

Appendix E: Additional Health Data

This appendix contains additional data not included in the main report.

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Provider Ratios by County

Data from County Health Rankings shows that across the United States, the top-performing counties have a primary care provider to population ratio of 1:1,030. Only one county in the quad-county region, Multnomah, has a better ratio than that, with Clark County having significantly fewer primary care providers per population.

Table E-1. Ratio of Primary Care Physicians to Population.

County	Ratio
Clark, WA	1:1527
Clackamas, OR	1:1128
Multnomah, OR	1:712
Washington, OR	1:1092
Top U.S. Performers	1:1030

Source: County Health Rankings 2018.

Similar ratios are found with dentists across the region. With only Multnomah and Washington counties having a better dentist to population ratio than the top-performing U.S. counties.

Table E-2. Ratio of Dentists to Population.

County	Ratio
Clark, WA	1:1502
Clackamas, OR	1:1287
Multnomah, OR	2:1055
Washington, OR	1:1089
Top U.S. Performers	1:1280

Source: County Health Rankings 2018.

Insurance Coverage

Table E-3. Percentage of Population with Health Insurance.

County	Percent
Clark, WA	90.7%
Clackamas, OR	91.9%
Multnomah, OR	89.6%
Washington, OR	90.5%
Region	90.5%

Source: American Community Survey 5-year estimate 2012–2016.

Table E-4. Percentage of Population Under 18 without Health Insurance.

County	Percent
Clark - Washington	4.1%
Clackamas – Oregon	3.9%
Multnomah- Oregon	3.0%
Washington – Oregon	3.8%
Region	3.6%

Source: American Community Survey 5-year estimate 2012–2016.

As shown below, over 10% of the population in every county reported not being able to access health care services due to the cost.

Table E-5. Percentage of population unable to see a health care provider in the last year due to cost.

County	Percent
Clark - Washington	11.1%
Clackamas – Oregon	13.2%
Multnomah- Oregon	14.3%
Washington – Oregon	12.4%
Region	12.8%

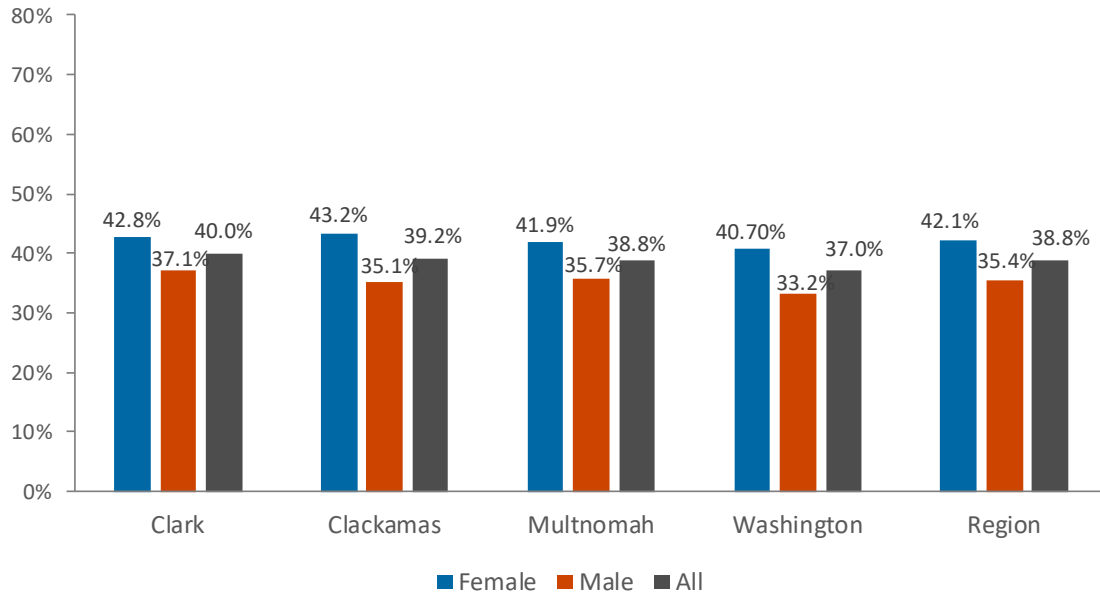
Source: BRFSS, 2012–2015.

Vaccinations

Influenza

As shown in the chart below, nearly 40% of population in the quad-county reported being vaccinated for influenza, with more females than males reporting vaccination—42% and 35%, respectively, for the region.

Figure E-1. Influenza Vaccination by Sex.

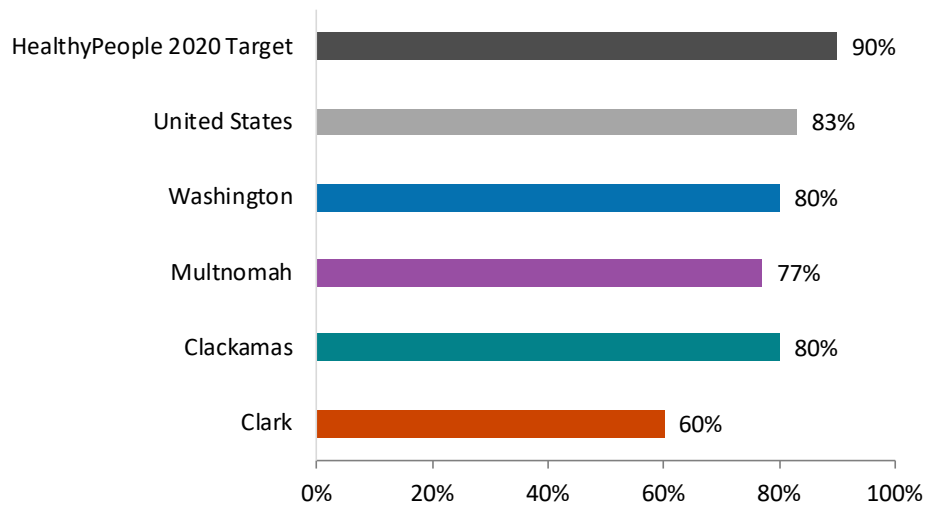


Source: BRFSS (2012–2015).

Diphtheria, Tetanus, and Pertussis (DTaP)

The percentage of children who are receiving the recommended four doses of the DTaP vaccine varies across the quad-county region, with all counties falling well below the HealthyPeople 2020 target (see Figure E-2).

Figure E-2. Children who Received Four Doses of DTaP.



Note: Oregon age = 2 years; Washington age = 19–35 months.

Communicable Diseases

Communicable diseases are infections, usually viral or bacterial, that are spread from person to person. Figures E-3–E-5 present the crude incidence rates for the 10 most common communicable diseases in the region, grouped by their level of prevalence in the region.

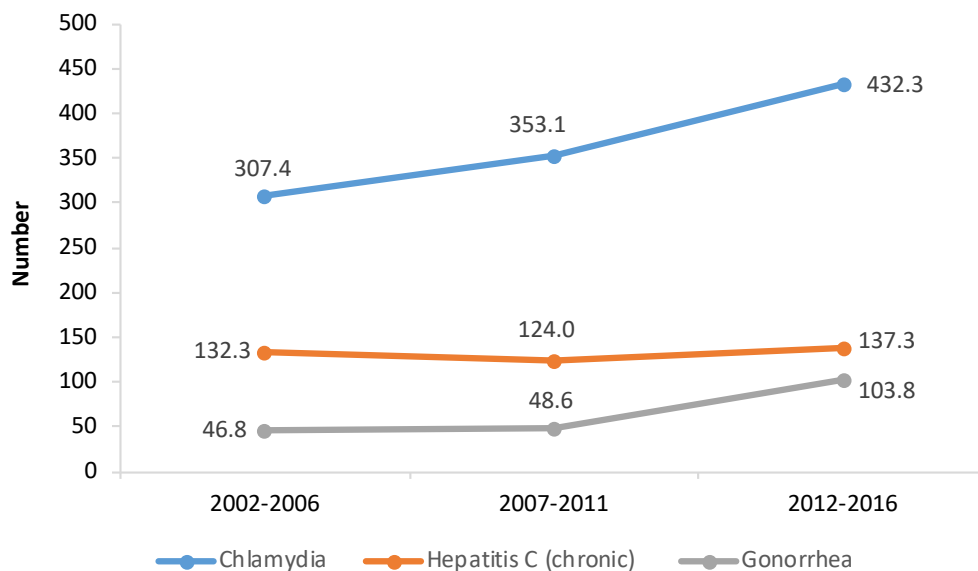
Between 2002 and 2016, the incidence of the following communicable diseases **increased**:

- **Chlamydia**: a sexually transmitted disease
- **Gonorrhea**: a sexually transmitted disease
- **Campylobacteriosis**: a foodborne illness or contaminated water
- **Giardiasis**: an infection in the small intestine from contaminated food or water
- **Pertussis**: whooping cough

During the same period, focusing the incidence of the following communicable diseases **decreased**:

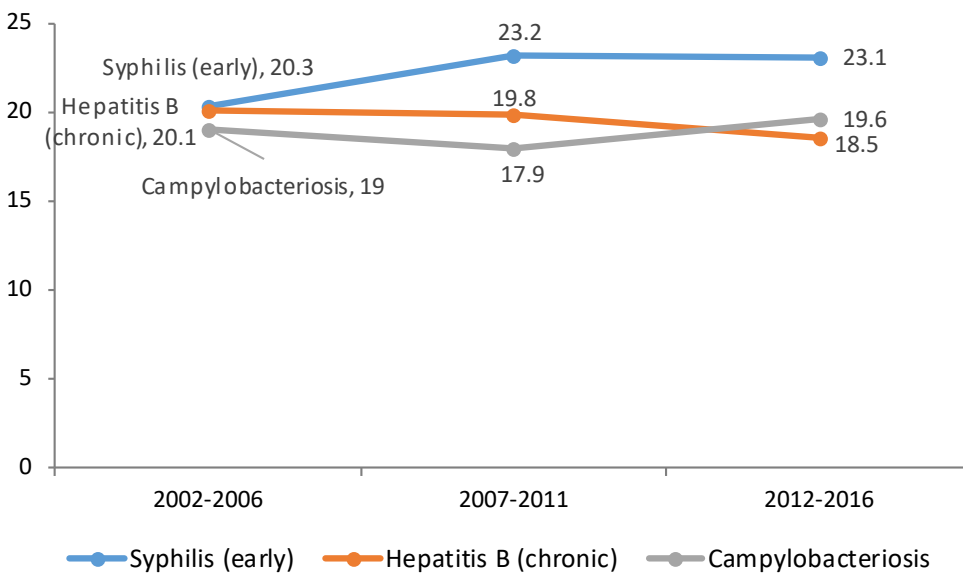
- **Hepatitis B**: chronic inflammation of the liver transmitted through infected blood, unprotected sex, unsterile or contaminated needle, or from an infected woman to her newborn during childbirth
- **HIV/AIDS**¹

Figure E-3. Communicable Diseases with the Highest Prevalence.



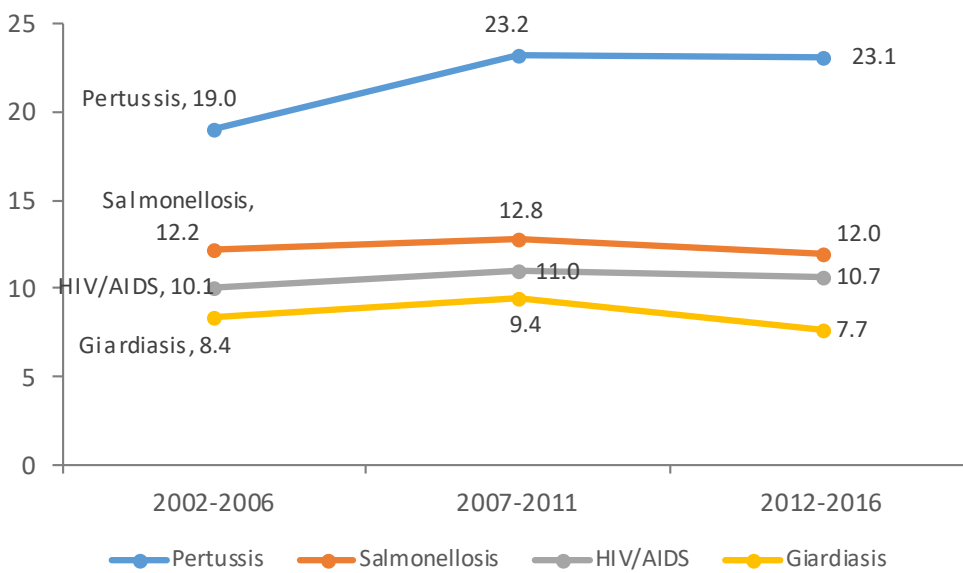
Source: Oregon Public Health Assessment Tool (OPHAT) and Community Health Assessment Tool (CHAT).

Figure E-4. Communicable Diseases with Moderate Prevalence.



Source: Oregon Public Health Assessment Tool (OPHAT) and Community Health Assessment Tool (CHAT).

Figure E-5. Communicable Diseases with Lower Prevalence.



Source: Oregon Public Health Assessment Tool (OPHAT) and Community Health Assessment Tool (CHAT).

Chronic Disease and Other Conditions in Emergency Departments

Chronic disease accounts for two-thirds of emergency medical conditions and roughly 80% of all health care costs. The analysis of emergency department (ED) chronic conditions included visits between January 1, 2016, and December 31, 2016, and is based on patients' primary diagnosis at discharge. Because data from Legacy hospitals and PeaceHealth did not include a unique identifier for each patient, the analysis included some duplicate records.

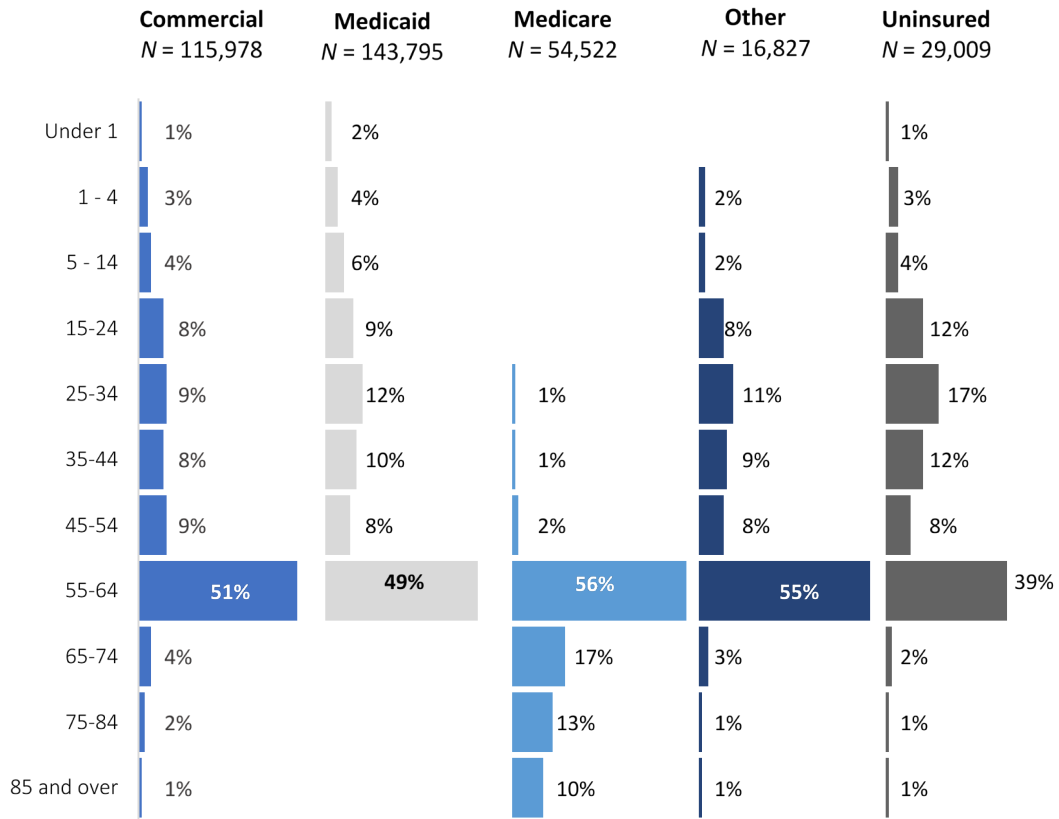
Patient-level hospital discharge data were provided by:

- Adventist Medical Center Portland
- Legacy Emmanuel Medical Center
- Legacy Good Samaritan Medical Center
- Legacy Mount Hood Medical Center
- Legacy Salmon Creek Medical Center
- Kaiser Foundation Hospital Westside
- Kaiser Sunnyside Medical Center
- Oregon Health Sciences University
- PeaceHealth
- Providence Milwaukie Hospital
- Providence Portland Medical Center
- Providence St. Vincent Medical
- Providence Willamette Falls Medical Center
- Tuality

Insurance type by age

As shown in Figure E-6, about half of insured ED patients were between the ages of 55 and 64. The majority of patients who were uninsured were under 55 years old (57%).

Figure E-6. Emergency Department Patients by Insurance Type and Age Group.

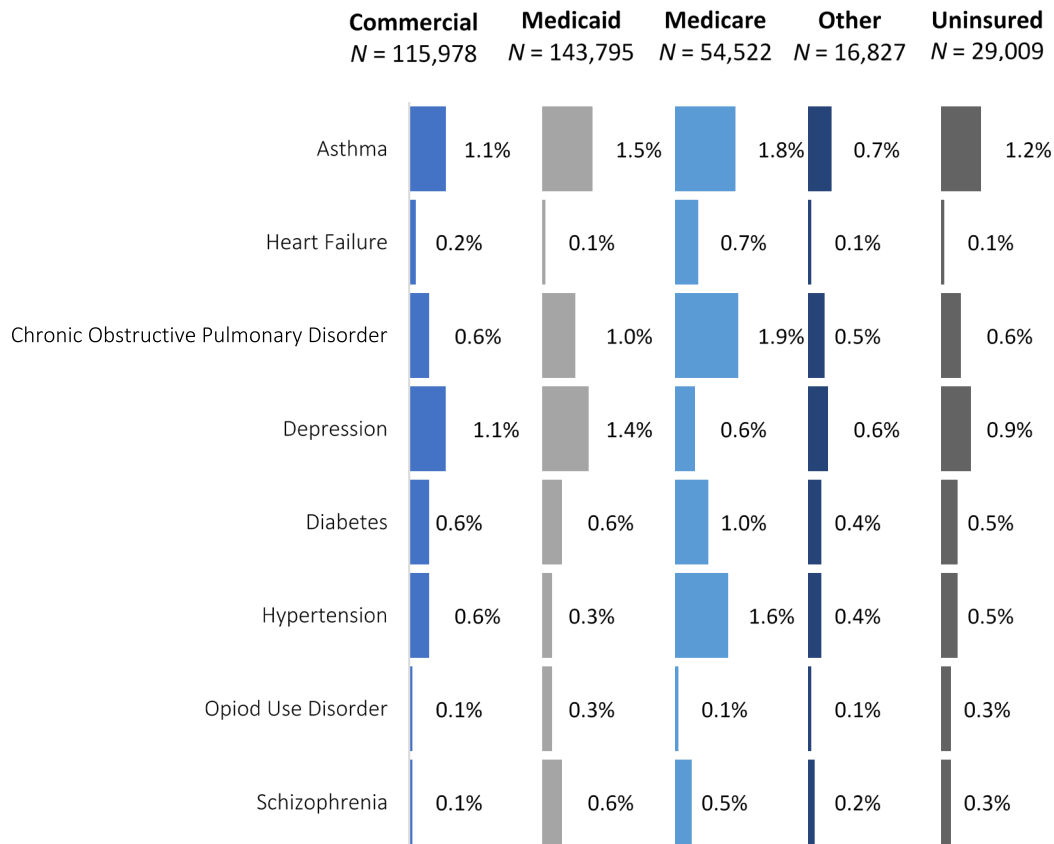


Source: Hospital Discharge Data 2016.

Chronic disease and other conditions by insurance type

As shown in Figure E-7, patients tended to use the ED for asthma, chronic obstructive pulmonary disorder, and depression. Patients with insurance coverage through Medicare were diagnosed at discharge with heart failure, diabetes, and hypertension more frequently than patients covered by other insurance types.

Figure E-7. Emergency Department Utilization for Chronic Conditions.



Source: Hospital Discharge Data 2016.

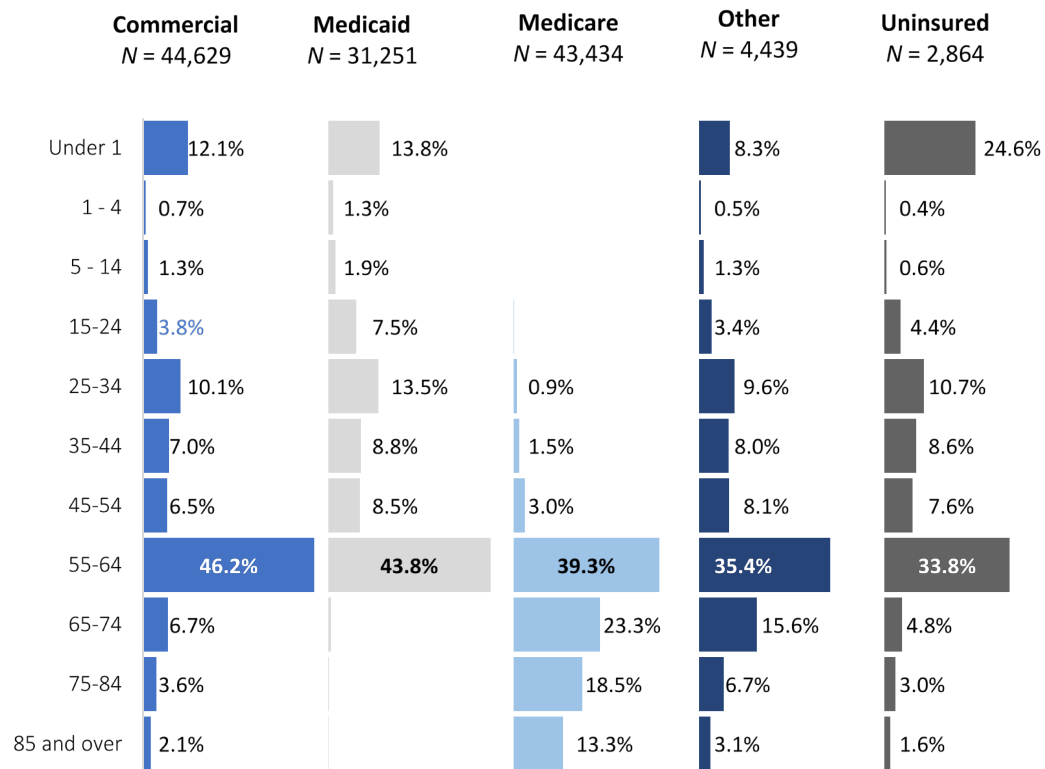
Chronic diseases and other conditions for inpatients

Regional inpatient discharge data from the calendar year 2016 was analyzed to identify if inpatient utilization differed by age and insurance type. Next, the same data were analyzed to assess the degree to which chronic conditions varied by insurance type.

Insurance type by age

As shown in Figure E-8, the greatest number of patients seen as inpatients for chronic conditions were insured by either commercial insurance or Medicare. Most insured patients discharged from inpatient units were between the ages of 55 and 64. The next most frequent age range was between 25 and 34 years old.

Figure E-8. Inpatient Stays by Insurance Type.

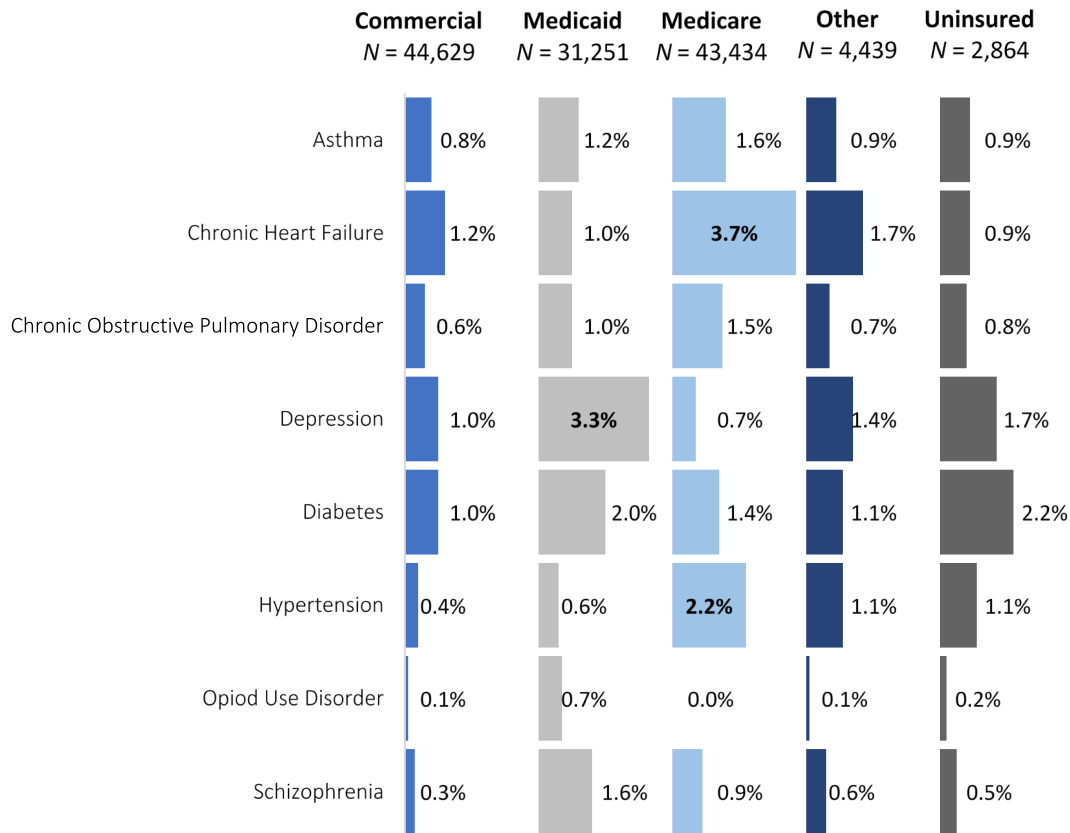


Source: Hospital Discharge Data 2016.

Chronic diseases and other conditions by insurance type

As shown in Figure E-9, people tended to be in inpatient units for heart failure, depression and diabetes. Those with insurance coverage through Medicare were diagnosed with chronic heart failure, chronic obstructive pulmonary disorder and hypertension at a greater frequency than people covered by other insurance types.

Figure E-9. Primary Diagnosis when Discharged from an Inpatient Stay.



Source: Hospital Discharge Data 2016.