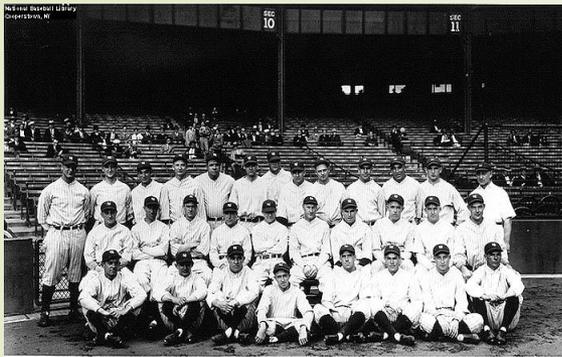


THCIC Readmission Findings



1927 NEW YORK YANKEES
WORLD CHAMPIONS

Front Row — JULIE WERA, MIKE GAZELLA, PAT COLLINS, EDDIE BENNETT (mascot), BENNY BENGOUGH, RAY MOREHART, MYLES THOMAS, CEDRIC DURST.
Middle Row — URBAN SHOCKER, JOE DUGAN, EARLE COMBS, CHARLIE O'LEARY (Coach), MILLER HUGGINS (Manager), ART FLETCHER (Coach), MARK KOENIG, DUTCH RUETHER, JOHNNY GRABOWSKI, GEORGE PIPGRAS.
Back Row — LOU GEHRIG, HERB PENNOCK, TONY LAZZERI, WILEY MOORE, BABE RUTH, DON MILLER, BOB MEUSEL, BOB SHAWKEY, WAITE HOYT, JOE GIARD, BEN PASCHAL, (Unknown), DOC WOOD (Trainer).

DSRIP Region 3 Learning
Collaborative
December 9, 2015

Our Team

Scott Hickey
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Goals

- 1) To describe a baseline for evaluating the impact of DSRIP intervention on 30-day readmission rates
- 2) To describe demographic and diagnostic characteristics associated with 30-day re-admissions



Texas Health Care Information collection (THCIC)

- Charged with collecting data and reporting on health care activity in hospitals and HMO's in Texas
- Goal of enabling consumers to have an impact on the cost and quality of health care
- Maintain a data set of virtually all hospital admissions in Texas
- Thanks to our anchor, Harris Health we have purchased the most recent available year of data, 2012

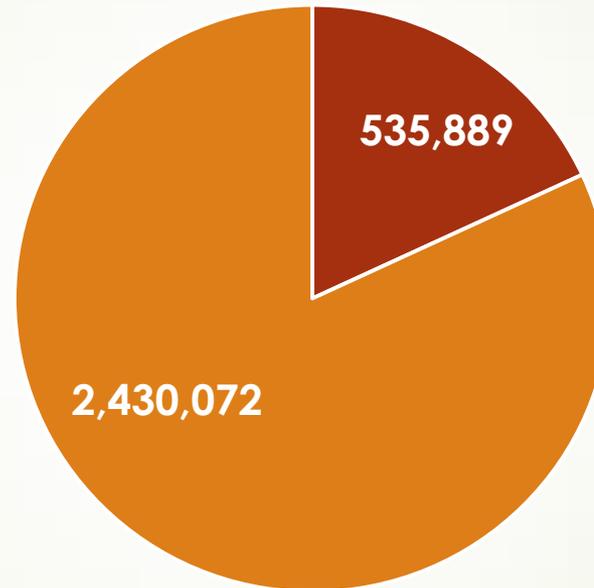


Advantage of THCIC Dataset

- ▶ While other existing data sets are proprietary or are focused on Medicaid, Medicare and SCHIP, THCIC includes all payors as well as the uninsured
 - ▶ Public agencies including many DSRIP participants serve the low income uninsured often in greater numbers than federally insured
 - ▶ THCIC may provide a more representative look at re-hospitalizations for especially for these organizations
- 

The 2012 numbers

Total Number Hospitalized

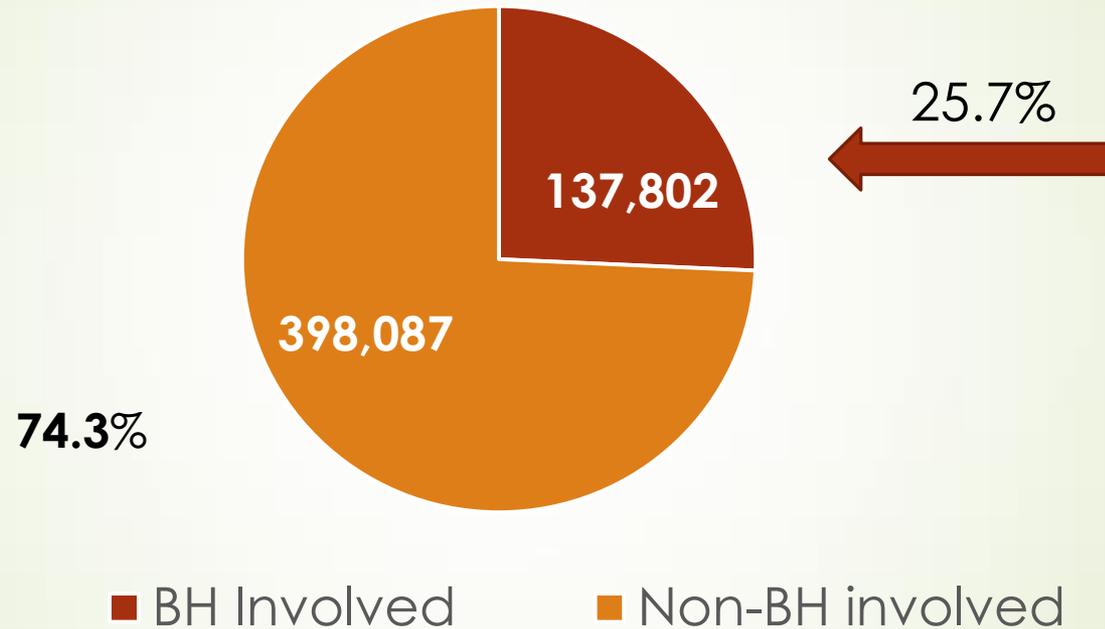


■ Region 3 ■ Other Regions

Region 3 had 18.1% of Texas Hospitalizations

Within Region 3

Region 3 Hospitalizations x Type



One fourth of Region 3 Hospitalizations were BH-involved

County of residence

	Frequency	Percent
Harris County	116904	84.8
Fort Bend County	11389	8.3
Matagorda County	1534	1.1
Austin County	1451	1.1
Colorado County	1420	1.0
Wharton County	1380	1.0
Waller County	1314	1.0
Chambers County	1296	.9
Calhoun County	1114	.8
Total	137802	100.0

Types of admissions

	Frequency	Percent
Index Admit	118621	86.1
Readmit (30 Days)	14058	10.2
Chained Readmit (Following readmit)	5123	3.7
Total	137802	100

Readmission rates

- The published statewide Mental Health/Substance Abuse PPR rate for Texas Medicaid and CHIP adults is 11.81% and for children 9.06%.
- In the Region 3 Sample (including all payors) the 30-day readmission rates were just slightly higher:
 - 12.4% for Adults and 10.0% for Children

Region 3 BH readmission rates are similar to Texas Medicaid rates

Previous findings for Texas Medicaid hospital admission “strings”

- ➔ The highest PPR rate is for MH/SA admissions. For adults these admissions have a higher than average number of PPRs per chain (1.38) indicating that patients with MH/SA admissions are more likely to have a string of related admissions.

Schizophrenia & mood disorders

Schizophrenic Disorders produce the longest admission “chains” among BH Diagnostic Groups (1.30 admissions/chain as compared to 1.21 overall)

Behavioral Health Hospital Costs

- 1) BH-involved admissions in Region 3 rack up **\$5B in costs/year**
- 2) Admissions with **Secondary BH Diagnoses cost the most**
- 3) **Mood Disorders and Schizophrenic Disorders** add up to be the **most costly BH primary diagnoses**

Texas Medicaid Costs Related to PPR's with Behavioral Health Diagnoses

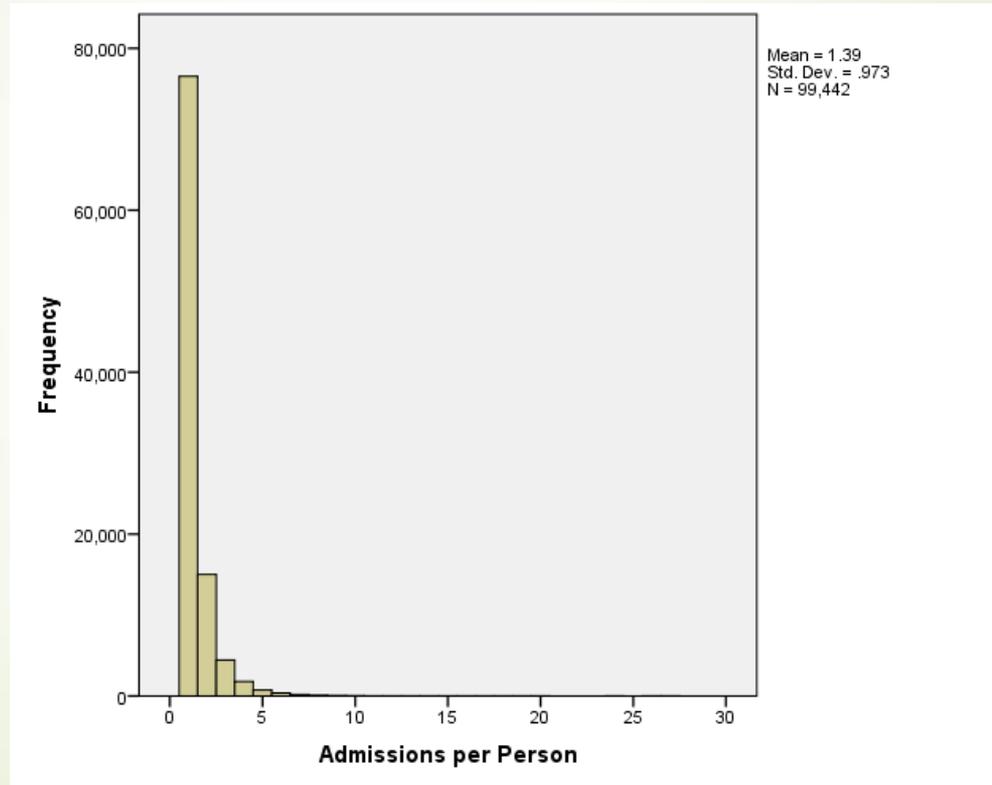
Top three categories were MH/SA related:

- 1) bipolar disorders with a PPR rate of 9.74 percent, cost of \$10,839,063.43,
- 2) schizophrenia with a rate 14.31%, cost of \$5,437,553.45,
- 3) major depressive disorders & other psychoses with a rate of 9.12%, cost of \$4,321,369.13.

The “Big Three” mental health diagnoses are costly

High utilizers: Admissions

Mean Admissions per Person = 1.39
Range= 1-27 Admissions per Person

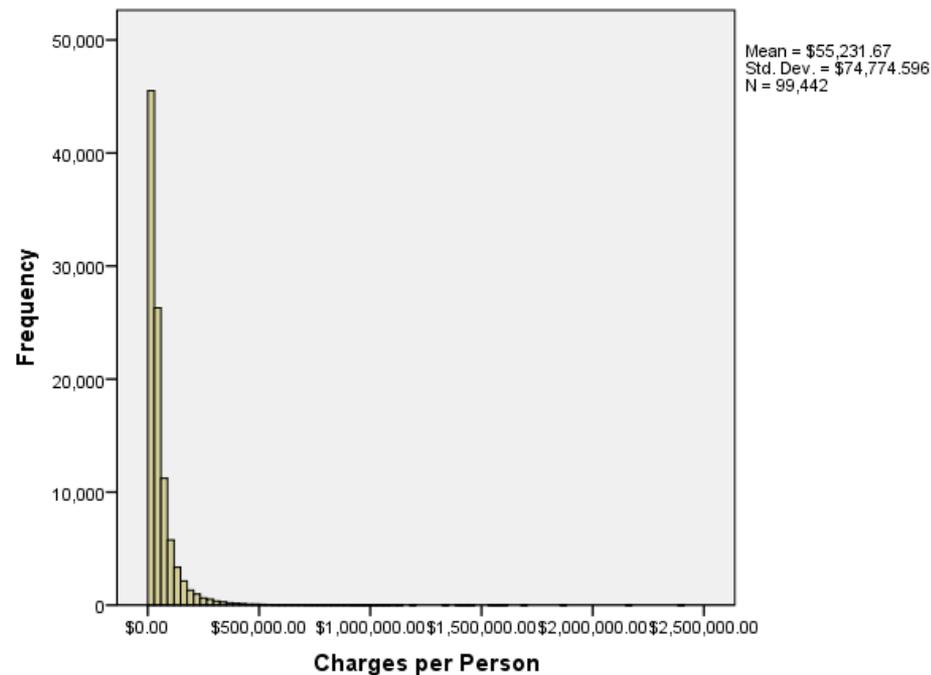


16% of readmissions are made by five percent (n=4,972) of BH-involved patients

High utilizers: costs

Mean Cost=\$55,232 per person

Range=\$0-\$2,389,022



5% of patients account for 18% of Charges

Findings Related to Admission Type

- Associated with higher readmission rates;
 - Secondary BH diagnoses
 - Ethnicity
 - Source of Admission
 - Payor Type
 - Primary BH Diagnostic Group
- Non-psychiatric facilities have more (absolute number) index, readmission, and chained readmission rates.
- AHRQ Primary Diagnostic Group is related to readmission rate with Mood disorders and Schizophrenia being the highest (n) for index, readmission, and chained readmission.



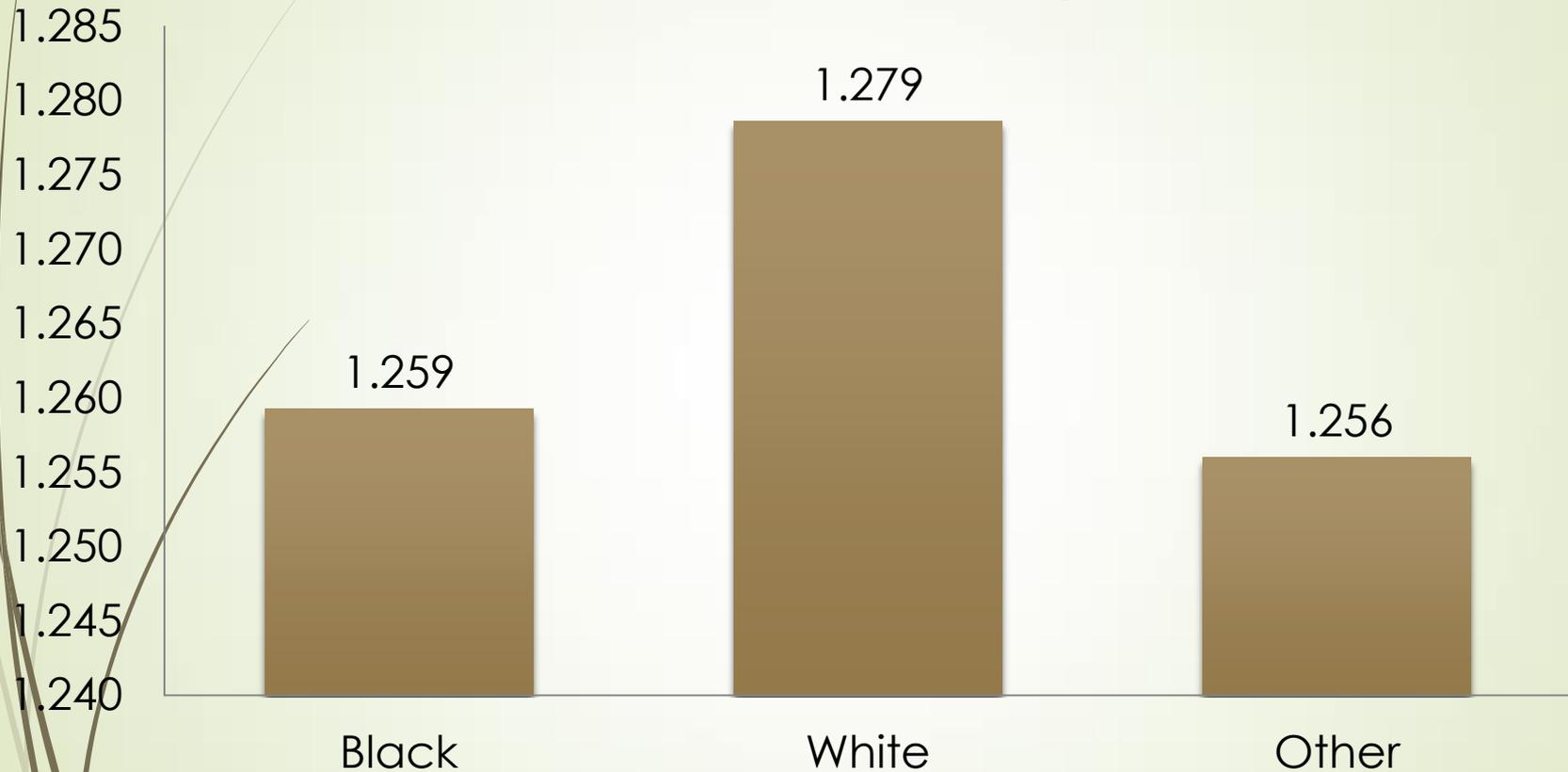
Binary logistic regression

Inputs within the Model

(These red variables are predictive!)

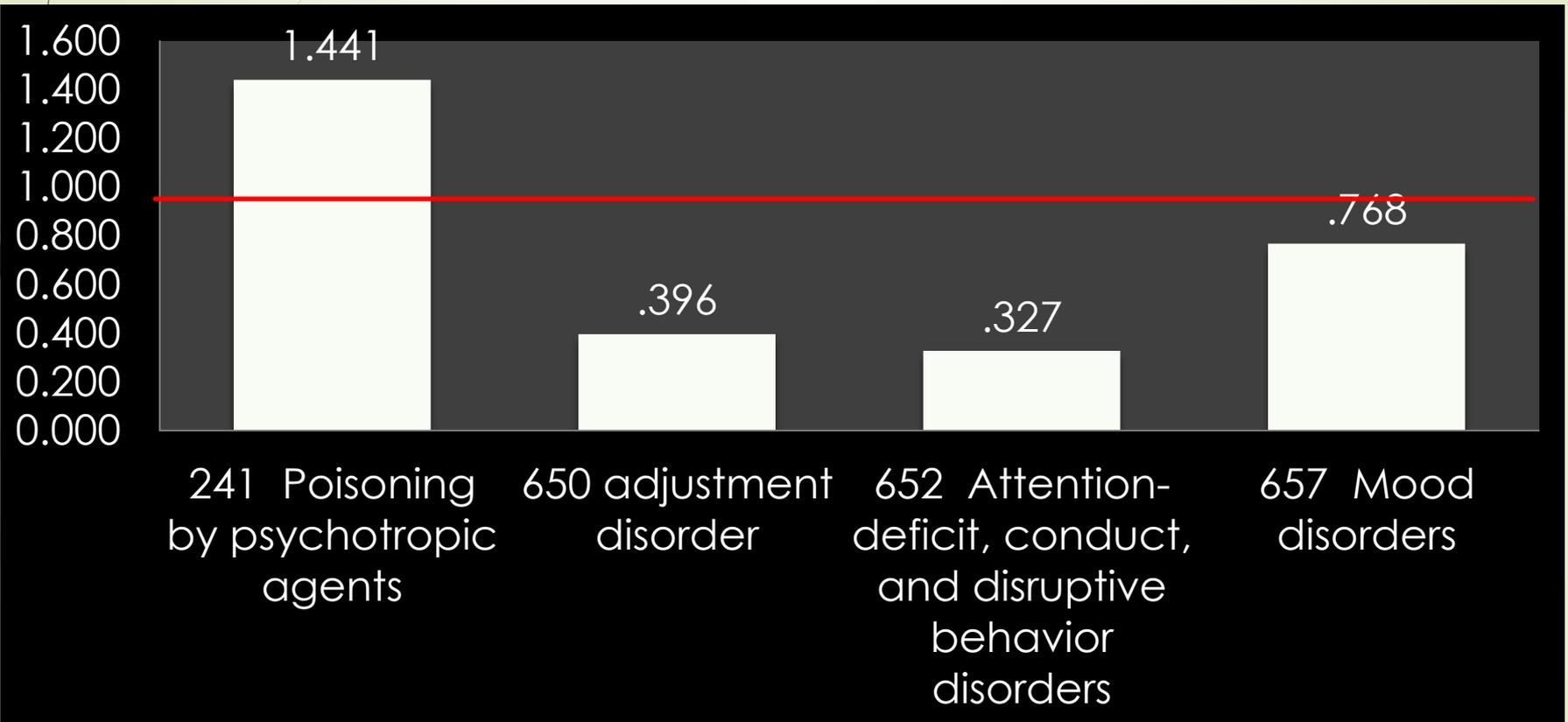
- First-Pay Source (Insurance)
- Principal Diagnostic Group
- Source of Admission
- Ethnicity
- Psychiatric Facility Indicator
- Sex

Significant Odds Ratios For Ethnicity



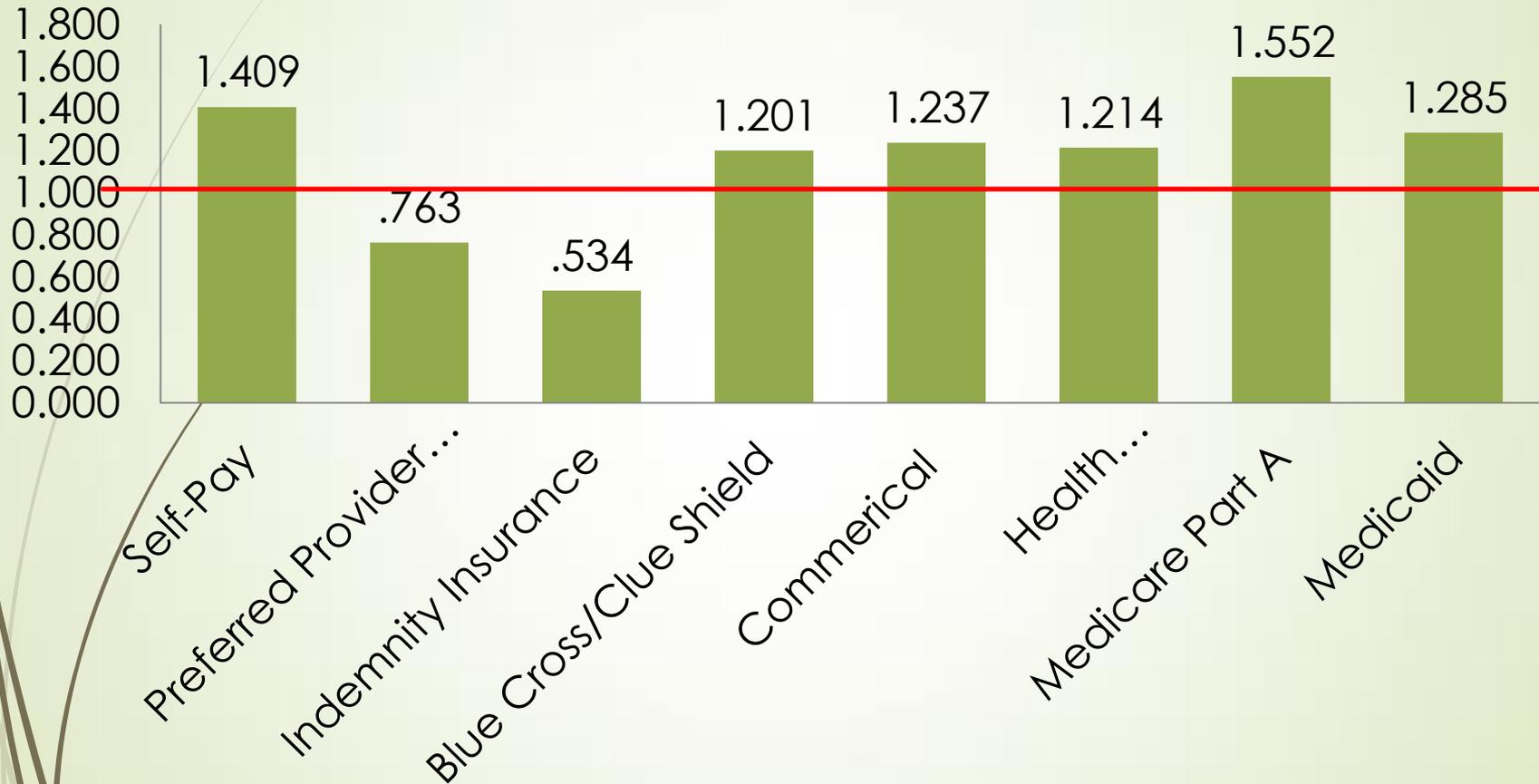
Reference Group: Hispanics
Significant Ethnic Groups for Readmission included Black, White, and Other

Significant Odds ratios for Principal Diagnostic groups



Reference: Screening and History of Mental Health and Substance Abuse Codes

Significant odds ratios for insurance



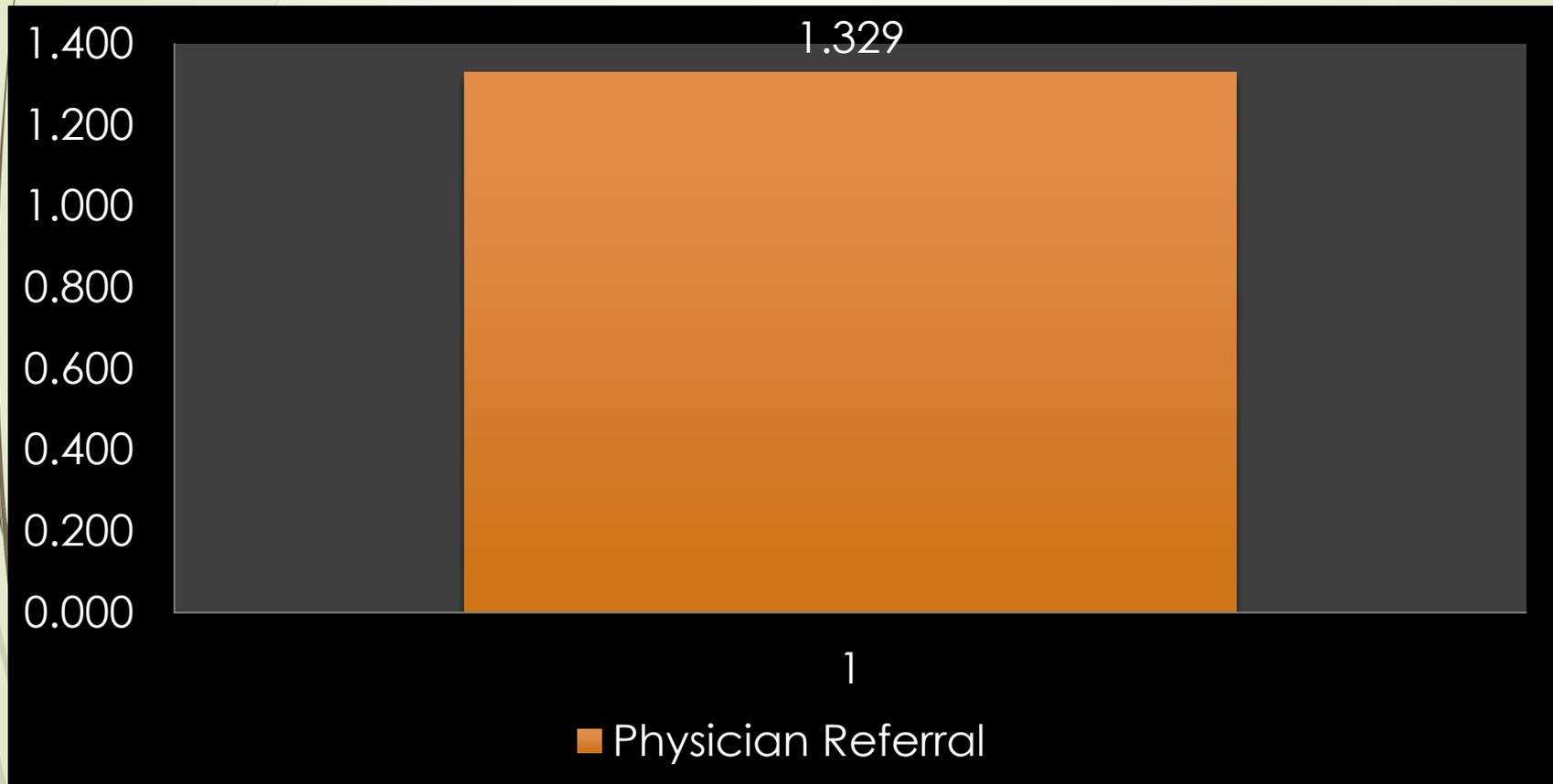
Reference Group: Charity, Indigent, Unknown



Sources of Admission

- 
- Physician Referral
 - Clinic Referral
 - Transfer from a Hospital
 - Transferred from Skilled Nursing Facility
 - Transfer from Other Care Facility
 - Court Law
 - Information NA

Significant odds ratios for Source of Admission



Reference Group: Information Not Available

Implications

- The majority of BH-involved admissions and re-admissions are for secondary BH diagnoses
 - **Implication: Collaborative Care is necessary to address co-morbid physical/mental health conditions**
- Among BH primary diagnoses, admissions to patients with Mood Disorders and Schizophrenia frequently result in re-admission
- Schizophrenic disorders result in the longest “chains”
 - **Implication: a focus on care issues for individuals with major depression, bipolar disorder and schizophrenia might bring payoffs**
- Age, diagnosis, ethnicity, insurance status and source of admission influence rehospitalization rates
 - **Implication: higher risk patients can be identified for special intervention**



RHP 3 programs addressing these issues

- Collaborative Care (26)
- BH Consultation and Liaison within hospitals (7)
- Continuity of Care/Patient Engagement projects (5)
- Expansion of mental health/substance abuse outpatient services (26)

Projects with related Category 3s

RHP3 has 15 projects with Category 3 measures that may reduce 30-day readmissions

Follow-Up After Hospitalization for Mental Illness

- Gulf Bend MHMR Center
- MHMR Authority of Harris County (2)
- Texana Center

Risk Adjusted Behavioral Health /Substance Abuse 30-day Readmission Rate

- Bayshore Medical Center
- MHMR Authority of Harris County
- OakBend Medical Center
- OakBend Medical Center

Emergency Department visits for Behavioral Health/ Substance Abuse

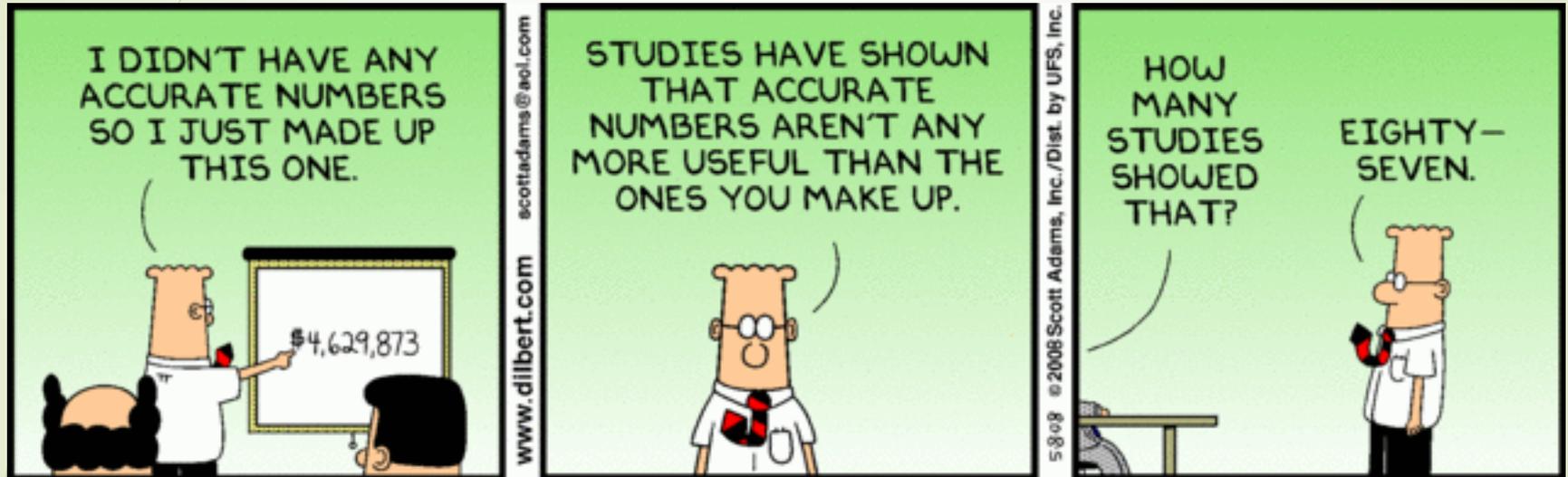
- Fort Bend County Clinical Health Services
- Memorial Hermann (3)
- Methodist Hospital (2)
- St. Joseph's Medical Center

We'll be right back (next year)

PLEASE STAND BY



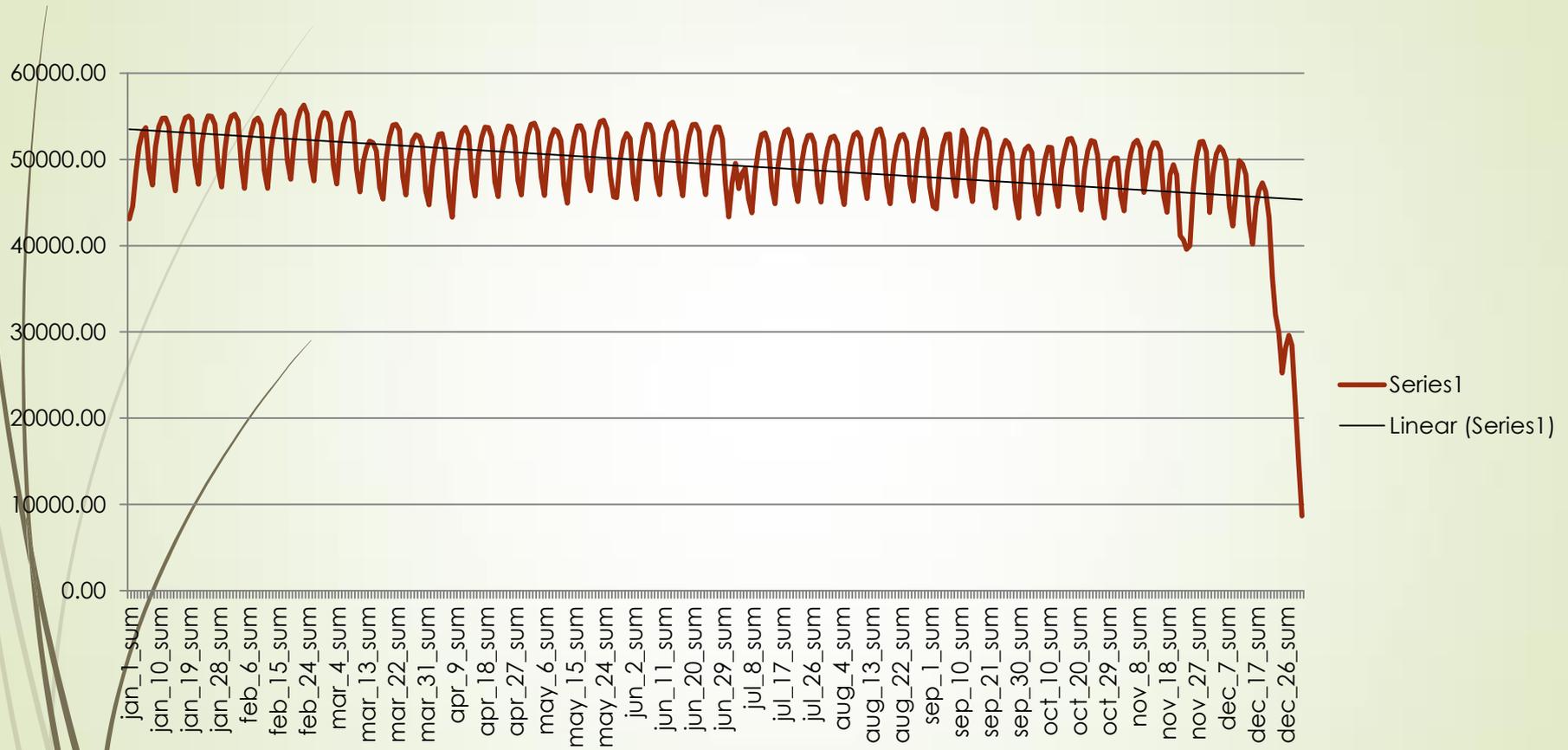
Does it really matter?



Texas Hospitalized Patients x Date: January 2012



Texas hospital census 2012



RHP3

Data Advisory Workgroup

December 2012

questions:

scott.hickey@mhmraharris.org

