

---

# **Medicare- Medicaid Enrollee State Profile**

---

South Carolina - 2008

---

Centers for Medicare &  
Medicaid Services

---

---

## Table of Contents

|   |           |
|---|-----------|
| <b>I. Introduction .....</b>  | <b>1</b>  |
| <b>II. Results .....</b>  | <b>2</b>  |
| A. Population Overview .....  | 2         |
| B. Demographic Characteristics .....  | 3         |
| C. Physical, Mental Health and Disability Related Conditions among Fee-for-Service<br>Enrollees .....   | 5         |
| <i>Conditions Prevalence</i> .....  | 5         |
| D. Utilization of Services among Fee-For-Service Enrollees .....  | 9         |
| E. Medicare and Medicaid Expenditures among Fee-for-Service Enrollees .....   | 11        |
| 1. <i>Medicare Expenditures</i> .....   | 13        |
| 2. <i>Medicaid Expenditures</i> .....   | 14        |
| <b>III. Acronym List.....</b>   | <b>15</b> |
| <b>Appendix A: Representativeness of Study Population, CY 2008 .....</b>  | <b>16</b> |
| <b>Appendix B: Methodology.....</b>   | <b>17</b> |
| <b>Appendix C: Claim Types Included in Medicare Services.....</b>   | <b>23</b> |
| <b>Appendix D: Claim Types Included in Medicaid Services .....</b>  | <b>24</b> |
| <b>Appendix E: Medicare Fee-for-Service Enrollee Count by Medicare-Medicaid Eligibility<br/>Type Examined in the Medicare Expenditure Analysis, South Carolina,<br/>CY 2008 .....</b> | <b>25</b> |
| <b>Appendix F: Medicaid Fee-for-Service Enrollee Count by Medicare-Medicaid Eligibility<br/>Type Examined in the Medicaid Expenditure Analysis, South Carolina,<br/>CY 2008 .....</b> | <b>26</b> |

---

## I. Introduction

This report focuses on the State of South Carolina and is based on Medicare-Medicaid enrollee data from 2008.

In 2008, more than 60 million people in the U.S. were covered by Medicaid or the Children's Health Insurance Program (CHIP).<sup>1</sup> Medicaid is a state-administered program with shared funding and oversight from the federal government (Title XIX of Social Security Act). Each state must provide the minimum federally mandated services and coverage for federally mandated eligibility groups; however, states may also cover a wide range of optional benefits across different benefit designs and optional eligibility groups that vary from state to state. Depending on each state, these may include coverage for long term services and supports (LTSS), behavioral health, dental services and/or vision services. Many groups of people are covered by Medicaid, depending on the state's requirements (e.g., age; whether pregnant, disabled, blind, or age 65+; income level and resources; U.S. citizenship or lawful immigration status).

Medicare is the primary health insurance program for individuals age 65 and older, people under age 65 with disabilities, and persons of all ages with end-stage renal disease (ESRD).<sup>2</sup> Medicare is comprised of Parts A, B, C, and D types of coverage. Nearly all individuals enrolled in Medicare have Part A coverage, which includes inpatient hospital care, skilled nursing facility stays, home health services, and hospice care. The majority of Medicare enrollees also have Part B fee-for-service (FFS) coverage of physician services, hospital outpatient care, durable medical equipment (DME) and some home health care. Alternatively, those Medicare enrollees who are not enrolled in fee-for-service Parts A and B are typically enrolled in a Medicare Part C managed care plan, called "Medicare Advantage." Lastly, as of 2006, the Medicare Part D program made available federally-sponsored prescription drug coverage to Medicare enrollees, including Medicare-Medicaid enrollees who have transitioned under this program.

Of the above mentioned Medicare and Medicaid covered individuals at the national level, approximately 9 million qualified for both programs at the same time. These Medicare-Medicaid enrollees (dual eligible) are the core of the study. This report provides basic counts and demographic information on the approximately 149,000 Medicare-Medicaid enrollees in the State of South Carolina. In addition, for a smaller FFS sample of Medicare-Medicaid enrollees in South Carolina, this report also provides information on physical, mental, and disability-related health condition prevalence rates as well as Medicare and Medicaid services utilization and associated expenditures. The Medicare-Medicaid enrollees include three main segments: Full Benefit (Qualified Medicare Beneficiary-Plus (QMB-Plus), Specified Low-Income Medicare Beneficiaries Plus (SLMB-Plus) and Other Full Benefit), QMB-only and Partial Benefit (Specified Low-Income Medicare Beneficiaries (SLMB-only), Qualified Disabled Working Individuals (QDWI), and Qualifying Individuals (QI)). The study adds a new focus on those under 65 versus 65 and over, to illuminate areas in which their experiences differ, and compares them, respectively, to persons enrolled in Medicare but not Medicaid (i.e., "Medicare-only"), as well as those enrolled in Medicaid, qualifying due to disability, but not Medicare (i.e., "Medicaid-only").

---

<sup>1</sup> <http://www.ccwdata.org/web/guest/medicare-tables-reports>

<sup>2</sup> Ibid.

---

## II. Results

### A. Population Overview

**Table 1** shows the number of Medicare-Medicaid enrollees and the proportion by type of Medicare-Medicaid eligibility, in 2008. Full Benefit enrollees represent the largest segment in South Carolina (approximately 87%), a significantly larger proportion than at the national level (77%). Partial Benefit enrollees (13%) make up a similar proportion of the total Medicare-Medicaid enrollees in South Carolina than at the national level (12%), while QMB-only enrollees represent less than 1% of the Medicare-Medicaid enrollee population.

**Table 1: Overview of Medicare-Medicaid Eligibility Type in South Carolina as Compared to the Nation as a Whole: Number and Relative Distribution of Medicare-Medicaid Enrollees, CY 2008**

|   | State of South Carolina        |   | National                       |   |
|---|--------------------------------|---|--------------------------------|---|
|   | Number of Enrollees (In State) | Relative Distribution of Medicare-Medicaid enrollee types | Number of Enrollees (National) | Relative Distribution of Medicare-Medicaid enrollee types |
| Full Benefit Medicare-Medicaid Enrollee       | 129,200                        | 86.8%   | 6,984,789                      | 76.8%   |
| QMB-only Medicare-Medicaid Enrollee           | 301                            | 0.2%  | 984,558                        | 10.8%   |
| Partial Benefit Medicare-Medicaid Enrollee    | 19,361                         | 13.0%   | 1,126,647                      | 12.4%   |
| <b>TOTAL Medicare-Medicaid Dual Enrollees</b> | <b>148,862</b>                 | <b>100%</b>   | <b>9,095,994</b>               | <b>100%</b>   |

Source: CY 2008 MMLEADS data

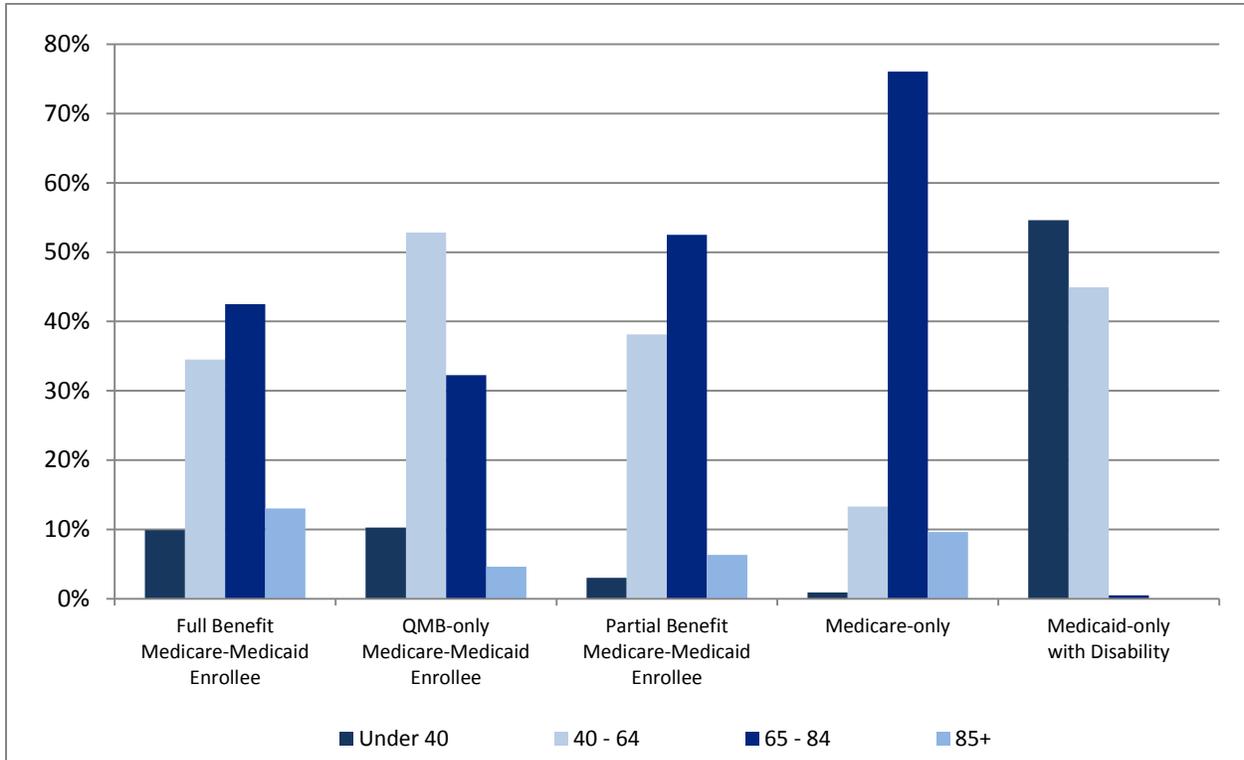
Note: While "QMB-only" Medicare-Medicaid enrollees are technically considered "Partial Benefit," in this Report QMB-only is presented separately from "Partial Benefit," with the latter referring only to all *other* types of Partial Benefit Medicare-Medicaid enrollees: Specified Low-income Medicare Beneficiaries (i.e., "SLMB-only"), Qualified Disabled Working Individuals (i.e., "QDWI"), and Qualifying Individuals (i.e., "QI").

The focus of the analysis is within the different segments of the Medicare-Medicaid enrollee population. As mentioned, the study also provides, when appropriate, comparisons of the Medicare-Medicaid enrollees to Medicaid-only enrollees with disabilities and the Medicare-only enrollees.

## B. Demographic Characteristics

Age and race characteristics were examined within the study cohorts. An analysis of age patterns shows that Medicare-Medicaid enrollees are predominantly in the 40-64 and 65-84 age groups (77% to 91% of the cohorts' populations). We also find that the Full Benefit and QMB-only cohort has approximately 10% of the population in the under 40 segment. As expected, the majority of Medicare-only enrollees are 65 and over, while Medicaid-only enrollees with disabilities are nearly all under 65 (over 99%). **Figure 1** shows the age distribution by the study groups.

**Figure 1: Age Distribution by Medicare-Medicaid Eligibility Type in South Carolina, CY 2008**

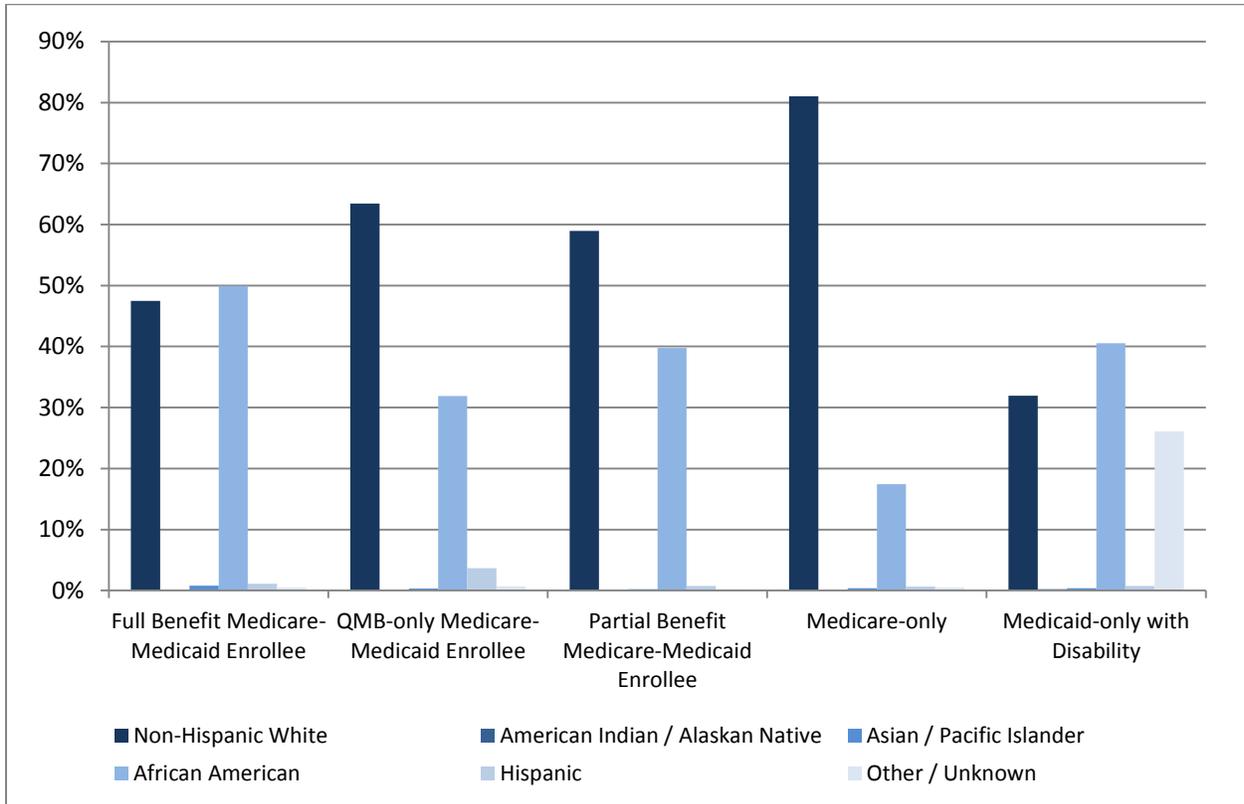


Source: CY 2008 MMLEADS data

Note: While "QMB-only" Medicare-Medicaid enrollees are technically considered "Partial Benefit," in this Report QMB-only is presented separately from "Partial Benefit," with the latter referring only to all *other* types of Partial Benefit Medicare-Medicaid enrollees: Specified Low-income Medicare Beneficiaries (i.e., "SLMB-only"), Qualified Disabled Working Individuals (i.e., "QDWI"), and Qualifying Individuals (i.e., "QI").

An analysis of ethnicity and race shows that African American beneficiaries comprise the largest group of Full Benefit enrollees (approximately 50%), while White beneficiaries are the majority (approximately 60%) of the Partial Benefit and QMB-only enrollees (**Figure 2**). Across all Medicare-Medicaid dually enrolled groups, African American beneficiaries represent a larger percentage (ranging from 32% to 50%) when compared to the Medicare-only population, where they represent just over 17%. Among Medicaid-only enrollees with a disability, African American enrollees represent the largest segment (41%).

**Figure 2: Ethnicity/Race Distribution by Medicare-Medicaid Eligibility Type in South Carolina, CY 2008**



Source: CY 2008 MMLEADS data

Note: While “QMB-only” Medicare-Medicaid enrollees are technically considered “Partial Benefit,” in this Report QMB-only is presented separately from “Partial Benefit,” with the latter referring only to all *other* types of Partial Benefit Medicare-Medicaid enrollees: Specified Low-income Medicare Beneficiaries (i.e., “SLMB-only”), Qualified Disabled Working Individuals (i.e., “QDWI”), and Qualifying Individuals (i.e., “QI”).

---

## C. Physical, Mental Health and Disability Related Conditions among Fee-for-Service Enrollees

This section analyzes enrollees in each cohort along a number of selected chronic conditions.

For analyses in all subsequent sections, in order to ensure complete claims data, the study only includes individuals enrolled in Medicare FFS and/or Medicaid FFS during the entire calendar year. Readers should also note that the number of QMB-only enrollees in the study population is small across all age groups with a total of 190 enrollees under 65 and 111 enrollees 65 and over (see **Appendix A**). Therefore, because the study sample may not be a true representation of all FFS and managed care enrollees in the state, this report provides information for this subgroup in the tables and figures but refrains from providing conclusions in the text. See **Appendix A** for an analysis of representativeness of the study population.

### *Conditions Prevalence:*

This section presents the prevalence of certain conditions for FFS enrollees across each Medicare-Medicaid enrollee eligibility/age subgroup

To determine the health status of the study population, we utilized the Chronic Conditions Data Warehouse (CCW) which includes a series of algorithms that generate indicators for select physical, mental and disability related conditions. **Appendix B** details the wider set of conditions that were examined individually to determine prevalence in the study population as well as a smaller subset that were utilized in analysis of condition counts.

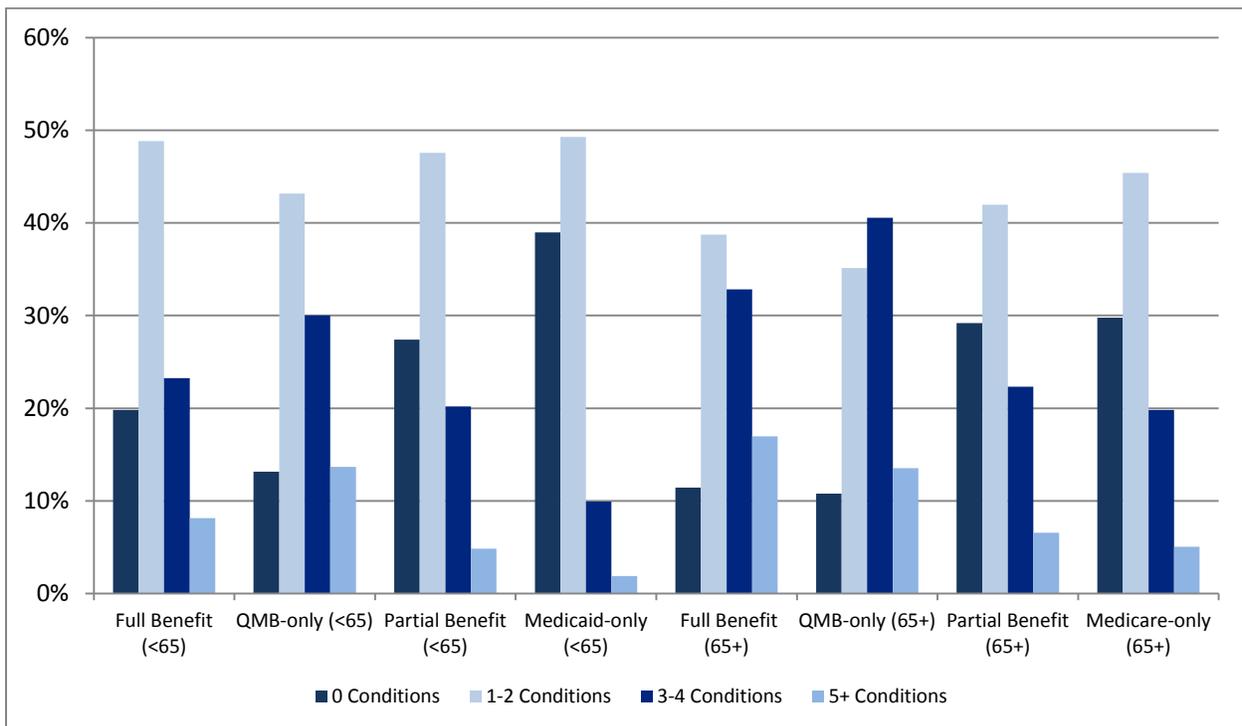
We analyzed the physical, mental and disability related conditions among the different cohorts to identify prevailing conditions as well as differences between the groups. We also looked at both the number of enrollees with specific conditions and the number of comorbidities.

As shown in **Figure 3**, our analysis indicates that a significant percentage of the Medicare-Medicaid enrollees presents with at least one condition with figures ranging from 71% for Partial Benefits 65 and over to approximately 89% for Full Benefit 65 and over. This is higher than the Medicare-only population in which 70% of individuals present with at least one condition. Among Medicaid-only with disability, 61% present with at least one condition.

Among Medicare-Medicaid enrollees that are under 65, Full-Benefit enrollees have higher levels of comorbidities (31% with three or more conditions, 8% with five or more conditions) than do Partial Benefit enrollees (25%, 5%). Medicaid-only enrollees with disabilities have lower levels of comorbidities than do Medicare-Medicaid enrollees in the under 65 age group (12% and 2% respectively).

Those who are Full Benefit enrollees and 65 and over have a different pattern Partial Benefit enrollees, with higher rates of enrollees presenting with 17% presenting with five or more conditions and 50% with three or more conditions. Full Benefit beneficiaries have rates of five or more conditions that are more than twice as high as those of Partial Benefit enrollees (7%) and over three times higher than Medicare-only enrollees (approximately 5%). When considering three or more conditions, Full Benefit enrollees 65 and over have rates almost twice as high as the Partial Benefit enrollees 65 and over (29%) and twice the Medicare-only beneficiaries' rate (25%).

**Figure 3: Number of Physical and Mental Health Conditions among Fee-for-Service Enrollees by Medicare-Medicaid Eligibility Type and Age in South Carolina, CY 2008**



**Source:** CY 2008 MMLEADS data for FFS enrollees in Medicare and/or Medicaid

**Note:** While “QMB-only” Medicare-Medicaid enrollees are technically considered “Partial Benefit,” in this Report QMB-only is presented separately from “Partial Benefit,” with the latter referring only to all *other* types of Partial Benefit Medicare-Medicaid enrollees: Specified Low-income Medicare Beneficiaries (i.e., “SLMB-only”), Qualified Disabled Working Individuals (i.e., “QDWI”), and Qualifying Individuals (i.e., “QI”).

**Note:** No conclusions are made based on the QMB-only cohort due to low sample size.

**Table 2** shows prevalence rates for a wider set of physical, mental health, and disability related conditions among enrollees by eligibility type. In general, we find higher prevalence rates for mental health conditions (except Alzheimer’s) among beneficiaries under age 65 and higher prevalence of Alzheimer’s and physical health conditions among those age 65 and older.

Overall, hypertension is the most prevalent condition across cohorts, with important differences between the under 65 and 65 and older groups. This condition has higher prevalence among Full Benefit enrollees 65 and over (73%), though it is also significant in the other cohorts 65 and over (Partial Benefit 57% and Medicare-only 62%). In addition to hypertension, there are a number of conditions that affect at least 25% of individuals in a given segment. These include diabetes and hyperlipidemia (across all age/enrollee segments) as well as ischemic heart disease and rheumatoid osteo-arthritis (in all 65 and over cohorts). Furthermore, several conditions are particularly prevalent in the Full Benefit 65 and over cohort, including Alzheimer’s and related disorders, anemia, chronic kidney disease, and heart failure among others.

**Table 2: Rate of Physical and Mental Health Conditions, and Conditions Related to Intellectual, Development and Physical Disabilities among Fee-for-Service Enrollees by Medicare-Medicaid Eligibility Type and Age in South Carolina, CY 2008**

| Condition   | Full Benefit (<65) | QMB-only (<65) | Partial Benefit (<65) | Medicaid-only (<65) | Full Benefit (65+) | QMB-only (65+) | Partial Benefit (65+) | Medicare-only (65+) |
|---|--------------------|----------------|-----------------------|---------------------|--------------------|----------------|-----------------------|---------------------|
| Acquired hypothyroidism                               | 5.3%               | 5.6%           | 4.0%                  | 2.7%                | 9.0%               | 22.1%          | 6.8%                  | 7.6%                |
| Acute myocardial infarction                           | 0.6%               | 0.0%           | 0.8%                  | 0.4%                | 1.6%               | 3.9%           | 1.0%                  | 0.8%                |
| Alzheimer’s disease and Alzheimer’s related disorders | 3.4%               | 5.6%           | 1.7%                  | 1.7%                | 30.6%              | 32.5%          | 8.1%                  | 9.0%                |
| Anemia  | 20.4%              | 22.2%          | 17.4%                 | 11.5%               | 35.5%              | 41.6%          | 20.3%                 | 19.6%               |
| Anxiety   | 16.3%              | 26.4%          | 15.2%                 | 7.4%                | 9.9%               | 7.8%           | 8.2%                  | 5.4%                |
| Asthma  | 7.9%               | 14.6%          | 6.2%                  | 6.4%                | 5.2%               | 10.4%          | 4.4%                  | 3.6%                |
| Atrial fibrillation                                   | 1.5%               | 1.4%           | 1.6%                  | 0.9%                | 7.7%               | 10.4%          | 6.0%                  | 8.2%                |
| Attention deficit hyperactivity disorder (ADHD)       | 2.4%               | 2.1%           | 0.9%                  | 9.8%                | 0.4%               | 0.0%           | 0.1%                  | 0.1%                |
| Autism  | 0.7%               | 0.0%           | 0.0%                  | 5.2%                | 0.0%               | 0.0%           | 0.0%                  | 0.0%                |
| Benign prostatic hyperplasia                          | 1.1%               | 0.7%           | 1.1%                  | 0.4%                | 2.7%               | 3.9%           | 2.7%                  | 5.8%                |
| Bipolar disorder                                      | 9.4%               | 18.0%          | 7.5%                  | 5.2%                | 1.6%               | 5.2%           | 1.0%                  | 0.7%                |
| Brain injury  | 0.5%               | 0.7%           | 0.2%                  | 0.4%                | 0.3%               | 0.0%           | 0.1%                  | 0.2%                |
| Breast cancer (Female)                                | 0.4%               | 0.8%           | 0.8%                  | 3.0%                | 0.6%               | 0.8%           | 1.3%                  | 2.7%                |
| Breast cancer (Male)                                  | 0.0%               | 0.0%           | 0.0%                  | 0.0%                | 0.0%               | 0.0%           | 0.0%                  | 0.0%                |
| Cataract  | 6.5%               | 4.2%           | 5.5%                  | 3.0%                | 17.5%              | 18.2%          | 15.5%                 | 27.1%               |
| Cerebral palsy  | 2.2%               | 2.8%           | 0.2%                  | 5.6%                | 0.3%               | 0.0%           | 0.0%                  | 0.0%                |
| Chronic kidney disease                                | 13.0%              | 11.8%          | 12.8%                 | 6.6%                | 24.0%              | 22.1%          | 14.8%                 | 11.3%               |
| Chronic obstructive pulmonary disease (COPD)          | 11.8%              | 15.3%          | 11.6%                 | 6.1%                | 16.7%              | 22.1%          | 14.2%                 | 10.2%               |
| Colorectal cancer (Female)                            | 0.1%               | 0.2%           | 0.2%                  | 0.4%                | 0.3%               | 0.0%           | 0.3%                  | 0.6%                |
| Colorectal cancer (Male)                              | 0.1%               | 0.0%           | 0.2%                  | 0.2%                | 0.3%               | 0.0%           | 0.4%                  | 0.8%                |
| Cystic fibrosis                                       | 0.4%               | 1.4%           | 0.2%                  | 0.6%                | 0.4%               | 0.0%           | 0.2%                  | 0.3%                |

| Condition                             | Full Benefit (<65) | QMB-only (<65) | Partial Benefit (<65) | Medicaid-only (<65) | Full Benefit (65+) | QMB-only (65+) | Partial Benefit (65+) | Medicare-only (65+) |
|---------------------------------------|--------------------|----------------|-----------------------|---------------------|--------------------|----------------|-----------------------|---------------------|
| Deafness or hearing impairment        | 1.4%               | 1.4%           | 0.9%                  | 1.8%                | 2.2%               | 3.9%           | 1.6%                  | 2.8%                |
| Depression                            | 22.2%              | 41.7%          | 20.8%                 | 7.5%                | 14.2%              | 19.5%          | 9.3%                  | 8.2%                |
| Diabetes                              | 28.4%              | 34.7%          | 31.7%                 | 15.4%               | 41.1%              | 46.8%          | 32.5%                 | 25.7%               |
| Endometrial cancer (Female)           | 0.0%               | 0.2%           | 0.1%                  | 0.2%                | 0.1%               | 0.4%           | 0.1%                  | 0.2%                |
| Epilepsy                              | 7.3%               | 7.0%           | 3.3%                  | 7.8%                | 3.4%               | 0.0%           | 1.0%                  | 0.8%                |
| Glaucoma                              | 4.6%               | 6.2%           | 3.4%                  | 2.9%                | 10.4%              | 7.8%           | 7.7%                  | 11.6%               |
| Heart failure                         | 12.3%              | 11.1%          | 12.2%                 | 5.9%                | 29.6%              | 39.0%          | 18.2%                 | 13.4%               |
| Hip fracture                          | 0.3%               | 0.0%           | 0.1%                  | 0.2%                | 1.6%               | 1.3%           | 0.7%                  | 0.8%                |
| Hyperlipidemia                        | 29.3%              | 41.7%          | 31.7%                 | 10.4%               | 37.2%              | 52.0%          | 36.7%                 | 49.7%               |
| Hypertension                          | 46.6%              | 50.0%          | 48.2%                 | 24.6%               | 73.4%              | 77.9%          | 57.2%                 | 62.0%               |
| Intellectual disability               | 11.9%              | 2.8%           | 1.1%                  | 24.0%               | 1.6%               | 0.0%           | 0.0%                  | 0.0%                |
| Ischemic heart disease                | 16.5%              | 20.8%          | 20.7%                 | 7.2%                | 35.3%              | 45.4%          | 30.4%                 | 29.8%               |
| Learning disability                   | 0.1%               | 0.0%           | 0.0%                  | 12.5%               | 0.0%               | 0.0%           | 0.0%                  | 0.0%                |
| Lung cancer (Female)                  | 0.1%               | 0.2%           | 0.2%                  | 0.6%                | 0.2%               | 0.4%           | 0.4%                  | 0.4%                |
| Lung cancer (Male)                    | 0.1%               | 0.5%           | 0.2%                  | 0.7%                | 0.4%               | 1.5%           | 0.5%                  | 0.7%                |
| Mobility disability                   | 5.4%               | 4.9%           | 2.1%                  | 4.3%                | 6.4%               | 0.0%           | 1.8%                  | 1.6%                |
| Multiple sclerosis                    | 1.4%               | 4.2%           | 1.0%                  | 0.5%                | 0.2%               | 1.3%           | 0.1%                  | 0.1%                |
| Muscular dystrophy                    | 0.2%               | 0.0%           | 0.1%                  | 0.4%                | 0.0%               | 1.3%           | 0.0%                  | 0.0%                |
| Osteoporosis                          | 2.2%               | 4.2%           | 1.9%                  | 0.6%                | 7.0%               | 6.5%           | 4.7%                  | 7.0%                |
| Other developmental disorder          | 0.2%               | 0.0%           | 0.0%                  | 4.7%                | 0.0%               | 0.0%           | 0.0%                  | 0.0%                |
| Personality disorder                  | 2.4%               | 5.6%           | 1.6%                  | 1.2%                | 0.4%               | 0.0%           | 0.1%                  | 0.1%                |
| Post-traumatic stress disorder (PTSD) | 1.8%               | 6.2%           | 1.6%                  | 0.9%                | 0.1%               | 0.0%           | 0.0%                  | 0.1%                |
| Prostate cancer (Male)                | 0.2%               | 0.5%           | 0.5%                  | 0.5%                | 1.7%               | 4.4%           | 2.3%                  | 4.6%                |
| Rheumatoid osteo-arthritis            | 19.0%              | 30.6%          | 21.9%                 | 6.4%                | 33.1%              | 44.2%          | 25.6%                 | 27.5%               |
| Schizophrenia                         | 13.2%              | 11.1%          | 7.5%                  | 9.1%                | 6.7%               | 3.9%           | 1.7%                  | 1.2%                |
| Spina bifida                          | 0.5%               | 0.0%           | 0.2%                  | 2.0%                | 0.1%               | 0.0%           | 0.0%                  | 0.1%                |
| Spinal injury                         | 1.0%               | 1.4%           | 0.4%                  | 0.7%                | 0.3%               | 0.0%           | 0.1%                  | 0.2%                |
| Stroke                                | 3.6%               | 6.2%           | 2.9%                  | 1.8%                | 8.1%               | 7.8%           | 3.9%                  | 4.0%                |
| Tobacco use                           | 18.9%              | 29.9%          | 17.0%                 | 7.5%                | 6.6%               | 13.0%          | 6.6%                  | 3.4%                |
| Visual impairment                     | 0.8%               | 1.4%           | 0.3%                  | 0.9%                | 1.2%               | 1.3%           | 0.4%                  | 0.3%                |

Source: CY 2008 MMLEADS data for FFS enrollees in Medicare and/or Medicaid

Note: While "QMB-only" Medicare-Medicaid enrollees are technically considered "Partial Benefit," in this Report QMB-only is presented separately from "Partial Benefit," with the latter referring only to all other types of Partial Benefit Medicare-Medicaid enrollees: Specified Low-income Medicare Beneficiaries (i.e., "SLMB-only"), Qualified Disabled Working Individuals (i.e., "QDWI"), and Qualifying Individuals (i.e., "QI").

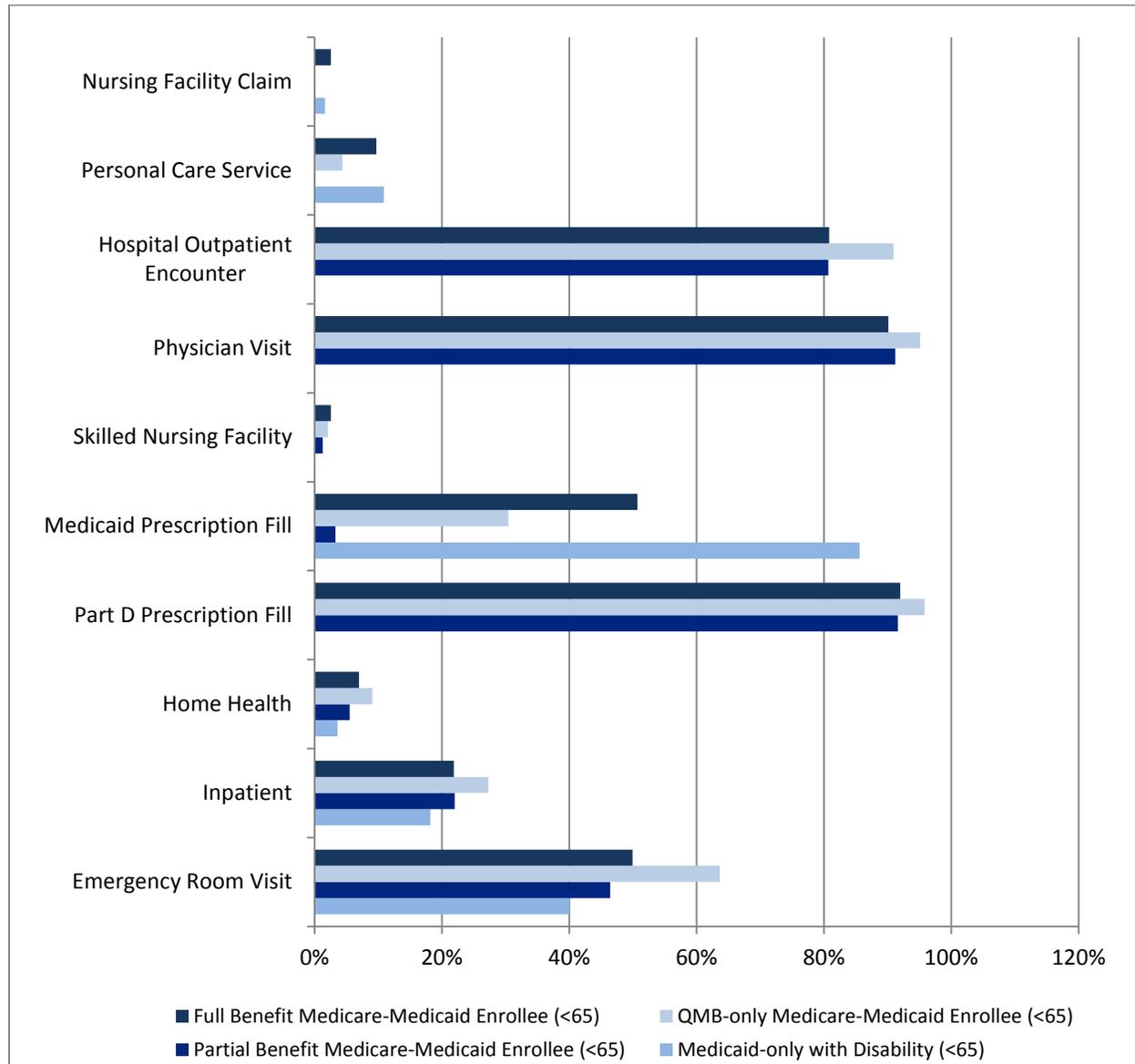
Note: No conclusions are made based on the QMB-only cohort due to low sample size.

Note: Sex-specific cancer prevalence rates are presented.

## D. Utilization of Services among Fee-For-Service Enrollees

**Figure 4** shows the relative distribution of FFS service utilization among those Medicare-Medicaid enrollees under age 65. Full Benefit enrollees and Partial Benefit enrollees have similar utilization levels across most categories. Overall, Medicare-Medicaid enrollees have higher utilization rates than Medicaid-only with disability beneficiaries with the exception of Medicaid prescription fills. (QMB-only enrollees are excluded from the analysis due to the small sample size in the FFS data.)

**Figure 4: Fee-for-Service Utilization Rates by Medicare-Medicaid Eligibility Type and Age (<65) in South Carolina, CY 2008**



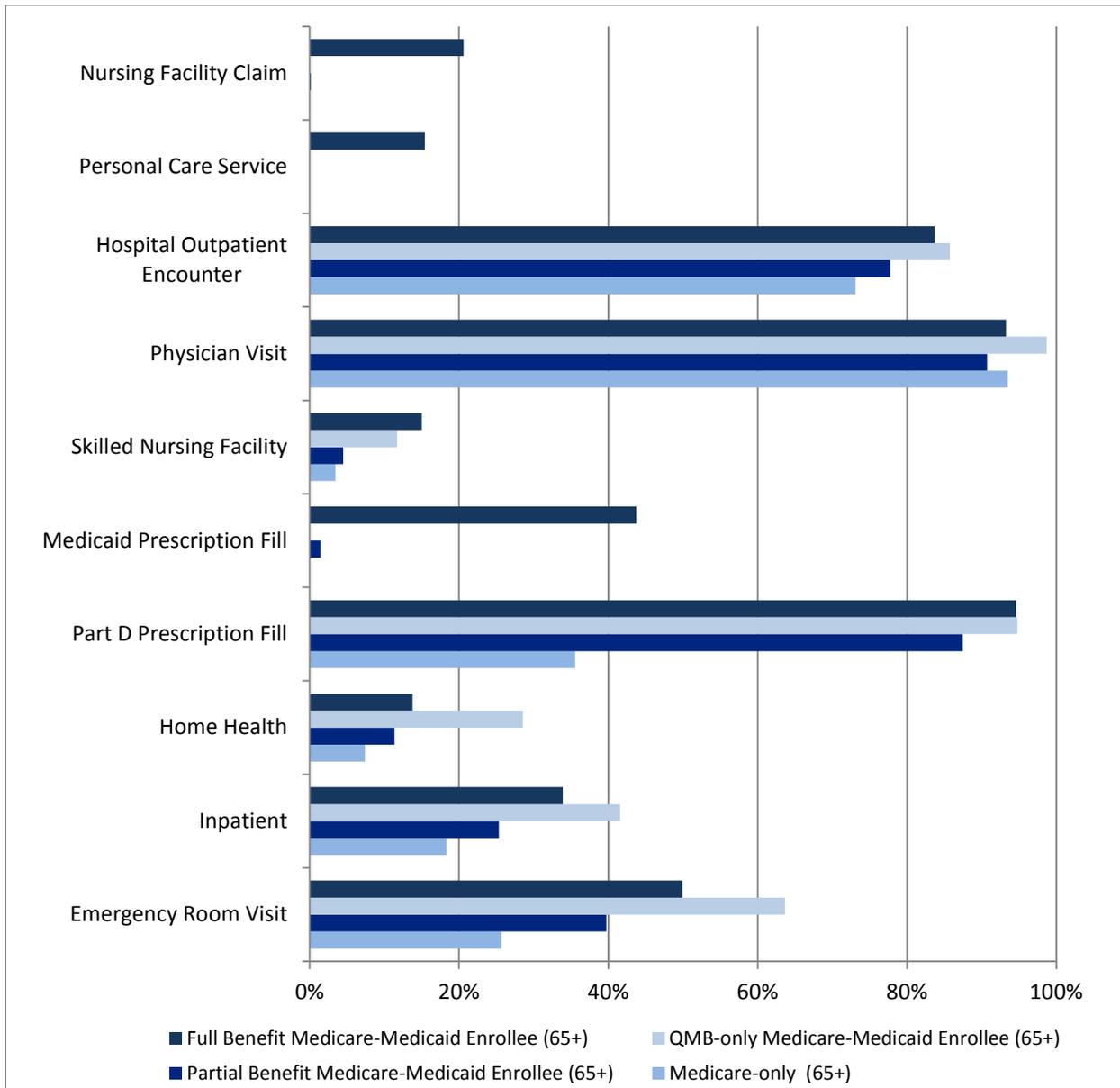
Source: CY 2008 MMLEADS data for FFS enrollees in Medicare and/or Medicaid

Note: While “QMB-only” Medicare-Medicaid enrollees are technically considered “Partial Benefit,” in this Report QMB-only is presented separately from “Partial Benefit,” with the latter referring only to all *other* types of Partial Benefit Medicare-Medicaid enrollees: Specified Low-income Medicare Beneficiaries (i.e., “SLMB-only”), Qualified Disabled Working Individuals (i.e., “QDWI”), and Qualifying Individuals (i.e., “QI”).

Note: No conclusions are made based on the QMB-only cohort due to low sample size.

As shown in **Figure 5**, Medicare-Medicaid enrollees in the 65 and over cohort utilize services at higher rates than Medicare-only beneficiaries with the exception of physician visits. Among Medicare-Medicaid enrollee cohorts, Full Benefit enrollees have higher utilization rates than Partial Benefit enrollees across all categories. (QMB-only enrollees are excluded from the analysis)

**Figure 5: Fee-for-Service Utilization Rates by Medicare-Medicaid Eligibility Type and Age (65+) in South Carolina, CY 2008**



**Source:** CY 2008 MMLEADS data for FFS enrollees in Medicare and/or Medicaid

**Note:** While “QMB-only” Medicare-Medicaid enrollees are technically considered “Partial Benefit,” in this Report QMB-only is presented separately from “Partial Benefit,” with the latter referring only to all *other* types of Partial Benefit Medicare-Medicaid enrollees: Specified Low-income Medicare Beneficiaries (i.e., “SLMB-only”), Qualified Disabled Working Individuals (i.e., “QDWI”), and Qualifying Individuals (i.e., “QI”).

**Note:** No conclusions are made based on the QMB-only cohort due to low sample size.

**Note:** Medicaid utilization (Nursing Facility Claims, Personal Care Services, and Medicaid Prescription Fills) has been suppressed for QMB-only Enrollees.

## E. Medicare and Medicaid Expenditures among Fee-for-Service Enrollees

**Table 3** and **Figure 6** show the per capita expenditures for each of the eligibility/age subgroups. Full-Benefit Medicare-Medicaid enrollees 65 and over incur close to \$25,000 in per capita expenditures, 2.5 times more than the per capita expenditures of Partial Benefits beneficiaries 65 and over (approximately \$10,000). These Full Benefit enrollee expenditures are also just over three times as high as those of Medicare-only beneficiaries (\$8,000). Combined Medicare and Medicaid per capita expenditures for Full Benefit Medicare-Medicaid enrollees under 65 are also significantly higher (approximately \$22,000) than the per capita expenditures of Partial Benefit enrollees (approximately \$12,000) and 17% higher than those of Medicaid-only enrollees with disability (approximately \$19,000).

**Table 3: Total Fee-for-Service Medicaid and Medicare Expenditures by Medicare-Medicaid Eligibility Type and Age Category in South Carolina, CY 2008**

|   | Number of Medicare FFS Enrollees | Medicare Per Capita Expenditures | Number of Medicaid FFS Enrollees | Medicaid Per Capita Expenditures | Total Per Capita Expenditures |
|---|----------------------------------|----------------------------------|----------------------------------|----------------------------------|-------------------------------|
| <b>Full Benefit (&lt;65)</b>                  | 46,066                           | \$14,510                         | 44,346                           | \$7,705                          | <b>\$22,216</b>               |
| <b>QMB-only (&lt;65)</b>                      | 143                              | \$16,228                         | 190                              | \$995                            | <b>\$17,223</b>               |
| <b>Partial Benefit (&lt;65)</b>               | 5,560                            | \$12,253                         | 4,948                            | \$120                            | <b>\$12,373</b>               |
| <b>Medicaid-only with disability (&lt;65)</b> |                                  |                                  | 27,562                           | \$19,002                         | <b>\$19,002</b>               |
| <b>Full Benefit (65+)</b>                     | 51,969                           | \$15,186                         | 58,213                           | \$9,707                          | <b>\$24,893</b>               |
| <b>QMB-only (65+)</b>                         | 77                               |                                  |                                  |                                  | <b>\$0</b>                    |
| <b>Partial Benefit (65+)</b>                  | 7,077                            | \$9,611                          | 7,913                            | \$50                             | <b>\$9,662</b>                |
| <b>Medicare-only (65+)</b>                    | 404,378                          | \$7,844                          |                                  |                                  | <b>\$7,844</b>                |

Source: CY 2008 MMLEADS data for FFS enrollees in Medicare and/or Medicaid

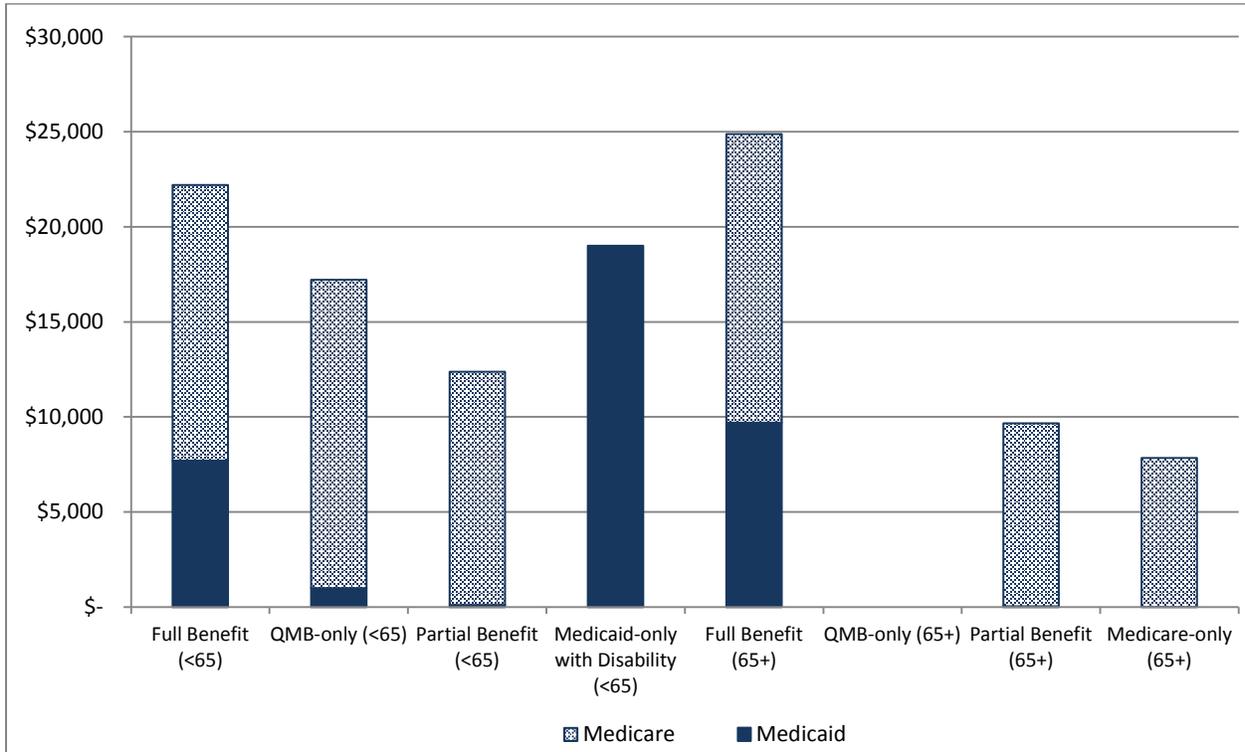
Note: While “QMB-only” Medicare-Medicaid enrollees are technically considered “Partial Benefit,” in this Report QMB-only is presented separately from “Partial Benefit,” with the latter referring only to all *other* types of Partial Benefit Medicare-Medicaid enrollees: Specified Low-income Medicare Beneficiaries (i.e., “SLMB-only”), Qualified Disabled Working Individuals (i.e., “QDWI”), and Qualifying Individuals (i.e., “QI”).

Note: No conclusions are made based on the QMB-only cohort due to low sample size.

Note: Medicaid expenditures have been suppressed for QMB-only Enrollees (65+) since the number of FFS enrollees was less than 11.

**Figure 6** shows total per capita expenditures among FFS enrollees by eligibility type and age category. Full Benefit enrollees have significantly higher expenditures than all other Medicare-Medicaid cohorts with Medicare expenditures responsible for over 60% of the total spend. Medicaid spending on Medicaid-only enrollees with disability (under 65) is much higher than the Medicaid expenditure total for Full Benefit enrollees under 65.

**Figure 6: Per Capita Annual Expenditures among Fee-for-Service Enrollees by Medicare-Medicaid Eligibility Type and Age in South Carolina, CY 2008**



Source: CY 2008 MMLEADS data for FFS enrollees in Medicare and/or Medicaid

Note: While “QMB-only” Medicare-Medicaid enrollees are technically considered “Partial Benefit,” in this Report QMB-only is presented separately from “Partial Benefit,” with the latter referring only to all *other* types of Partial Benefit Medicare-Medicaid enrollees: Specified Low-income Medicare Beneficiaries (i.e., “SLMB-only”), Qualified Disabled Working Individuals (i.e., “QDWI”), and Qualifying Individuals (i.e., “QI”).

Note: No conclusions are made based on the QMB-only cohort due to low sample size.

Note: Medicaid expenditures have been suppressed for QMB-only Enrollees (65+) since the number of FFS enrollees was less than 11.

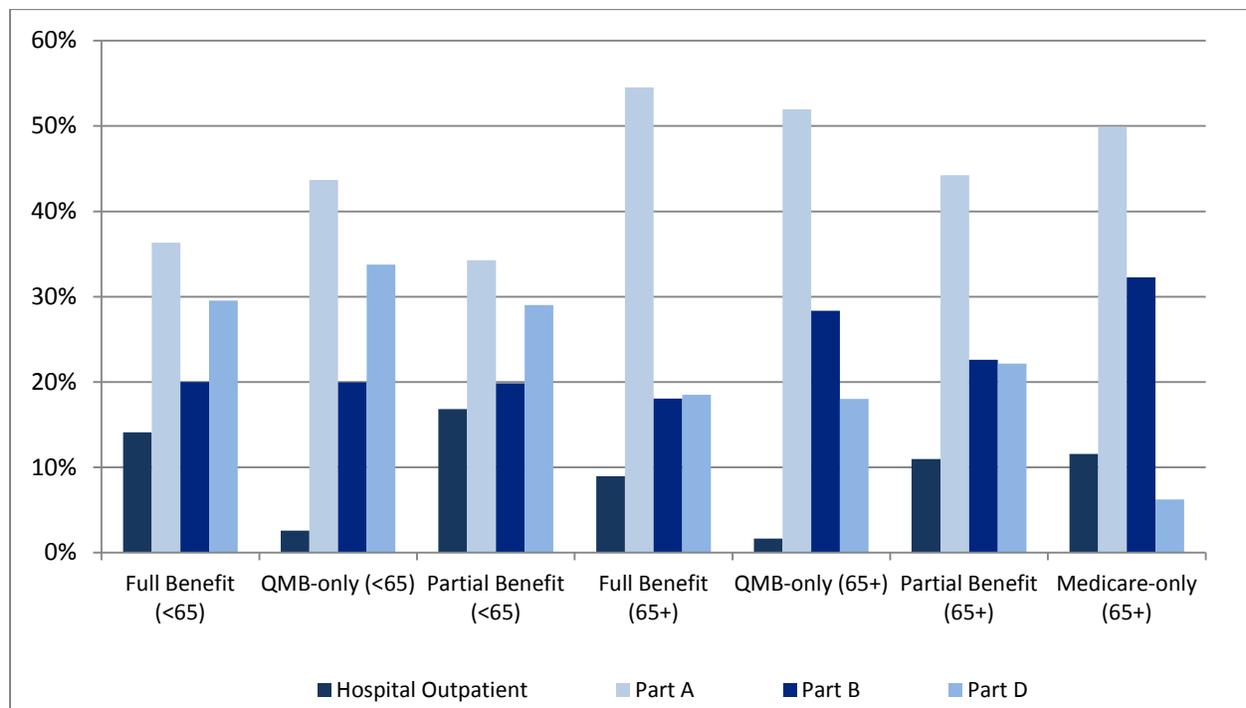
## 1. Medicare Expenditures

Total Medicare expenditures among FFS Medicare enrollees were examined by setting of care (**Figure 7**). The numbers of enrollees by eligibility type and age category are found in **Appendix E**. Examples of Medicare service types are found in **Appendix C**.

Medicare-Medicaid enrollees that are 65 and over have a higher percentage of their total Medicare expenditures that are comprised of Part A claims (44% to 55%) than do those under 65 (34% to 36%), while those under 65 have a higher proportion of their total Medicare expenditures that are comprised of Part D expenses (approximately 29%) compared to those 65 and over (19% to 22%).

Among Medicare-Medicaid enrollees 65 and over, Medicare Part B comprises a smaller proportion of Medicare expenditures, particularly for Full Benefit enrollees where this category is 18% of total expenditures, much lower than Medicare-only enrollees (approximately 32%). By contrast, Medicare Part D expenditures comprise a higher proportion of Medicare-Medicaid enrollees 65 and over expenditures (19% to 22%) compared to Part D expenditures for Medicare-only enrollees, which account for just over 6%.

**Figure 7: Medicare Expenditure Distribution among Fee-for-Service Enrollees by Medicare-Medicaid Eligibility Type and Age in South Carolina, CY 2008**



Source: CY 2008 MMLEADS data for FFS enrollees in Medicare

Note: While "QMB-only" Medicare-Medicaid enrollees are technically considered "Partial Benefit," in this Report QMB-only is presented separately from "Partial Benefit," with the latter referring only to all *other* types of Partial Benefit Medicare-Medicaid enrollees: Specified Low-income Medicare Beneficiaries (i.e., "SLMB-only"), Qualified Disabled Working Individuals (i.e., "QDWI"), and Qualifying Individuals (i.e., "QI").

Note: No conclusions are made based on the QMB-only cohort due to low sample size.

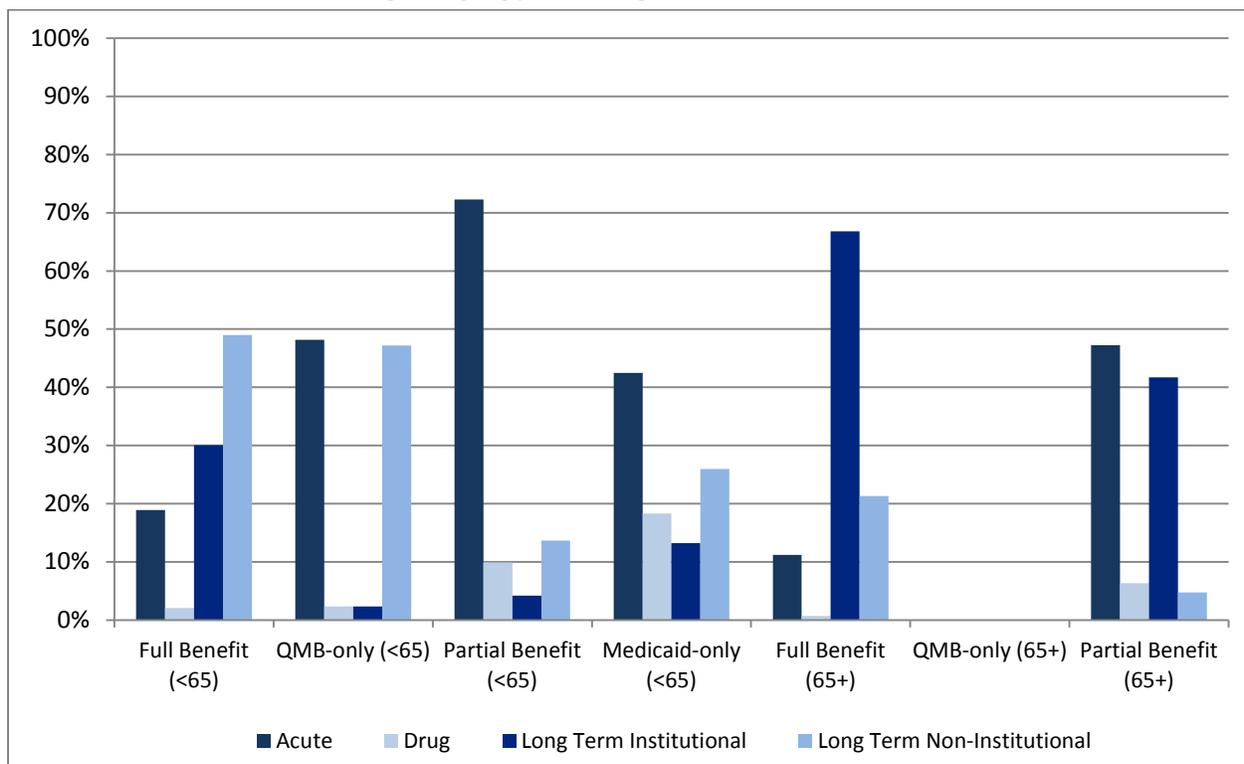
## 2. Medicaid Expenditures

The distribution of Medicaid expenditures by service type was examined among FFS enrollees (**Figure 8**). The numbers of enrollees examined for each eligibility type and age category are found in **Appendix F**. The Medicaid service types and examples are found in **Appendix D**.

Among the Medicare-Medicaid enrollees 65 and over, Full Benefit enrollees and Partial Benefit enrollees have very different patterns. Full Benefit enrollees have most of their Medicaid expenditures under long-term institutional care (67%) while Partial Benefit enrollees have the highest expenditures under acute care services (47%).

For the under 65 cohorts, expenditures vary significantly between Full Benefit and Partial Benefit enrollees. Long-term non-institutional settings comprise a significant portion of Medicaid expenditures for Full Benefit beneficiaries (almost 50%) while acute care account for the majority of the Medicaid expenditures for Partial Benefit enrollees (72%). Medicaid-only with disability beneficiaries also have the majority of their expenditures under acute care (43%).

**Figure 8: Medicaid Expenditure Distribution among Fee-for-Service Enrollees by Medicare-Medicaid Eligibility Type and Age in South Carolina, CY 2008**



Source: CY 2008 MMLEADS data for FFS enrollees in Medicaid

Note: While "QMB-only" Medicare-Medicaid enrollees are technically considered "Partial Benefit," in this Report QMB-only is presented separately from "Partial Benefit," with the latter referring only to all *other* types of Partial Benefit Medicare-Medicaid enrollees: Specified Low-income Medicare Beneficiaries (i.e., "SLMB-only"), Qualified Disabled Working Individuals (i.e., "QDWI"), and Qualifying Individuals (i.e., "QI").

Note: No conclusions are made based on the QMB-only cohort due to low sample size.

Note: Medicaid expenditures have been suppressed for QMB-only (65+) Enrollees since the number of FFS enrollees was less than 11.

---

### III. Acronym List

| Acronym | Definition   |
|---------|--|
| ADHD    | Attention Deficit hyperactivity Disorder               |
| AMI     | Acute Myocardial Infarction                            |
| ASC     | Ambulatory Surgery Center                              |
| CCW     | Chronic Condition Data Warehouse                       |
| CMS     | Centers for Medicare & Medicaid Services               |
| COPD    | Chronic Obstructive Pulmonary Disease                  |
| DME     | Durable Medical Equipment                              |
| ESRD    | End-Stage Renal Disease                                |
| FFS     | Fee-for-Service  |
| HH      | Home Health  |
| HMO     | Health Maintenance Organization                        |
| MAX     | Medicaid Analytic Extract                              |
| MDS     | Minimum Data Set                                       |
| MMLEADS | Medicare-Medicaid Linked Enrollee Analytic Data Source |
| PTSD    | Post-Traumatic Stress Disorder                         |
| QMB     | Qualified Medicare Beneficiary                         |

## Appendix A: Representativeness of Study Population, CY 2008

|   |   | Conditions Prevalence Analyses   | Medicare Expenditure and Utilization Analyses   | Medicaid Expenditure and Utilization Analyses  |
|---|---|--|---|--|
| <b>Managed care exclusion criteria</b>        |   | Excludes enrollees with Medicare OR Medicaid managed care  | Excludes enrollees with Medicare managed care   | Excludes enrollees with Medicaid managed care  |
| <b>Other exclusion criteria</b>               |   | Excludes Medicaid-only enrollees eligible due to disability and ages 65+, excludes Medicare-only enrollees under age 65; excludes enrollees only eligible for part of the year | Excludes Medicaid-only enrollees eligible due to disability and ages 65+; excludes enrollees only eligible for part of the year | Excludes Medicare-only enrollees under age 65; excludes enrollees only eligible for part of the year |
| <b>Cohorts</b>                                | Study Population as Percent of all Enrollees by Enrollee Type |  |   |  |
| <b>Full Benefit (&lt;65)</b>                  | 57,425  | 93.0%  | 80.2%   | 77.2%  |
| <b>QMB-only (&lt;65)</b>                      | 190   | 75.8%  | 75.3%   | 99.9%  |
| <b>Partial Benefit (&lt;65)</b>               | 7,970   | 86.8%  | 69.8%   | 62.1%  |
| <b>Medicaid-only with Disability (&lt;65)</b> | 87,930  | 31.3%  |   | 31.3%  |
| <b>Full Benefit (65+)</b>                     | 71,775  | 93.2%  | 72.4%   | 81.1%  |
| <b>QMB-only (65+)</b>                         | 111   | 69.4%  | 69.4%   | N/A  |
| <b>Partial Benefit (65+)</b>                  | 11,391  | 86.0%  | 62.1%   | 69.5%  |
| <b>Medicare-only (65+)</b>                    | 522,289   | 77.4%  | 77.4%   |  |

Source: CY 2008 MMLEADS data

Note: While “QMB-only” Medicare-Medicaid enrollees are technically considered “Partial Benefit,” in this Report QMB-only is presented separately from “Partial Benefit,” with the latter referring only to all *other* types of Partial Benefit Medicare-Medicaid enrollees: Specified Low-income Medicare Beneficiaries (i.e., “SLMB-only”), Qualified Disabled Working Individuals (i.e., “QDWI”), and Qualifying Individuals (i.e., “QI”).

Note: Statistics based on less than 11 individuals in the population have been suppressed and replaced by N/A.

---

## Appendix B: Methodology

### Data sources

Profiles were created for each state as well as for the nation as a whole using the 2008 CMS Medicare-Medicaid Linked Enrollee Analytic Data Source (MMLEADS). Across five linked files, MMLEADS combines person-level enrollment and claims summary data from Medicare and Medicaid thereby making possible a comprehensive examination of demographic characteristics, condition prevalence, and service-level utilization and payments for dually enrolled Medicare-Medicaid enrollees, as well as Medicare-only enrollees and Medicaid-only enrollees with disabilities. The MMLEADS Medicare Beneficiary File contains enrollment information obtained from the Medicare Enrollment Database (EDB). The MMLEADS Medicaid Beneficiary File consists of demographic information from the Medicaid Analytic eXtract (MAX) Person Summary (PS) file. MMLEADS also contains two service level files specific to Medicare and Medicaid, as well as one aggregated health conditions file.

The percentage of the overall Medicare and Medicaid population comprised of Medicare-Medicaid eligible enrollees (Partial Benefit, QMB-only and Full Benefit Medicare-Medicaid enrollees) was examined by state and compared to national totals.

A listing of all the source data files appears in **Table B-1**.

**Table B-1: Description of Data Sources**

| Data Source                              | Input to Research File   |
|--|--|
| MMLEADS Medicare Beneficiary File 2008   | Cohort identification, demographics, and monthly Medicare enrollment for all Medicare-Medicaid enrollees and Medicare-only enrollees                 |
| MMLEADS Medicaid Beneficiary File 2008   | Cohort identification, demographics, and monthly Medicaid enrollment for all Medicare-Medicaid enrollees and Medicaid-only enrollees with disability |
| MMLEADS Condition File 2008              | Prevalence of conditions of interest   |
| MMLEADS Medicare Service-level File 2008 | Medicare setting specific utilization and expenditure  |
| MMLEADS Medicaid Service-level File 2008 | Medicaid setting specific expenditure and utilization  |

### Sample Identification and Data File Construction

#### 1. Demographic characteristics

Because individuals may reside in more than one state in a given year, algorithms were necessary to assign each individual to only one state. Therefore, in our study population, Medicare-Medicaid eligible and Medicaid-only enrollees with disabilities were assigned to states based on state submitted Medicaid Statistical Information System (MSIS) data available in the MAX Personal Summary (PS) file. Medicare-only enrollees were assigned a single state based on the billing address of the individual at the end of 2008 as reported in the Medicare Enrollment Database (EDB).

Age was categorized into four groups: under 40, 40-64, 65-84, and 85+ years. Age category assignments were determined using an enrollee's age as of December 31, 2008 or the age at death if an individual died during 2008. Race/ethnicity characteristics for Medicare-only and Medicare-

---

Medicaid eligible enrollees were from the RTI race code. Race for Medicaid-only with disability enrollees was based on the state reported race code available in the MAX PS file. The race values for each eligibility group are similar, but the RTI race code available for Medicare enrollees uses additional logic for assignment of race based on surname. The RTI race code was not available for Medicaid enrollees since the MAX file does not contain surname. Race was categorized as Non-Hispanic White, African American, Hispanic, Asian/Pacific Islander, American Indian/Alaskan Native, and Other Races.

## *2. Exclusion of Managed Care Enrollees*

Statistics related to condition prevalence, utilization and annual expenditures were limited to full FFS enrollees. Specifically, analyses of condition prevalence were limited to enrollees with FFS Medicare or Medicaid since complete administrative claims would be available through one program for identification of conditions. Analyses of Medicare payment and utilization statistics were limited to FFS Medicare enrollees, and Medicaid payment and utilization statistics were limited to FFS Medicaid enrollees. Please see **Appendix A** for a detailed analysis of the representativeness of the study populations.

There are multiple reasons for this method of sample identification. The encounter claims for Medicare managed care were not available for 2008 data, as Medicare did not begin collecting them until 2012. In addition, while the CCW data include complete FFS claims for Medicaid and Medicare (as provider reimbursement is conditional upon submission of accurate and complete claims for FFS enrollees), the completeness of Medicaid encounter data is known to vary by state. We chose to structure our analysis in a fashion that would ensure a consistent methodological approach for each state analyzed.

Medicare full FFS enrollees were defined as those with Medicare Part A and Part B coverage and no Medicare Advantage coverage for all months alive during the reference year. Medicaid full FFS enrollees were defined as those without eligible pre-paid plan coverage of comprehensive managed care, long term care managed care, program of all-inclusive care for the elderly (PACE), primary care case management (PCCM), behavioral managed care, or prenatal managed care.

To allow for suitable comparisons, the FFS populations were categorized into eight groups by Medicare-Medicaid eligibility type and age category (<65 or 65+ years) for analyses of condition prevalence, utilization, and expenditures:

1. Full Benefit Medicare-Medicaid enrollees (<65)
2. QMB-only Medicare-Medicaid enrollees (<65)
3. Partial Benefit Medicare-Medicaid enrollees (<65)
4. Medicaid-only with a disability (<65)  
and
5. Full Benefit Medicare-Medicaid enrollees (65+)
6. QMB-only Medicare-Medicaid enrollees (65+)
7. Partial Benefit Medicare-Medicaid enrollees (65+)
8. Medicare-only (65+)

### 3. Health, Mental Health and Disability-related Conditions

Prevalence rates for a wide set of physical, mental health, and disability-related conditions were examined by Medicare-Medicaid eligibility type and age category.

A subset of these conditions, based on algorithms created for analysis of Medicare and/or Medicaid enrollees, were utilized to determine the total count of conditions per individual by Medicare-Medicaid eligibility and age group. **Table B-2** lists conditions evaluated in the study populations and indicates which of these were included in a count of conditions per enrollee. Some conditions were grouped into categories to reduce duplication while others were excluded as they were not accurate indicators of ongoing comorbidities in the population. Details of groupings and logic for inclusion or exclusion are included in **Table B-2**.

Table B-2: Inclusion of Conditions in Condition Count

| Condition   | Category used in Condition Count                      | Comments  |
|---|---|---|
| Acquired hypothyroidism                               | --  | Excluded since the condition is easily maintained with medication   |
| Acute myocardial infarction (AMI)                     | Heart disease/failure                                 | Counted as part of Heart disease/failure condition including AMI, IHD, and Heart failure  |
| Alzheimer's disease and Alzheimer's related disorders | Alzheimer's disease and Alzheimer's related disorders |   |
| Anemia  | --  | Excluded as it may be a symptom of another condition  |
| Anxiety   | Anxiety & PTSD  | Counted as part of a condition including anxiety and PTSD   |
| Asthma  | Asthma & COPD   | Counted as part of a condition including COPD and asthma  |
| Atrial fibrillation                                   | --  | Excluded as it may be a symptom of another condition and has low prevalence   |
| Attention deficit hyperactivity disorder (ADHD)       | --  | Excluded since it has less relevance for the Medicare-Medicaid population   |
| Autism  | Intellectual & developmental disabilities             | Counted as part of a condition including autism, learning disabilities, intellectual & related disabilities, and other developmental delays |
| Benign prostatic hyperplasia                          | --  | Excluded as it is a benign condition, common in men over 50, that is not related to cancer risk   |
| Bipolar disorder                                      | Bipolar disorder                                      |   |
| Brain injury  | Mobility-related impairments & spine/brain injury     | Counted as part of a condition including mobility impairments, spinal cord injury, and brain injury   |
| Breast cancer (Female)                                | Cancer  | Counted as part of a condition including breast , colorectal, endometrial, lung, and prostate cancers                                       |
| Breast cancer (Male)                                  | Cancer  | Counted as part of a condition including breast , colorectal, endometrial, lung, and prostate cancers                                       |
| Cataract  | Visual impairment                                     | Counted as part of a visual impairment condition including cataract, glaucoma, and blindness/visual impairment                              |
| Cerebral palsy  | Cerebral palsy  |   |
| Chronic kidney disease                                | Chronic kidney disease                                |   |

| Condition                                    | Category used in Condition Count                  | Comments  |
|--|---|---|
| Chronic obstructive pulmonary disease (COPD) | Asthma & COPD                                     | Counted as part of a condition including COPD and asthma  |
| Colorectal cancer (Female)                   | Cancer  | Counted as part of a condition including breast , colorectal, endometrial, lung, and prostate cancers                                       |
| Colorectal cancer (Male)                     | Cancer  | Counted as part of a condition including breast , colorectal, endometrial, lung, and prostate cancers                                       |
| Cystic fibrosis                              | Cystic fibrosis                                   |   |
| Deafness or hearing impairment               | Deafness & hearing impairment                     |   |
| Depression                                   | Depression  |   |
| Diabetes                                     | Diabetes  |   |
| Endometrial cancer (Female)                  | Cancer  | Counted as part of a condition including breast , colorectal, endometrial, lung, and prostate cancers                                       |
| Epilepsy                                     | Epilepsy  |   |
| Glaucoma                                     | Visual impairment                                 | Counted as part of a visual impairment condition including cataract, glaucoma, and blindness/visual impairment                              |
| Heart failure                                | Heart disease/failure                             | Counted as part of Heart Disease/failure condition including AMI, IHD, and Heart failure  |
| Hip fracture                                 | --  | Excluded as this is a distinct event occurring at one point in time rather than an ongoing condition  |
| Hyperlipidemia                               | --  | Excluded as it may be a symptom of a more serious condition   |
| Hypertension                                 | --  | Excluded as it may be a symptom of a more serious condition   |
| Intellectual disability                      | Intellectual & developmental disabilities         | Counted as part of a condition including autism, learning disabilities, intellectual & related disabilities, and other developmental delays |
| Ischemic heart disease (IHD)                 | Heart disease/failure                             | Counted as part of Heart Disease/failure condition including AMI, IHD, and Heart failure  |
| Learning disability                          | Intellectual & developmental disabilities         | Counted as part of a condition including autism, learning disabilities, intellectual & related disabilities, and other developmental delays |
| Lung cancer (Female)                         | Cancer  | Counted as part of a condition including breast , colorectal, endometrial, lung, and prostate cancers                                       |
| Lung cancer (Male)                           | Cancer  | Counted as part of a condition including breast , colorectal, endometrial, lung, and prostate cancers                                       |
| Mobility disability                          | Mobility-related impairments & spine/brain injury | Counted as part of a condition including mobility impariments, spinal cord injury, and brain injury   |
| Multiple sclerosis                           | Multiple sclerosis                                |   |
| Muscular dystrophy                           | Muscular dystrophy                                |   |
| Osteoporosis                                 | Osteoporosis                                      |   |
| Other developmental disorder                 | Intellectual & developmental disabilities         | Counted as part of a condition including autism, learning disabilities, intellectual & related disabilities, and other developmental delays |

| Condition                             | Category used in Condition Count                  | Comments   |
|---------------------------------------|---|--|
| Personality disorder                  | Personality disorder                              |  |
| Post-traumatic stress disorder (PTSD) | Anxiety & PTSD                                    | Counted as part of a condition including anxiety and PTSD  |
| Prostate cancer (Male)                | Cancer  | Counted as part of a condition including breast , colorectal, endometrial, lung, and prostate cancers          |
| Rheumatoid osteo-arthritis            | Rheumatoid osteo-arthritis                        |  |
| Schizophrenia                         | Schizophrenia                                     |  |
| Spina bifida                          | Spina bifida                                      |  |
| Spinal injury                         | Mobility-related impairments & spine/brain injury | Counted as part of a condition including mobility impairments, spinal cord injury, and brain injury            |
| Stroke                                | Stroke  |  |
| Tobacco use                           | --  | Excluded since this is a behavior that is a risk factor for developing other conditions                        |
| Visual impairment                     | Visual impairment                                 | Counted as part of a visual impairment condition including cataract, glaucoma, and blindness/visual impairment |

Five individual cancer conditions (breast, endometrial, prostate, colorectal, and lung) were combined to create an overall cancer condition, and other similar diagnoses were grouped together and counted once for each condition. The final list of conditions included in the condition count include the following: Alzheimer’s disease and Alzheimer’s related disorders, asthma & chronic obstructive pulmonary disease (COPD), anxiety & PTSD, bipolar disorder, cancer, cerebral palsy, chronic kidney disease, cystic fibrosis, deafness & hearing impairment, depression, diabetes, epilepsy, heart disease/failure, intellectual & developmental disabilities, mobility-related impairments & spine/brain injury, multiple sclerosis, muscular dystrophy, osteoporosis, personality disorder, rheumatoid osteo-arthritis, schizophrenia, spina bifida, stroke, and visual impairment.

Proportions of Medicare-Medicaid, Medicare-only, and Medicaid-only enrollees with disability populations in the following categories were examined: enrollees with none of the included conditions, one to two conditions, three to four conditions, and five or more conditions.

#### **4. Medicare and Medicaid Utilization**

The services covered by Medicare and Medicaid differ. Medicare utilization statistics included the following: hospital outpatient services, skilled nursing facilities (SNF), and Medicare Part D prescription fills. Medicaid utilization statistics included the following: Medicaid drug prescriptions, personal care services, and nursing facility claims. The services covered by Medicare and Medicaid, including emergency room, inpatient stays, and home health visits were examined across programs. Per capita utilization rates of these services were examined for full FFS enrollees.

---

## 5. Medicare and Medicaid Expenditures

The percentage of total expenditures by Medicare-Medicaid eligibility type was calculated, including the mean per capita Medicare and Medicaid expenditures and the proportion of Medicare expenditures attributed to Medicare Parts A, Part B (non-institutional), Hospital Outpatient (Part B Institutional) and Part D claims. The distribution of Medicaid expenditures are presented by service type based on circumstances of care. Medicare and Medicaid service types are listed in **Appendix C** and **Appendix D** respectively.

### Study Limitations

The condition, utilization, and expenditure analyses necessarily excluded enrollees who received services under Medicare and Medicaid managed care programs since, in 2008, managed care encounter claims were not reported to Medicare and were not reliably reported to Medicaid. As a result, statistics presented may not be entirely generalizable to the entire enrolled populations. This warrants concern given that state Medicaid programs are heading in the direction of managed care programs instead of FFS, and Medicare eligible individuals enrolled in managed care programs may not have as high a rate of chronic conditions as FFS Medicare enrollees.

Twenty-five percent of the South Carolina cohort in the MMLEADS data did not receive benefits under FFS in either Medicare or Medicaid programs and were excluded from the condition analysis. Refer to **Appendix E** and **Appendix F** for more information about managed care enrollment and population sizes.

## Appendix C: Claim Types Included in Medicare Services

| Medicare Service Type      | Included Services  |
|----------------------------|--|
| <b>Hospital Outpatient</b> | Community Mental Health Center   |
|                            | End Stage Renal Disease  |
|                            | Other Hospital Outpatient  |
|                            | Other Skilled Nursing Facility   |
|                            | Outpatient Clinic  |
|                            | Outpatient Prospective Payment Schedule                                    |
|                            | Outpatient Therapy   |
| <b>Part A</b>              | Home Health  |
|                            | Hospice  |
|                            | Inpatient  |
|                            | Other Inpatient (Inpatient Psychiatric Facility)                           |
|                            | Other Post Acture Care (Long Term Care, Inpatient Rehabilitation Facility) |
|                            | Skilled Nursing Facility   |
| <b>Part B</b>              | Ambulatory Surgical Center   |
|                            | Durable Medical Equipment  |
|                            | Imaging  |
|                            | Laboratory and Testing   |
|                            | Part B Drug  |
|                            | Physician Evaluation and Management  |
|                            | Procedure  |
| <b>Part D</b>              | Prescription Drug  |

## Appendix D: Claim Types Included in Medicaid Services

| Medicaid Service Type                   | Included Services (Medicaid Type of Service)  |
|---|---|
| <b>Acute</b>                            | 01 - Inpatient hospital   |
|   | 11 - Outpatient hospital  |
|   | 08 - Physician  |
|   | 15 - Lab X-ray  |
|   | 09 - Dental   |
|   | 10 - Other practitioners  |
|   | 12 - Clinic   |
|   | 19 - Other services   |
|   | 24 - Sterilizations   |
|   | 25 - Abortions  |
|   | 34 - PT, OT, Speech, Hearing services   |
|   | 36 - Nurse midwife services   |
|   | 37 - Nurse practitioner services  |
|   | 39 - Religious non-medical health care institutions   |
|   | 53 - Psychiatric services   |
| 99 - Unknown                            |   |
| <b>Drug</b>                             | 16 - Prescribed drugs   |
| <b>Long Term Care Institutional</b>     | 02 - Mental hospital services for the aged  |
|   | 04 - Inpatient psychiatric facility for individuals under the age of 21   |
|   | 05 - Intermediate care facility (ICF) for individuals with intellectual disabilities                            |
|   | 07 - Nursing facility services (NFS) - all other  |
| <b>Long Term Care Non-Institutional</b> | 33 - Rehabilitative services, waiver  |
|   | 13 - Home health  |
|   | 35 - Hospice benefits   |
|   | 51 - Durable medical equipment (DME) and supplies (including emergency response systems and home modifications) |
|   | 30 - Personal care services   |
|   | 52 - Residential care   |
|   | 54 - Adult day care   |
|   | 26 - Transportation services  |
|   | 31 - Targeted case management   |
|   | 38 - Private duty nursing   |
| <b>Managed Care</b>                     | 20 - Capitated payments to HMO or HIO plan  |
|   | 21 - Capitated payments to prepaid health plans (PHPs)  |
|   | 22 - Capitated payments for primary care case management (PCCM)   |
| <b>Other</b>                            | Charges but Type of Service was not populated   |

Appendix E: Medicare Fee-for-Service Enrollee Count by Medicare-Medicaid Eligibility Type Examined in the Medicare Expenditure Analysis, South Carolina, CY 2008

|                                 | Medicare Managed Care |         | Medicare Fee-for-Service |         | Not all Months Alive Medicare Fee-for-Service |         | Total Medicare Denominator |
|---------------------------------|-----------------------|---------|--------------------------|---------|---|---------|----------------------------|
|                                 | Number                | Percent | Number                   | Percent | Number  | Percent |                            |
| <b>Full Benefit (&lt;65)</b>    | 6,957                 | 12.1%   | 46,066                   | 80.2%   | 4,402   | 7.7%    | 57,425                     |
| <b>QMB-only (&lt;65)</b>        | 32                    | 16.8%   | 143                      | 75.3%   | 15  | 7.9%    | 190                        |
| <b>Partial Benefit (&lt;65)</b> | 2,088                 | 26.2%   | 5,560                    | 69.8%   | 322   | 4.0%    | 7,970                      |
| <b>Full Benefit (65+)</b>       | 13,965                | 19.5%   | 51,969                   | 72.4%   | 5,841   | 8.1%    | 71,775                     |
| <b>QMB-only (65+)</b>           | 32                    | 28.8%   | 77                       | 69.4%   | N/A   | N/A     | 111                        |
| <b>Partial Benefit (65+)</b>    | 4,139                 | 36.3%   | 7,077                    | 62.1%   | 175   | 1.5%    | 11,391                     |
| <b>Medicare-only (65+)</b>      | 68,073                | 13.0%   | 404,378                  | 77.4%   | 49,838  | 9.5%    | 522,289                    |

Note: While “QMB-only” Medicare-Medicaid enrollees are technically considered “Partial Benefit,” in this Report QMB-only is presented separately from “Partial Benefit,” with the latter referring only to all *other* types of Partial Benefit Medicare-Medicaid enrollees: Specified Low-income Medicare Beneficiaries (i.e., “SLMB-only”), Qualified Disabled Working Individuals (i.e., “QDWI”), and Qualifying Individuals (i.e., “QI”).

Note: Statistics based on less than 11 individuals in the population have been suppressed and replaced by N/A.

Appendix F: Medicaid Fee-for-Service Enrollee Count by Medicare-Medicaid Eligibility Type Examined in the Medicaid Expenditure Analysis, South Carolina, CY 2008

|   | Medicaid Managed Care |         | Medicaid Fee-for-Service |         | Not all Months Alive Medicaid Fee-for-Service |         | Total Medicaid Denominator |
|---|-----------------------|---------|--------------------------|---------|---|---------|----------------------------|
|   | Number                | Percent | Number                   | Percent | Number  | Percent |                            |
| <b>Full Benefit (&lt;65)</b>                  | 5,086                 | 8.9%    | 44,346                   | 77.2%   | 7,993   | 13.9%   | 57,425                     |
| <b>QMB-only (&lt;65)</b>                      | N/A                   | N/A     | N/A                      | N/A     | N/A   | N/A     | 190                        |
| <b>Partial Benefit (&lt;65)</b>               | 62                    | 0.8%    | 4,948                    | 62.1%   | 2,960   | 37.1%   | 7,970                      |
| <b>Medicaid-only with disability (&lt;65)</b> | 48,024                | 54.6%   | 27,562                   | 31.3%   | 12,344  | 14.0%   | 87,930                     |
| <b>Full Benefit (65+)</b>                     | 4,790                 | 6.7%    | 58,213                   | 81.1%   | 8,772   | 12.2%   | 71,775                     |
| <b>QMB-only (65+)</b>                         | N/A                   | N/A     | N/A                      | N/A     | N/A   | N/A     | 111                        |
| <b>Partial Benefit (65+)</b>                  | 32                    | 0.3%    | 7,913                    | 69.5%   | 3,446   | 30.3%   | 11,391                     |

Note: While “QMB-only” Medicare-Medicaid enrollees are technically considered “Partial Benefit,” in this Report QMB-only is presented separately from “Partial Benefit,” with the latter referring only to all *other* types of Partial Benefit Medicare-Medicaid enrollees: Specified Low-income Medicare Beneficiaries (i.e., “SLMB-only”), Qualified Disabled Working Individuals (i.e., “QDWI”), and Qualifying Individuals (i.e., “QI”).

Note: Statistics based on less than 11 individuals in the population have been suppressed and replaced by N/A.