

OHC Region Primary Data Findings

ED by Top 20 Patient Home Zip Codes

There are 14 Emergency Departments (ED) in the OHC Region. Below are the top 20 patient home zip codes for each Community.

Branson			
Zip	City	State	Percent
65616	Branson	Missouri	25.7%
72616	Berryville	Missouri	8.2%
65672	Hollister	Missouri	6.9%
65737	Reeds Spring	Missouri	5.1%
65653	Forsyth	Missouri	4.7%
65740	Rockaway Beach	Missouri	4.7%
72638	Green Forest	Missouri	3.9%
65686	Kimberling City	Missouri	2.5%
65679	Kirbyville	Missouri	2.2%
65611	Blue Eye	Missouri	1.6%
65656	Galena	Missouri	1.6%
72601	Harrison	Arkansas	1.4%
72662	Omaha	Arkansas	1.2%
65681	Lampe	Missouri	1.1%
72632	Eureka Springs	Missouri	1.1%
65673	Hollister	Missouri	1.1%
65615	Branson	Missouri	1.0%
65680	Kissee Mills	Missouri	0.9%
72631	Eureka Springs	Missouri	0.9%
65739	Ridgedale	Missouri	0.8%
Remaining Zip Codes			23.2%
All ED			100.0%

Joplin			
Zip	City	State	Percent
64801	Joplin	Missouri	16.6%
64804	Joplin	Missouri	13.5%

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64836	Carthage	Missouri	12.3%
64850	Neosho	Missouri	11.0%
64870	Webb City	Missouri	5.3%
64834	Carl Junction	Missouri	2.5%
64865	Seneca	Missouri	2.2%
66739	Galena	Kansas	2.2%
66725	Columbus	Kansas	2.1%
64831	Anderson	Missouri	2.0%
66713	Baxter Springs	Kansas	1.9%
64844	Granby	Missouri	1.9%
64862	Sarcoxie	Missouri	1.5%
64843	Goodman	Missouri	1.5%
64835	Carterville	Missouri	1.4%
74354	Miami	Oklahoma	1.4%
64840	Diamond	Missouri	1.0%
64855	Oronogo	Missouri	0.8%
64755	Jasper	Missouri	0.8%
74363	Quapaw	Oklahoma	0.7%
Remaining Zip Codes			17.4%
Total			100.0%

Lebanon			
Zip	City	State	Percent
65536	Lebanon	Missouri	56.8%
65583	Waynesville	Missouri	5.6%
65556	Richland	Missouri	5.1%
65584	St Robert	Missouri	2.8%
65632	Conway	Missouri	2.6%
65722	Phillipsburg	Missouri	2.2%
65463	Eldridge	Missouri	1.5%
65667	Hartville	Missouri	1.4%
65662	Grovespring	Missouri	1.3%
65020	Camdenton	Missouri	1.3%
65567	Stoutland	Missouri	1.3%
65459	Dixon	Missouri	1.3%
65452	Crocker	Missouri	1.2%
65534	Laquey	Missouri	1.2%



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65713	Niangua	Missouri	1.1%
65706	Marshfield	Missouri	1.1%
65470	Falcon	Missouri	1.1%
65590	Long Lane	Missouri	0.8%
65552	Plato	Missouri	0.7%
65622	Buffalo	Missouri	0.6%
Remaining Zip Codes			9.1%
All ED			100.0%

Monett			
Zip	City	State	Percent
65605	Aurora	Missouri	17.5%
65708	Monett	Missouri	16.5%
65625	Cassville	Missouri	14.8%
65712	Mount Vernon	Missouri	5.9%
65734	Purdy	Missouri	4.8%
65647	Exeter	Missouri	3.9%
65723	Pierce City	Missouri	3.9%
65705	Marionville	Missouri	3.4%
65769	Verona	Missouri	3.3%
65745	Seligman	Missouri	3.1%
65633	Crane	Missouri	2.2%
65772	Washburn	Missouri	2.2%
65747	Shell Knob	Missouri	1.7%
64874	Wheaton	Missouri	1.3%
65707	Miller	Missouri	1.2%
65641	Eagle Rock	Missouri	0.8%
65610	Billings	Missouri	0.7%
64873	Wentworth	Missouri	0.6%
65756	Stotts City	Missouri	0.6%
64842	Fairview	Missouri	0.6%
Remaining Zip Codes			10.7%
All ED			100.0%

Mountain View			
Zip	City	State	Percent



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65548	Mountain View	Missouri	33.4%
65438	Birch Tree	Missouri	12.6%
65588	Winona	Missouri	12.1%
65793	Willow Springs	Missouri	9.5%
65571	Summersville	Missouri	6.6%
65775	West Plains	Missouri	4.9%
65466	Eminence	Missouri	4.4%
65606	Alton	Missouri	2.4%
65789	Pomona	Missouri	1.8%
63965	Van Buren	Missouri	1.2%
65479	Hartshorn	Missouri	1.0%
65711	Mountain Grove	Missouri	1.0%
63941	Fremont	Missouri	0.9%
65689	Cabool	Missouri	0.6%
65791	Thayer	Missouri	0.4%
65788	Peace Valley	Missouri	0.4%
65804	Springfield	Missouri	0.3%
65483	Houston	Missouri	0.2%
65560	Salem	Missouri	0.2%
65638	Trail	Missouri	0.2%
Remaining Zip Codes			Missouri
All ED			100.0%

Springfield			
Zip	City	State	Percent
65803	Springfield	Missouri	14.3%
65802	Springfield	Missouri	13.9%
65807	Springfield	Missouri	10.0%
65804	Springfield	Missouri	6.5%
65714	Nixa	Missouri	4.1%
65721	Ozark	Missouri	3.8%
65806	Springfield	Missouri	3.7%
65738	Republic	Missouri	2.7%
65706	Marshfield	Missouri	2.4%
65810	Springfield	Missouri	2.2%
65742	Rogersville	Missouri	1.5%
65781	Willard	Missouri	1.5%

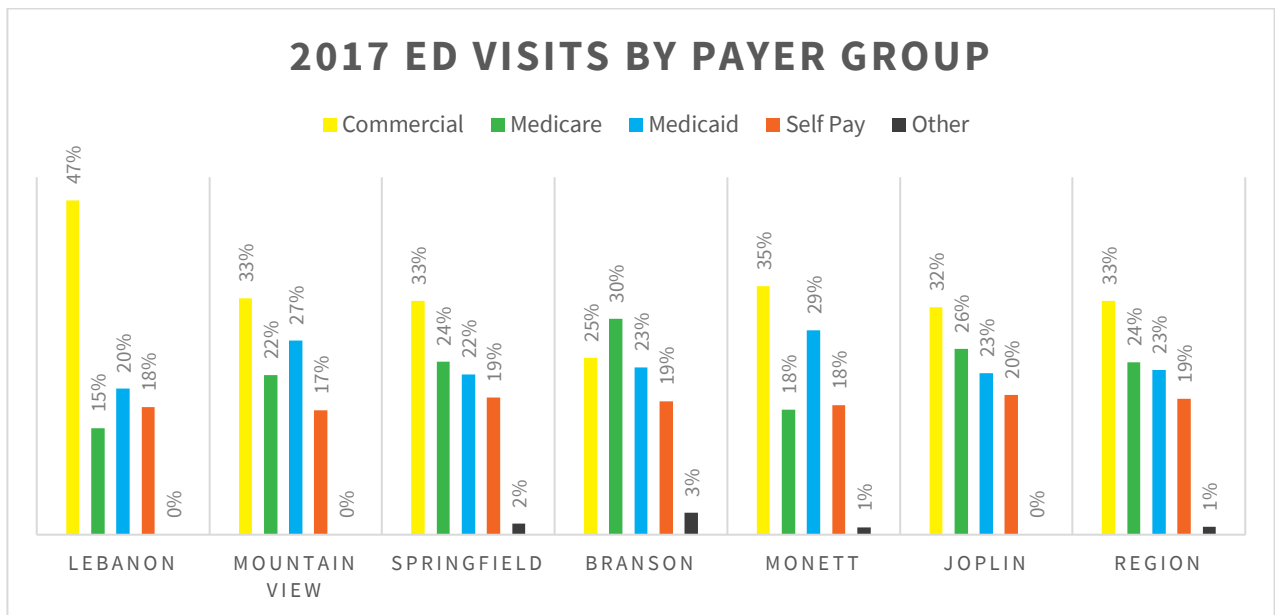


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65608	Ava	Missouri	1.3%
65757	Strafford	Missouri	1.1%
65809	Springfield	Missouri	1.1%
65746	Seymour	Missouri	1.0%
65619	Brookline	Missouri	1.0%
65536	Lebanon	Missouri	0.6%
65753	Sparta	Missouri	0.5%
65605	Aurora	Missouri	0.5%
Remaining Zip Codes			26.3%
All ED			100.0%

ED by Payer Group

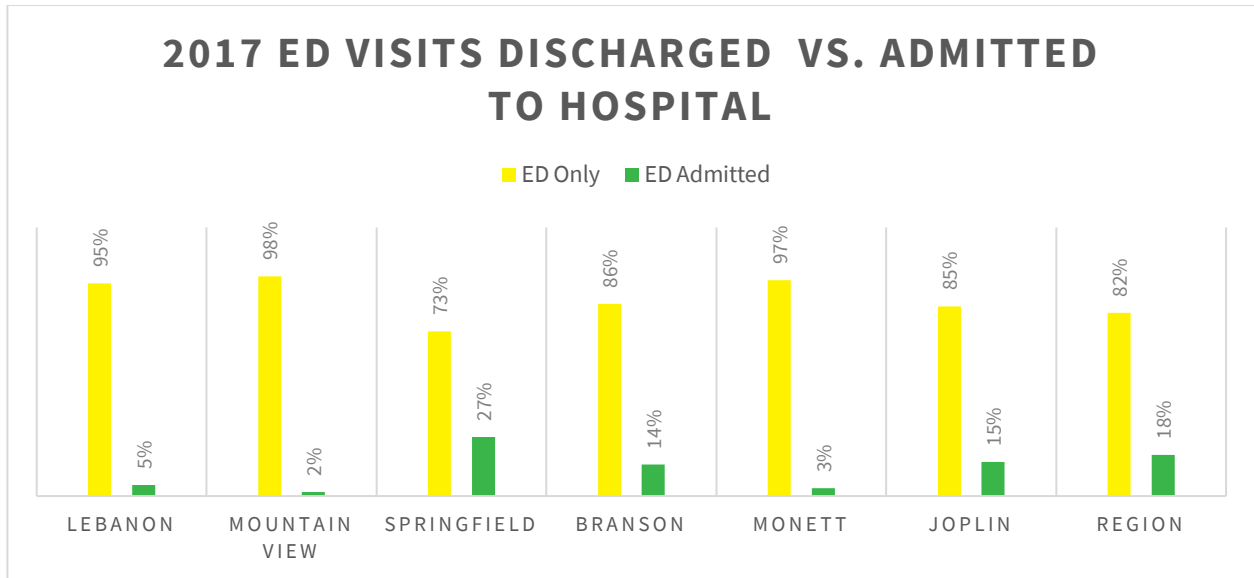
Of all ED patients, 33% had commercial insurance, 24% had Medicare, 23% had Medicaid, and 19% did not have health insurance. Understanding the payer mix of ED patients is important when assessing access to appropriate care in the community.



ED Only vs ED Admitted

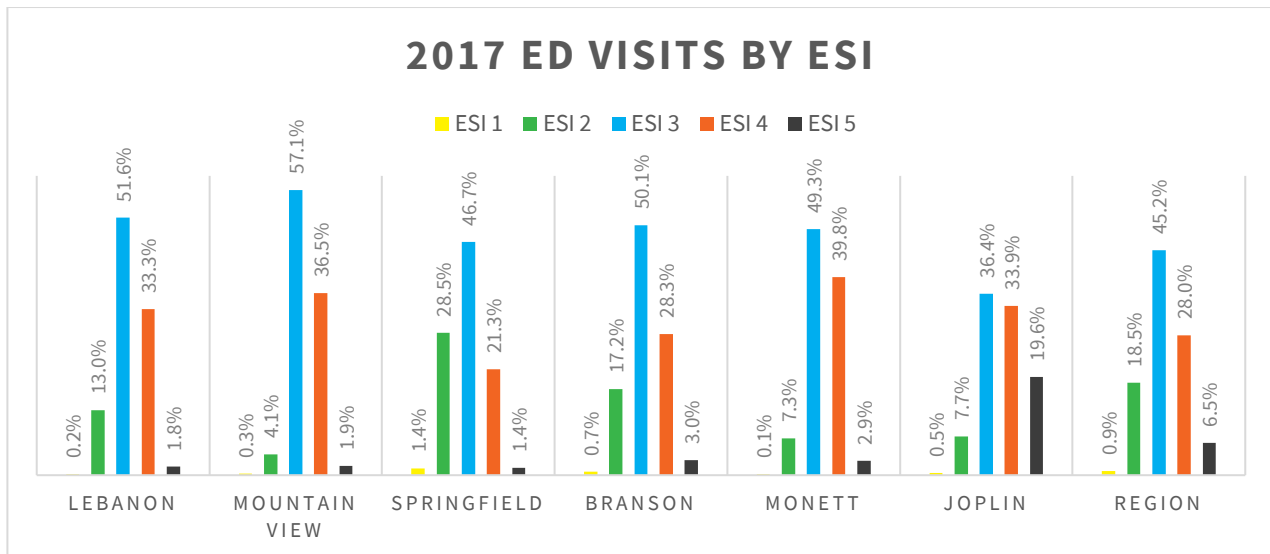
Approximately 82% of patients presenting to all OHC Region EDs were discharged after being treated, while 18% were admitted to the hospital. Generally, communities with major trauma centers will have higher admittance rates than communities with EDs that treat lower acuity injury and illness.





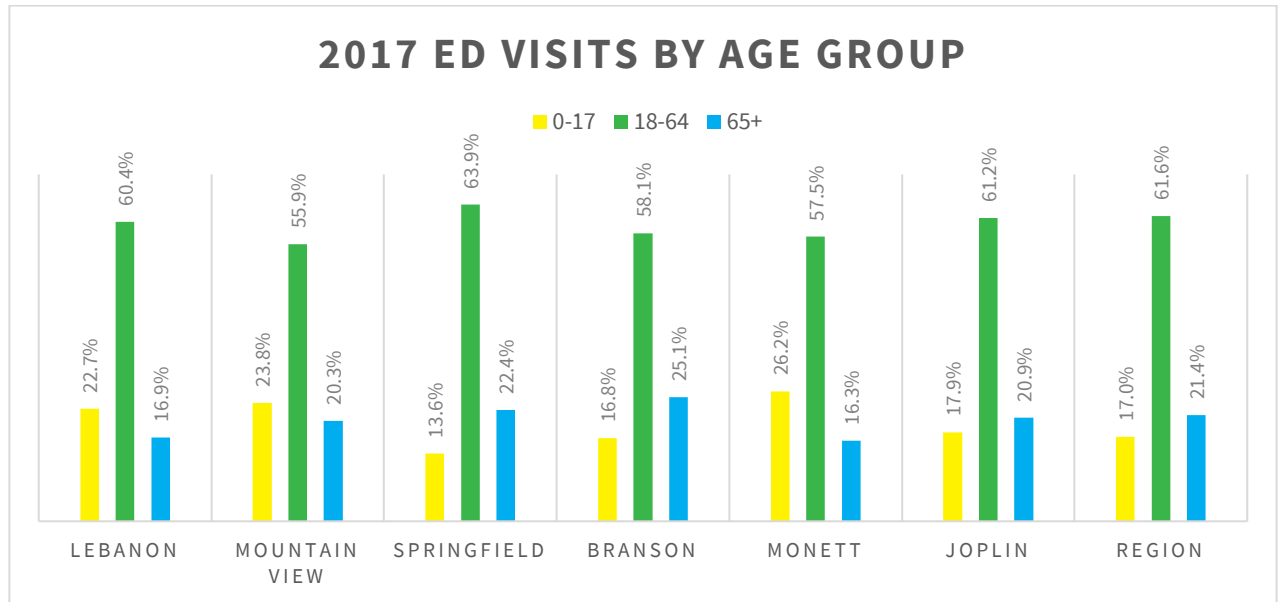
ED by Emergency Severity Index

The Emergency Severity Index (ESI) is a score assigned to a patient after being evaluated by a nurse shortly after entering the ED. A score of 1 indicates the highest acuity level, whereas a score of 5 indicates the lowest acuity level. For example, a minor, non-life-threatening laceration requiring stitches may receive an ESI of 5, whereas a patient experiencing cardiac arrest may receive an ESI of 1. Understanding the ESI breakdown of ED visits is helpful when assessing access to appropriate care in a community. Approximately, 0.9% of patients presenting to OHC Region EDs received an ESI of 1, 18.5% received ESI of 2, 45.2% received an ESI of 3, 28% received an ESI of 4, and 6.5% received an ESI of 5.



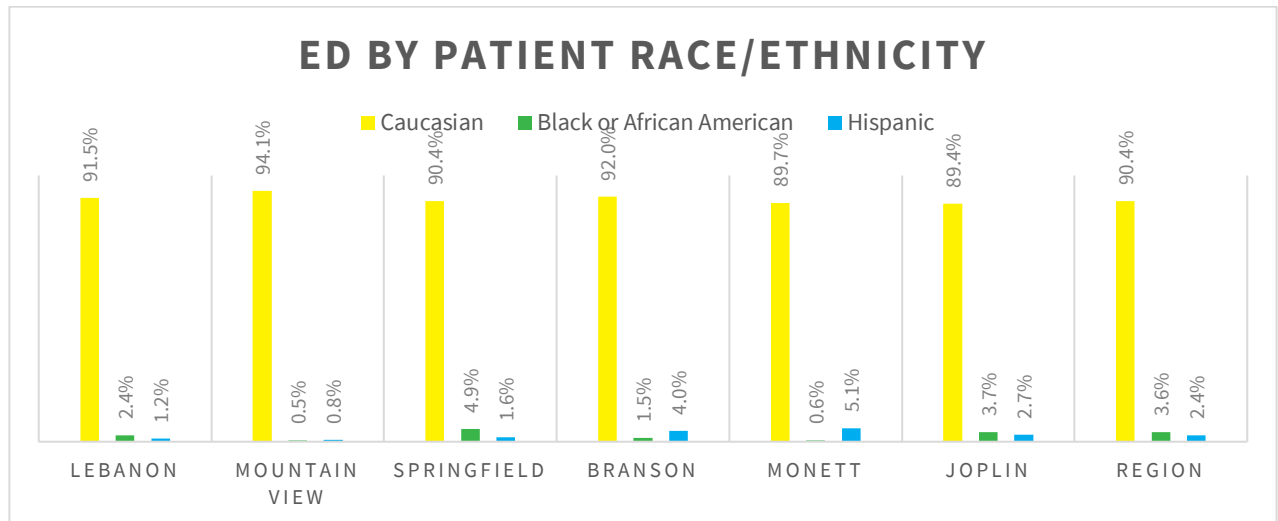
ED by Age Groups

Three age groups were evaluated: 0-17, 18-64, and 65 and older. In the OHC Region, 61.6% of ED patients are between 18 to 64 years of age. Children 0-17 years of age account for 17% of ED visits. The presentation of people 65 years and older in the OHC Region is 21.4%.



ED by Patient Race/Ethnicity

In the OHC Region, approximately 90% of ED patients are Caucasian, 4% are Black or African American, and 3% are Hispanic or multiracial.



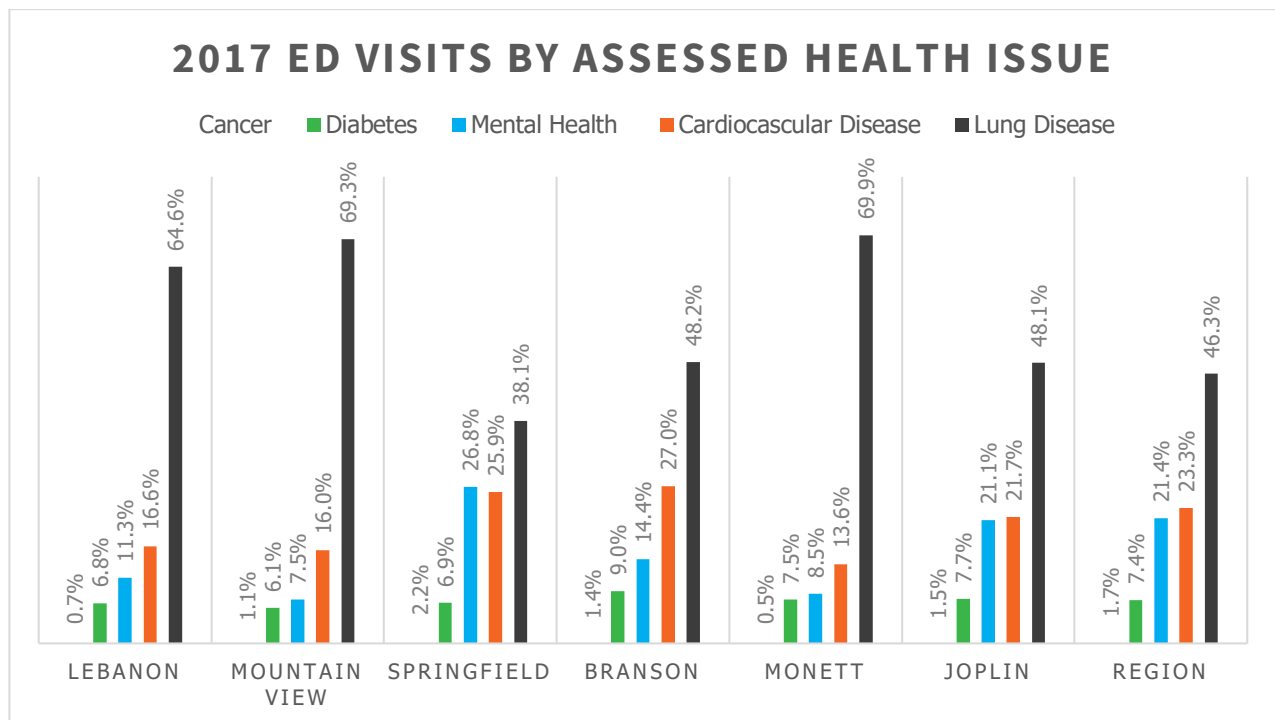
Presentation of Assessed Health Issues in the ED

For the purposes of the Regional Health Assessment, the Hospital Data Committee analyzed Principal Diagnosis Groups that specifically related to five of the six Assessed Health Issues (AHI): Cancer, Diabetes, Mental Health, Cardiovascular Disease, and Lung Disease. Because only the first three digits of ICD-10 codes were pulled for the report, Oral Health was not easily segmented in the primary hospital data. In this section of the narrative, we will discuss the hospital primary data findings of these specific issues. However, the full data report can be found on page 169.

The table below lists the ICD-10 diagnosis code groups and diagnosis group descriptions that align with the five AHI analyzed.

Assessed Health Issue	Dx Code Groups	Diagnosis Group Descriptions
Cancer	C00-D49	Neoplasms
Diabetes	E00-E89	Endocrine, nutritional and metabolic diseases
Mental Health	F01-F99	Mental, Behavioral and Neurodevelopmental disorders
Cardiovascular Disease	I00-I99	Diseases of the circulatory system
Lung Disease	J00-J99	Diseases of the respiratory system

In the OHC Region, 25% of total ED visits are related to the AHI.

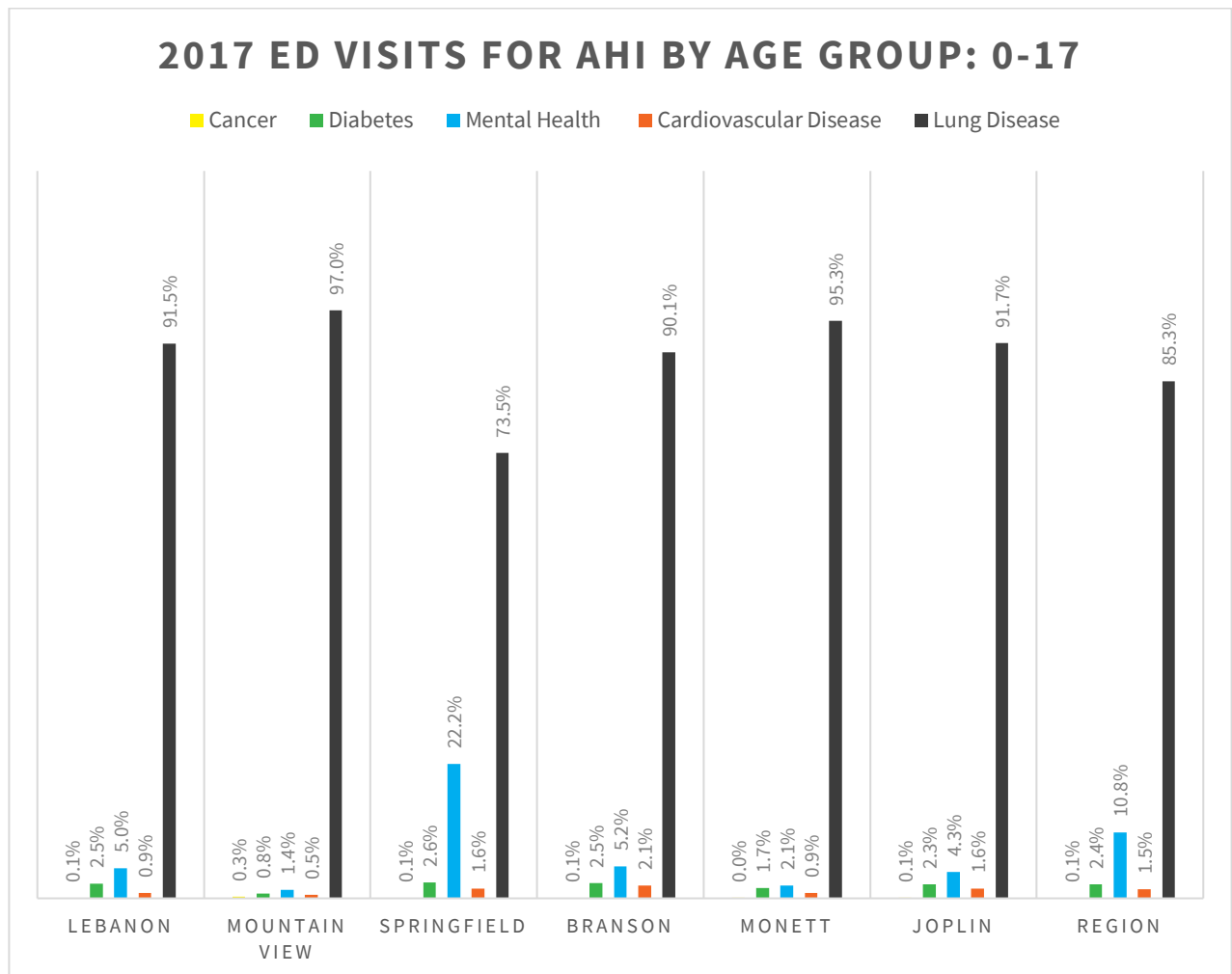


Demographics of ED Patients Presenting with one of the AHI

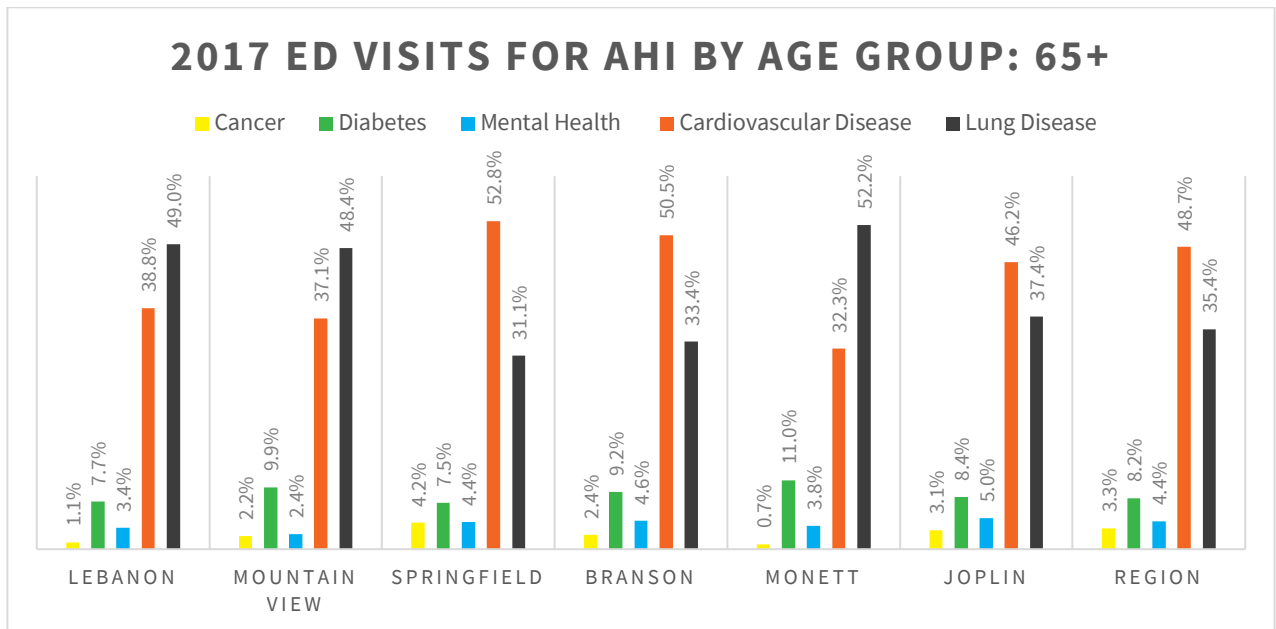
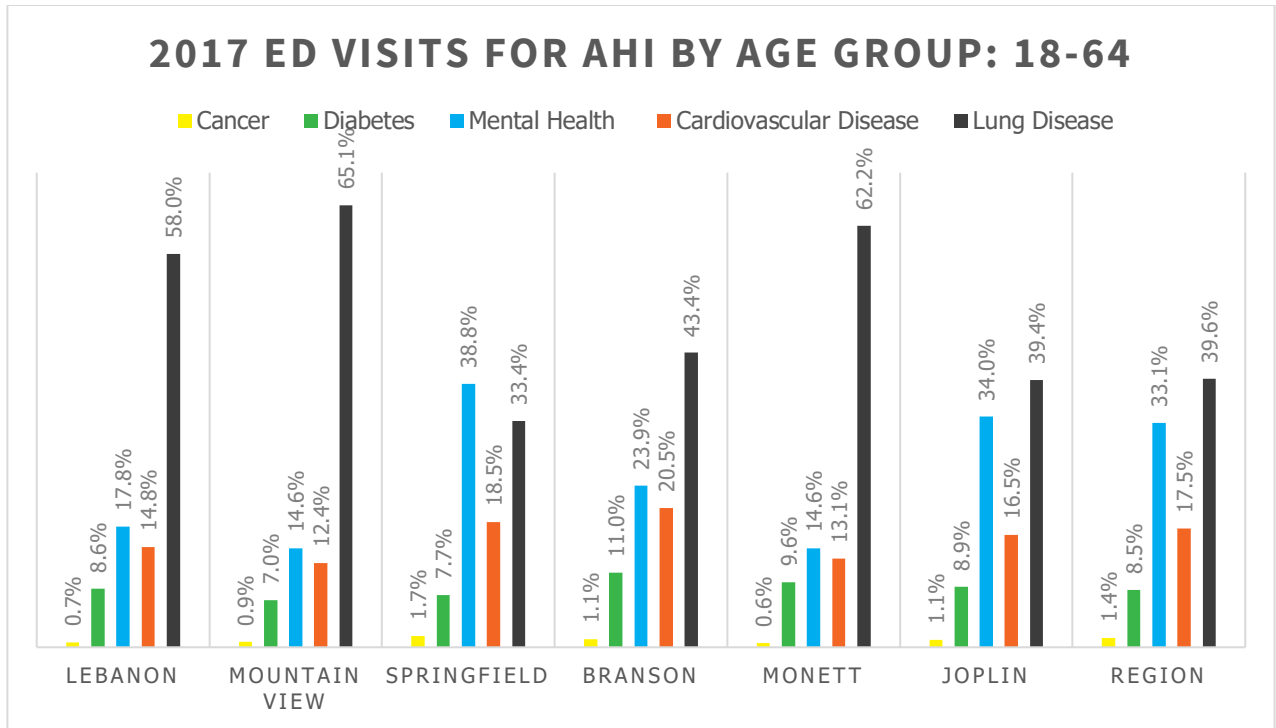
To develop strategic initiatives to address prioritized health issues, it is important identify and understand needs of specific populations. The following sections assess age groups, gender, race, and payer types of patients that visit EDs in the OHC Region.

ED Visits for AHI by Age Group

There are noticeable differences in visits due to specific AHI across age groups. Over 85% of visits by children are due to lung related disease, while 39.6% and 35.4% of similar visits are by those age 18-64 and 65+, respectively. Additionally, visits due to cardiovascular disease increase with age. Among adults 65 and older, visits due to cardiovascular disease are almost 49%. Also of note, ED visits by children for mental health issues are 11% for the OHC Region.



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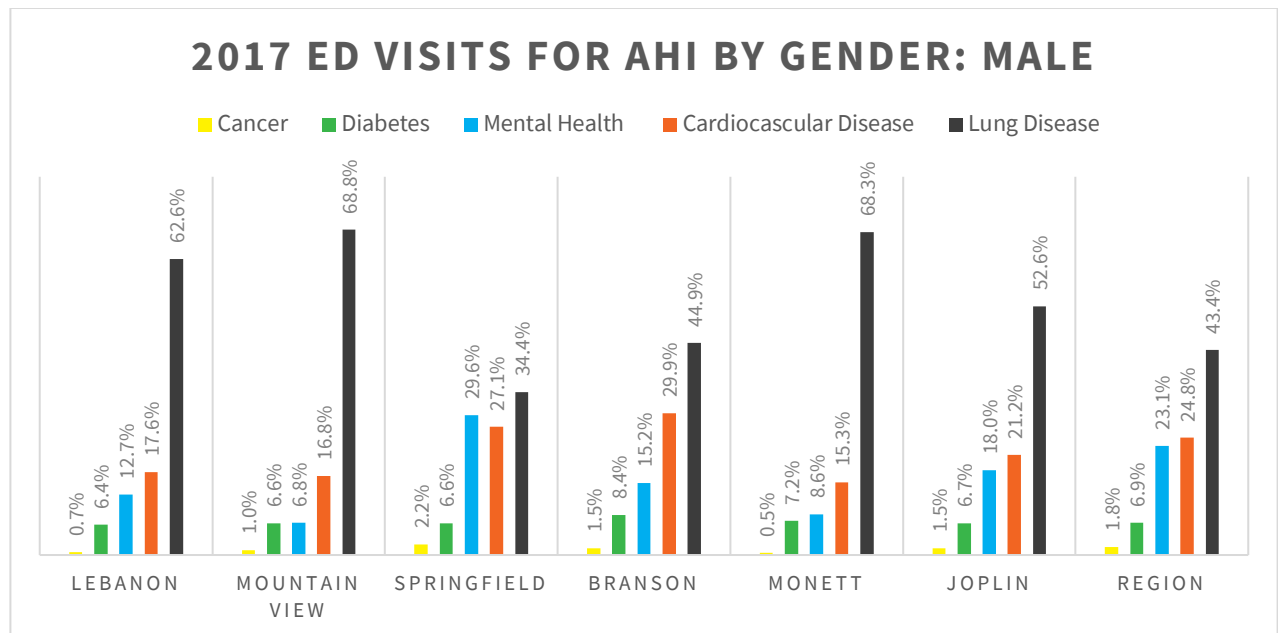
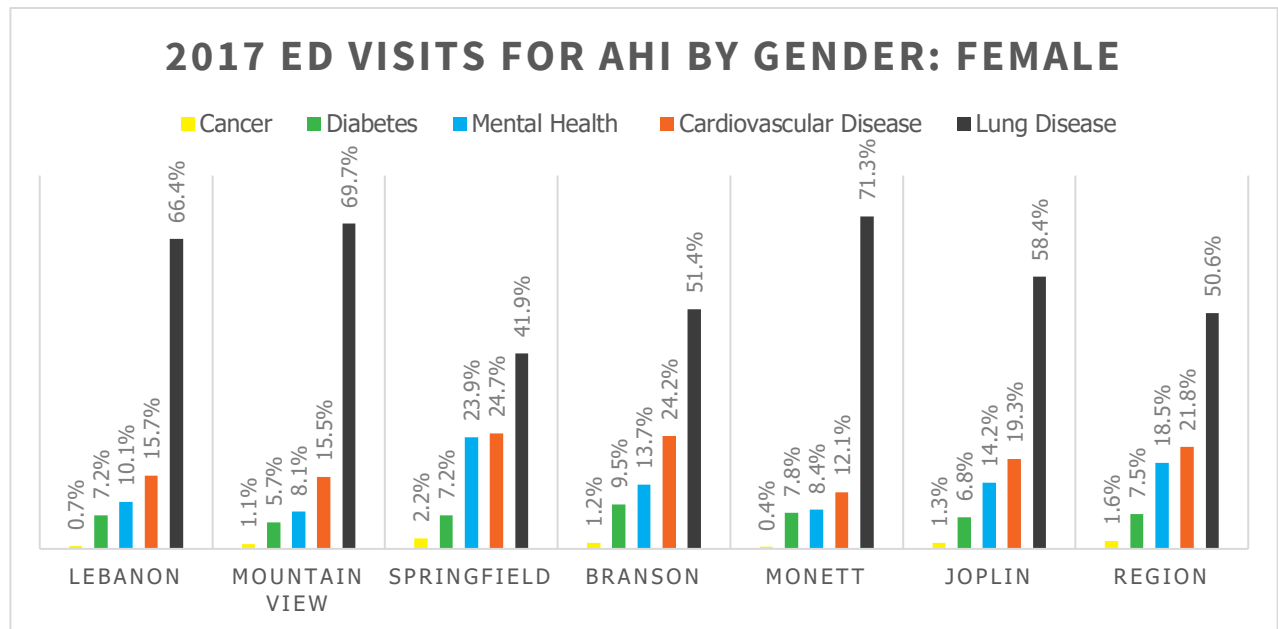
ED Visits for AHI by Gender

In the OHC Region, women presented to the ED more than men for diabetes and lung related diseases, men presented to the ED more than women for mental health and cardiovascular related illnesses, and



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the presentation for cancer was equal. The most notable disparities across gender are related to Mental Health. Approximately 23% of visits by males were for mental health related illness, while 18.5% of similar visits were by females.



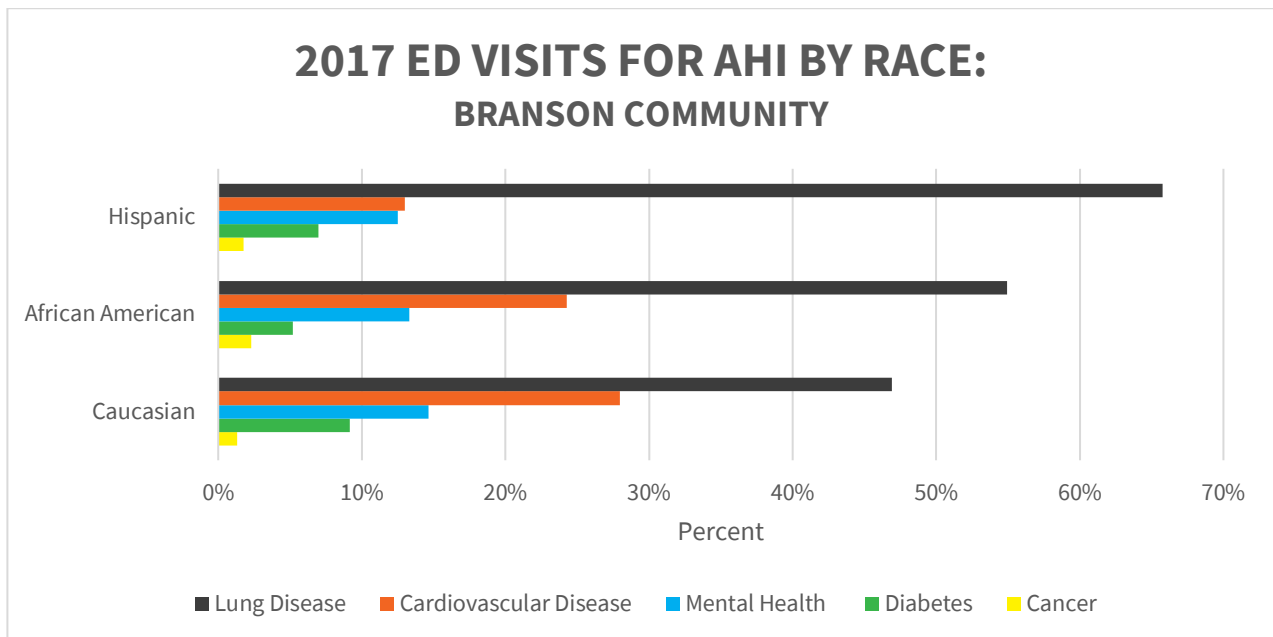
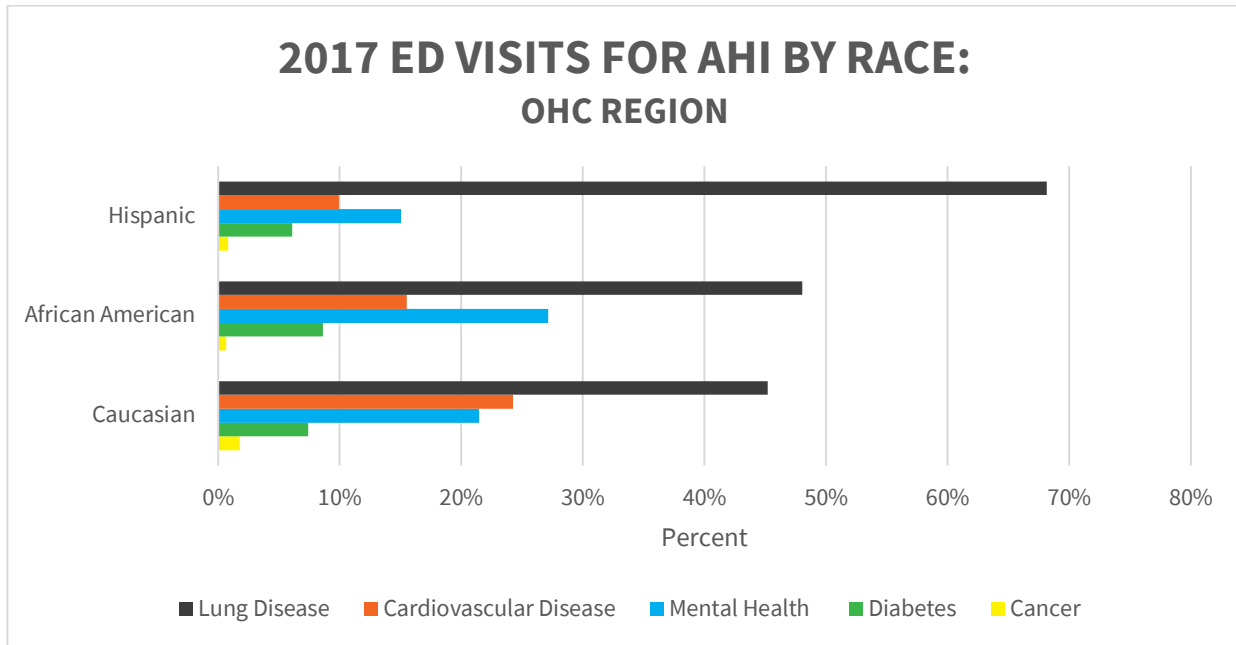
ED Visits for AHI by Race

For the purposes of this report, the top three presenting races are included in the analysis.

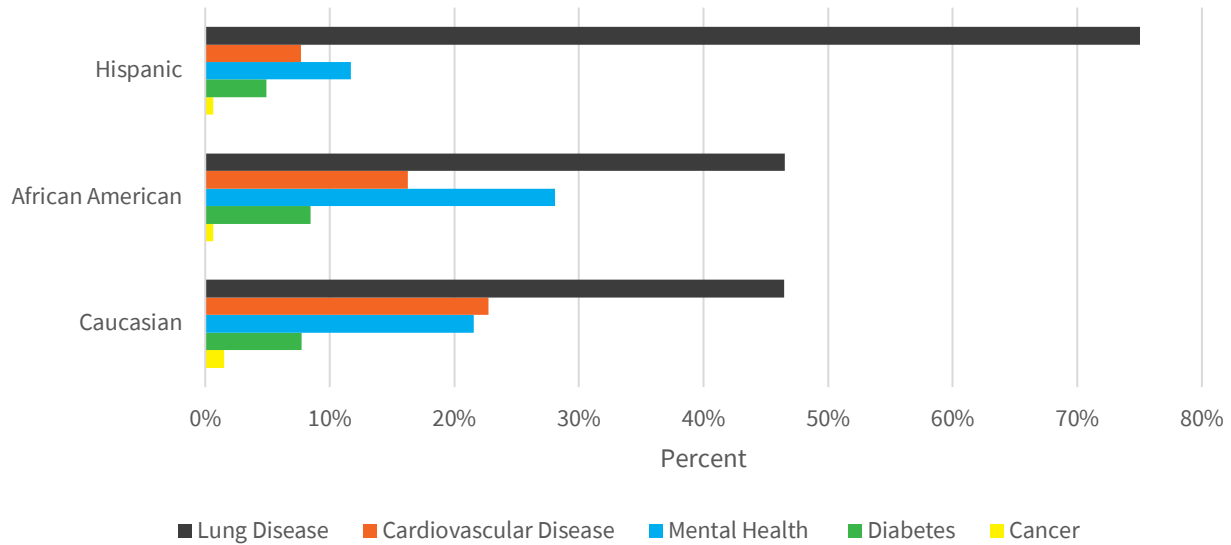


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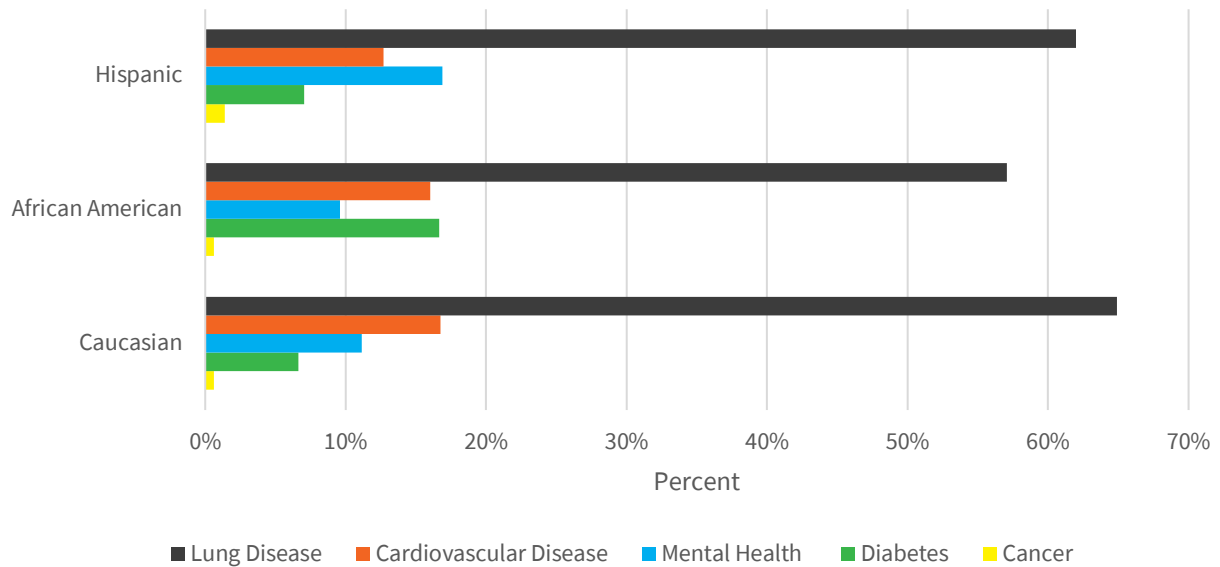
As presented in the chart below, health disparities exist between Caucasian, African American, and Hispanic race groups. Most notably, the prevalence of ED visits due to lung disease is highest in the OHC Region among the Hispanic population, second highest in Black/African Americans, and lowest in Caucasians. Those that classify as Black or African American have the highest presentation of mental health issues in OHC area ED (27.2%). Regarding Cardiovascular Disease, Caucasians present to the ED more than African Americans and Hispanics at 24.2%, 15.5%, and 9.9%, respectively.



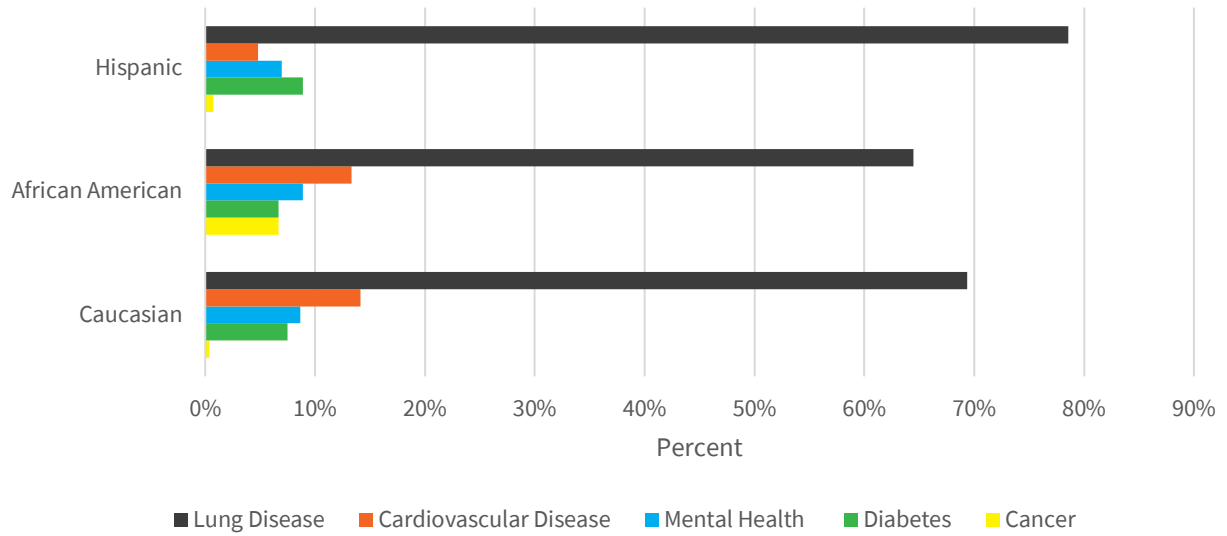
2017 ED VISITS FOR AHI BY RACE: JOPLIN COMMUNITY



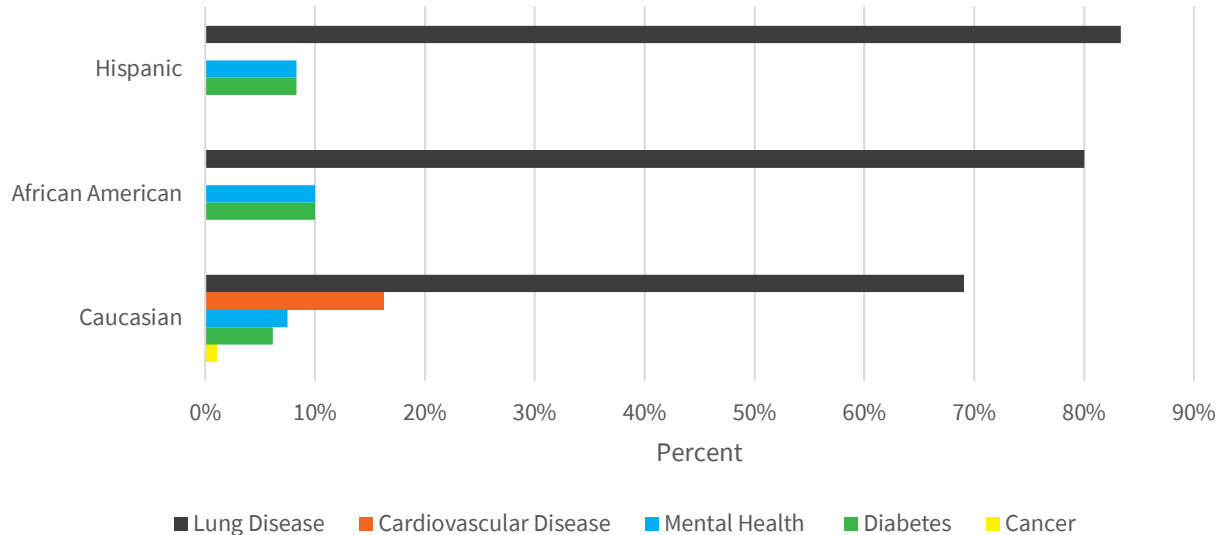
2017 ED VISITS FOR AHI BY RACE: LEBANON COMMUNITY

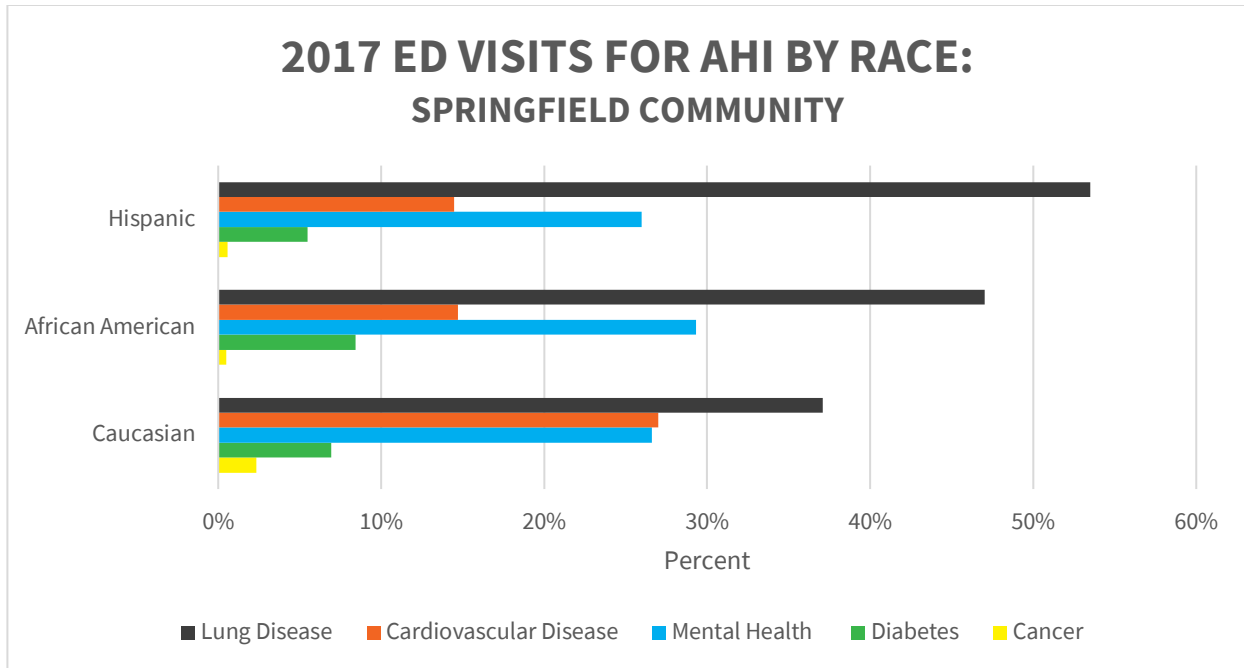


2017 ED VISITS FOR AHI BY RACE: MONETT COMMUNITY



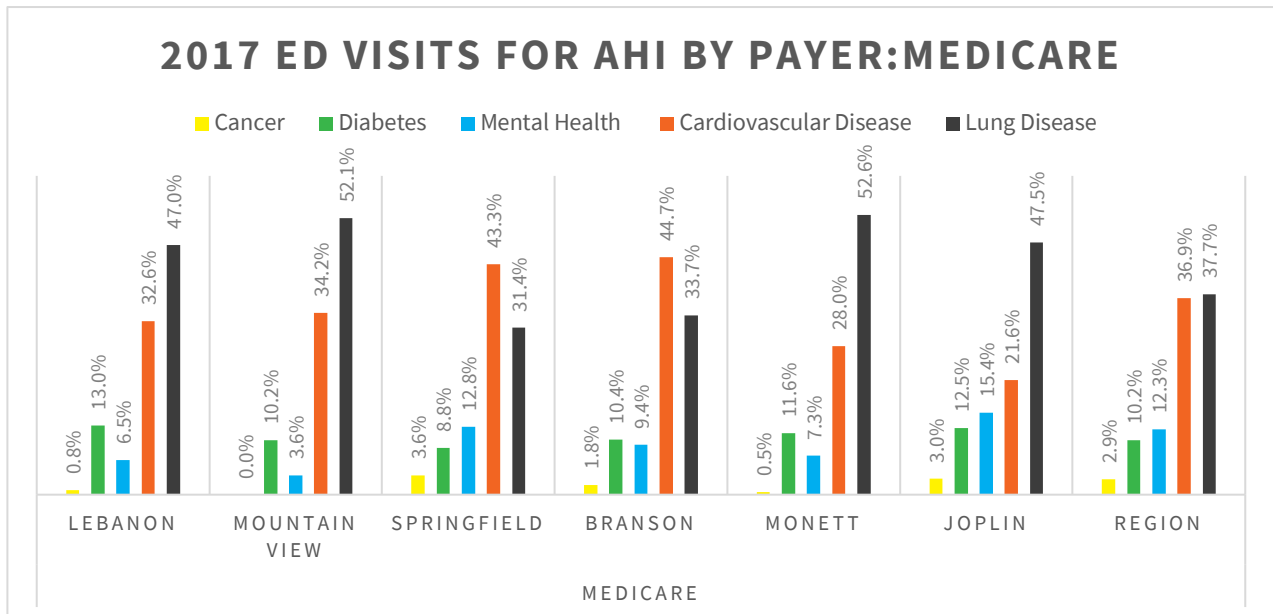
2017 ED VISITS FOR AHI BY RACE: MOUNTAIN VIEW COMMUNITY



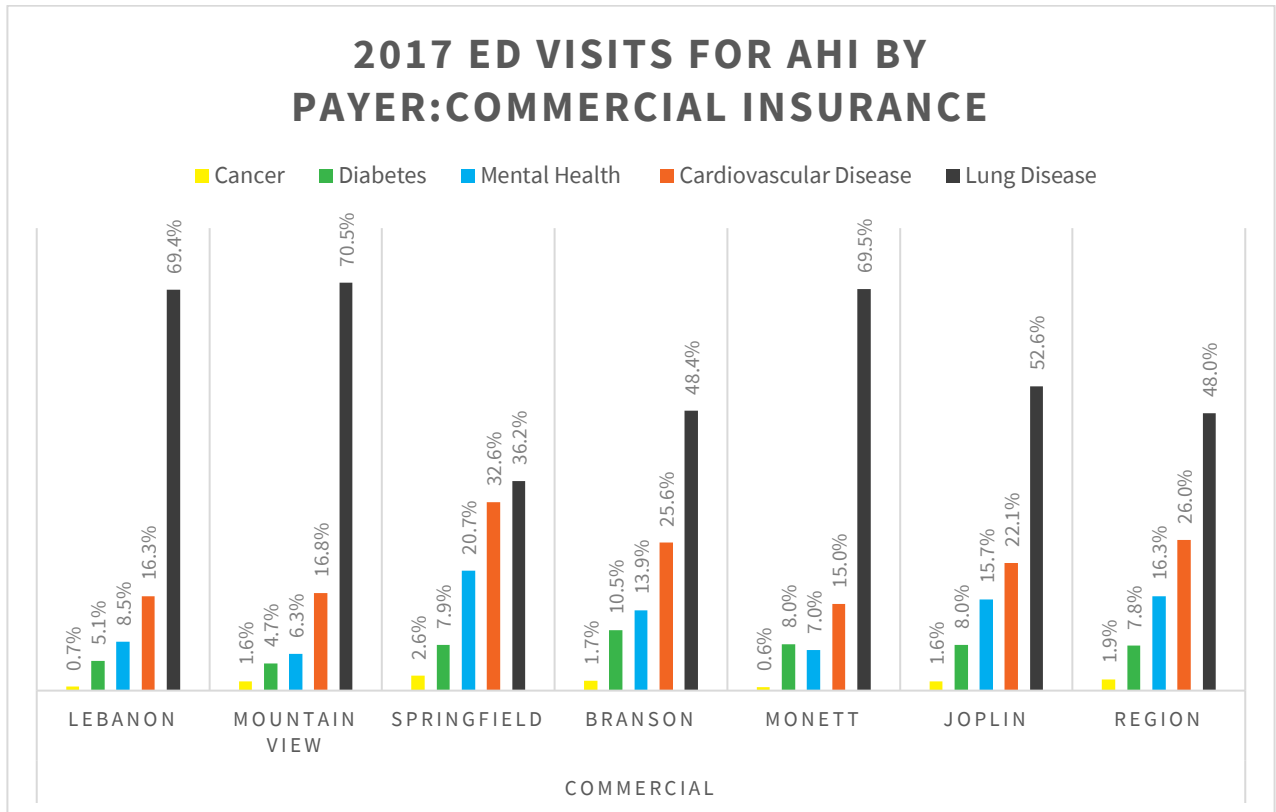
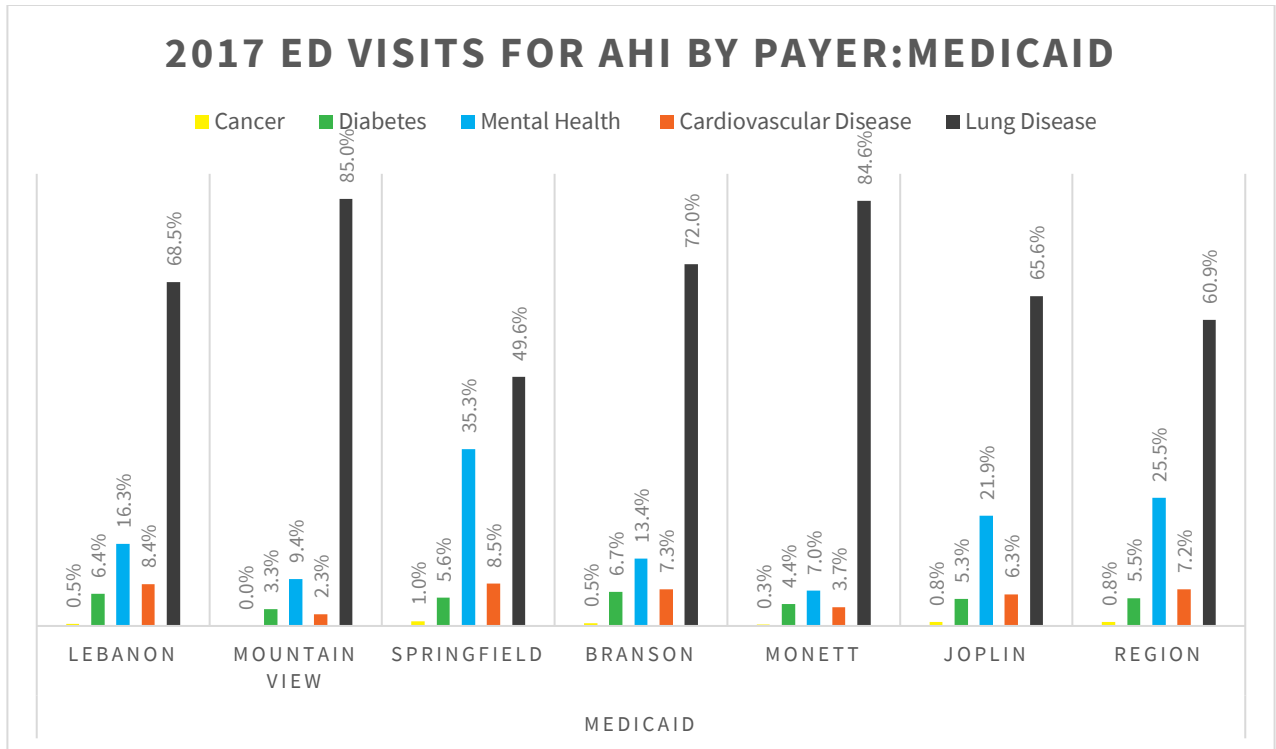


ED Visits for AHI by Payer

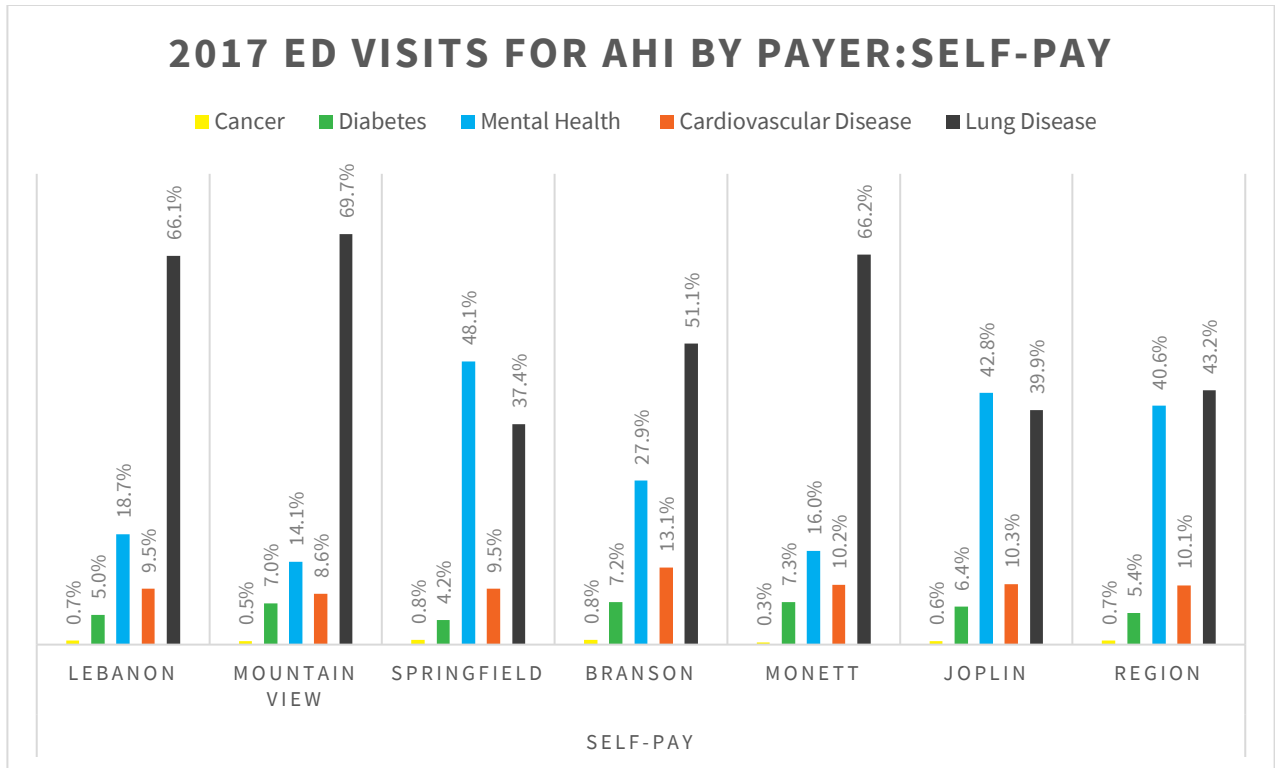
In the OHC Region, visits for issues related to mental health are more common among those without health insurance at 41%, and those with Medicaid at 26%. In the OHC Region, visits due to lung related disease are most common among those with Medicaid (61%), closely followed by those with commercial insurance (48%).



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MIPS Data

Metrics from the Merit-Based Incentive Payment System (MIPS) was selected to enhance the assessment of health care utilization and establish a baseline for quality improvement activities across the OHC Region. The table below outlines the selected MIPS clinical quality indicators, their alignment with the AHI, and their descriptions.

Assessed Health Issue	Measure	Measure Description
Cancer	Colorectal Cancer Screening (CMS 130)	Percentage of adults 50-75 years of age who had appropriate screening for colorectal cancer.
Diabetes	Diabetes: Hemoglobin A1c (HbA1c) Poor Control (>9%) (CMS 122)	Percentage of patients 18-75 years of age with diabetes who had hemoglobin A1c > 9.0% during the measurement period
Mental Disorders	Preventive Care and Screening: Screening for Clinical Depression and Follow-up Plan (CMS 2)	Percentage of patients aged 12 years and older screened for depression on the date of the encounter using an age appropriate standardized depression screening tool AND if positive, a follow-up plan is documented on the date of the positive screen

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Lung Disease	Preventative Care & Screening: Tobacco Use: Screening and Cessation Intervention (CMS 138)	Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user
Cardiovascular Disease	Controlling Hypertension (CMS 165)	Percentage of patients 18-85 years of age who had a diagnosis of hypertension and whose blood pressure was adequately controlled (<140/90mmHg) during the measurement period

Each OHC partnering health system provided the selected MIPS metrics for their service area within the OHC Region. The metrics were aggregated to create scores for the OHC Region and then ranked according to their performance in comparison to national benchmarks. The table below outlines the following:

- Assessed Health Issue (AHI)
- MIPS Quality Measure corresponding to selected AHI
- MIPS score for the OHC Region
- MIPS national average
- Decile range and decile in which the Region MIPS score falls
- Benchmark range, or the score for the tenth decile for its respective measure
- Rank of the AHI

The AHI receives a rank between one to four, with a rank of one being the best performing and four being the worst performing in comparison to the national benchmarks. A regional MIPS measure receives the following rank if it falls in that ranks corresponding decile:

REGIONAL MIPS MEASURE RANK	BENCHMARK DECILE
4	4, 3, <3
3	5, 6
2	7, 8
1	9, 10

Assessed Health Issue	MIPS Quality Measure	Region (%)	MIPS Average (%)	Decile Range	Decile	Benchmark (BM) Range	BM Decile	Rank
Cancer	Colorectal Cancer Screening	46.55	60.90	46.82 - 51.65	<3	>= 80.95	10	4
Cardiovascular Disease	Controlling Hypertension	63.33	66.50	60.41 - 64.27	4	>= 79.74	10	4



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Diabetes	Hemoglobin A1c Poor Control (>9%)	28.19	22.00	33.33 - 23.54	3	<=3.33	10	4
Lung Disease	Tobacco Use: Screening and Cessation Intervention	70.96	86.20	82.06 - 86.04	<3	>= 99.32	10	4
Mental/Behavioral Health	Screening for Clinical Depression and Follow-up Plan	29.94	65.30	29.28 - 65.00	4	100.00	10	4