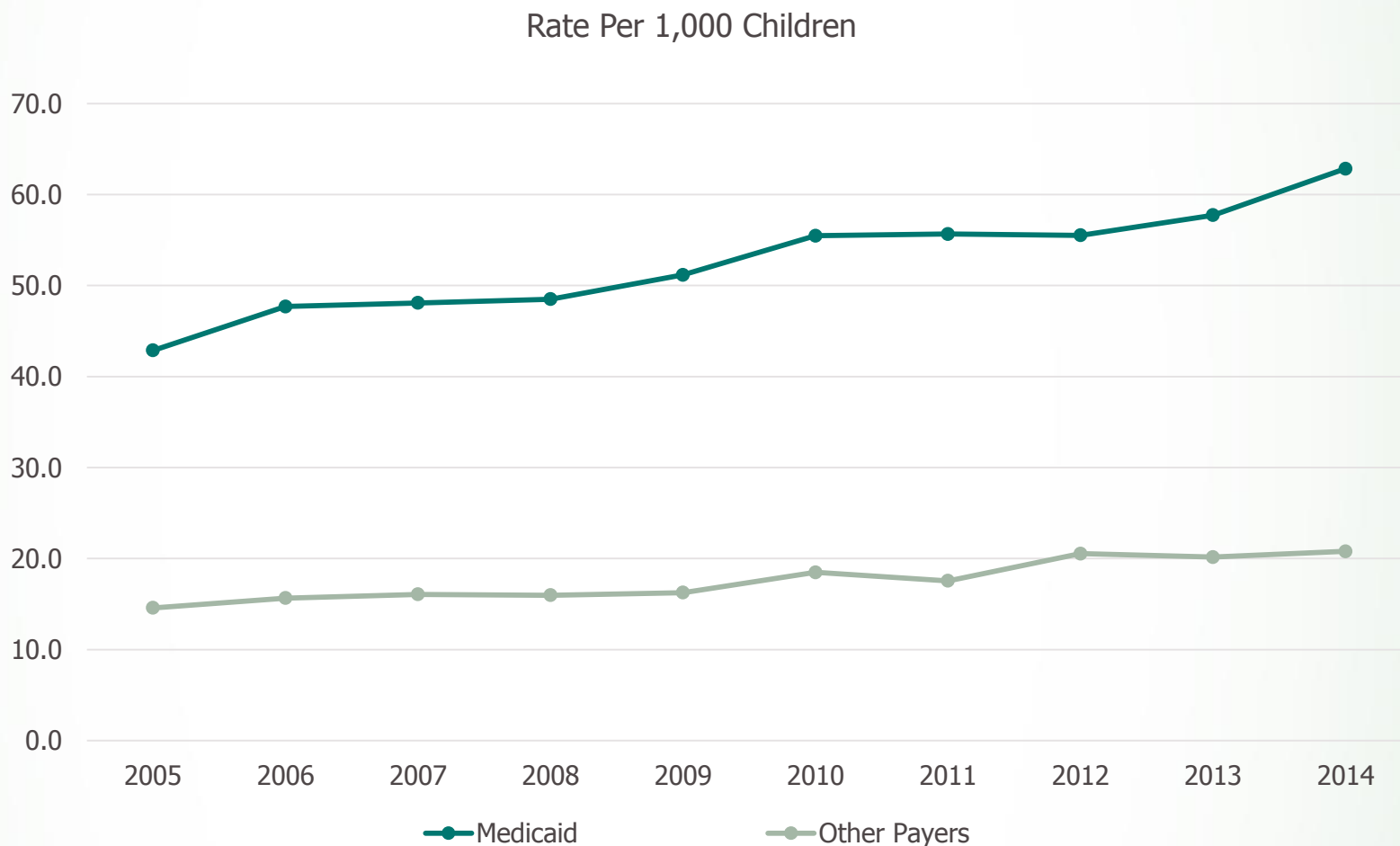


Recent Trends in Medicaid Hospital Utilization in Missouri

MO HealthNet Oversight Committee
January 28, 2016

Pediatric Asthma Utilization

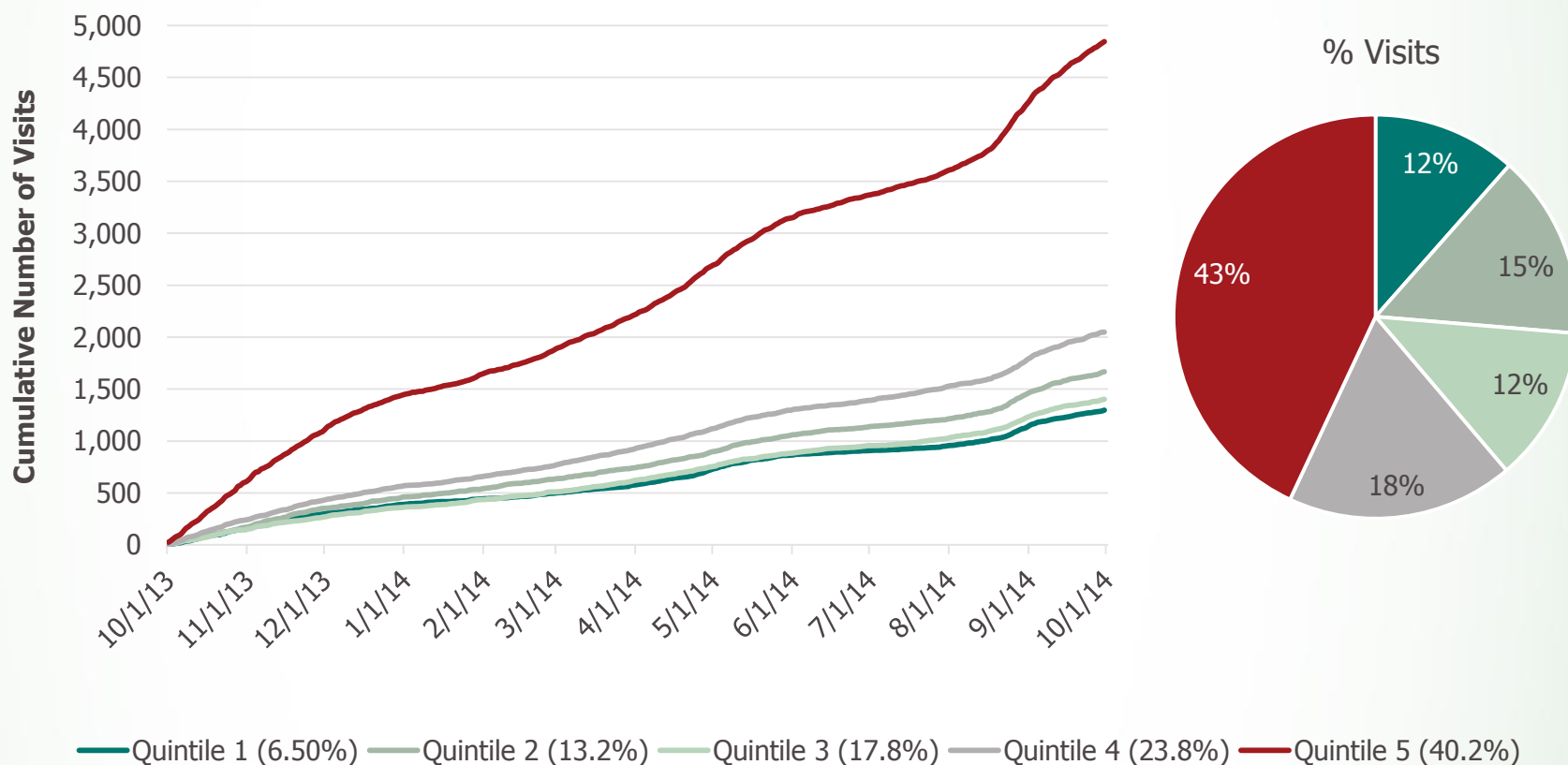
Rate of Pediatric Asthma ED Visits by Payer



Sources: HIDT, DHSS Medicaid Eligibility MICA, U.S. Census Bureau Intercensal Population Estimates

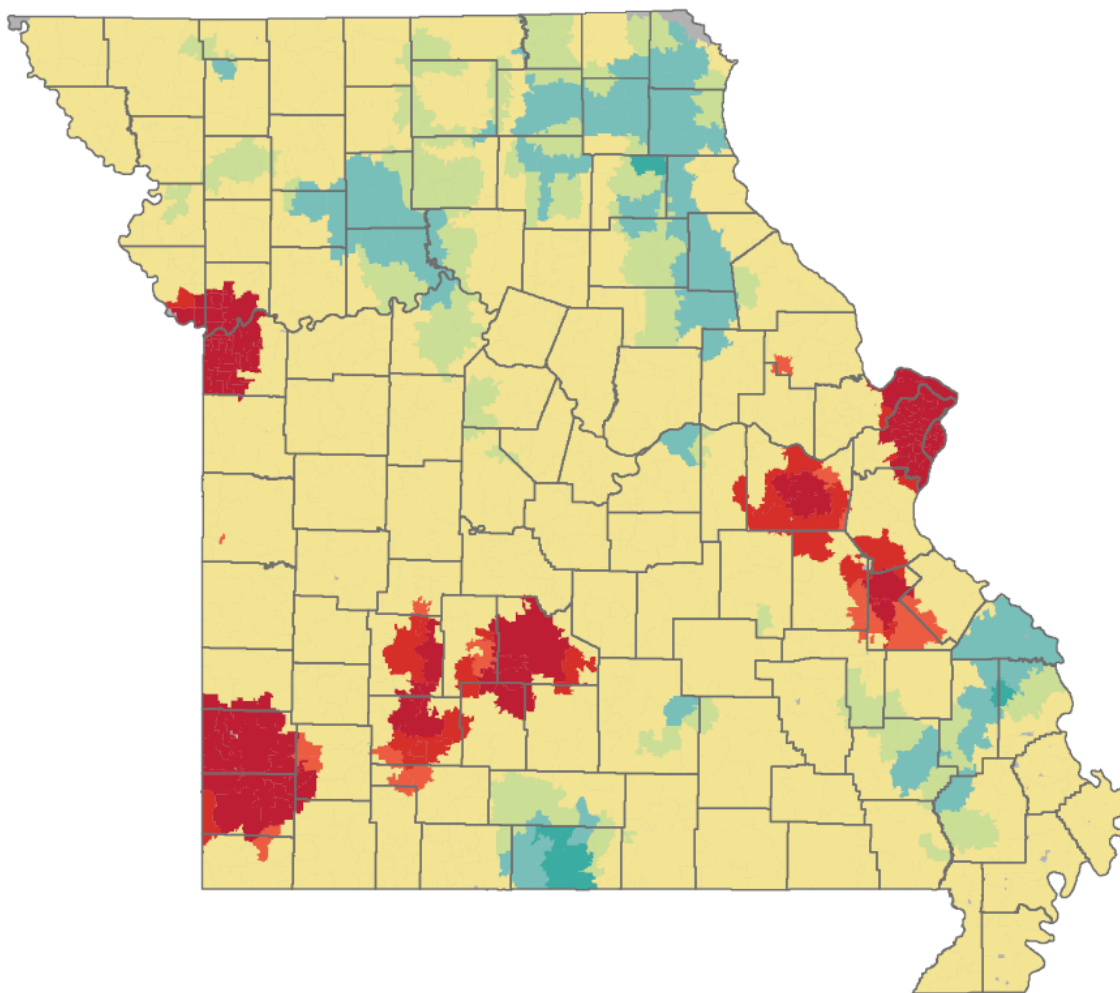
Pediatric Asthma ED Visits by Poverty Rate of Child's Home ZIP

FY 2014 Percent and Cumulative Number of Pediatric Asthma ED Visits per Day by ZIP Code Poverty Quintile (Average Poverty Rate for Children in Parentheses)



Pediatric Asthma ED Hot Spots

ZIP Code Hot Spots for
Pediatric Asthma ED Visits per 1,000 Under Age 18



FY 2014 Hot Spots:

- St. Louis Metro
- Kansas City Metro
- Joplin Area
- Bolivar-Springfield-Lebanon
- Union-St. Clair
- Bonne Terre-Farmington

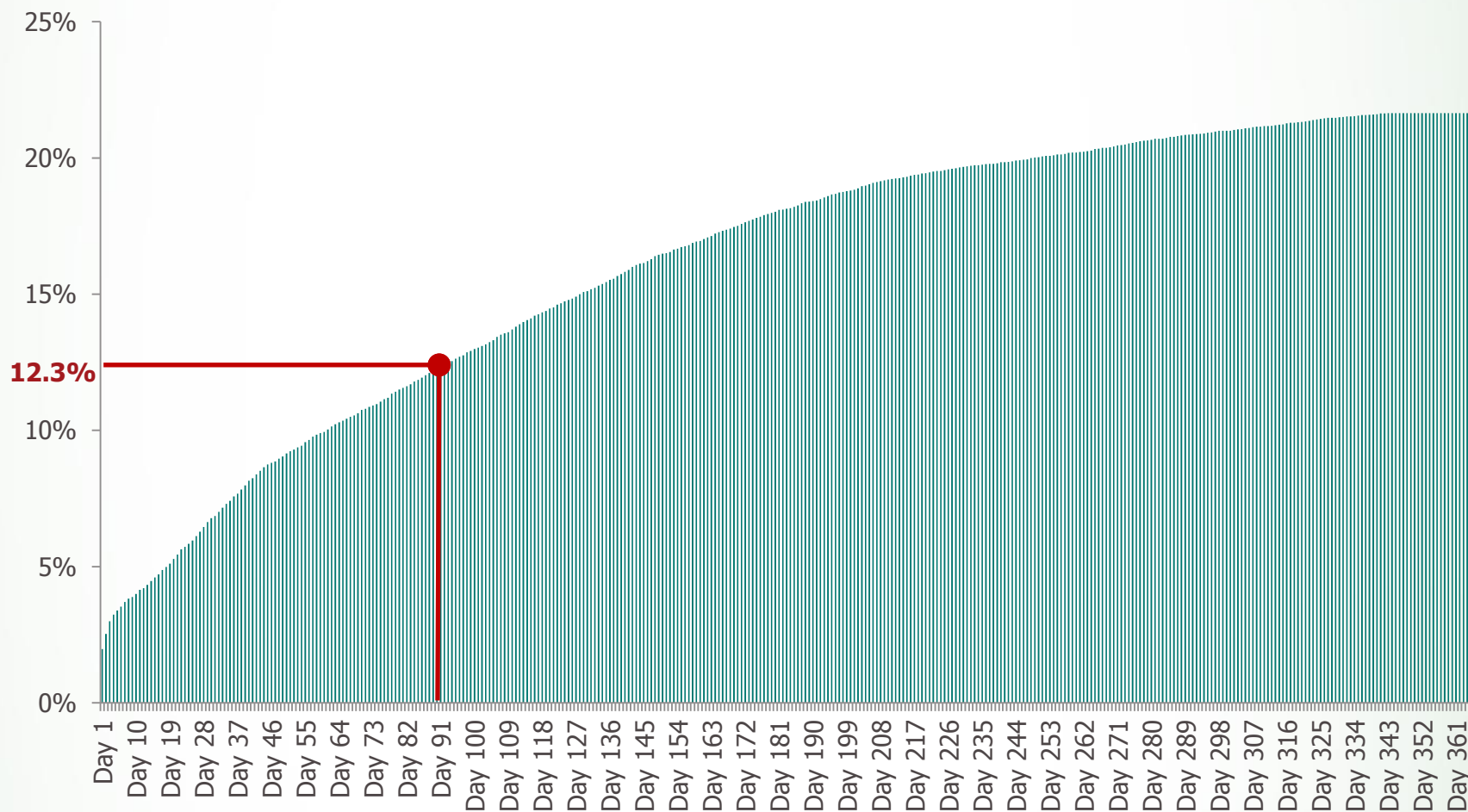
County

Getis-Ord Z-Score

- Cold Spot (99% Confidence)
- Cold Spot (95% Confidence)
- Cold Spot (90% Confidence)
- No Statistical Difference
- Hot Spot (90% Confidence)
- Hot Spot (95% Confidence)
- Hot Spot (99% Confidence)
- Insufficient Data

90-Day Pediatric Asthma ED Revisits

**FY 2014 Missouri Pediatric Asthma ED Revisit Rate by Day
(Limited to cases with the primary cause of the revisit being asthma)**



90-Day Pediatric Asthma ED Revisit Model Results

Table 1: Pediatric Asthma 90-Day ED Revisit Model Results

Effect	Frequency	Odds Ratio	95% CI		P Value
Intercept	-	0.072	0.056	0.093	<.0001
Age	7.63 (mean)	0.989	0.976	1.002	0.097
Male	59.1%	0.923	0.823	1.035	0.170
Black	53.6%	1.548	1.318	1.817	<.0001
Hispanic	3.5%	1.220	0.882	1.686	0.229
Medicaid Status	70.1%	1.376	1.185	1.597	<.0001
Uninsured Status	24.2%	1.197	0.979	1.465	0.080
Patient's ZIP Code is a Hot Spot (Getis-Ord $z > 1.96$)	70.0%	1.038	0.838	1.287	0.731
Patient's ZIP Code Childhood Poverty Rate	26.6% (mean)	1.005	1.000	1.009	0.061
Patient's ZIP Code is Top Quintile Population Density	79.5%	1.096	0.873	1.376	0.430

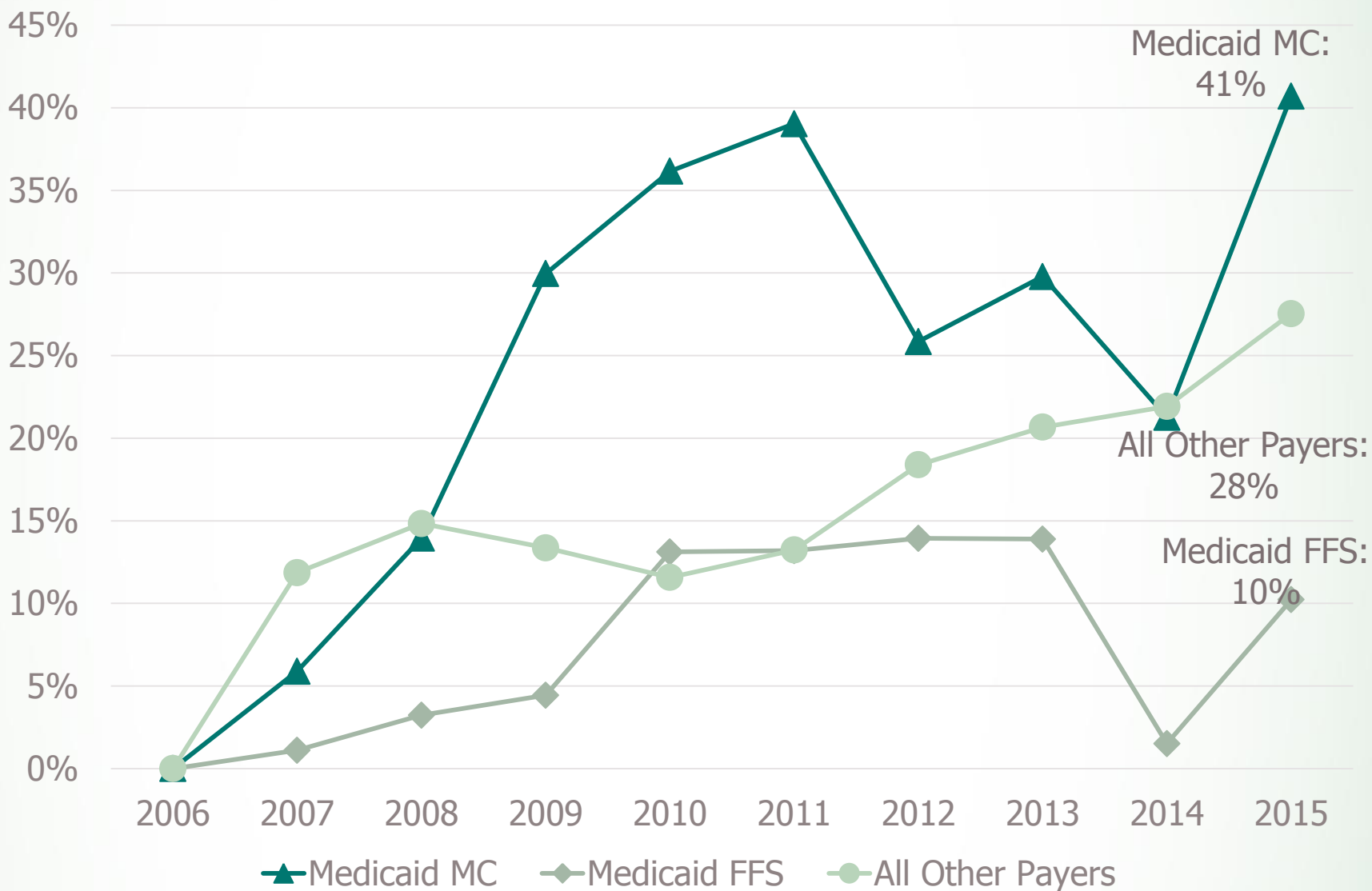
$n = 11,259$ $C = 0.60$

Full results available at: http://www.mhanet.com/mhaimages/hidihealthstats/Asthma_HealthStats_0615.pdf

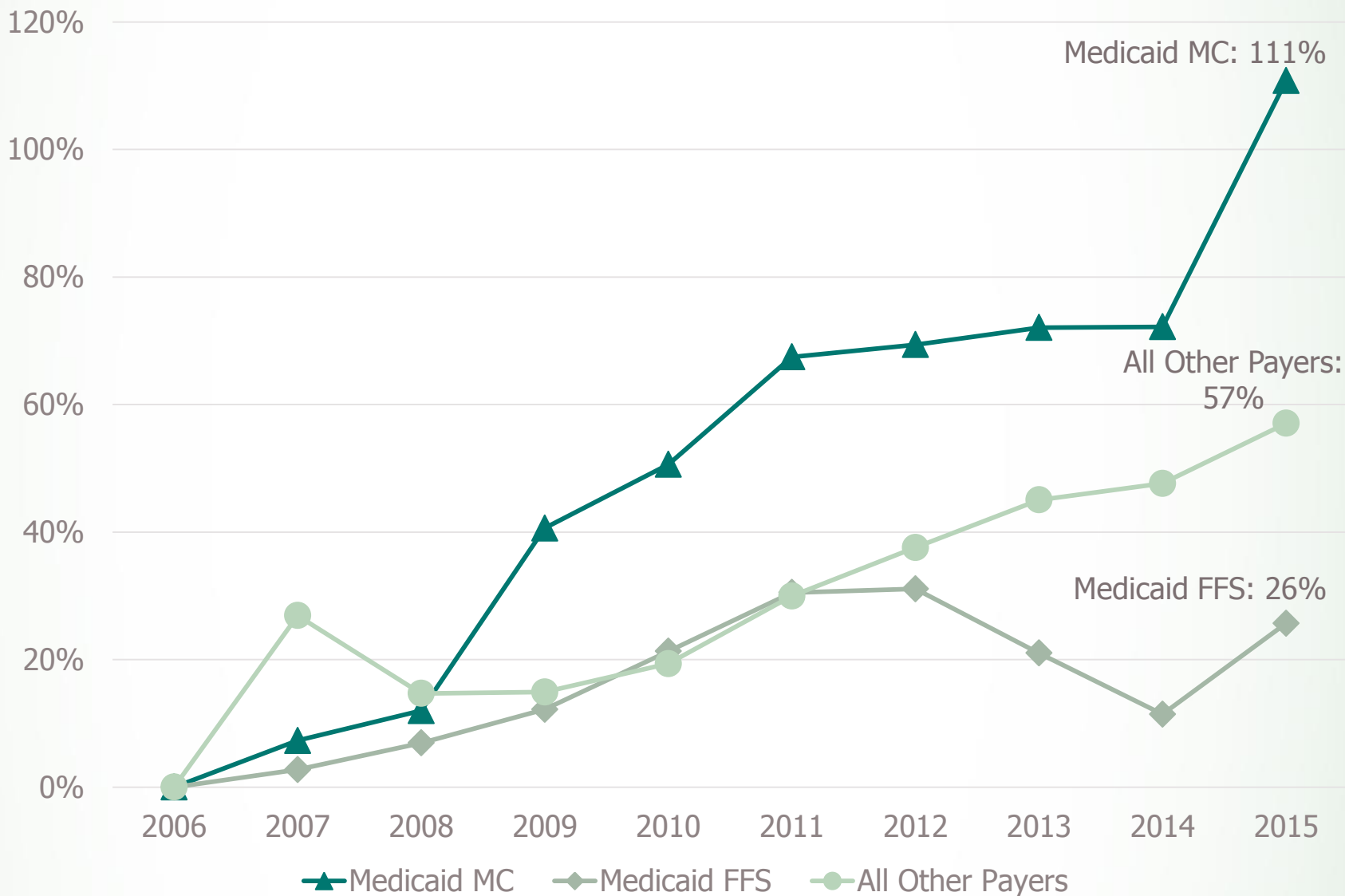
Medicaid Utilization

FY 2015

Total ED Visits for Missouri Patients by Payer: 10-yr Cumulative Percent Change

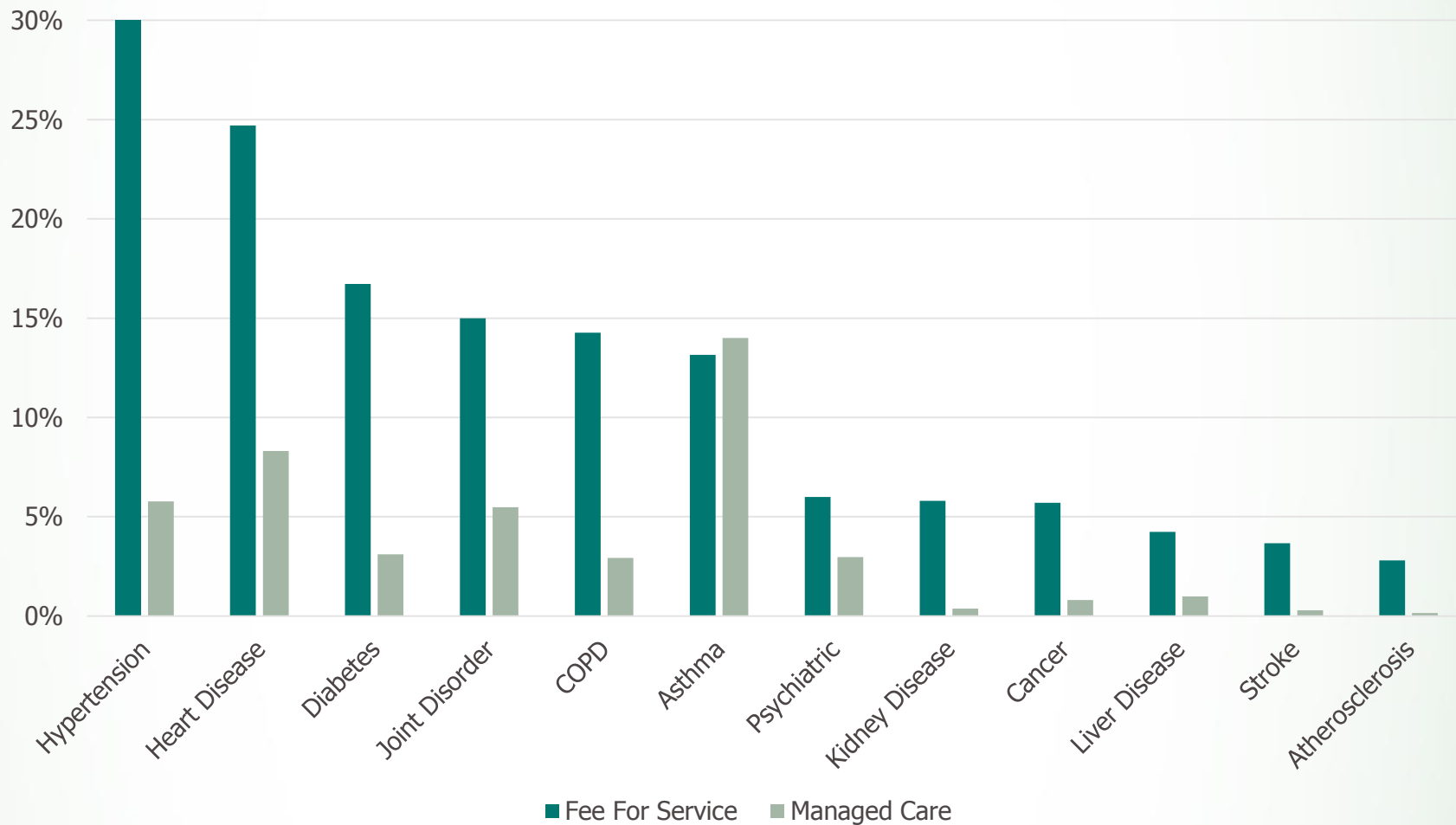


Psychiatric and Substance Abuse ED Visits for Missouri Patients by Payer: 10-yr Cumulative Percent Change



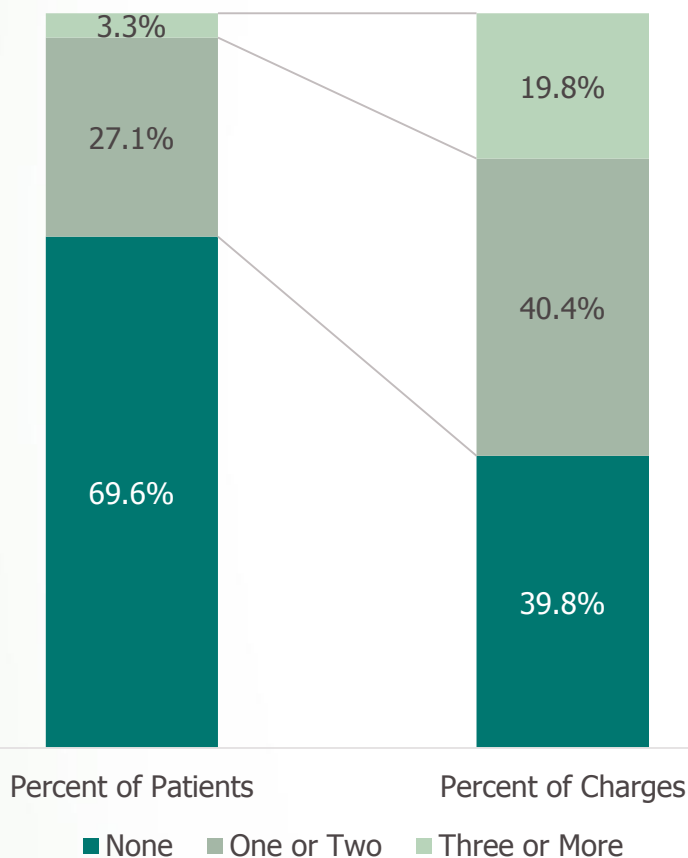
Percent of All Patients with Select Chronic Conditions

FY 2015 Prevalence of Chronic Conditions for Medicaid Hospital Inpatient and ED Patients in Missouri: Managed Care Compared to Fee For Service

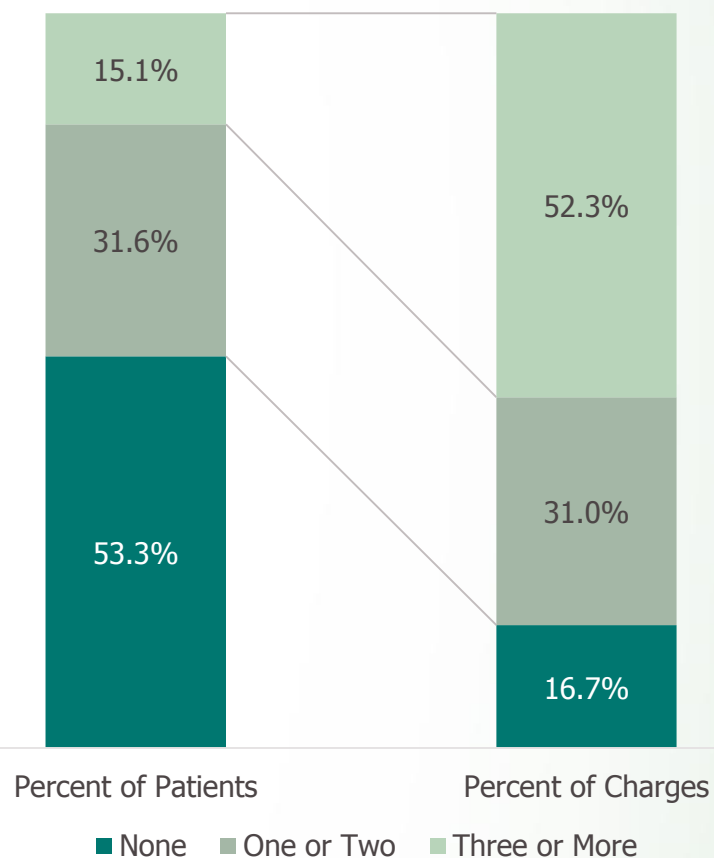


Chronic diseases a major driver: 30% of Managed Care patients diagnosed with one or more chronic disease accounted for 60% of hospital spending. 47% of Fee For Service patients with chronic disease accounted for 83% of hospital spending.

FY 2015 Distribution of Charges by Number of Chronic Conditions for Medicaid Managed Care Hospital Inpatient and ED Patients in Missouri

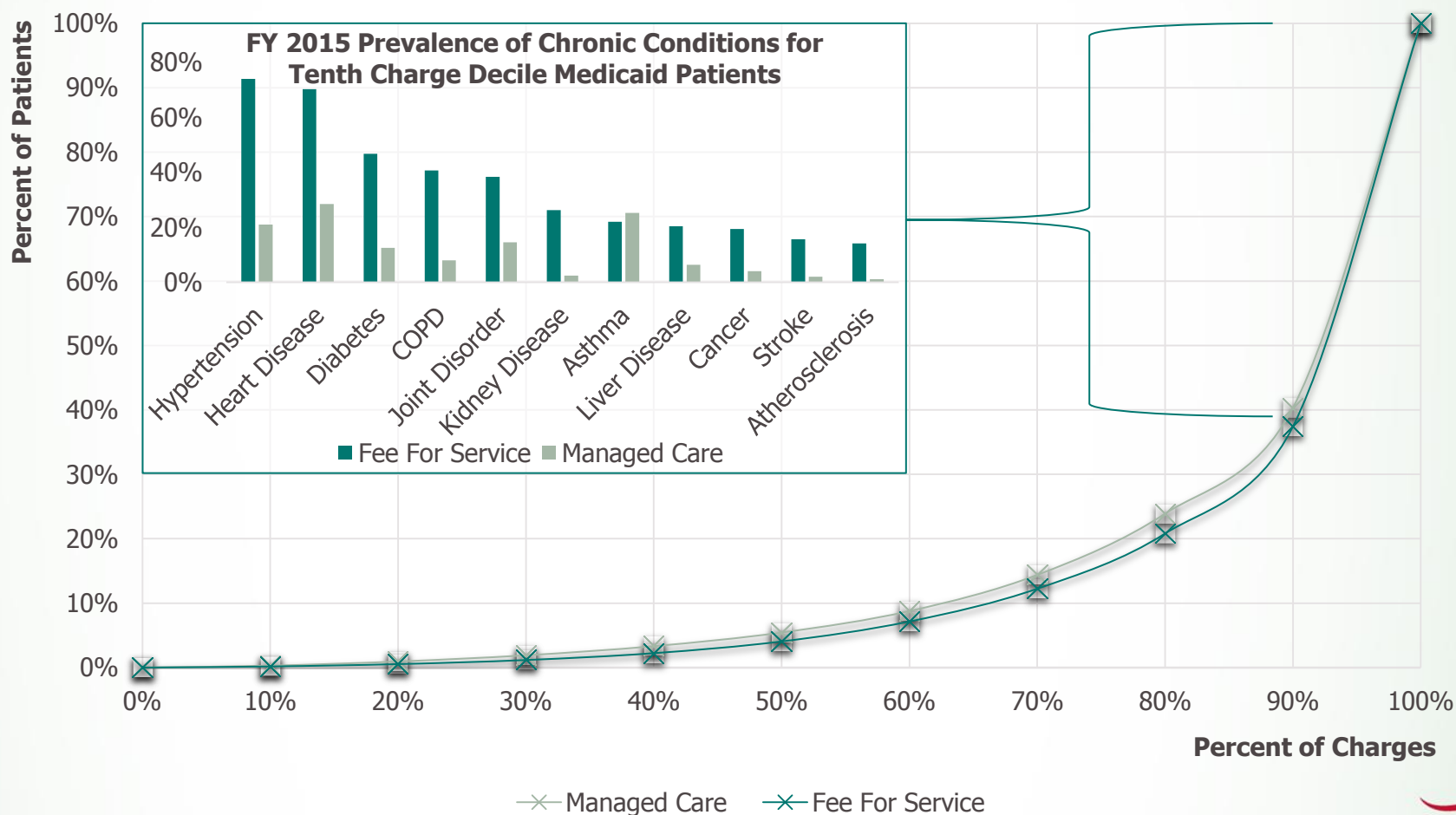


FY 2015 Distribution of Charges by Number of Chronic Conditions for Medicaid Fee For Service Hospital Inpatient and ED Patients in Missouri



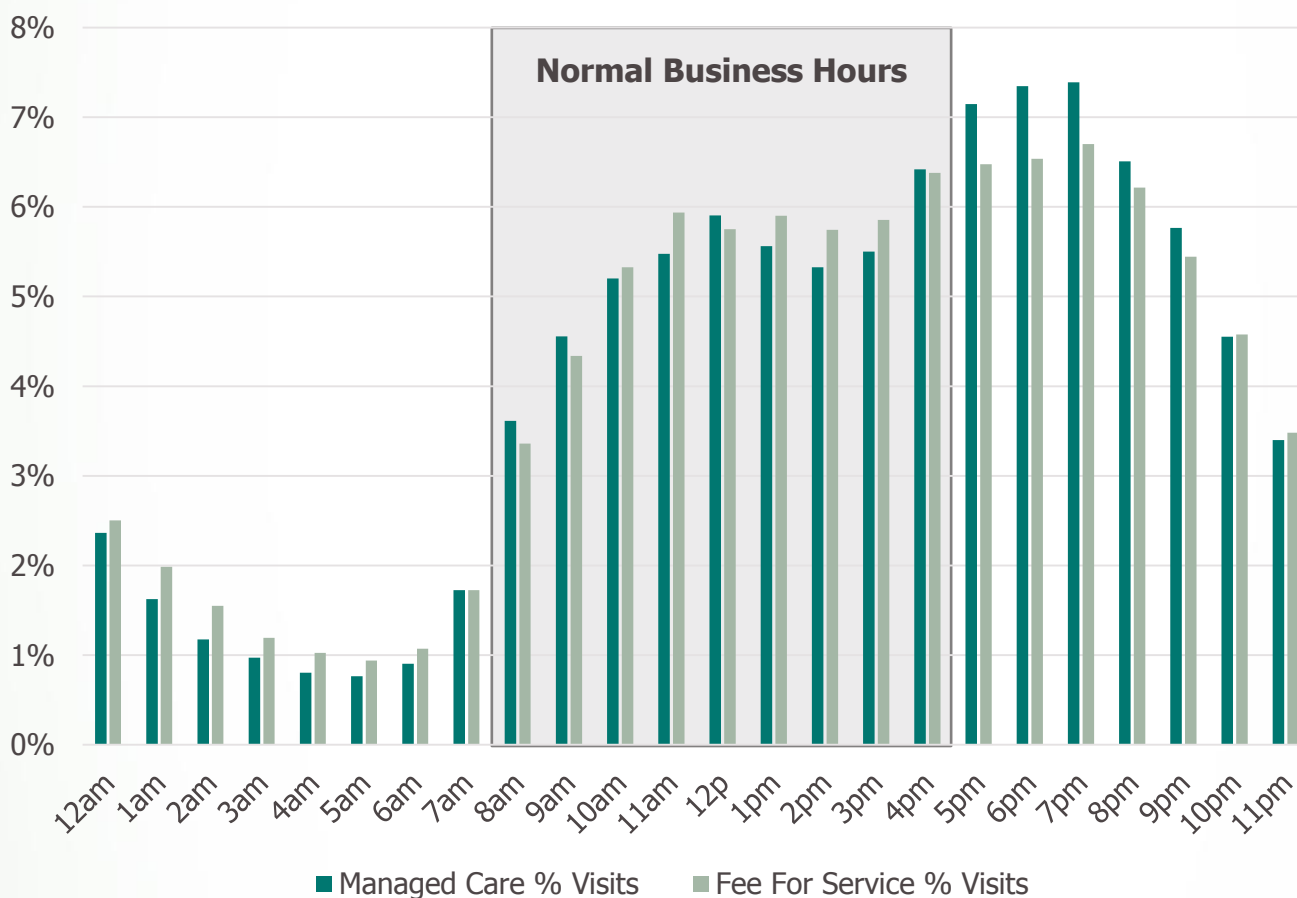
Distribution of patients by charges: 10% of Managed Care patients account for 60% of hospital spending; 10% of Fee For Service patients account for 63% of hospital spending. Prevalence of chronic disease significantly higher in Fee For Service population.

FY 2015 Distribution of Hospital Inpatient and ED Charges by Patient Deciles for Medicaid in Missouri

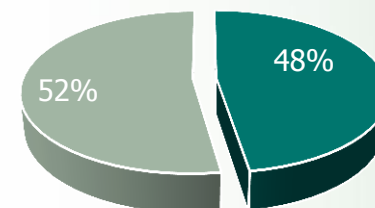


Timing of Medicaid treat-and-release ED visits: Majority of visits occur after hours (5 pm to 7:59 am). Highest-volume hours between 5 and 8 pm.

FY 2015 Hourly Occurrence of Medicaid Treat and Release ED Visits

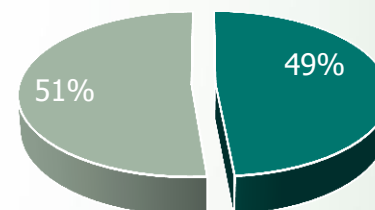


Managed Care



■ During Business Hours
■ After Hours

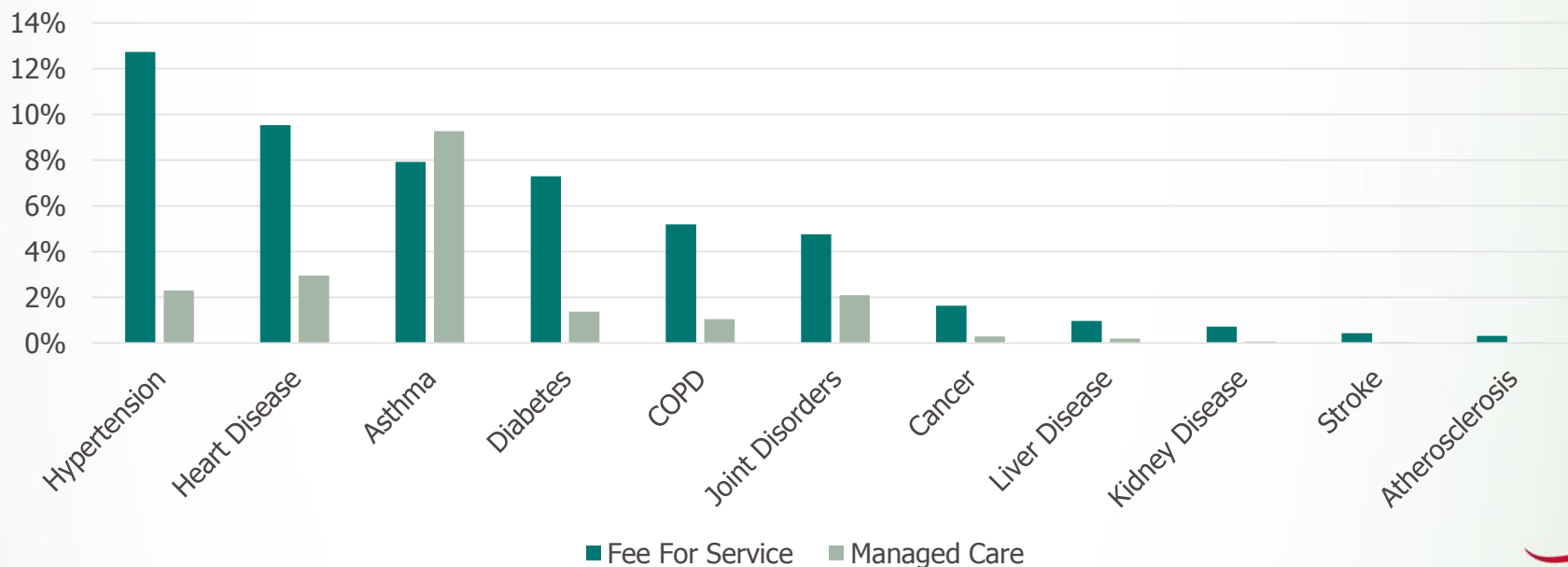
Fee For Service



Profile of Medicaid after hours treat-and-release ED visits by demographics and prevalence of chronic conditions.

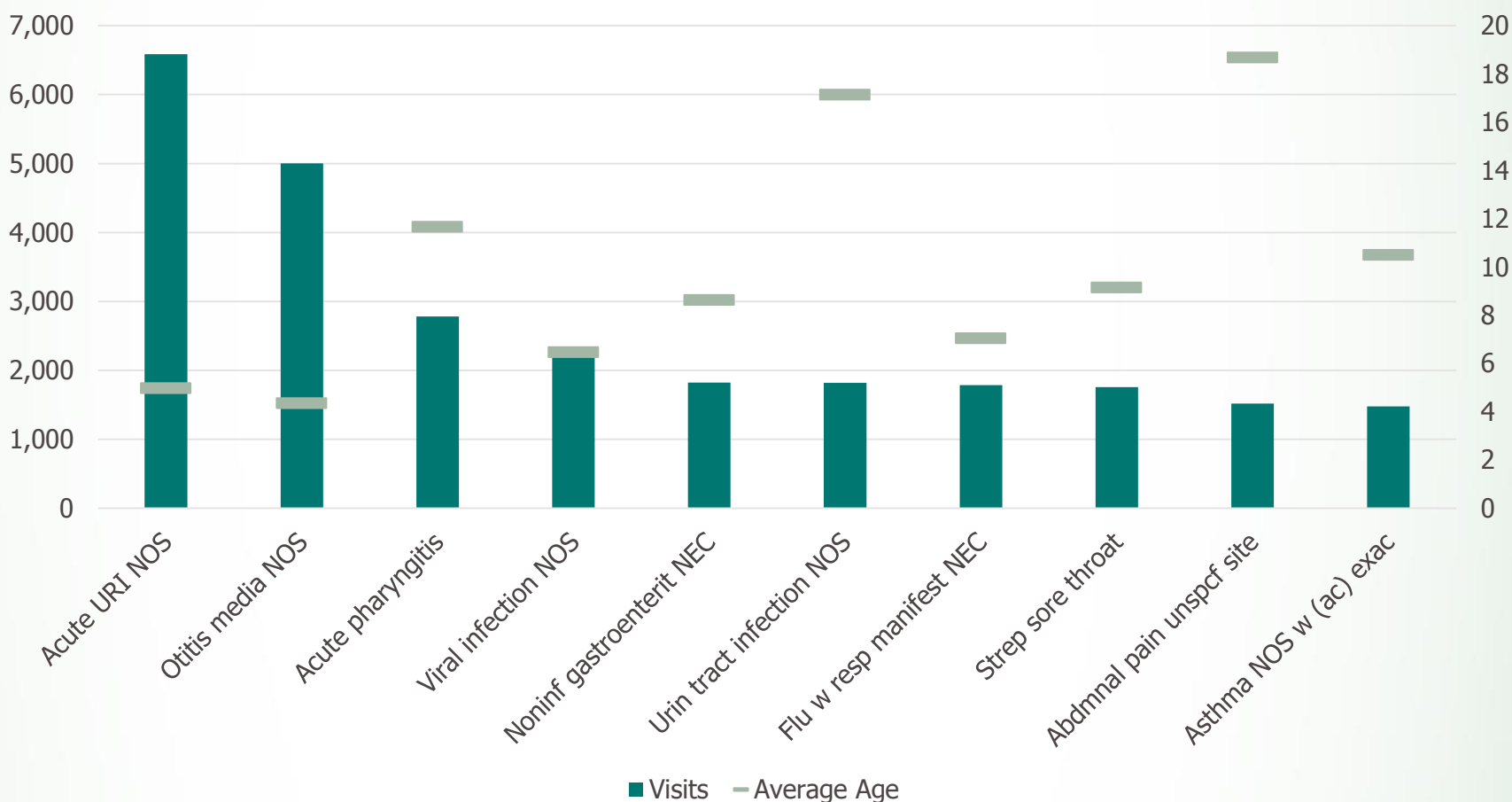
	Managed Care	Fee For Service
Number of Visits	94,437	120,507
Average Age	12.5	25.6
Percent White	60.5%	81.3%
Percent Non-White	39.5%	18.7%
Percent Male	40.8%	39.1%

FY 2015 Medicaid After Hours Treat and Release ED Visits: Percent with Chronic Disease Diagnoses



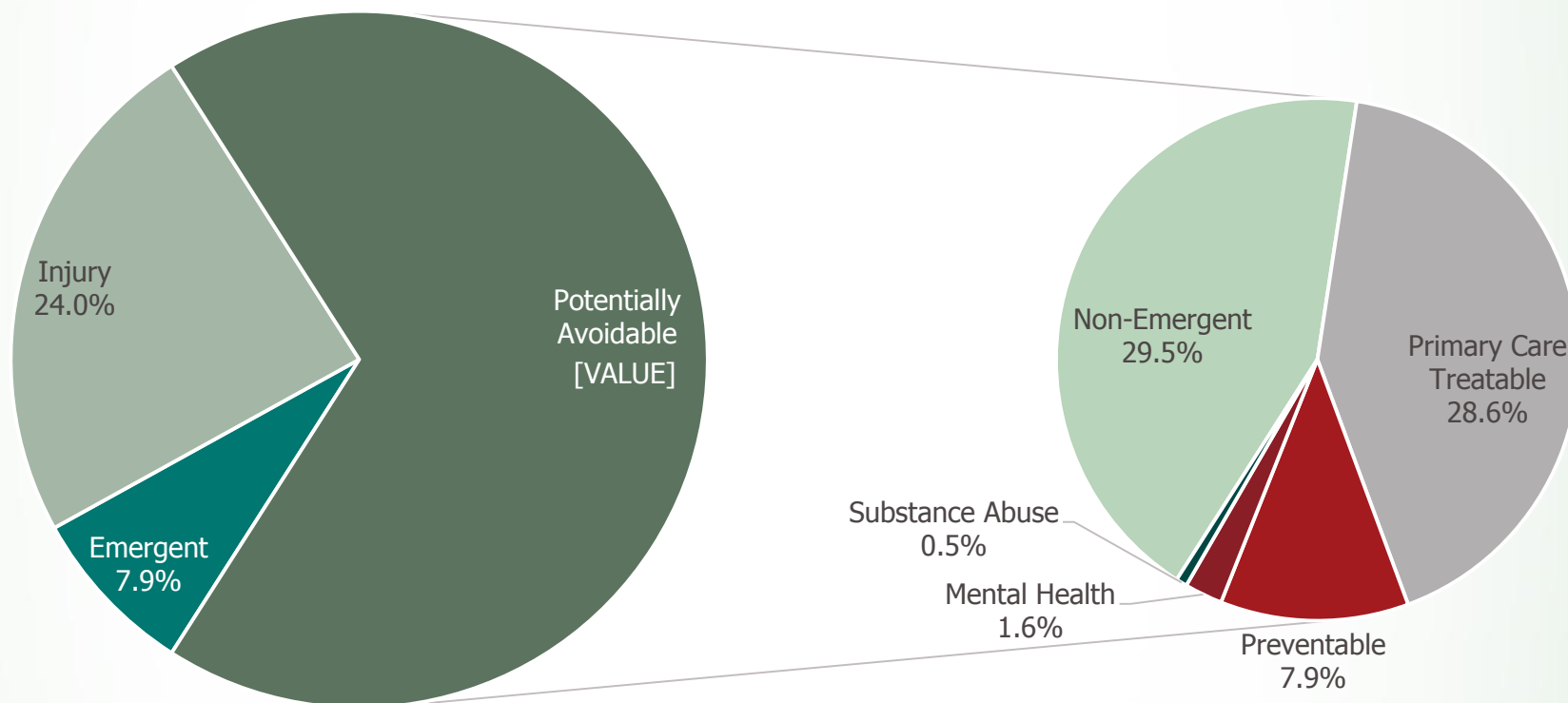
Profile of Medicaid Managed Care after hours treat-and-release ED visits—ten most common primary diagnoses by average age of patient.

FY 2015 Top Ten Primary Diagnoses by Age for Medicaid Managed Care After Hours Treat and Release ED Visits



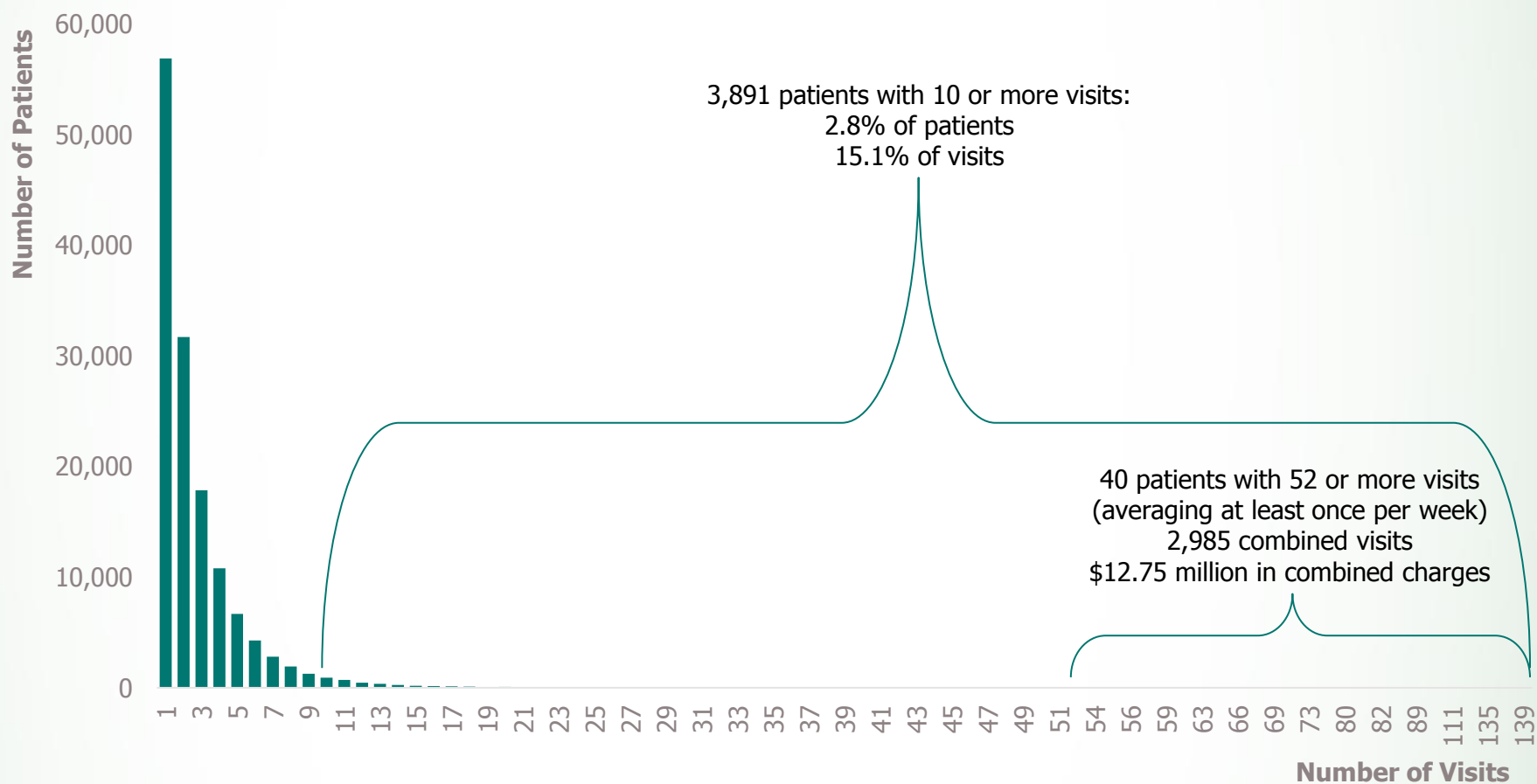
Profile of Medicaid Managed Care after hours treat-and-release ED visits—urgency of visits.

FY 2015 NYU ED Classification Algorithm Results for Medicaid Managed Care After Hours Treat and Release ED Visits



Medicaid Managed Care Hospital Superutilizers in Missouri

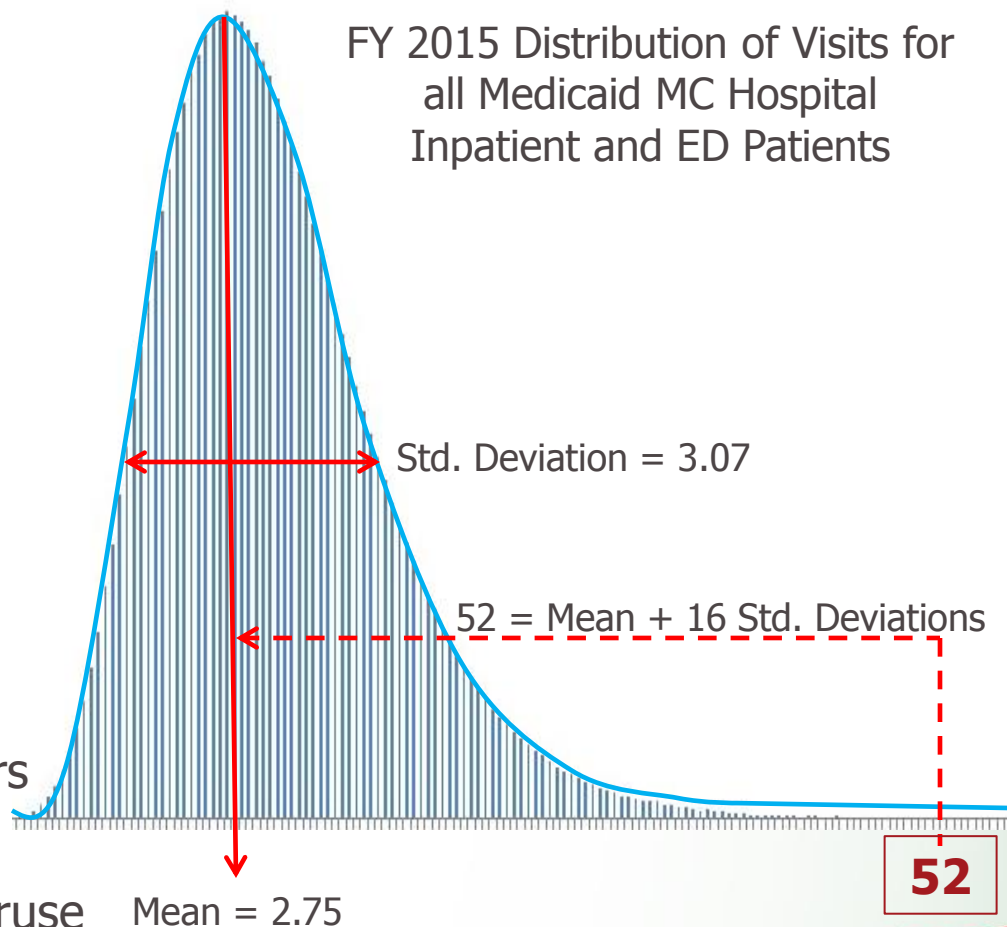
FY 2015 Distribution of Hospital Inpatient and ED Visits for Medicaid Managed Care Patients in Missouri



FY 2015 Profile of Extreme Medicaid Managed Care Superutilizers

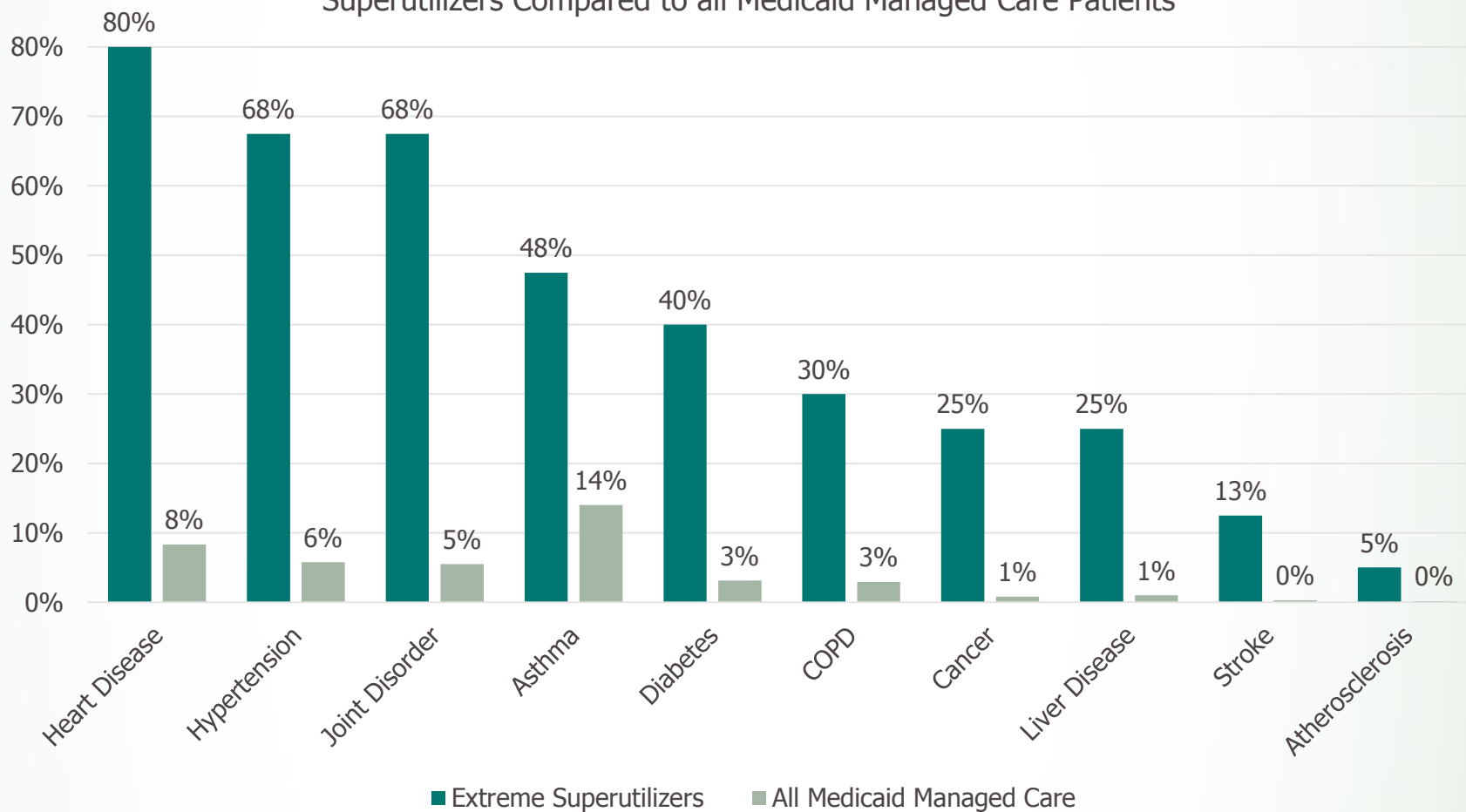
40 Medicaid MC Beneficiaries with 52 or more visits in 2015

- Total Charges: \$12,750,663
 - Average \$318,767
- 2,985 Total Visits (90% ED)
 - Average 75 per patient
 - Range 52-139
- Average Age 34.8
 - 57.5% female
 - 65% white
 - 35% African American
- 100% Have Chronic Conditions
 - Average 4 diagnoses per patient
- 93% Have Behavioral Risk Factors
 - Average 2.6 per patient
- 43% Hospitalized for Opioid Overuse



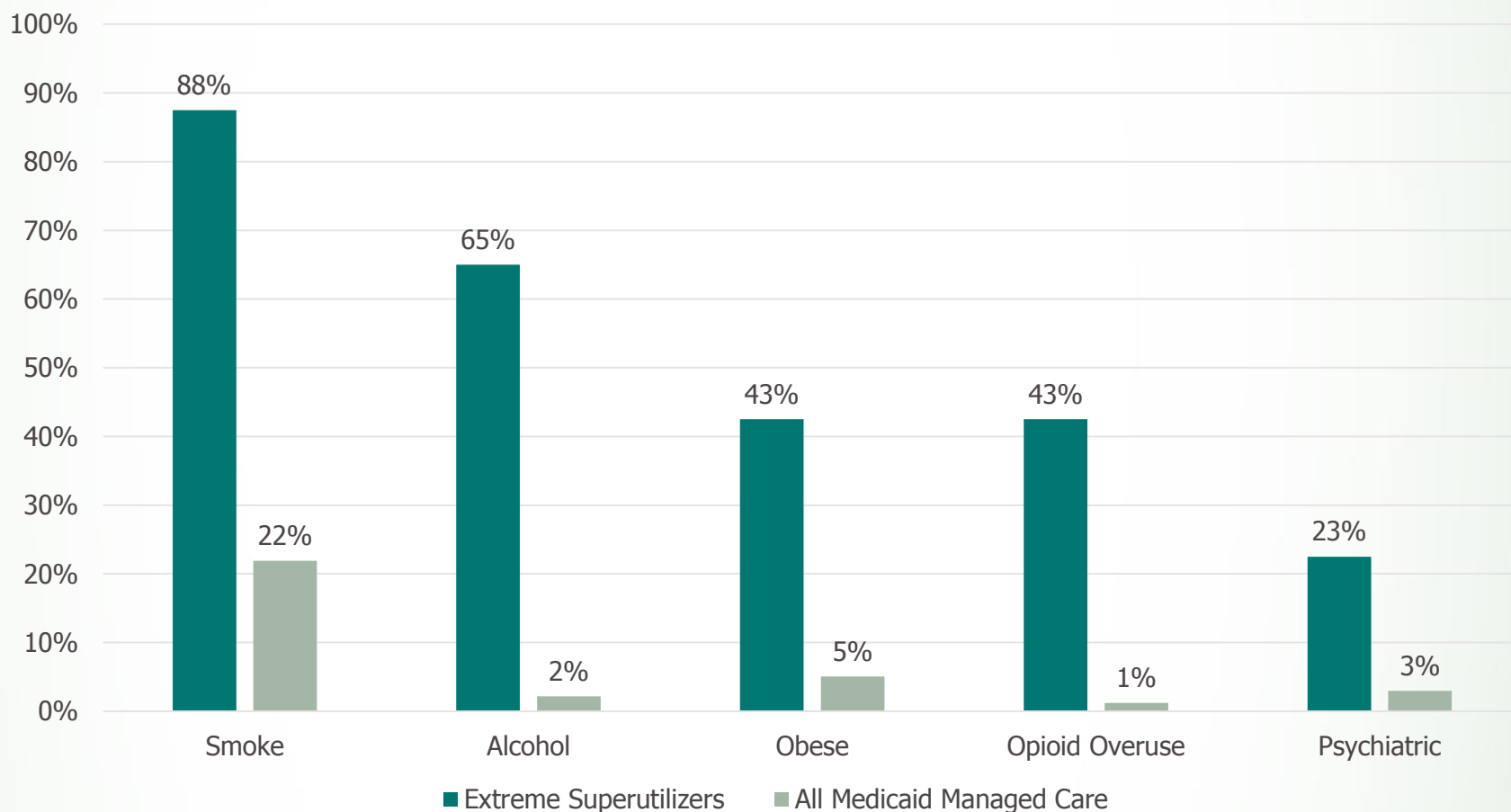
FY 2015 Profile of Extreme Medicaid Managed Care Superutilizers: Prevalence of Chronic Disease

FY 2015 Prevalence of Chronic Conditions: Extreme Medicaid Managed Care Superutilizers Compared to all Medicaid Managed Care Patients

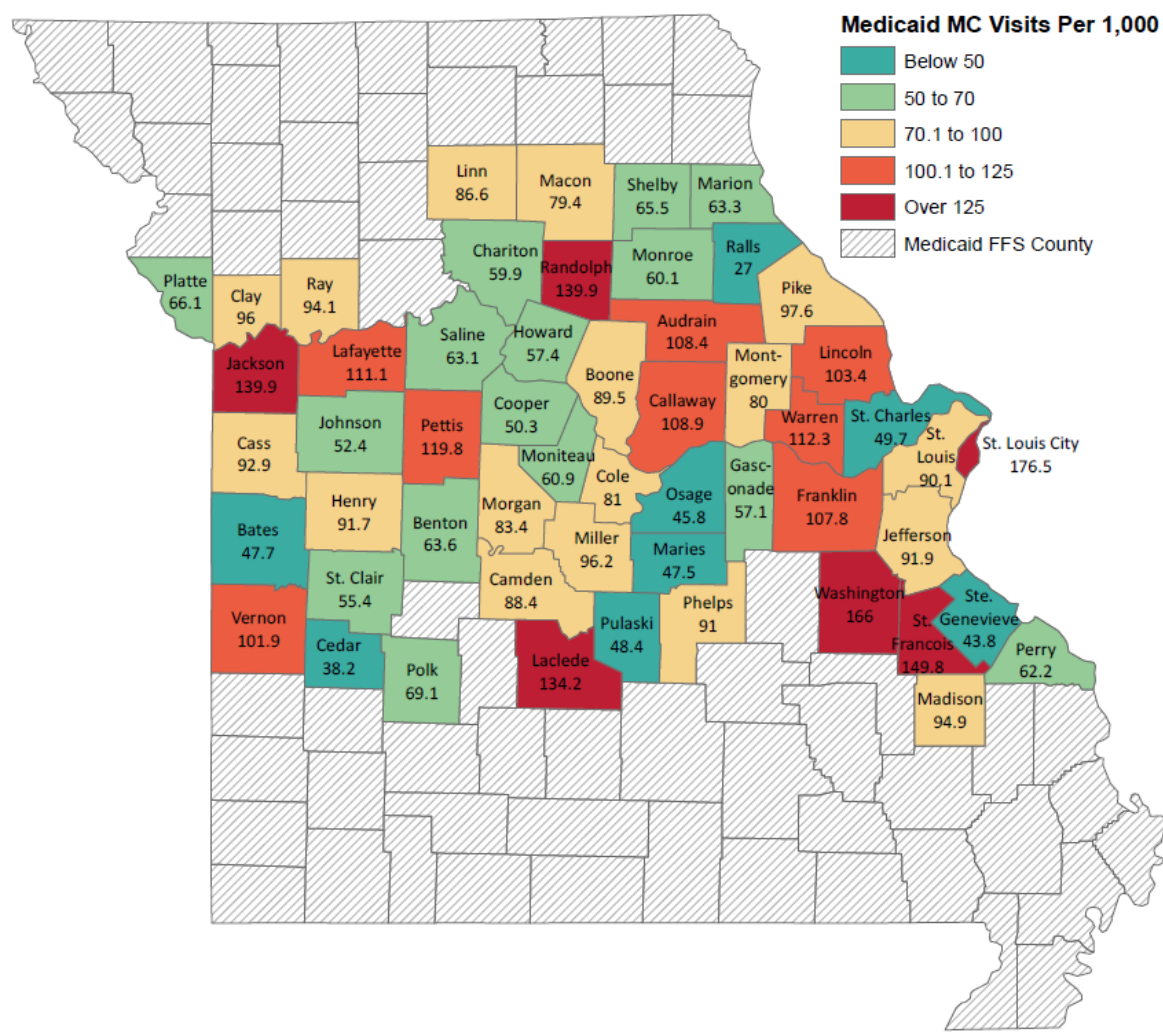


FY 2015 Profile of Extreme Medicaid Managed Care Superutilizers: Prevalence of Behavioral Risk Factors

FY 2015 Prevalence of Behavioral Risk Factors: Extreme Medicaid Managed Care Superutilizers Compared to all Medicaid Managed Care Patients



FY 2015 Medicaid Managed Care Hospital Inpatient and ED Utilization Hot Spots: County-Level Visits per 1,000 Population



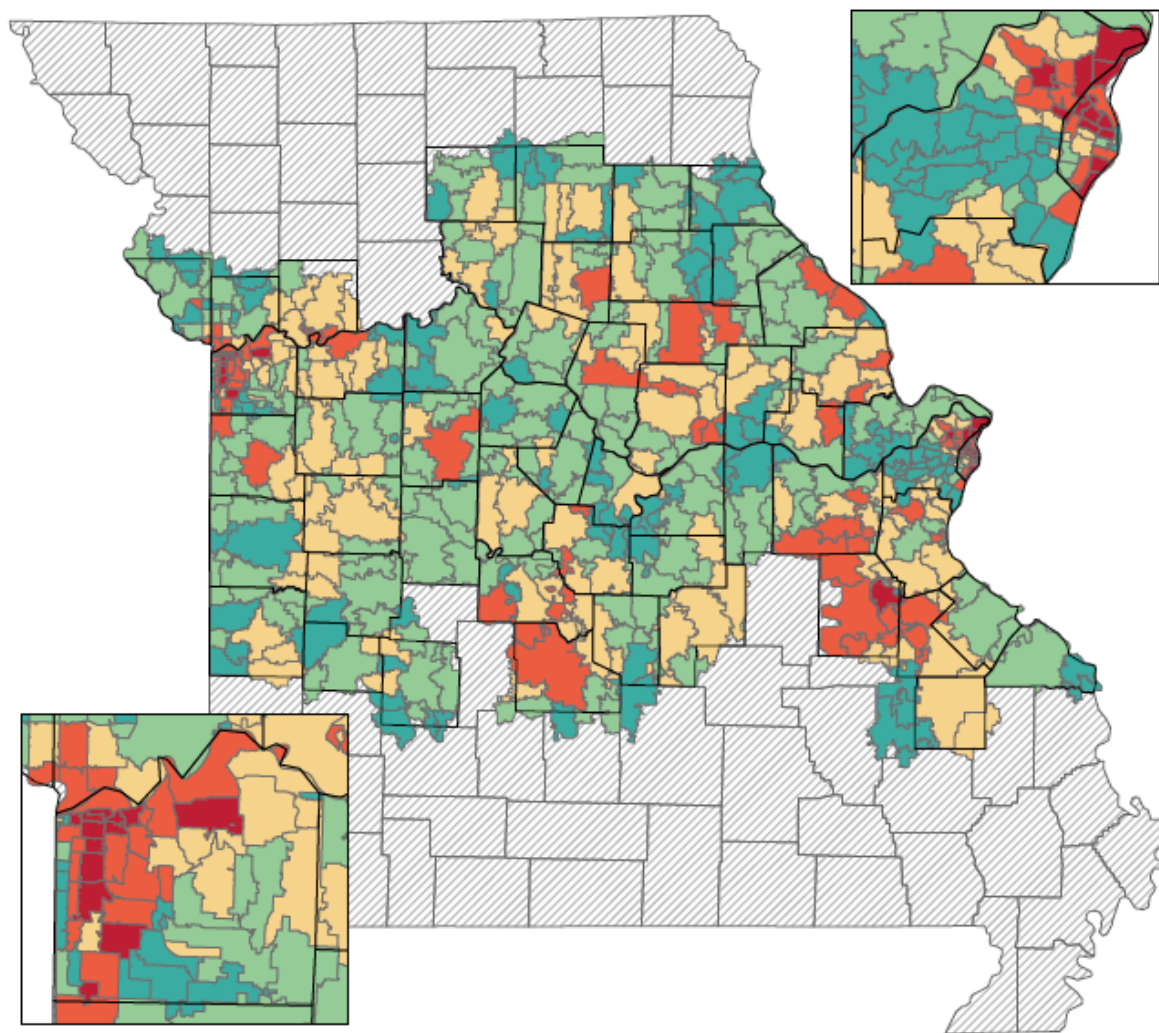
Highest Utilization Counties:

- St. Louis city
- Washington
- St. Francois
- Jackson (T)
- Randolph (T)
- Laclede

Lowest Utilization Counties:

- Ralls
- Cedar
- Ste. Genevieve
- Osage
- Maries

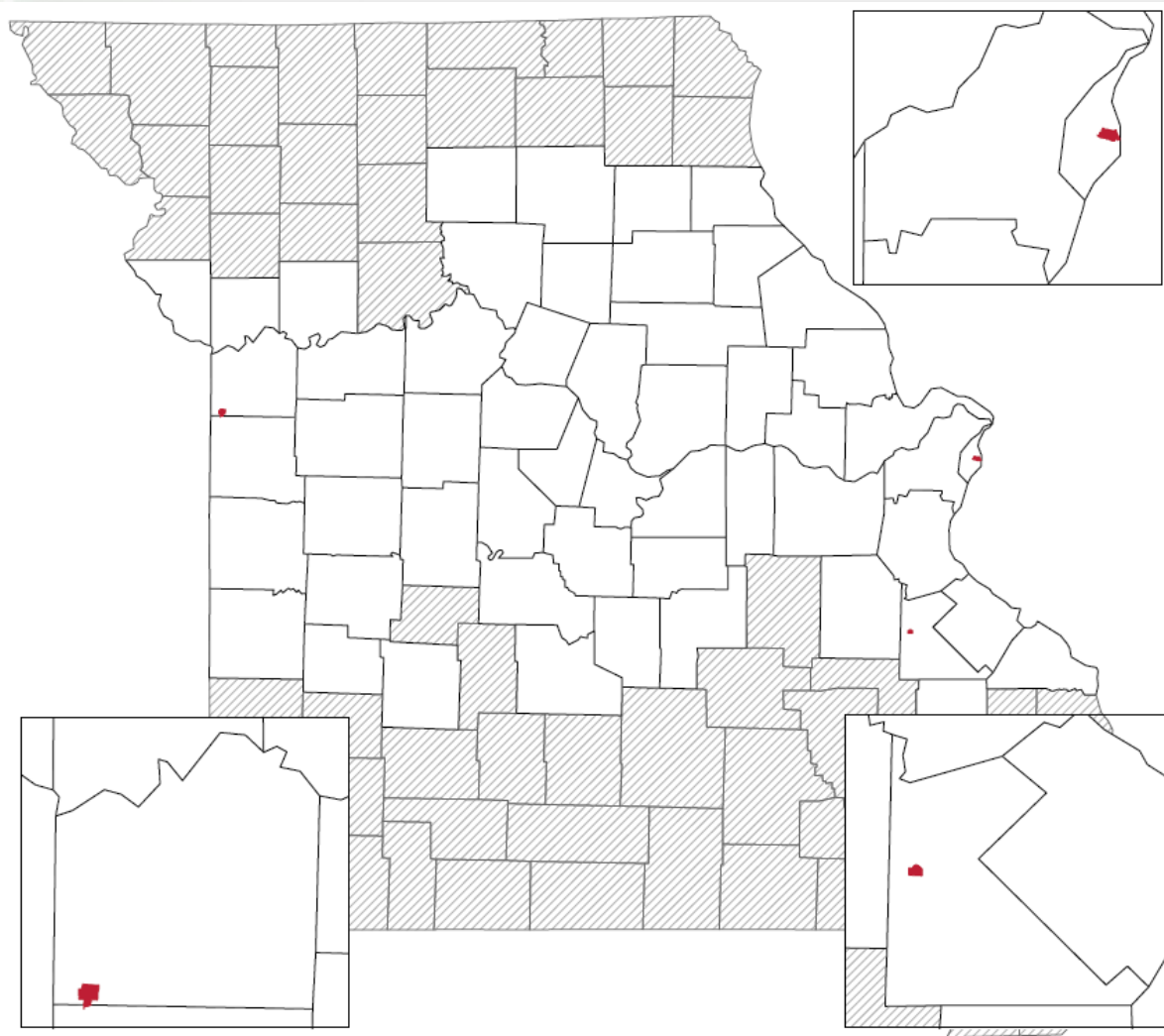
FY 2015 Medicaid Managed Care Hospital Inpatient and ED Utilization Hot Spots: ZIP-Level Visits per 1,000 Population



Three Hottest Spots:

- 64147 Kansas City
 - 721 per 1,000
- 63106 St. Louis Place
 - 403 per 1,000
- 63653 Leadwood
 - 379 per 1,000

FY 2015 Medicaid Managed Care Hospital Inpatient and ED Utilization Hot Spots: ZIP-Level Visits per 1,000 Population

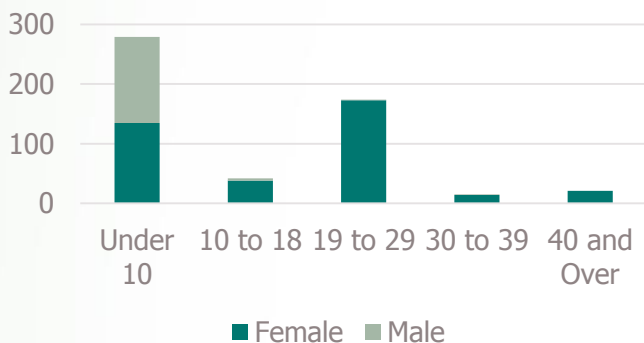


Three Hottest Spots:

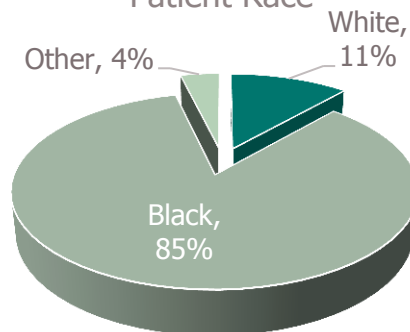
- 64147 Kansas City
 - 721 per 1,000
- 63106 St. Louis Place
 - 403 per 1,000
- 63653 Leadwood
 - 379 per 1,000

FY 2015 Medicaid Managed Care Profile of Hospital Inpatient and ED Visits From 64147: South Kansas City

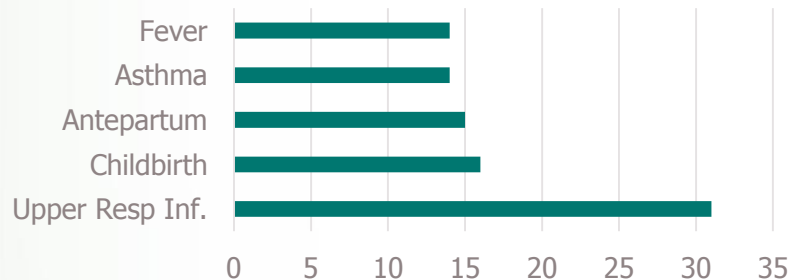
Patient Age and Gender



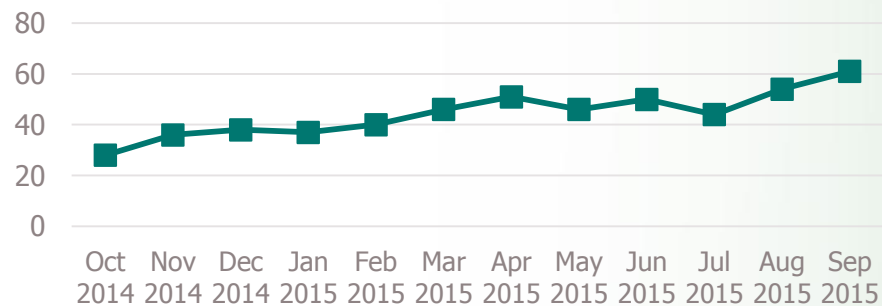
Patient Race



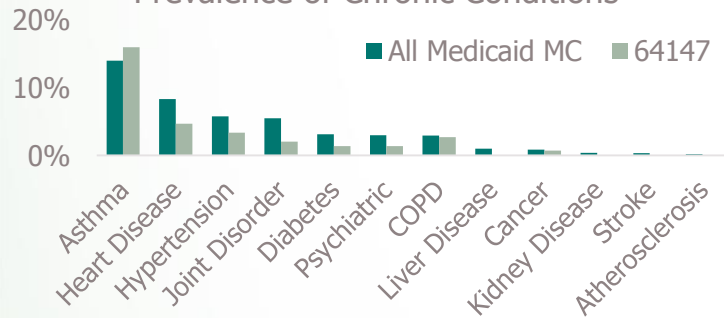
Top Five Primary Diagnoses



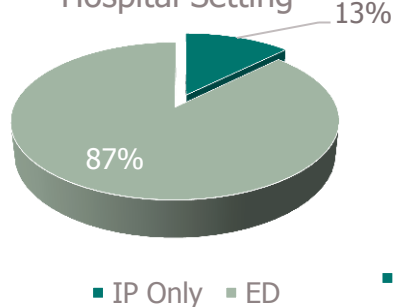
Monthly Occurrence



Prevalence of Chronic Conditions



Hospital Setting



Hourly Occurrence (ED)

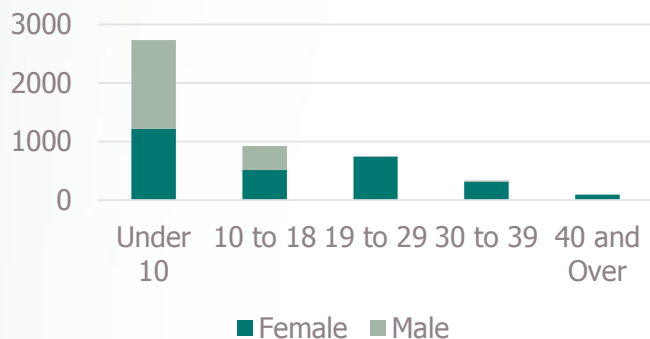
DATA UNAVAILABLE

■ IP Only ■ ED

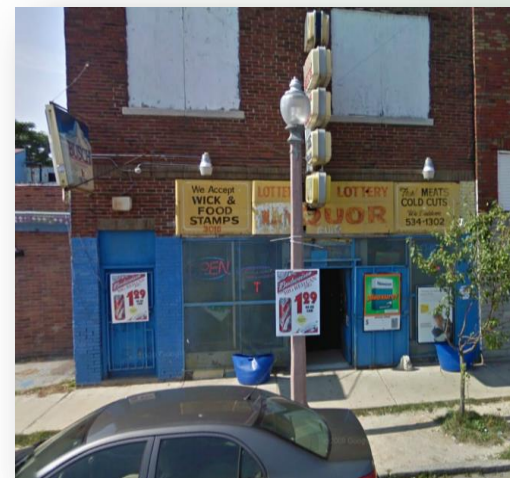
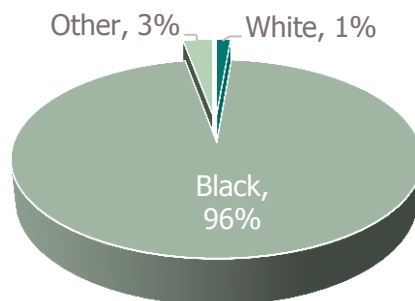
■ During Business Hours ■ After Hours

FY 2015 Medicaid Managed Care Profile of Hospital Inpatient and ED Visits From 63106: St. Louis Place

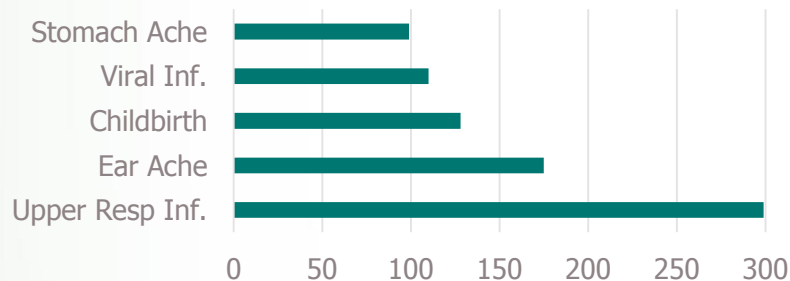
Patient Age and Gender



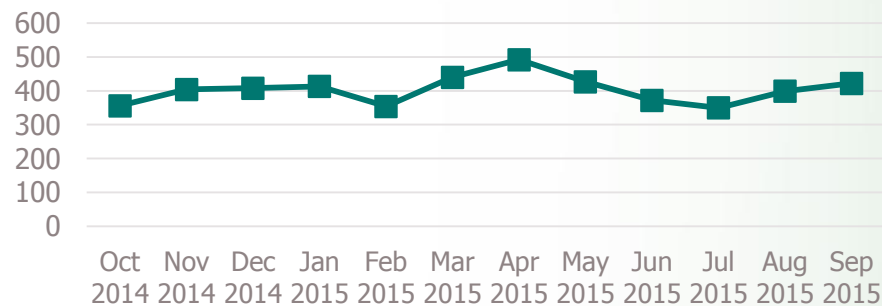
Patient Race



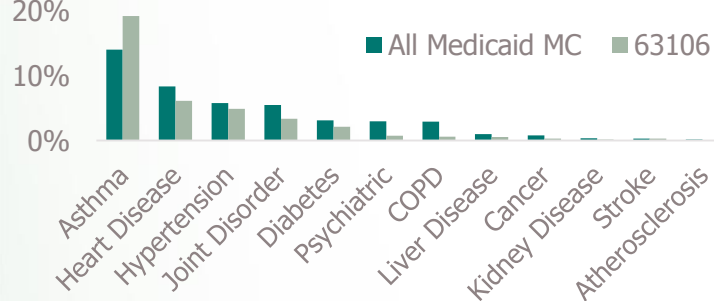
Top Five Primary Diagnoses



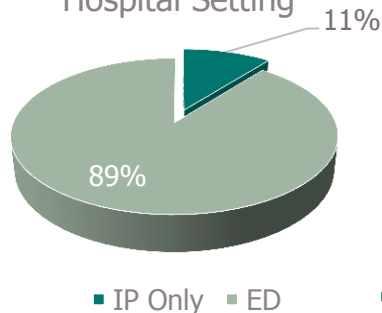
Monthly Occurrence



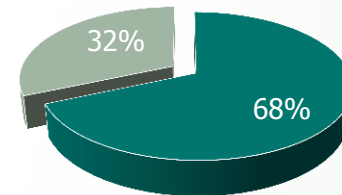
Prevalence of Chronic Conditions



Hospital Setting



Hourly Occurrence (ED)

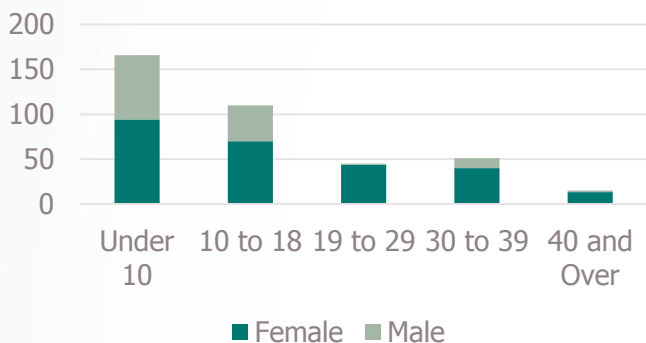


■ IP Only ■ ED

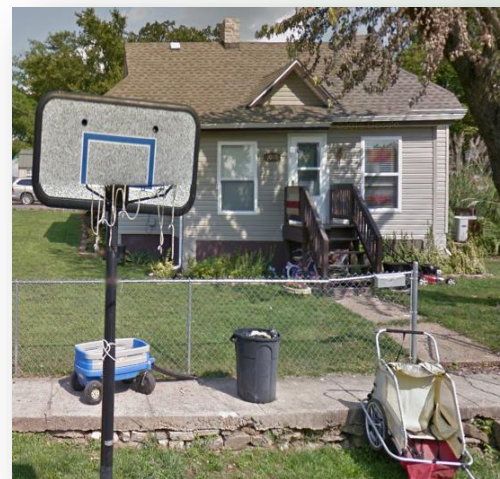
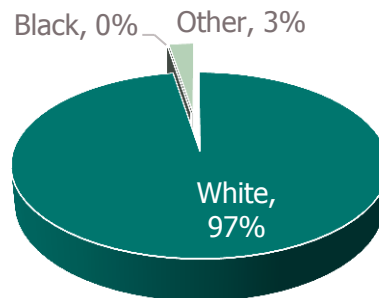
■ During Business Hours ■ After Hours

FY 2015 Medicaid Managed Care Profile of Hospital Inpatient and ED Visits From 63653: Leadwood, MO

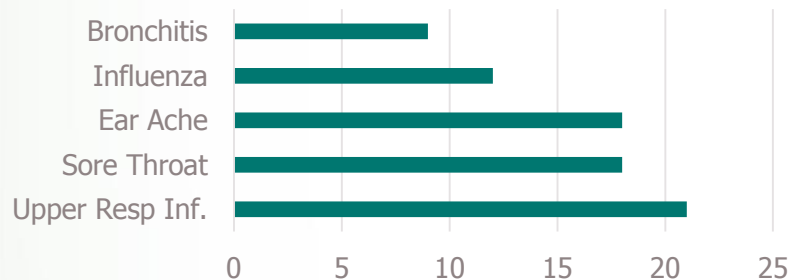
Patient Age and Gender



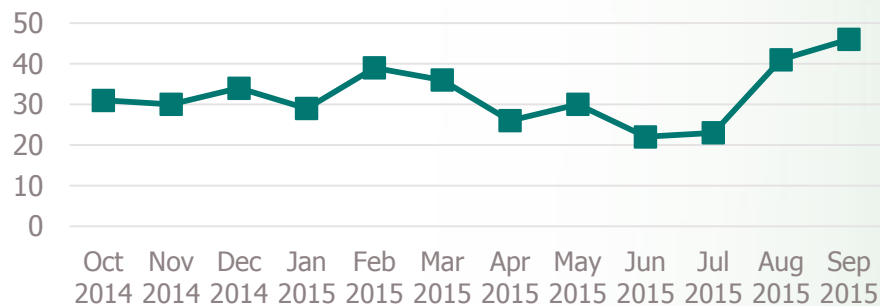
Patient Race



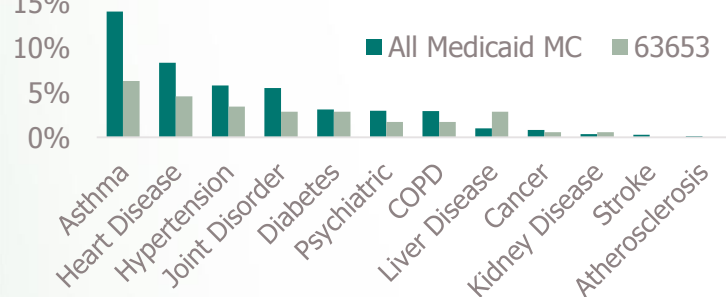
Top Five Primary Diagnoses



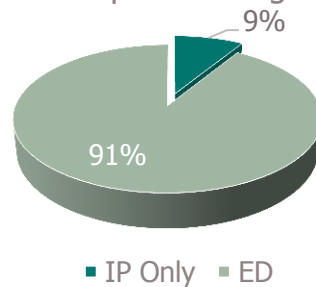
Monthly Occurrence



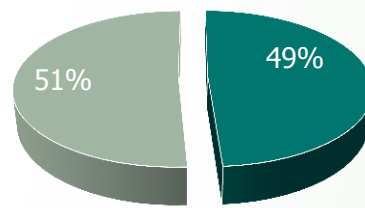
Prevalence of Chronic Conditions



Hospital Setting



Hourly Occurrence (ED)



■ IP Only ■ ED

■ During Business Hours ■ After Hours