RESEARCH REPORT

Dual Medicare-Medicaid Enrollment and Integrated Plan Identification

T-MSIS Analytic Files Data Quality

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Executive Summary

In this data quality report, we investigate the quality of 2016 data on dual Medicare-Medicaid enrollment in the Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files, hereafter called the TAF. We also explore the TAF’s capacity to identify people dually enrolled in Medicare and Medicaid in integrated plans. For both exercises, we compare TAF data with enrollment information from the Medicare Master Beneficiary Summary File (MBSF). Our analysis produced several key findings:

- Agreement across the TAF and MBSF on which individuals were dually enrolled in Medicare and Medicaid in a given month during calendar year 2016 was approximately 84 percent.
- Concordance in dual enrollment status across the TAF and MBSF varies considerably across states; some states’ data are unusable (e.g., Arkansas), whereas very little evidence of data issues related to enrollment status exists in other states (e.g., Nebraska).
- Medicare Savings Program classifications (e.g., Qualified Medicare Beneficiary) for people identified as dual enrollees in both the TAF and MBSF seem consistent across data sources for most states. However, a few states have low consistency (e.g., California).
- The Program of All-Inclusive Care for the Elderly (PACE) is the only integrated plan identifiable in the TAF, and agreement in PACE enrollment is high across the TAF and MBSF.
- The TAF’s data on generic integrated plan enrollment (non-PACE) identify approximately 44 percent of Medicare-Medicaid Plan enrollees, 17 percent of Dual Eligible Special Needs Plan enrollees, and no Fully Integrated Dual Eligible Special Needs Plan enrollees in the MBSF.
- The TAF identifies most Medicare-Medicaid Plan enrollees in Ohio, Massachusetts, New York, Texas, and Virginia, or in half of the states with capitated Financial Alignment Initiative demonstrations.

The high degree of agreement between TAF and MBSF data on dual enrollees is encouraging, suggesting the TAF enrollment data quality is good for most states. Still, some states’ enrollment data are unusable. Consequently, researchers need to incorporate state-specific considerations into their research designs. Thus, one overarching implication is that nationwide analyses are infeasible using the TAF; some state exclusions are necessary. Another broad implication is that the TAF alone is not equipped to identify and study those enrolled in integrated plans, except PACE, and additional data sources, such as the MBSF, are necessary to identify integrated plan enrollees in the TAF.
Dual Medicare-Medicaid Enrollment and Integrated Plan Identification

To study those dually enrolled in Medicare and Medicaid (hereafter “dual enrollees”), having administrative data from both programs is vital. On November 8, 2020, the Centers for Medicare & Medicaid Services (CMS) announced the availability of new Medicaid administrative data files spanning calendar years 2014 to 2016 for the research community, namely the Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files (TAF). Importantly, TAF data are available in CMS’s Chronic Conditions Data Warehouse Virtual Research Data Center, meaning they can be linked to administrative Medicare data. This linkage opens a range of researchable questions for quantitative analysis, because both Medicare and Medicaid data are necessary to paint a complete picture of health care spending and utilization of care among dual enrollees.

TAF data quality assessments and a TAF data quality website, DQ ATLAS, offer information by topic and state to users of TAF data.¹ Though these resources are valuable, they focus on the Medicaid population more generally. In this work, we contribute to knowledge of the TAF’s data quality by specifically focusing on issues related to dual enrollees. Medicare-Medicaid dual enrollees represent a minority of Medicaid enrollees overall, meaning data quality issues identified in the more general Medicaid population may not apply to dual enrollees. Also, some TAF data features and data quality questions are specific to dual enrollees.

This data quality report has two main objectives. The first is to investigate the quality of the dual enrollment indicator in the TAF Research Identifiable Files (RIF) for calendar year 2016 and the more detailed Medicare Savings Program (MSP) classifications, nationally and by state. The second objective is to investigate the degree to which the TAF is equipped to identify dual enrollees participating in integrated plans.

Interested readers should refer to the glossary at the end of this report that is intended to facilitate interpretation of the terms commonly used in this report and two related companion reports on the quality of medical care utilization and Medicaid spending TAF data among dual enrollees (Caswell, Waidmann, and Wei 2021a, 2021b).
Data and Methods

In this section, we outline in detail the data used to identify dual enrollees and their enrollment in integrated care plans by source, and we describe our methodology for combining the data and identifying the TAF’s shortcomings.

Medicaid Data

We use the RIF version of the TAF for calendar year 2016, the most recent RIF data available when we conducted this study. We use the following data elements from the TAF’s Demographics and Eligibility base file:

- state (most recent information based on enrollee residence, not the submitting state)
- Medicare-Medicaid dual eligibility code (identifies MSP categories)
- number of enrollment days in month (for Medicaid and the Children’s Health Insurance Program)
- managed-care plan-type code (one value per month, hierarchy applied to multiple plans)

In addition, we use the following data elements from the Demographics and Eligibility Managed Care file:

- managed-care plan-type code (16 possible plans per month)
- managed-care plan ID (16 possible plans per month)

These data are the basis for identifying Medicare-Medicaid enrollment by month and state and comprehensive Medicaid managed-care plan enrollment in the TAF. Additionally, the managed-care plan-type code includes information on integrated plan enrollment, namely, Programs of All-Inclusive Care for the Elderly (PACE) and what the TAF calls "integrated care [plans] for dual eligibles." For the latter, the TAF excludes detail on the types of integrated care plans. However, we interpret “integrated care plans” to mean integrated plans other than PACE, which we discuss further below.

Medicare Data

We compare the TAF with the RIF versions of the Medicare Master Beneficiary Summary File (MBSF), base (A/B/C/D) segment, which also spans calendar year 2016. We use the following data elements from the MBSF:
- state of residence (monthly data transformed to match the TAF definition above for comparison)
- Medicare status code
- Medicare-Medicaid dual eligibility code
- Part C plan-type code (identifies type of Medicare Advantage plan)
- Part C contract number
- Part C plan benefit package for enrollees in Medicare Advantage plans

The MBSF data include more specificity on integrated plan enrollment than the TAF. Specifically, the MBSF data on plan-type codes identify enrollment in both Medicare-Medicaid Plans and PACE plans. It is possible to further identify Dual Eligible Special Needs Plans (D-SNPs) and Fully Integrated Special Needs Plans (FIDE SNPs) by combining MBSF data on Part C plan contract numbers with publicly available data, which we discuss further below.

**CMS Special Needs Plan Data**

The publicly available special needs plan (SNP) comprehensive report data from CMS include detailed monthly information on SNP enrollment by plan and month. Specifically, these data report plan contract numbers and SNP plan type and specialty, and the latter distinguishes D-SNPs and FIDE SNPs. We consolidate the monthly plan data to identify unique plans over a calendar year. Finally, we merge these data with the MBSF by enrollees’ Part C plan contract numbers and plan benefit package numbers to identify D-SNP and FIDE SNP enrollees in the MBSF. We, in turn, compare this information with the more generic integrated plan enrollment data among dual enrollees in the TAF.

**Methods**

We compare statistics on similarly defined concepts in the TAF and MBSF to identify potential shortcomings in the TAF data. Our constructed analytic data file includes unique enrollee-month records from both data sources merged together using the Chronic Conditions Data Warehouse's unique person identifier, "BENE_ID." We then use these data to produce national statistics by month and state-level statistics that combine all person-month observations during the calendar year. The latter is helpful for identifying whether national issues are concentrated in specific states and for
uncovering issues in relatively small states that may not be apparent at the national level. Where possible, we report on the specific types of inconsistencies across the TAF and MBSF.

Results

The following subsections present results on agreement in dual enrollment and MSP classification across the TAF and MBSF, nationally and by state. In the final subsection, we report findings on the TAF’s ability to identify those enrolled in integrated plans.

Dual Enrollment in the TAF and MBSF

We first evaluate TAF dual enrollment data. Figure 1 reports national statistics by month for those identified as dually enrolled in Medicare and Medicaid in either the TAF or MBSF. It shows the five possible ways enrollees appear in these data. The number of dual enrollees in either data source ranges from 11.7 million in January to 11.8 million in December. The main findings from figure 1 are as follows:

- Roughly 84 percent of people are identified as dually enrolled in both data sources in a given month in 2016, reflecting approximately 9.9 million enrollees.
- About 3.7 percent of people are identified as dually enrolled in a typical month in the MBSF but identified as enrolled only in Medicaid in a typical month in the TAF.
- Just under 1.0 percent of individuals are identified as dually enrolled in the MBSF but do not appear in the TAF.
- Approximately 4.7 percent of individuals are identified as dually enrolled in the TAF but identified as enrolled only in Medicare in the MBSF.
- Approximately 6.6 percent of individuals are identified as dually enrolled in the TAF but do not appear in the MBSF.
- Among those identified as dually enrolled in either data source, the TAF identifies a greater proportion (roughly 95 percent) than the MBSF (roughly 89 percent).
- These statistics vary little by month and show no systematic pattern of increasing or decreasing agreement during the year.
FIGURE 1
Dual Enrollment in the TAF and/or MBSF, by Month, Calendar Year 2016

Source: Authors’ calculations using administrative TAF and MBSF RIF data.
Notes: TAF = T-MSIS Analytic Files. MBSF = Master Beneficiary Summary File. RIF = Research Identifiable Files. All dual enrollees identified in either the TAF or MBSF are reported. As shown, enrollees fall into one of five possible TAF-MBSF enrollment combinations.

National findings may mask important state-level variation in data quality on dual enrollment across sources. We anticipate this, given that each state’s Medicaid program operates differently.

Figure 2 reports state-level dual enrollment statistics in the TAF and MBSF, which are averages over 12 months of data for each state. We find the following:

- Agreement in dual enrollment across the TAF and MBSF ranges from a high of 98.6 percent (Nebraska) to a low of 2.4 percent (Arkansas).
- Among states with low consistency across sources, the type of inconsistency varies across states.
  - In Arkansas, Colorado, the District of Columbia, Idaho, Nevada, Pennsylvania, and Wyoming, most inconsistencies are among those dually enrolled in the MBSF but identified as Medicaid-only enrollees in the TAF.
  - In North Dakota, most inconsistencies are between people identified as dual enrollees in the MBSF but not identified in the TAF.
  - In Wisconsin, most inconsistencies are between people classified as dually enrolled in the TAF but as Medicare-only enrollees in the MBSF.
In the remaining states where overall agreement is below 80 percent (Hawaii, Massachusetts, Kentucky, New Jersey, New York, and West Virginia), most discordant cases are identified as dually enrolled in the TAF but do not appear in the MBSF.
FIGURE 2
Dual Enrollment in the TAF and MBSF, by State, Calendar Year 2016

Source: Authors’ calculations using administrative TAF and MBSF RIF data.
Notes: TAF = T-MSIS Analytic Files. MBSF = Master Beneficiary Summary File. RIF = Research Identifiable Files. Medicare-Medicaid enrollees identified in either the TAF or MBSF are reported.
Medicare Savings Program Classification in the TAF and MBSF

In this section, we investigate concordance in MSP classification for dual enrollees between the TAF and MBSF. The MSP classification determines both the financial assistance states provide to beneficiaries in meeting Medicare’s premium and cost-sharing requirements and beneficiaries’ eligibility for Medicaid-covered services. Nine possible classifications are reported in the TAF and eight are reported in the MBSF. The following eight classifications overlap between sources:\(^6\)

1. Qualified Medicare Beneficiary (QMB) Only
2. QMB Plus (with full Medicaid benefits)
3. Specified Low-Income Medicare Beneficiary (SLMB) Only
4. SLMB Plus (with full Medicaid benefits)
5. Qualified Disabled and Working Individuals
6. Qualified Individual
7. Medicaid (full benefits), no MSP
8. Other (no full Medicaid benefits and no MSP)

First, we investigate whether MSP classifications agree between the TAF and MBSF for people identified as dually enrolled in both the TAF and MBSF. We find 85.5 percent agreement in January 2016, which increased to 86.1 percent by December of that year (figure 3). This implies that about 72 percent of those identified as dually enrolled in one of the two sources have agreement on MSP classification (0.84*0.86).
**Figure 3**
Medicare Savings Program Classification Agreement in the TAF and MBSF for Dual Enrollees, by Month, Calendar Year 2016

Table 1 reports alignment across the TAF and MBSF for MSP categories of dual enrollees for January 2016 only. We omit MSP categories with a very small number of corresponding enrollees, amounting to less than 0.1 percent of all dual enrollees identified in both the TAF and MBSF. Shaded cells in the table represent agreement in MSP enrollment category across the two sources. For most enrollment categories, agreement across sources is greater than 90 percent. Almost 80 percent of all inconsistencies reported correspond to four categories, and most relate to how the MBSF reports QMB Plus and how both data sources report Medicaid (no MSP). Specifically, the four categories with the most inconsistencies are (1) TAF Medicaid (no MSP) enrollees identified as QMB Plus in the MBSF, (2) TAF SLMB Plus enrollees identified as QMB Plus in the MBSF, (3) TAF QMB Only enrollees identified as QMB Plus in the MBSF, and (4) TAF QMB Plus enrollees identified as Medicaid (no MSP) in the MBSF. Similar patterns are apparent for months beyond January 2016 but not reported.

**Source:** Authors’ calculations using administrative TAF and MBSF RIF data.

**Notes:** TAF = T-MSIS Analytic Files. MBSF = Master Beneficiary Summary File. RIF = Research Identifiable Files. Dual enrollees identified in both the TAF and MBSF are reported.
TABLE 1
Detailed Medicare Savings Program Classification Agreement between the TAF and MBSF, by Type of Dual Enrollment, January 2016

<table>
<thead>
<tr>
<th>MBSF type of dual enrollment</th>
<th>TAF Type of Dual Enrollment</th>
<th>QMB Only</th>
<th>QMB Plus</th>
<th>SLMB Only</th>
<th>SLMB Plus</th>
<th>QI</th>
<th>Medicaid (no MSP)</th>
<th>Total</th>
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<td>QMB Only</td>
<td>1,270,358</td>
<td>77,311</td>
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<td>0.1</td>
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<tr>
<td>% of row</td>
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<td>0.3</td>
<td>0.0</td>
<td>0.1</td>
<td>0.5</td>
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<td>QMB Plus</td>
<td>79,056</td>
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<td>2,415</td>
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<td>2.0</td>
<td>0.0</td>
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<tr>
<td>SLMB Only</td>
<td>17,613</td>
<td>8,163</td>
<td>7,528</td>
<td>468,79</td>
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<td>SLMB Plus</td>
<td>165</td>
<td>12,310</td>
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<td>220,720</td>
<td>236</td>
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<td>QI</td>
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<td>Medicaid (no MSP)</td>
<td>5,881</td>
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<td>13,007</td>
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<tr>
<td>Total number of enrollees</td>
<td>1,382,141</td>
<td>4,416,504</td>
<td>836,888</td>
<td>401,599</td>
<td>489,296</td>
<td>2,252,417</td>
<td>9,778,845</td>
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</tr>
</tbody>
</table>

Source: Authors’ calculations using administrative TAF and MBSF RIF data.
Notes: TAF = T-MSIS Analytic Files. MBSF = Master Beneficiary Summary File. RIF = Research Identifiable Files. QMB = Qualified Medicare Beneficiary. SLMB = Specified Low-Income Beneficiary. QI = Qualified Individual. MSP = Medicare Savings Program. Dual enrollees identified in both the TAF and MBSF are reported. We exclude results for the following dual enrollment categories with small numbers of enrollees: Qualified Disabled Working Individuals, Other without Medicaid (TAF and MBSF), and Children’s Health Insurance Program and Medicare (TAF only).

Agreement in MSP classification across the TAF and MBSF varies considerably by state (figure 4), ranging from 99.7 percent (Mississippi) to 45.3 percent (California). However, most states exhibit a high level of consistency; for example, only five states have agreement rates below 80 percent (California, Colorado, Hawaii, South Carolina, and Washington).

A closer look at California’s data for January 2016 reveals that more than one-half of all inconsistencies at the national level reported in table 1 are attributable to two TAF-MBSF enrollment categories in California alone (not reported). Eighty-four percent of people who the TAF identifies as having Medicaid (no MSP) and the MBSF classifies as having QMB Plus at the national level are
California enrollees, as are 95 percent of those the TAF classifies as SLMB Plus and the MBSF classifies as QMB Plus.

The remaining four states with less than 80 percent agreement, shown in figure 4, account for fewer of the national-level inconsistencies compared with the inconsistencies attributed to California. This is largely explained by the much greater number of enrollees in California relative to other states. However, inconsistencies in the remaining four states are also concentrated in just a few enrollment categories.

- In South Carolina, two categories account for almost 95 percent of inconsistencies:
  - TAF Medicaid (no MSP) identified as QMB Plus in the MBSF
  - TAF SLMB Plus identified as SLMB Only in the MBSF

- In Washington, one category accounts for about 95 percent of inconsistencies:
  - TAF QMB Only identified as QMB Plus in the MBSF

- In Colorado, three categories explain about 92 percent of inconsistencies:
  - TAF QMB Only identified as QMB Plus in the MBSF
  - TAF SLMB Only identified as SLMB Plus in the MBSF
  - TAF SLMB Only identified as Medicaid (no MSP) in the MBSF

- And in Hawaii, two categories explain 94 percent of inconsistencies:
  - TAF Medicaid (no MSP) identified as QMB Plus in the MBSF and
  - TAF QMB Plus identified as Medicaid (no MSP) in the MBSF
FIGURE 4
MSP Classification Agreement in the TAF and MBSF, by State, Calendar Year 2016

Source: Authors’ calculations using administrative TAF and MBSF RIF data.
Notes: MSP = Medicare Savings Program. TAF = T-MSIS Analytic Files. MBSF = Master Beneficiary Summary File. RIF = Research Identifiable Files. Dual enrollees identified in both the TAF and MBSF are reported.
One potentially important correlate with consistency in MSP classification across the TAF and MBSF is comprehensive Medicaid managed-care enrollment, should managed-care organizations be less likely to provide accurate information. Figure 5 reports the rate of MSP discordance by Medicaid managed-care enrollment and month in calendar year 2016. MSP discordance was consistently greater among those enrolled in managed-care plans than among those in fee-for-service (roughly 24 percent versus 11 percent). This suggests that shared responsibility for data submission between states and managed-care organizations may lead to errors in classification. Finally, MSP discordance varied little throughout 2016 for fee-for-service enrollees but decreased by 2.5 percentage points for Medicaid managed-care enrollees.

FIGURE 5
Medicare Savings Program Classification Discordance across the TAF and MBSF, by Medicaid Managed-Care Enrollment and Month, Calendar Year 2016

Source: Authors’ calculations using administrative TAF and MBSF RIF data.
Notes: TAF = T-MSIS Analytic Files. MBSF = Master Beneficiary Summary File. RIF = Research Identifiable Files. Dual enrollees identified in both the TAF and MBSF are reported.

Integrated Plan Enrollment in the TAF and MBSF

In this section, we investigate the degree to which the 2016 TAF data can be used to identify dual enrollees who participate in integrated care models. As described in the methods section, the TAF data include information on two possible categories of integrated plan enrollment, PACE and integrated plans. The definition for the latter is opaque, but it presumably excludes PACE plans. We
further identify D-SNP and FIDE SNP enrollment using external data combined with the MBSF and the TAF. The MBSF also explicitly identifies PACE and Medicare-Medicaid Plan enrollees.

Figure 6 reports consistency in integrated plan enrollment among those identified as dual enrollees in both the TAF and MBSF and enrolled in any type of integrated plan in at least one of the two sources. As the figure shows,

- only about 12 percent of people enrolled in integrated plans are identified in both the TAF and MBSF in a given month of 2016,
- most integrated plan enrollees (86 percent) are identified in the MBSF only,
- 1.5 percent of such enrollees are only identified in the TAF, and
- consistency in integrated plan enrollment varies little month to month.

**FIGURE 6**
Concordance in Enrollment in Any Integrated Plan in the TAF and MBSF for Dual Enrollees, by Month, Calendar Year 2016

Source: Authors’ calculations using administrative TAF and MBSF RIF data.

Notes: TAF = T-MSIS Analytic Files. MBSF = Master Beneficiary Summary File. RIF = Research Identifiable Files. Dual enrollees identified in both the TAF and MBSF and identified in an integrated plan in either data source are reported.
Figure 7 reveals cross-state variation in the proportion of dual enrollees in fully integrated plans identified in both the TAF and MBSF, though agreement is low in most states. Virginia is an extreme outlier, where 91.7 percent of dual enrollees in integrated plans are identified in both data sources. Nonetheless, agreement across sources in the proportion of fully integrated plan beneficiaries is greater than 50 percent in only six states (Alabama, Iowa, Kansas, Ohio, Virginia, and Wyoming). For most states, the reason for low concordance across the two sources is that the TAF identifies no integrated plan enrollment (not reported because of the small number of enrollees); Alabama and Ohio are the exceptions.
FIGURE 7
TAF-MBSF Agreement in Enrollment in Any Integrated Plan for Dual Enrollees, by State, Calendar Year 2016

Source: Authors’ calculations using administrative TAF and MBSF RIF data.
PACE is the only integrated plan explicitly identified in both the TAF and MBSF. We find high concordance in PACE enrollment across the two sources in January 2016, 97 percent, and similarly high rates in other months. Table 2 provides insight into which types of remaining integrated plan categories are identified in the TAF as an integrated plan for January 2016. We exclude PACE enrollment because of the resulting small number of enrollees across discordant categories; PACE enrollees represent 1.7 percent of all integrated plan enrollees from one of the two data sources. The main findings from table 2 are as follows:

- Most integrated plan enrollees in the TAF are Medicare-Medicaid Plan enrollees (70 percent), but less than half of Medicare-Medicaid Plan enrollees in the MBSF (44 percent) are identified in the TAF.
- Though D-SNPs represent the largest integrated plan category, only 3 percent of D-SNP enrollees are identified as integrated plan enrollees in the TAF.
- No FIDE SNP enrollees from the MBSF are identified as integrated plan enrollees in the TAF.

### Table 2

<table>
<thead>
<tr>
<th>MBSF type of integrated plan</th>
<th>TAF Type of Integrated Plan</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No integrated plan</td>
<td>0</td>
<td>30,462</td>
</tr>
<tr>
<td>% of column</td>
<td>0.0</td>
<td>13.5</td>
</tr>
<tr>
<td>% of row</td>
<td>0.0</td>
<td>100.0</td>
</tr>
<tr>
<td>D-SNP</td>
<td>1,225,332</td>
<td>37,636</td>
</tr>
<tr>
<td>% of column</td>
<td>79.1</td>
<td>16.6</td>
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<tr>
<td>% of row</td>
<td>97.0</td>
<td>3.0</td>
</tr>
<tr>
<td>FIDE</td>
<td>118,639</td>
<td>0</td>
</tr>
<tr>
<td>% of column</td>
<td>7.7</td>
<td>0.0</td>
</tr>
<tr>
<td>% of row</td>
<td>100.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Medicare-Medicaid Plan</td>
<td>204,536</td>
<td>158,126</td>
</tr>
<tr>
<td>% of column</td>
<td>13.2</td>
<td>69.9</td>
</tr>
<tr>
<td>% of row</td>
<td>56.4</td>
<td>43.6</td>
</tr>
<tr>
<td>Total number of enrollees</td>
<td>1,548,507</td>
<td>226,224</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations using administrative TAF and MBSF RIF data.

Notes: TAF = T-MSIS Analytic Files. MBSF = Master Beneficiary Summary File. RIF = Research Identifiable Files. Dual enrollees identified in both the TAF and MBSF and identified in an integrated plan in either data source are reported.
Figure 8 demonstrates Medicare-Medicaid Plan enrollment nationally and in 10 states with Financial Alignment Initiative capitated demonstrations. It reports the proportion of such enrollees identified in the MBSF who are identified in the TAF as enrolled in integrated plans, comprehensive Medicaid managed-care plans, or neither Medicare-Medicaid Plans nor Medicaid managed-care plans. Understanding Medicaid managed-care plan enrollment is important because it may be an alternative avenue to identify Medicare-Medicaid Plan enrollees in the TAF, but only if Medicaid managed-care plan IDs can uniquely identify Medicare-Medicaid plans. We find that most Medicare-Medicaid Plan enrollees identified in the MBSF from Massachusetts, Ohio, New York, Virginia, and Texas are identified as integrated plan enrollees in the TAF. Additionally, Medicare-Medicaid Plan enrollees identified in the MBSF from California, Michigan, Rhode Island, and South Carolina are largely not identified as integrated plan enrollees in the TAF, but they are identified as comprehensive Medicaid managed-care plan enrollees.

FIGURE 8
TAF Integrated Plan and Comprehensive Medicaid Managed-Care Plan Enrollment among Medicare-Medicaid Plan Enrollees, Calendar Year 2016

Source: Authors’ calculations using administrative TAF and MBSF RIF data.
Notes: TAF = T-MSIS Analytic Files. MMC = Medicaid managed care. MBSF = Master Beneficiary Summary File. RIF = Research Identifiable Files. Dual enrollees identified in both the TAF and MBSF and identified in a Medicare-Medicaid Plan in the MBSF are reported.
Main Findings and Conclusions

The results of this report suggest several important implications for using the TAF to conduct research among those dually enrolled in Medicare and Medicaid. One overarching implication is that it may be difficult to use the TAF alone. Many important services are reported as Medicare services, where Medicare is the primary payer, and require Medicare data to study. However, based on our analysis, fundamental characteristics related to the type of medical care received by Medicaid enrollees—namely dual enrollment status, including MSP type, and integrated plan participation—are discordant between the TAF and MBSF.

We find approximately 84 percent agreement in dual enrollment across the TAF and MBSF during calendar year 2016, which is encouraging. However, we also find significant variation by state, ranging from a high of 98.6 percent agreement in Nebraska to a low of 2.4 percent in Arkansas. This underscores the need to consider TAF data quality on a state-by-state basis, as we have done here.

Further, we find that researchers and others may successfully identify dual enrollees by MSP classification with TAF data alone, where we find roughly 86 percent agreement across the TAF and MBSF nationally. However, the distribution of MSP agreement is skewed; California, with its relatively large number of enrollees, has very low agreement (45.3 percent), as do a handful of other states identified earlier.

The TAF is not equipped to identify integrated plan enrollment beyond PACE, which has almost complete agreement across the TAF and MBSF. The first reason is that though the TAF includes integrated plan enrollment data, it does not specify integrated plans by type (except PACE). Consequently, the TAF must be combined with another data source, such as the MBSF, to distinguish between Medicare-Medicaid Plan, D-SNP, and FIDE SNP enrollment. The second reason is that the TAF does not identify a large share of overall integrated plan enrollees; we find it identifies about 44 percent of Medicare-Medicaid Plan enrollees, 17 percent of D-SNP enrollees, and no FIDE SNP enrollees. These integrated plans are generically called "integrated plans" in the TAF. Integrated plan enrollment varies by state, but mostly for Medicare-Medicaid Plans in states where the TAF identifies most all enrollees: Ohio, Massachusetts, Virginia, New York, and Texas, or half of the states with capitated Financial Alignment Initiative demonstrations. Further identifying Medicare-Medicaid Plan enrollees in the TAF could be possible if the TAF contains unique managed-care plan IDs for specific Medicare-Medicaid Plans as well as an externally provided list of plans. However, this suggestion must be studied in more detail. Overall, researchers need to think creatively about potential alternative approaches when TAF data are imperfect.
Appendix A. Glossary

**Chronic Conditions Data Warehouse Virtual Research Data Center.** Centers for Medicare & Medicaid Services research database and secured virtual technology available to approved Medicare and Medicaid researchers.⁹

**Dual Eligible Special Needs Plan (D-SNP).** Medicare special needs plans for people enrolled in both Medicare and Medicaid.

**Fully Integrated Dual Eligible Special Needs Plan (FIDE SNP).** A type of D-SNP that requires plans to assume the risk for all Medicare and Medicaid services (Archibald et al. 2019).

**Home- and community-based services (HCBS).** Services provided in a person's home or community instead of an institutional setting. Medicaid HCBS services are optional, vary significantly by state, and include services such as personal care and nonemergency transportation.¹⁰ HCBS is a subset of LTSS.

**Long-term services and supports (LTSS).** A broad term that spans institutional and community-based services, including a “variety of health, health-related, and social services that assist individuals with functional limitations due to physical, cognitive, or mental conditions or disabilities” (Thach and Wiener 2018). It largely addresses needs related to activities of daily living and instrumental activities of daily living.

**Master Beneficiary Summary File (MBSF).** Administrative Medicare enrollment and medical claims data.

**Medicaid Statistical Information System (MSIS).** Administrative Medicaid data system with enrollment, medical care utilization, and spending information.

**Medicare-Medicaid Plan (MMP).** A specific managed-care plan for those dually enrolled in Medicare and Medicaid that assumes the risk for benefits in both programs, has a high degree of integration, and is available in select states through the Centers for Medicare & Medicaid Services Financial Alignment Initiative.¹¹

**Medicare Savings Program (MSP).** Four Medicaid-administered programs for eligible Medicare enrollees with limited resources that pay for select Medicare expenditures, including premiums and cost sharing, depending on the program.
Program for All-Inclusive Care for the Elderly (PACE). A program for dual enrollees eligible for nursing home care that allows enrollees to remain safely in the community rather than enter an institutional environment.\textsuperscript{12}

Qualified Disabled and Working Individuals (QWDI). One of four MSPs for working people with disabilities under age 65.\textsuperscript{13}

Qualified Individual (QI). One of four MSPs that offers Medicare Part B premium assistance only to eligible enrollees.\textsuperscript{14}

Qualified Medicare Beneficiary (QMB). The most generous of the four MSPs, QMB offers Medicare Part B and cost-sharing assistance to eligible enrollees. “QMB Plus” is distinct from “QMB Only”; the former also includes full Medicaid benefits (beyond just Medicare), whereas the latter excludes Medicaid benefits.

Research Identifiable Files (RIF). A specific version of data available to researchers with appropriate permissions via the Chronic Conditions Data Warehouse Virtual Research Data Center.

Special Needs Plan (SNP). A specific type of Medicare Advantage plan with limited eligibility for people with specific needs targeted by the plan (e.g., chronic conditions, institutionalization, dual enrollment).\textsuperscript{15}

Specified Low-Income Medicare Beneficiary (SLMB). An MSP that offers Medicare Part B payment support. “SLMB Plus” is distinct from “SLMB Only”; the former also includes full Medicaid benefits (beyond just Medicare), whereas the latter excludes Medicaid benefits.

T-MSIS Analytic Files (TAF). A version of the T-MSIS data intended to be more user friendly.

Transformed Medicaid Statistical Information System (T-MSIS). Administrative Medicaid data system that superseded the MSIS circa 2014. The transition date from MSIS to T-MSIS varies by state.
Notes


2 The Research Data Assistance Center established data use agreements with CMS whereby approved team members access the data through the secure Chronic Conditions Data Warehouse Virtual Research Data Center.


5 State of residence can also be inconsistent across data sources, which we investigated but do not report. Among person-month observations with agreement in dual enrollment status (roughly 84 percent), about 96 percent have consistent information on state of residence. This implies that about 81 percent of observations \((0.84 \times 0.96)\) have TAF-MBSF agreement on dual enrollment and state of residence.

6 The TAF category not reported in the MBSF is the Children’s Health Insurance Program and Medicare.

7 According to the MBSF data, a small number of MBSF Medicare-Medicaid Plan enrollees reside in non-Financial Alignment Initiative states, which we omit here.

8 Benchmarking (1) MMP enrollment from the MBSF for these 10 states with capitated Financial Alignment Initiative demonstrations with (2) CMS-aggregated totals suggests MBSF Medicare-Medicaid Plan enrollment is slightly lower, ranging from −7.4 to −0.8 to percent.


References


About the Authors

Kyle J. Caswell is a senior research associate in the Health Policy Center at the Urban Institute. His research covers multiple areas related to health and economic well-being, with a focus on vulnerable populations. He is currently working with colleagues to evaluate a demonstration to coordinate health care for dually eligible Medicare-Medicaid beneficiaries, and on a study to evaluate how disability status affects Medicare spending among the elderly. Previous projects include an evaluation of economic well-being among elderly individuals with mental health impairments and disability insurance, the financial burden of medical spending, the impact of managed care among Medicaid beneficiaries, uncompensated health care, and inequalities in health outcomes. Before joining Urban, Caswell was an economist in the US Census Bureau’s Health and Disability Statistics Branch, where he contributed to the medical out-of-pocket spending component of the Supplemental Poverty Measure. During his previous tenure at Urban, he worked with colleagues to develop estimates of potential savings in medical spending attributable to preventive health services. Caswell holds a PhD in economics.

Timothy A. Waidmann is a senior fellow in the Health Policy Center. He has over 20 years of experience designing and conducting studies on varied health policy topics, including disability and health among the elderly; Medicare and Medicaid policy; disability and employment; public health and prevention; health status and access to health care in vulnerable populations; health care utilization among high-cost, high-risk populations; geographic variation in health care needs and utilization; and the relationships between health and a wide variety of economic and social factors. Waidmann's publications based on these studies have appeared in high-profile academic and policy journals. He has also been involved in several large-scale federal evaluation studies of health system reforms, assuming a central role in the design and execution of the quantitative analyses for those evaluations. Before joining Urban in 1996, Waidmann was assistant professor in the School of Public Health and postdoctoral fellow in the Survey Research Center at the University of Michigan. He received his PhD in economics from the University of Michigan in 1991.
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