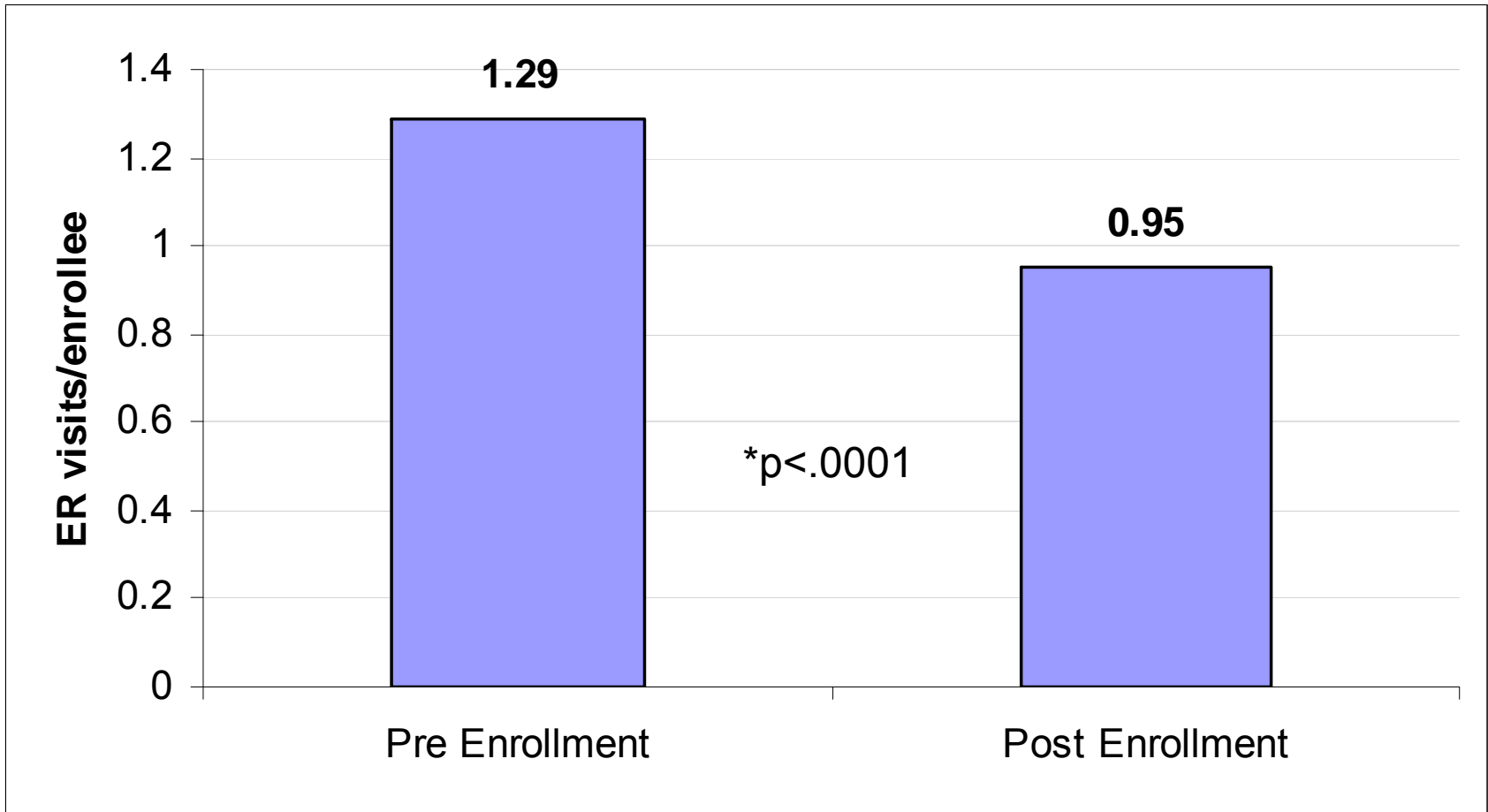
*Readmits are attributed to the facility where the index admit occurred

Readmissions Rate Program Enrollees*



*Readmits are attributed to the facility where the prior admission occurred

Impact on ER Utilization



*Pre/post analysis performed using paired t-test methodology

Outpatient Follow-up* Post Discharge

	<i>Pre Enrollment</i>	<i>Post Enrollment</i>	<i>p-value**</i>
% of admits with follow-up w/in 7 days	34%	36%	0.54
% of admits with follow-up w/in 14 days	54%	68%	0.01
% of admits with follow-up w/in 30 days	74%	77%	0.21

*Follow-up visit may be with PCP or Specialist

**Pre/post analysis performed using paired t-test methodology

D/C F/U Summary

- DCFU program had a favorable impact on ER utilization
- DCFU program had a favorable impact on the follow-up at 14 days post D/C
- Negligible impact on readmissions

Intensive Home Medical Management Criteria

- Medical Group Senior member
- Access to care issues: homebound, bed bound, or insufficient access to PCP
- Has an advanced illness and not enrolled in hospice
- Hospital discharge requiring transitional care by home visiting physician
- PCP must agree with the referral

Intensive Home Medical Management

- Brown & Toland Case Management identifies at risk frail seniors for in-home medical management and provides administrative support of program
- Physicians provides in-home care to targeted frail and home bound seniors
- Home visiting physicians organize in-home ancillary services such as lab, radiology, and home health and coordinate with primary care doctors to avoid admissions
- Brown & Toland Medical Director oversight

Intensive Home Management Pre/Post Methodology

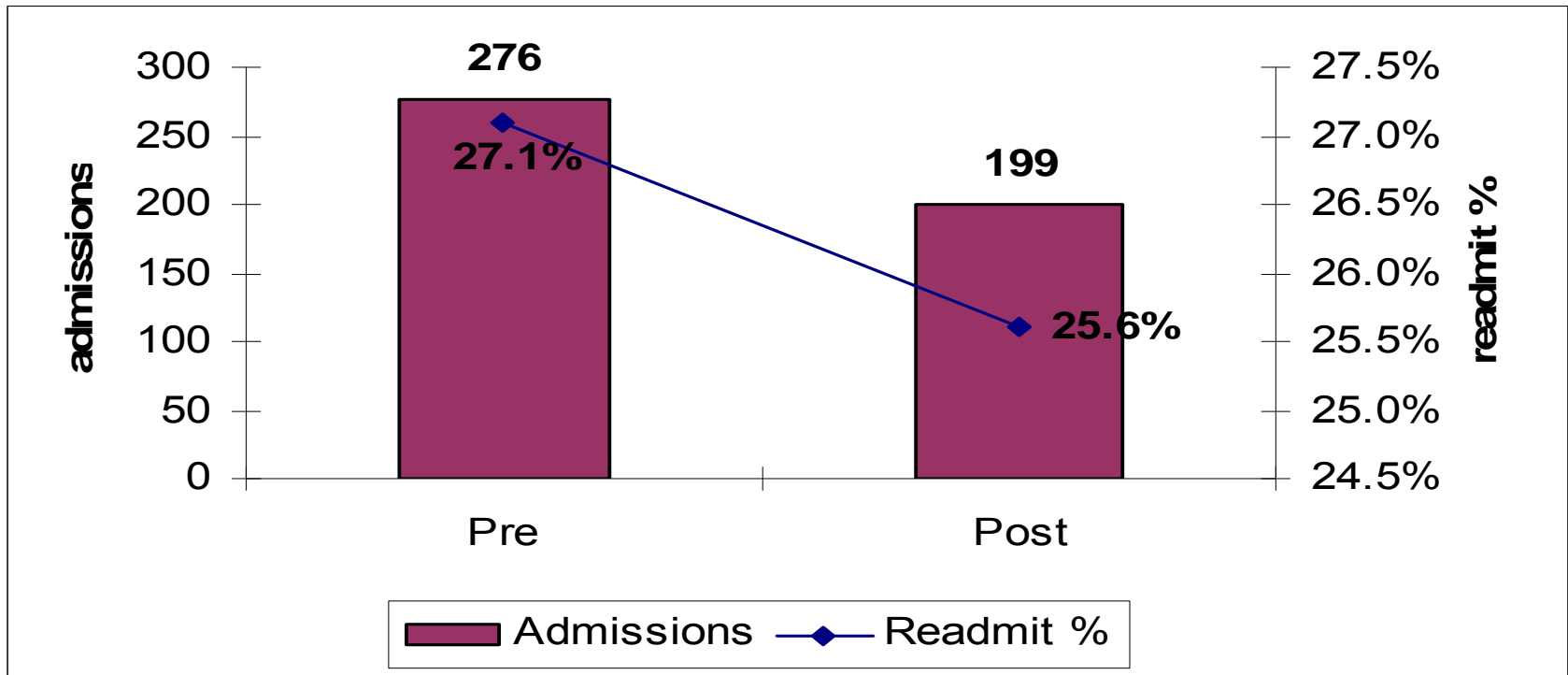
- Enrollment requirements:
 - Homebound senior
 - IHMM enrollment date range: 1/1/06 – 1/1/09
 - ≥ 1 year of IHMM enrollment
 - ≥ 1 year of B&T enrollment pre IHMM enrollment
 - ≥ 1 year of B&T enrollment post IHMM enrollment
 - Not deceased within 3 year analysis period
- Outcomes evaluated: Acute IP admits, ER visits, ALOS, Acute days

Population Characteristics

	<i>IHMM Participants</i>	<i>B&T Seniors*</i>
N	200	10,755
Average Age	81.2	73.5
% male	40.3	37.6
Average ACG Risk Score	8.9	3.6

*Average for B&T seniors over study period

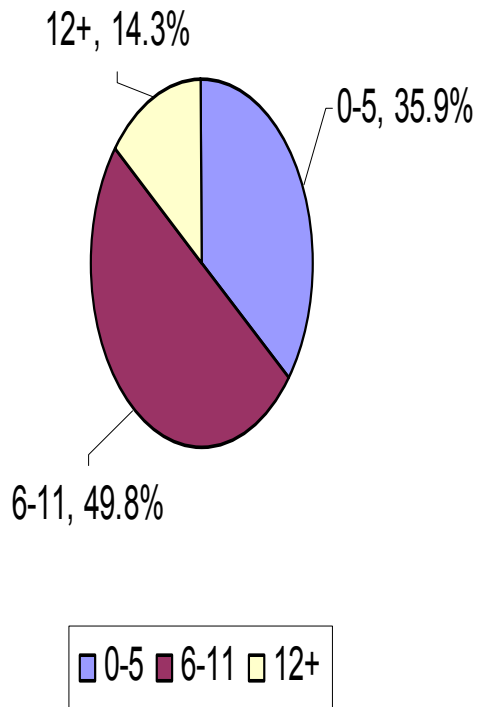
Admissions vs. Readmission %



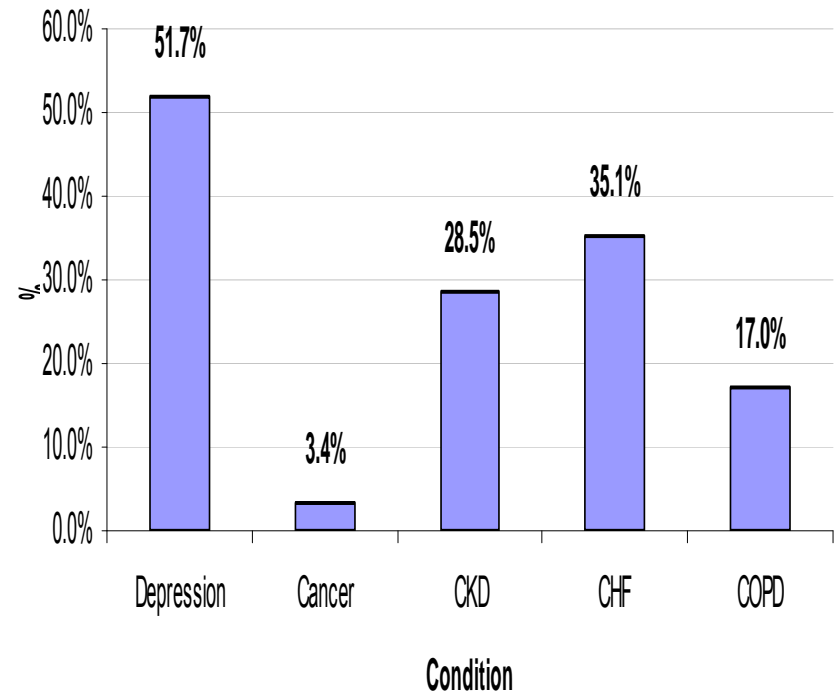
p-value (admits) =.001; Pre/Post analysis was performed using paired t-test methodology
p-value (readmits) =.02; Pre/Post analysis was performed using paired t-test methodology

Chronic Conditions among those Readmitted

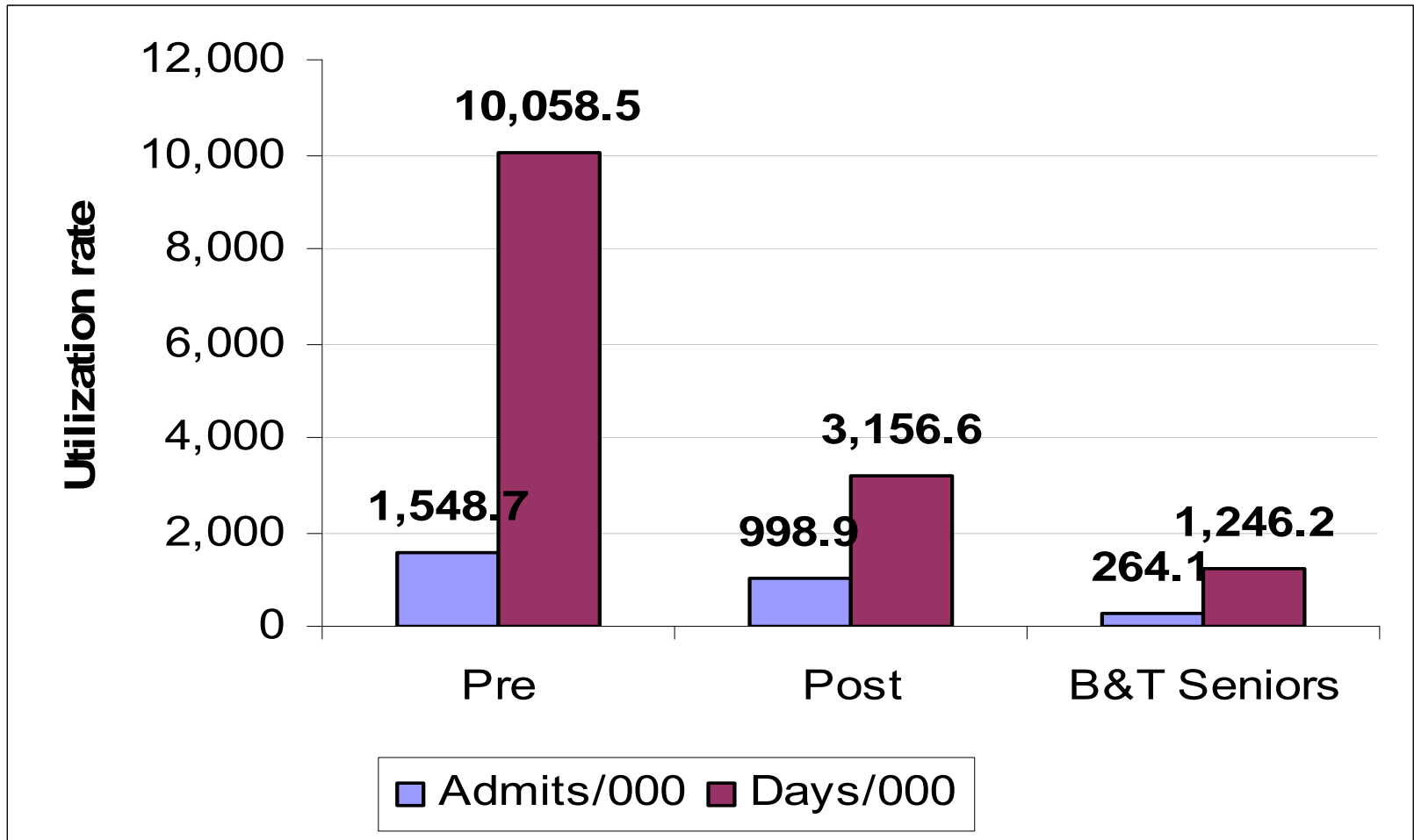
Number of Chronic Conditions



% with Selected Chronic Conditions

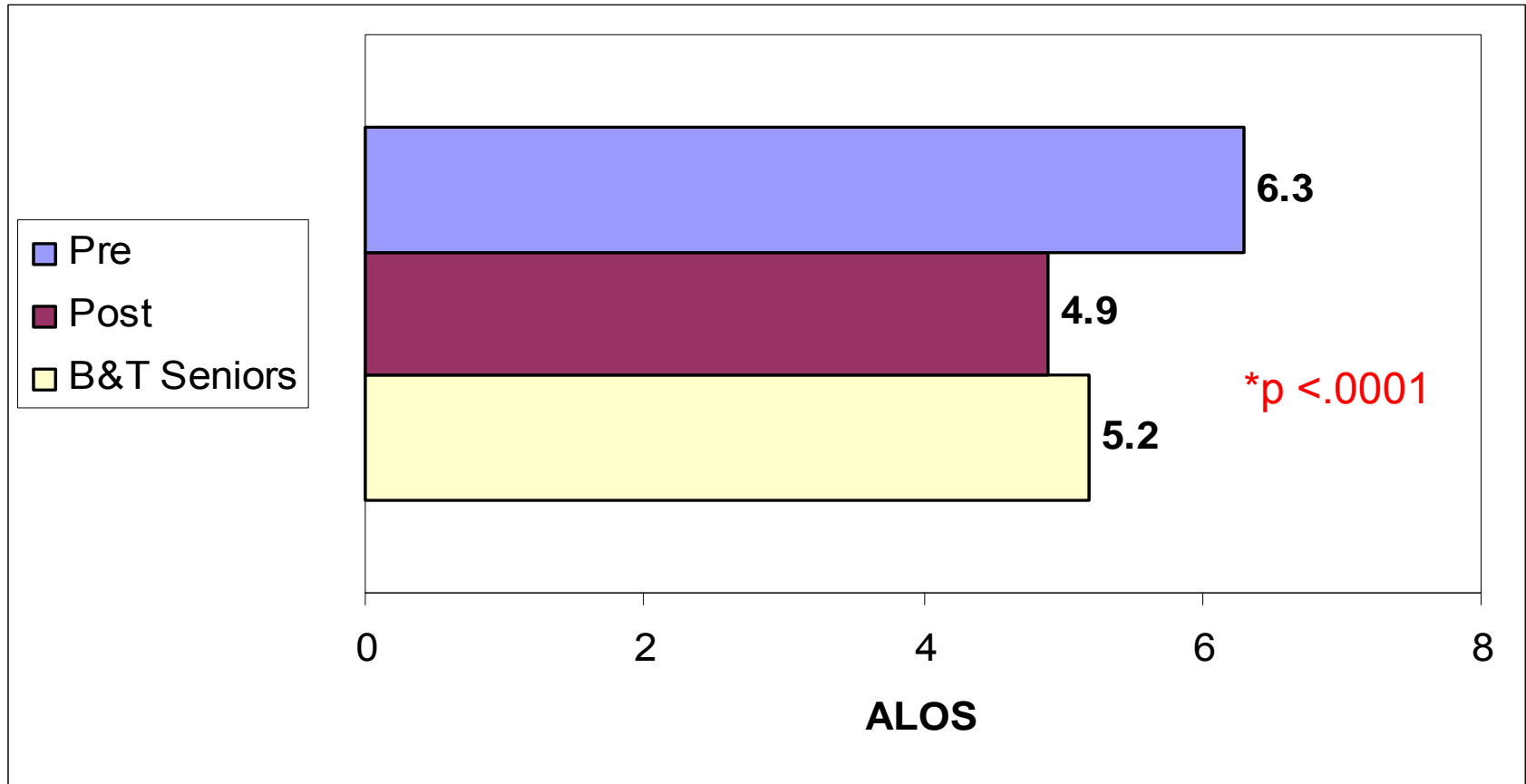


Admissions and Bed Days



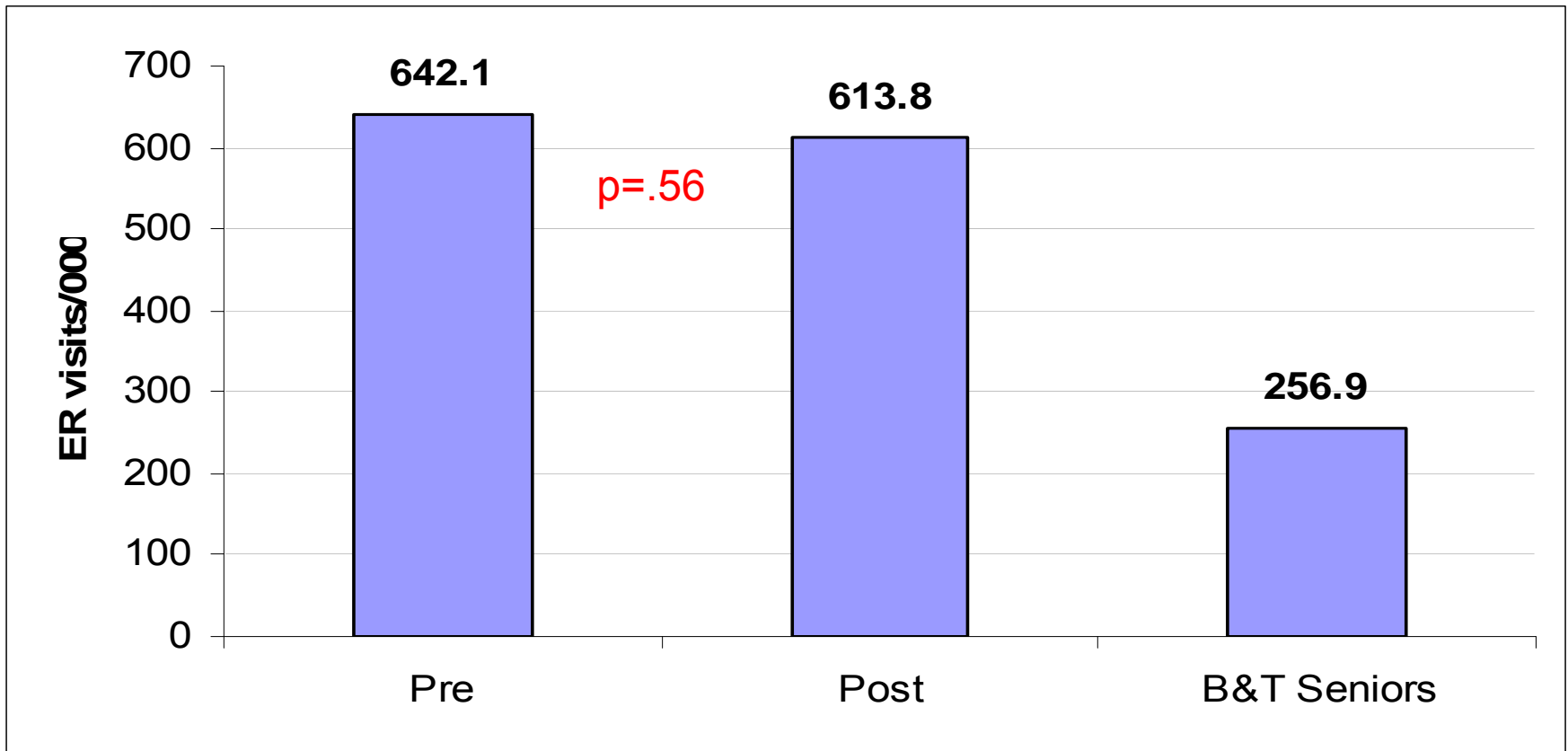
p-value (admits/000) =.001; Pre/Post analysis was performed using paired t-test methodology
p-value (days/000) ,.0001; Pre/Post analysis was performed using paired t-test methodology

Average Length of Stay



*Pre/Post analysis was performed using paired t-test methodology

ER Utilization



*Pre/Post analysis was performed using paired t-test methodology

Pre/Post IHMM Enrollment Statistical Analysis*

Utilization Outcome	Confidence Interval	p-value
<i>Admits</i>	<i>(-1.05, -0.23)</i>	<i>.001</i>
<i>Readmits</i>	<i>(-0.39, -0.08)</i>	<i>0.02</i>
<i>Bed Days</i>	<i>(-9.78, -4.51)</i>	<i><.0001</i>
<i>ALOS</i>	<i>(-3.2, -1.0)</i>	<i><.0001</i>
ER Visits	(-0.12, 0.37)	0.56

*Pre/Post analysis was performed using paired t-test methodology

Summary

- IHMM favorably improves utilization outcomes:
 - Significant decrease in admissions ($p=.001$)
 - Significant decrease in readmissions ($p=.02$)
 - Significant decrease in bed days ($p<.0001$)
 - Significant decrease in ALOS ($p<.0001$)
 - ALOS post program enrollment is below that of B&T average for seniors
- IHMM had nominal effect on ER utilization