



**U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES**

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# **2019 Medicare Fee-for-Service Supplemental Improper Payment Data**

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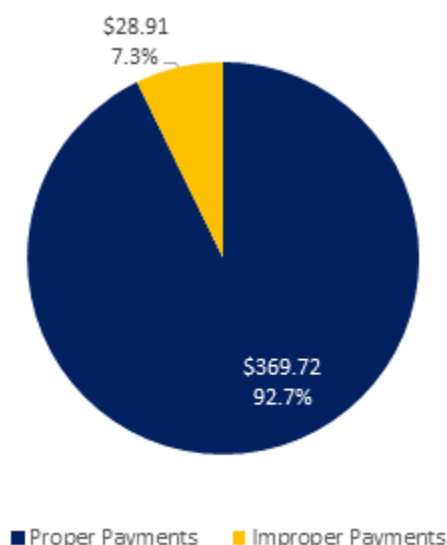
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# Summary of High Level Findings

This document supplements improper payment information in the annual Department of Health and Human Services Agency Financial Report ([HHS AFR](#)). The Improper Payments Information Act of 2002 (IPIA), as amended by the Improper Payments Elimination and Recovery Act of 2010 (IPERA) and the Improper Payments Elimination and Recovery Improvement Act of 2012 (IPERIA) requires improper payment reporting in the HHS AFR. The improper payment rate calculation complies with the requirements of Office of Management and Budget (OMB) Circular A-123, Appendix C. The Centers for Medicare & Medicaid Services (CMS) measures the Medicare Fee-for-Service (FFS) improper payment rate through the Comprehensive Error Rate Testing (CERT) program.

## 92.7 Percent Accuracy Rate and 7.3 Percent Improper Payment Rate<sup>1,2,3</sup>

Figure 1: Payment Accuracy



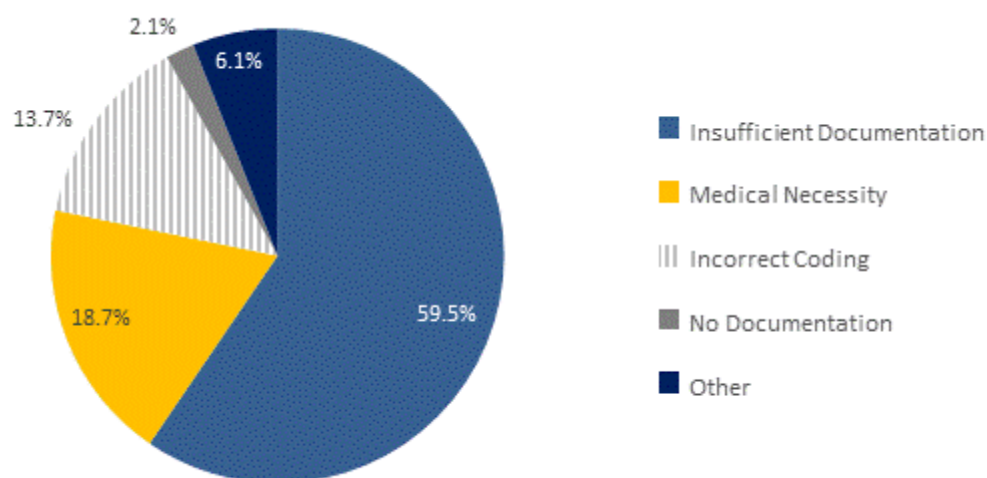
<sup>1</sup> HHS published the 2019 Medicare FFS improper payment rate in the Federal Fiscal Year (FY) 2019 HHS AFR. The FY runs from October 1 to September 30. The Medicare FFS sampling period does not correspond with the FY due to practical constraints with claims review and rate calculation methodologies. The FY 2019 Medicare FFS improper payment rate included claims submitted during the 12-month period from July 1, 2017 through June 30, 2018.

<sup>2</sup> CMS adjusted the improper payment rate by 0.2 percentage points (\$0.8 billion) from 7.5 percent to 7.3 percent to account for the effect of rebilling inpatient hospital claims denied under Medicare Part A (Part A to B rebilling). The Part A to B rebilling adjustment factor was calculated by selecting a random sub-sample of Part A inpatient claims selected by the CERT program and repricing the individual services provided under Part B. Because this repricing process was not applied to all of the Part A inpatient claims selected by the CERT program, the Part A to B rebilling adjustment factor could only be applied to the high-level calculations (i.e., the overall, Part A Total, and Part A Hospital Inpatient Prospective Payment System (IPPS) improper payment rates). This methodology is unchanged from 2012 through 2019.

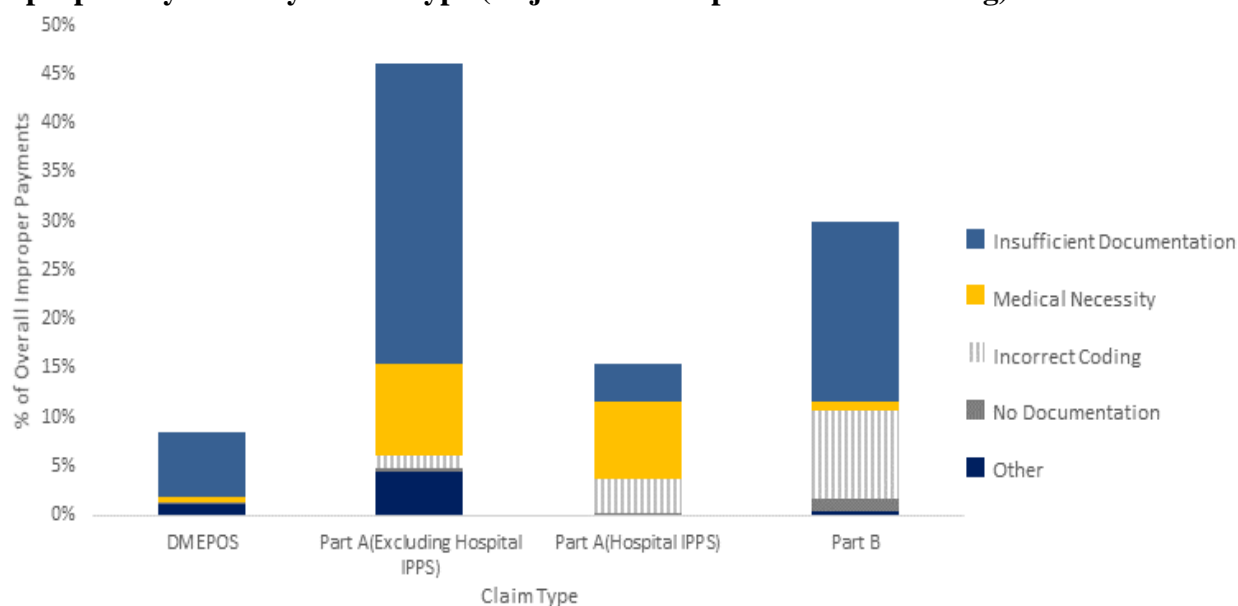
<sup>3</sup> For purposes of this report, correct payments are considered total Medicare FFS payments minus payments considered an improper payment as identified through CERT. Please note that instances of fraud or other problems not discerned during the CERT review could still be present.

# Common Causes of Improper Payments

**Figure 2: Improper Payment Rate Error Categories by Percentage of 2019 National Improper Payments<sup>4</sup>**



**Figure 3: Improper Payment Rate Error Categories by Percentage of 2019 National Improper Payments by Claim Type (Adjusted for Impact of A/B Rebilling)<sup>5</sup>**

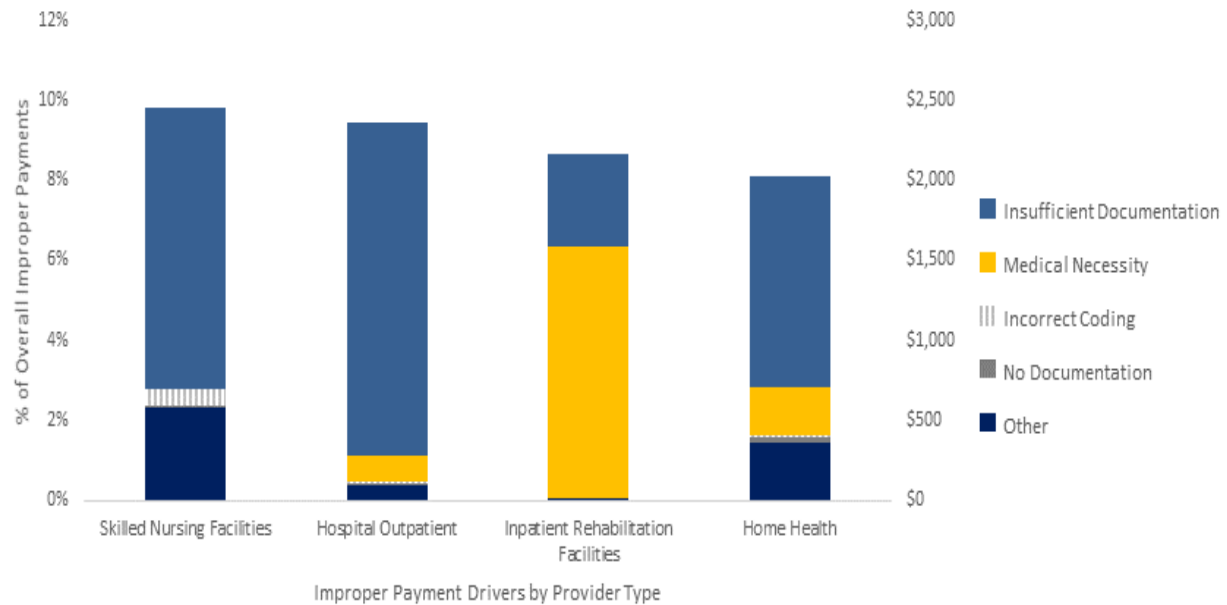


<sup>4</sup> The percentages in this pie chart may not add up to 100 percent due to rounding.

<sup>5</sup> Improper payment rate reporting for Part A (Excluding Hospital IPPS) providers is determined by the type of bill submitted to Medicare for payment. Providers, facilities, and suppliers that submit institutional claims via the electronic American National Standards Institute (ANSI) Accredited Standards Committee (ASC) X12 Health Care Claim: Institutional (837) or paper claim format Uniform Billing (UB)-04, are included in the Part A (Excluding Hospital IPPS) improper payment rate calculation. Examples of providers, facilities, and suppliers that bill using these formats include hospitals, skilled nursing facilities, home health and hospice providers, renal dialysis facilities, comprehensive outpatient rehabilitation facilities, rural health clinics, and federally qualified health centers. These institutional claims may include professional services that may be paid under Part A or Part B, yet are ultimately included in the CERT Part A (Excluding Hospital IPPS) improper payment rate measurement because they are submitted on the ASC X12 837 or UB-04.



**Figure 4: Improper Payment Rate Error Categories by Percentage of 2019 National Improper Payments and Improper Payments (in Millions) by Improper Payment Drivers**



Skilled nursing facilities (SNF) is defined as all services with a provider type of SNF, including SNF inpatient, SNF outpatient, and SNF inpatient Part B. The projected improper payment amount for SNF services during the 2019 report period was \$2.8 billion, resulting in an improper payment rate of 8.5 percent.

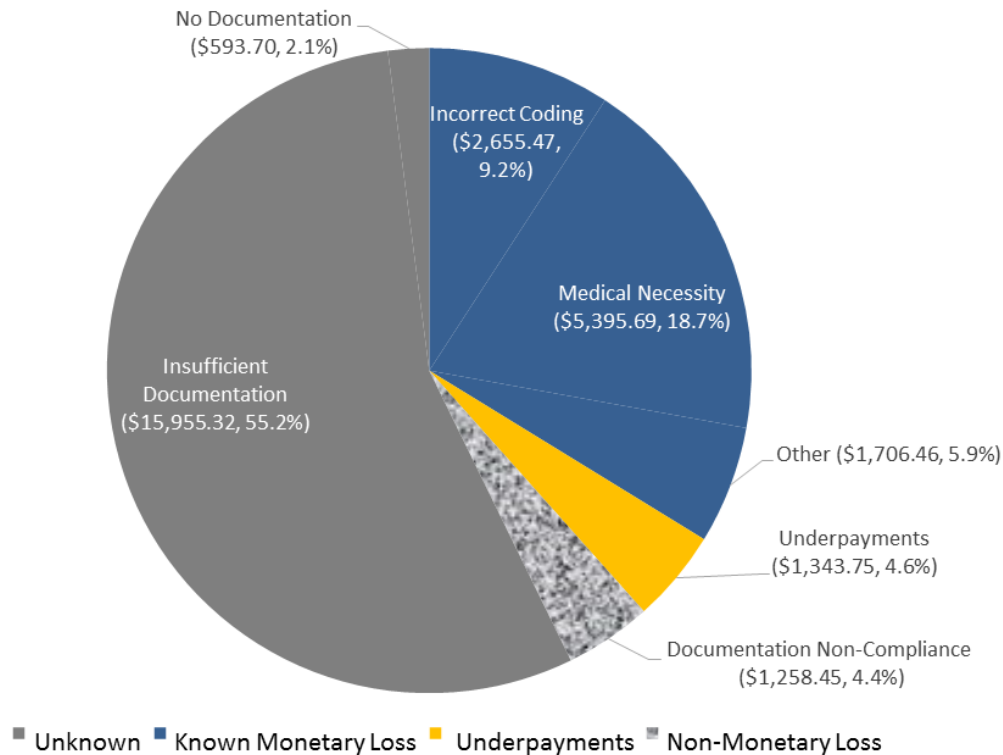
Hospital outpatient services is defined as all services billed with type of bill 12x through 19x (e.g., Hospital Outpatient Prospective Payment System (OPPS), Laboratory, and Others). The projected improper payment amount for Hospital Outpatient services during the 2019 report period was \$2.7 billion, resulting in an improper payment rate of 4.4 percent.

Inpatient rehabilitation facilities (IRF) is defined as any service with a provider type of either inpatient rehabilitation hospitals or inpatient rehabilitation unit. The projected improper payment amount for IRF during the 2019 report period was \$2.5 billion, resulting in an improper payment rate of 34.9 percent.

Home health services is defined as all services with a provider type of Home Health Agency. The projected improper payment amount for home health services during the 2019 report period was \$2.3 billion, resulting in an improper payment rate of 12.1 percent.

# Monetary Loss Findings<sup>6</sup>

**Figure 5: Improper Payments (in Millions) and Percentage of Improper Payments by Monetary Loss and Improper Payment Rate Error Categories (Including Documentation Non-Compliance)<sup>7,8</sup>**



<sup>6</sup> The FY 2019 HHS AFR contains detailed information on the Medicare FFS monetary loss findings.

<sup>7</sup> Known Monetary Loss refers to a subset of improper payments where the wrong recipient was paid, or the correct recipient was paid the wrong amount (includes Incorrect Coding, Medical Necessity, Other). Unknown refers to a subset of improper payments where there is insufficient or no documentation to support the payment as either proper or a “known” monetary loss (includes Insufficient Documentation, No Documentation). Non-Monetary Loss refers to a subset of improper payments that the government would have made the payment in the assigned amount if the insufficient documentation error was corrected (includes Documentation Non-Compliance). Documentation Non-Compliance errors occur when the services or items were covered and necessary, were provided/delivered to an eligible beneficiary, and were paid in the correct amount, but the medical record documentation did not comply with rules and requirements per Medicare policy. Had the documentation non-compliance error been corrected, the government would have made the payment in the assigned amount, and therefore, it represents a “non-monetary loss” to the government.

<sup>8</sup> The percentages in this pie chart may not add up to 100 percent due to rounding.

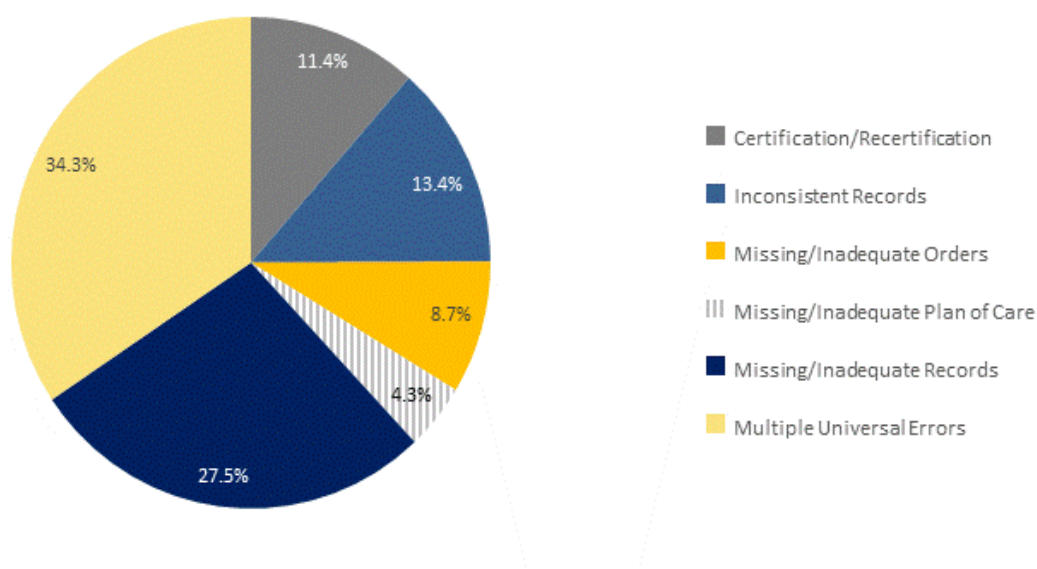
# Detailed Information on Insufficient Documentation Errors by Claim Type

In order to provide a more thorough understanding of insufficient documentation errors, CMS examined the root causes of these errors and developed a universal error for the insufficient documentation errors. The root cause of the insufficient documentation error must meet the universal error definition to be included in that classification.

The universal error names and definitions are:

Universal Error Name <sup>9</sup>	Universal Error Definition
Missing/Inadequate Orders	A valid provider's order (or intent to order for certain services) for the service/supply does not meet the required elements for the order.
Missing/Inadequate Plan of Care	A valid provider's plan of care for the service does not meet the required elements for the plan of care.
Missing/Inadequate Records	A required record has not been submitted or has not been fully completed.
Inconsistent Records	The records submitted have inconsistent information (e.g., date, provider, service, beneficiary, etc.)
Certification/Recertification	Certification/recertification requirements not met.

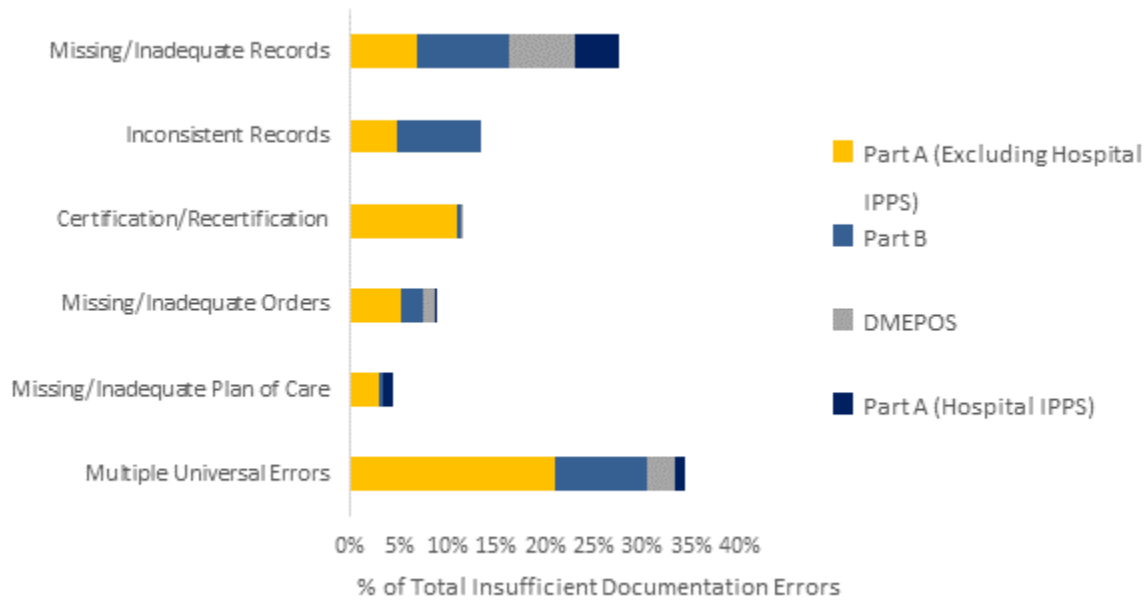
**Figure 6: Universal Errors as a Percentage of Improper Payments Due to Insufficient Documentation<sup>10</sup>**



<sup>9</sup> Missing is defined as the provider fails to submit a required document, in its entirety. Inadequate is defined as the provider has submitted the documentation; however, a required element is not complete. CMS is exploring new and innovative approaches to providing additional data on missing and inadequate insufficient documentation errors in future reporting.

<sup>10</sup> The percentages in this pie chart may not add up to 100 percent due to six insufficient documentation claims that have been partially overturned, and therefore do not have subcategories attached.

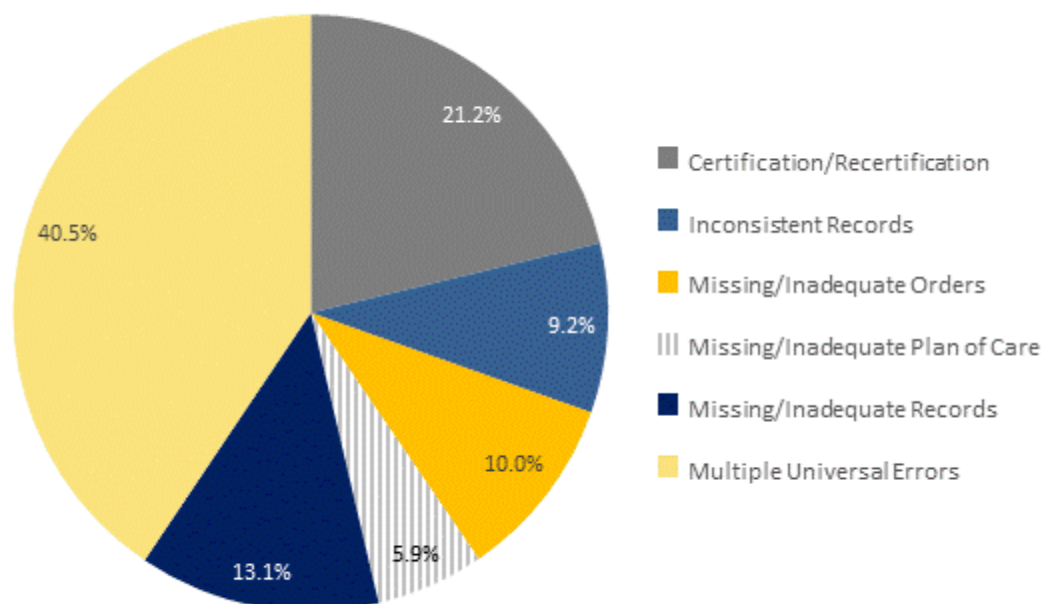
**Figure 7: Claim Type Categories by Percentage of Insufficient Documentation Improper Payments by Universal Errors<sup>11</sup>**



<sup>11</sup> The percentages in this chart may not add up to 100 percent due to insufficient documentation claims that have been partially overturned, and therefore do not have subcategories attached.

# Part A (Excluding Hospital IPPS)

**Figure 8: Universal Errors as a Percentage of Part A (Excluding Hospital IPPS) Improper Payments Due to Insufficient Documentation<sup>12</sup>**



**Table 1: Top Root Causes of Insufficient Documentation Errors in Part A (Excluding Hospital IPPS)**

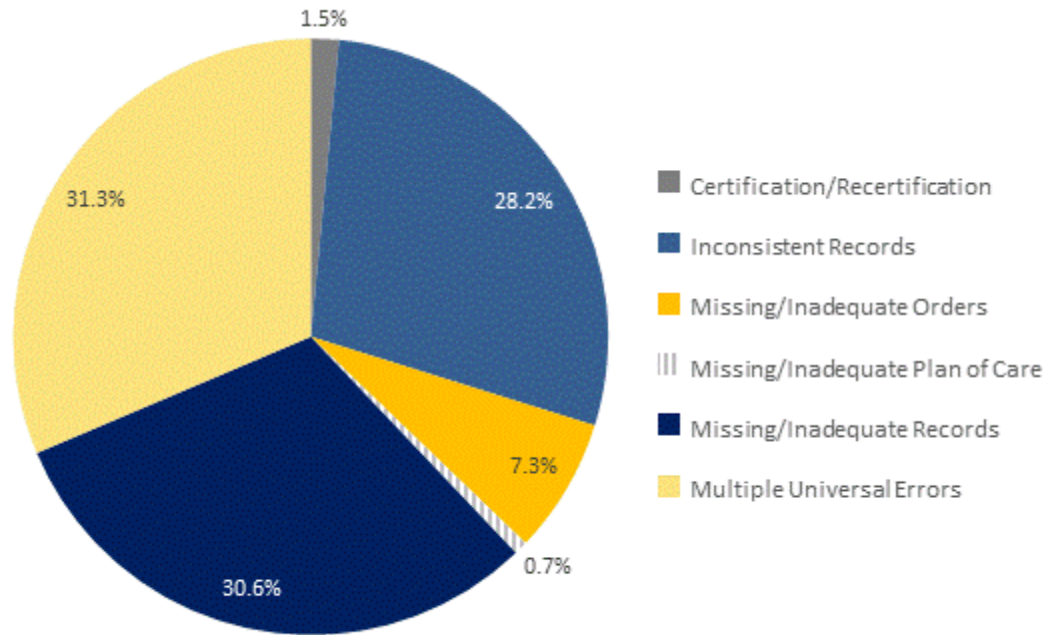
Root Cause Description	Universal Error Name	Claim Count <sup>13</sup>
A valid provider's order is missing or inadequate	Missing/Inadequate Orders	175
Documentation to support medical necessity is missing or inadequate	Missing/Inadequate Records	155
Valid provider's intent to order (for certain services) is missing or inadequate	Missing/Inadequate Orders	125
SNF-Certification/Recertification documentation requirement is missing or inadequate	Certification/Recertification	78
Documentation to support the services were provided or other documentation required for payment of the code is missing or inadequate	Inconsistent Records	77
Hospice-MD certification/recertification is missing or inadequate	Certification/Recertification	47

<sup>12</sup> The percentages in this pie chart may not add up to 100 percent due to insufficient documentation claims that have been partially overturned, and therefore do not have subcategories attached.

<sup>13</sup> A claim can have more than one root cause for an insufficient documentation error.

## Part B

**Figure 9: Universal Errors as a Percentage of Part B Improper Payments Due to Insufficient Documentation<sup>14</sup>**



**Table 2: Top Root Causes of Insufficient Documentation Errors in Part B**

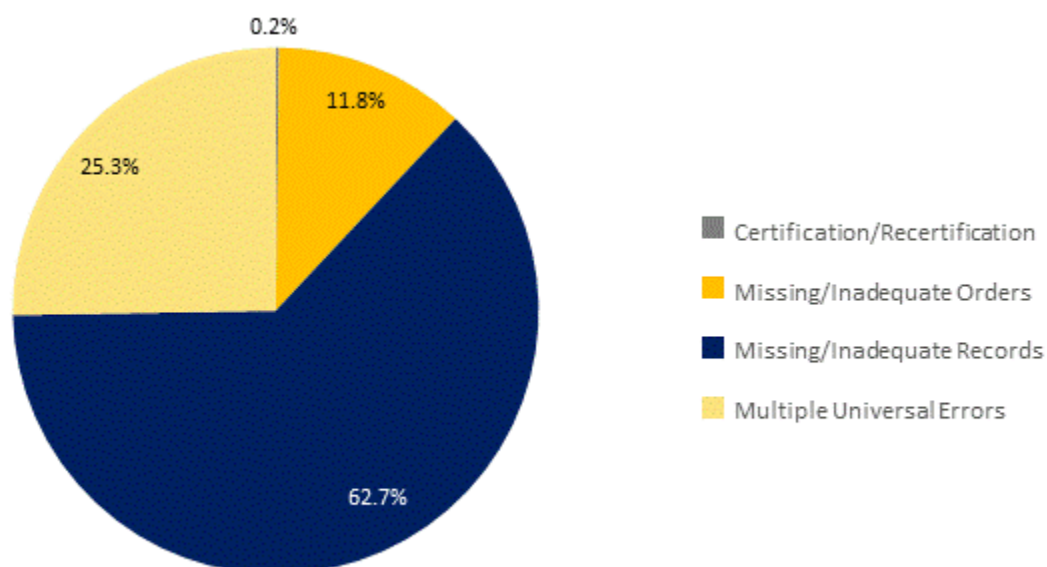
Root Cause Description	Universal Error Name	Line Count <sup>15</sup>
Documentation to support medical necessity is missing or inadequate	Missing/Inadequate Records	1,960
A valid provider's order is missing or inadequate	Missing/Inadequate Orders	1,259
Documentation to support the services were provided or other documentation required for payment of the code is missing or inadequate	Inconsistent Records	1,106
Valid provider's intent to order (for certain services) is missing or inadequate	Missing/Inadequate Orders	896
A signature log to support a clear identity of an illegible signature or an attestation for documentation received without a signature is missing	Missing/Inadequate Records	278
Result of the diagnostic or laboratory test is missing	Missing/Inadequate Records	256

<sup>14</sup> The percentages in this pie chart may not add up to 100 percent due to insufficient documentation claims that have been partially overturned, and therefore do not have subcategories attached.

<sup>15</sup> A line can have more than one root cause for an insufficient documentation error.

# Durable Medical Equipment, Prosthetics, Orthotics, and Supplies (DMEPOS)

**Figure 10: Universal Errors as a Percentage of DMEPOS Improper Payments Due to Insufficient Documentation<sup>16</sup>**



**Table 3: Top Root Causes of Insufficient Documentation Errors in DMEPOS**

Root Cause Description	Universal Error Name	Line Count <sup>17</sup>
Clinical disease management for DME is missing or inadequate	Missing/Inadequate Records	2,303
A valid provider's order is missing or inadequate	Missing/Inadequate Orders	1,681
Proof of delivery is missing or inadequate	Missing/Inadequate Records	1,176
ACA 6407 requirement missing or inadequate	Missing/Inadequate Records	367
Wound management documentation is missing or inadequate	Missing/Inadequate Records	333
Documentation to support medical necessity of diabetic item(s) or supplies is missing or inadequate	Missing/Inadequate Records	269

<sup>16</sup> The percentages in this pie chart may not add up to 100 percent due to insufficient documentation claims that have been partially overturned, and therefore do not have subcategories attached.

<sup>17</sup> A line can have more than one root cause for an insufficient documentation error.

# Supplemental Statistical Reporting

## Appendix A: Summary of Projected Improper Payments Adjusted for A/B Rebill<sup>18</sup>

**Table A1: 2019 Improper Payment Rates and Projected Improper Payments by Claim Type (Dollars in Billions) (Adjusted for Impact of A/B Rebilling)**

Claim Type	Claims Sampled	Claims Reviewed	Total Payments	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
<b>Part A (Total)</b>	30,186	21,996	\$290.4	\$17.8	6.1%	5.6% - 6.6%	61.6%
Part A (Excluding Hospital IPPS)	9,408	8,496	\$165.3	\$13.3	8.1%	7.3% - 8.8%	46.1%
Part A (Hospital IPPS)	20,778	13,500	\$125.1	\$4.5	3.6%	3.1% - 4.1%	15.5%
<b>Part B</b>	17,433	16,998	\$100.3	\$8.7	8.6%	7.9% - 9.3%	29.9%
<b>DMEPOS</b>	11,355	11,004	\$8.0	\$2.4	30.7%	28.0% - 33.4%	8.5%
<b>Total</b>	<b>58,974</b>	<b>49,998</b>	<b>\$398.6</b>	<b>\$28.9</b>	<b>7.3%</b>	<b>6.9% - 7.6%</b>	<b>100.0%</b>

**Table A2: Comparison of 2018 and 2019 Overall Improper Payment Rates by Error Category (Adjusted for Impact of A/B Rebilling)**

Error Category	2018	2019				
	Overall	Overall	Part A Excluding Hospital IPPS	Part A Hospital IPPS	Part B	DMEPOS
No Documentation	0.2%	0.1%	0.0%	0.0%	0.1%	0.0%
Insufficient Documentation	4.7%	4.3%	2.2%	0.3%	1.3%	0.5%
Medical Necessity	1.7%	1.4%	0.7%	0.6%	0.1%	0.0%
Incorrect Coding	1.0%	1.0%	0.1%	0.2%	0.7%	0.0%
Other	0.5%	0.4%	0.3%	0.0%	0.0%	0.1%
<b>Total</b>	<b>8.1%</b>	<b>7.3%</b>	<b>3.3%</b>	<b>1.1%</b>	<b>2.2%</b>	<b>0.6%</b>

<sup>18</sup> Adjusted for Medicare Part A to B rebilling of denied inpatient hospital claims.



**Table A3: Improper Payment Rate Categories by Percentage of 2019 Overall Improper Payments (Adjusted for Impact of A/B Rebilling)**

Error Category	Percent of Overall Improper Payments
No Documentation	2.1%
Insufficient Documentation	59.5%
Medical Necessity	18.7%
Incorrect Coding	13.7%
Other	6.1%
<b>Total</b>	<b>100.0%</b>

**Table A4: Improper Payment Rates and Projected Improper Payments by Claim Type and Over/Under Payments (Dollars in Billions) (Adjusted for Impact of A/B Rebilling)**

Claim Type	Overall Improper Payments			Overpayments		Underpayments	
	Total Amount Paid	Projected Improper Payments	Improper Payment Rate	Projected Improper Payments	Improper Payment Rate	Projected Improper Payments	Improper Payment Rate
<b>Part A (Total)</b>	\$290.4	\$17.8	6.1%	\$17.0	5.9%	\$0.8	0.3%
Part A (Excluding Hospital IPPS)	\$165.3	\$13.3	8.1%	\$13.3	8.0%	\$0.1	0.0%
Part A(Hospital IPPS)	\$125.1	\$4.5	3.6%	\$3.7	3.0%	\$0.7	0.6%
<b>Part B</b>	\$100.3	\$8.7	8.6%	\$8.1	8.1%	\$0.5	0.5%
<b>DMEPOS</b>	\$8.0	\$2.4	30.7%	\$2.4	30.6%	\$0.0	0.1%
<b>Total</b>	<b>\$398.6</b>	<b>\$28.9</b>	<b>7.3%</b>	<b>\$27.6</b>	<b>6.9%</b>	<b>\$1.3</b>	<b>0.3%</b>

**Table A5: 2019 Projected Improper Payments by Type of Error and Clinical Setting (Dollars in Billions) (Adjusted for Impact of A/B Rebilling)**

Error Category	DMEPOS	Home Health Agencies	Hospital Outpatient Departments	Acute Inpatient Hospitals	Physician Services (All Settings)	Skilled Nursing Facilities	Other Clinical Settings	Overall
No Documentation	\$0.0	\$0.0	\$0.1	\$0.1	\$0.3	\$0.0	\$0.1	\$0.6
Insufficient Documentation	\$1.9	\$1.5	\$4.5	\$1.8	\$3.9	\$2.0	\$1.5	\$17.2
Medical Necessity	\$0.1	\$0.3	\$0.5	\$4.2	\$0.1	\$0.0	\$0.2	\$5.4
Incorrect Coding	\$0.0	\$0.0	\$0.2	\$1.0	\$2.4	\$0.1	\$0.2	\$4.0
Other	\$0.3	\$0.4	\$0.2	\$0.0	\$0.1	\$0.7	\$0.0	\$1.8
<b>Total</b>	<b>\$2.4</b>	<b>\$2.3</b>	<b>\$5.5</b>	<b>\$7.1</b>	<b>\$6.7</b>	<b>\$2.8</b>	<b>\$2.0</b>	<b>\$28.9</b>

**Table A6: Summary of National Improper Payment Rates by Year and by Error Category (Adjusted for Impact of A/B Rebilling)<sup>19</sup>**

Fiscal Year and Rate Type (Net/Gross)		No Doc Errors	Insufficient Document Errors	Medical Necessity Errors	Incorrect Coding Errors	Other Errors	Improper Payment Rate	Correct Payment Rate
1996 <sup>20</sup>	Net	1.9%	4.5%	5.1%	1.2%	1.1%	13.8%	86.2%
1997	Net	2.1%	2.9%	4.2%	1.7%	0.5%	11.4%	88.6%
1998	Net	0.4%	0.8%	3.9%	1.3%	0.7%	7.1%	92.9%
1999	Net	0.6%	2.6%	2.6%	1.3%	0.9%	8.0%	92.0%
2000	Net	1.2%	1.3%	2.9%	1.0%	0.4%	6.8%	93.2%
2001	Net	0.8%	1.9%	2.7%	1.1%	-0.2%	6.3%	93.7%
2002	Net	0.5%	1.3%	3.6%	0.9%	0.0%	6.3%	93.7%
2003	Net	5.4%	2.5%	1.1%	0.7%	0.1%	9.8%	90.2%
2004 <sup>21</sup>	Gross	3.1%	4.1%	1.6%	1.2%	0.2%	10.1%	89.9%
2005	Gross	0.7%	1.1%	1.6%	1.5%	0.2%	5.2%	94.8%
2006	Gross	0.6%	0.6%	1.4%	1.6%	0.2%	4.4%	95.6%
2007	Gross	0.6%	0.4%	1.3%	1.5%	0.2%	3.9%	96.1%
2008	Gross	0.2%	0.6%	1.4%	1.3%	0.1%	3.6%	96.4%
2009	Gross	0.2%	4.3%	6.3%	1.5%	0.1%	12.4%	87.6%
2010	Gross	0.1%	4.6%	4.2%	1.6%	0.1%	10.5%	89.5%
2011 <sup>22</sup>	Gross	0.2%	4.3%	3.0%	1.0%	0.1%	8.6%	91.4%
2012 <sup>23</sup>	Gross	0.2%	5.0%	1.9%	1.3%	0.1%	8.5%	91.5%
2013	Gross	0.2%	6.1%	2.2%	1.5%	0.2%	10.1%	89.9%
2014	Gross	0.1%	8.2%	2.7%	1.6%	0.2%	12.7%	87.3%
2015	Gross	0.2%	8.1%	2.1%	1.3%	0.4%	12.1%	87.9%
2016	Gross	0.1%	7.2%	2.2%	1.1%	0.4%	11.0%	89.0%
2017	Gross	0.2%	6.1%	1.7%	1.2%	0.3%	9.5%	90.5%
2018	Gross	0.2%	4.7%	1.7%	1.0%	0.5%	8.1%	91.9%
2019	Gross	0.1%	4.3%	1.4%	1.0%	0.4%	7.3%	92.7%

<sup>19</sup> For purposes of this report, correct payments are considered total Medicare FFS payments minus payments considered an improper payment as identified through CERT. Please note that instances of fraud or other problems not discerned during the CERT review could still be present.

<sup>20</sup> FY 1996-2003 Improper payments were calculated as Overpayments - Underpayments

<sup>21</sup> FY 2004-2019 Improper payments were calculated as Overpayments + Underpayments

<sup>22</sup> The FY 2011 improper payment rate reported in this table is adjusted for the prospective impact of late appeals and documentation.

<sup>23</sup> The FY 2012-2019 improper payment rates reported in this table are adjusted for the impact of denied Part A inpatient claims under Part B.

**Table A7: 2019 Improper Payment Rates and Projected Improper Payments by Claim Type (Dollars in Billions) (Adjusted for Impact of A/B Rebilling)**

Claim Type	Claims Reviewed	Total Payments	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
DMEPOS	11,004	\$8.0	\$2.4	30.7%	28.0% - 33.4%	8.5%
Home Health & Hospice	2,083	\$38.0	\$4.2	10.9%	9.6% - 12.3%	14.4%
Parts A & B (Excluding Home Health & Hospice)	36,911	\$352.7	\$22.3	6.3%	5.9% - 6.7%	77.2%
<b>Total</b>	<b>49,998</b>	<b>\$398.6</b>	<b>\$28.9</b>	<b>7.3%</b>	<b>6.9% - 7.6%</b>	<b>100.0%</b>

# Appendix B: Summary of Projected Improper Payments Unadjusted for A/B Rebill

**Table B1: 2019 Improper Payment Rates and Projected Improper Payments by Claim Type (Dollars in Billions) (Unadjusted for Impact of A/B Rebilling)**

Claim Type	Claims Sampled	Claims Reviewed	Total Payments	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
<b>Part A (Total)</b>	30,186	21,996	\$290.4	\$18.6	6.4%	5.9% - 6.9%	62.6%
Part A (Excluding Hospital IPPS)	9,408	8,496	\$165.3	\$13.3	8.1%	7.3% - 8.8%	44.9%
Part A (Hospital IPPS)	20,778	13,500	\$125.1	\$5.3	4.2%	3.7% - 4.8%	17.7%
<b>Part B</b>	17,433	16,998	\$100.3	\$8.7	8.6%	7.9% - 9.3%	29.1%
<b>DMEPOS</b>	11,355	11,004	\$8.0	\$2.4	30.7%	28.0% - 33.4%	8.2%
<b>Total</b>	<b>58,974</b>	<b>49,998</b>	<b>\$398.6</b>	<b>\$29.7</b>	<b>7.5%</b>	<b>7.1% - 7.9%</b>	<b>100.0%</b>

**Table B2: Comparison of 2018 and 2019 Overall Improper Payment Rates by Error Category (Unadjusted for Impact of A/B Rebilling)**

Error Category	2018	2019				
	Overall	Overall	Part A Excluding Hospital IPPS	Part A Hospital IPPS	Part B	DMEPOS
No Documentation	0.2%	0.1%	0.0%	0.0%	0.1%	0.0%
Insufficient Documentation	4.7%	4.3%	2.2%	0.3%	1.3%	0.5%
Medical Necessity	1.9%	1.6%	0.7%	0.8%	0.1%	0.0%
Incorrect Coding	1.0%	1.0%	0.1%	0.2%	0.7%	0.0%
Other	0.5%	0.4%	0.3%	0.0%	0.0%	0.1%
<b>Total</b>	<b>8.3%</b>	<b>7.5%</b>	<b>3.3%</b>	<b>1.3%</b>	<b>2.2%</b>	<b>0.6%</b>

**Table B3: Improper Payment Rate Categories by Percentage of 2019 Overall Improper Payments (Unadjusted for Impact of A/B Rebilling)**

Error Category	Percent of Overall Improper Payments
No Documentation	2.0%
Insufficient Documentation	57.9%
Medical Necessity	20.9%
Incorrect Coding	13.3%
Other	5.9%
<b>Total</b>	<b>100.0%</b>

**Table B4: Improper Payment Rates and Projected Improper Payments by Claim Type and Over/Under Payments (Dollars in Billions) (Unadjusted for Impact of A/B Rebilling)**

Claim Type	Overall Improper Payments			Overpayments		Underpayments	
	Total Amount Paid	Projected Improper Payments	Improper Payment Rate	Projected Improper Payments	Improper Payment Rate	Projected Improper Payments	Improper Payment Rate
<b>Part A (Total)</b>	\$290.4	\$18.6	6.4%	\$17.8	6.1%	\$0.8	0.3%
Part A (Excluding Hospital IPPS)	\$165.3	\$13.3	8.1%	\$13.3	8.0%	\$0.1	0.0%
Part A(Hospital IPPS)	\$125.1	\$5.3	4.2%	\$4.6	3.6%	\$0.7	0.6%
<b>Part B</b>	\$100.3	\$8.7	8.6%	\$8.1	8.1%	\$0.5	0.5%
<b>DMEPOS</b>	\$8.0	\$2.4	30.7%	\$2.4	30.6%	\$0.0	0.1%
<b>Total</b>	<b>\$398.6</b>	<b>\$29.7</b>	<b>7.5%</b>	<b>\$28.4</b>	<b>7.1%</b>	<b>\$1.3</b>	<b>0.3%</b>

**Table B5: 2019 Projected Improper Payments by Type of Error and Clinical Setting (Dollars in Billions) (Unadjusted for Impact of A/B Rebilling)**

Error Category	DMEPOS	Home Health Agencies	Hospital Outpatient Departments	Acute Inpatient Hospitals	Physician Services (All Settings)	Skilled Nursing Facilities	Other Clinical Settings	Overall
No Documentation	\$0.0	\$0.0	\$0.1	\$0.1	\$0.3	\$0.0	\$0.1	\$0.6
Insufficient Documentation	\$1.9	\$1.5	\$4.6	\$1.8	\$3.9	\$2.0	\$1.5	\$17.2
Medical Necessity	\$0.1	\$0.3	\$0.5	\$5.0	\$0.1	\$0.0	\$0.2	\$6.2
Incorrect Coding	\$0.0	\$0.0	\$0.2	\$1.0	\$2.4	\$0.1	\$0.2	\$4.0
Other	\$0.3	\$0.4	\$0.2	\$0.0	\$0.1	\$0.7	\$0.0	\$1.8
<b>Total</b>	<b>\$2.4</b>	<b>\$2.3</b>	<b>\$5.5</b>	<b>\$7.9</b>	<b>\$6.7</b>	<b>\$2.8</b>	<b>\$2.1</b>	<b>\$29.7</b>

**Table B6: Summary of National Improper Payment Rates by Year and by Error Category (Unadjusted for Impact of A/B Rebilling)<sup>24</sup>**

Fiscal Year and Rate Type (Net/Gross)		No Doc Errors	Insufficient Document Errors	Medical Necessity Errors	Incorrect Coding Errors	Other Errors	Improper Payment Rate	Correct Payment Rate
1996 <sup>25</sup>	Net	1.9%	4.5%	5.1%	1.2%	1.1%	13.8%	86.2%
1997	Net	2.1%	2.9%	4.2%	1.7%	0.5%	11.4%	88.6%
1998	Net	0.4%	0.8%	3.9%	1.3%	0.7%	7.1%	92.9%
1999	Net	0.6%	2.6%	2.6%	1.3%	0.9%	8.0%	92.0%
2000	Net	1.2%	1.3%	2.9%	1.0%	0.4%	6.8%	93.2%
2001	Net	0.8%	1.9%	2.7%	1.1%	-0.2%	6.3%	93.7%
2002	Net	0.5%	1.3%	3.6%	0.9%	0.0%	6.3%	93.7%
2003	Net	5.4%	2.5%	1.1%	0.7%	0.1%	9.8%	90.2%
2004 <sup>26</sup>	Gross	3.1%	4.1%	1.6%	1.2%	0.2%	10.1%	89.9%
2005	Gross	0.7%	1.1%	1.6%	1.5%	0.2%	5.2%	94.8%
2006	Gross	0.6%	0.6%	1.4%	1.6%	0.2%	4.4%	95.6%
2007	Gross	0.6%	0.4%	1.3%	1.5%	0.2%	3.9%	96.1%
2008	Gross	0.2%	0.6%	1.4%	1.3%	0.1%	3.6%	96.4%
2009	Gross	0.2%	4.3%	6.3%	1.5%	0.1%	12.4%	87.6%
2010	Gross	0.1%	4.6%	4.2%	1.6%	0.1%	10.5%	89.5%
2011	Gross	0.2%	5.0%	3.4%	1.2%	0.1%	9.9%	90.1%
2012	Gross	0.2%	5.0%	2.6%	1.3%	0.1%	9.3%	90.7%
2013	Gross	0.2%	6.1%	2.8%	1.5%	0.2%	10.7%	89.3%
2014	Gross	0.1%	8.2%	3.6%	1.6%	0.2%	13.6%	86.4%
2015	Gross	0.2%	8.2%	2.5%	1.3%	0.4%	12.5%	87.5%
2016	Gross	0.1%	7.2%	2.4%	1.1%	0.4%	11.2%	88.8%
2017	Gross	0.2%	6.1%	1.8%	1.2%	0.3%	9.6%	90.4%
2018	Gross	0.2%	4.7%	1.9%	1.0%	0.5%	8.3%	91.7%
2019	Gross	0.1%	4.3%	1.6%	1.0%	0.4%	7.5%	92.5%

<sup>24</sup> For purposes of this report, correct payments are considered total Medicare FFS payments minus payments considered an improper payment as identified through CERT. Please note that instances of fraud or other problems not discerned during the CERT review could still be present.

<sup>25</sup> FY 1996-2003 Improper payments were calculated as Overpayments - Underpayments

<sup>26</sup> FY 2004-2019 Improper payments were calculated as Overpayments + absolute value of Underpayments

**Table B7: Projected Improper Payments by Length of Stay (Dollars in Billions)  
(Unadjusted for Impact of A/B Rebilling)**

Part A (Hospital IPPS) Length of Stay	Claims Reviewed	Improper Payment Rate	Projected Improper Payments	Percent of Overall Improper Payments
Medicare FFS	49,998	7.5%	\$29.7	100.0%
Overall Part A(Hospital IPPS)	13,500	4.2%	\$5.3	17.7%
0 or 1 day	1,750	18.4%	\$1.7	5.6%
2 days	2,306	5.0%	\$0.8	2.6%
3 days	2,210	4.7%	\$0.8	2.6%
4 days	1,566	3.5%	\$0.4	1.4%
5 days	1,183	2.0%	\$0.2	0.7%
More than 5 days	4,485	2.3%	\$1.4	4.8%

**Table B8: Medicare FFS Projected Improper Payments by State (Dollars in Millions)  
(Unadjusted for Impact of A/B Rebilling)**

State	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
TX	3,518	\$2,872.2	10.1%	8.6% - 11.6%	9.7%
CA	4,156	\$2,714.4	6.9%	5.3% - 8.5%	9.1%
FL	3,585	\$2,013.5	7.3%	6.1% - 8.4%	6.8%
OH	1,972	\$1,373.1	10.2%	8.1% - 12.3%	4.6%
NY	2,762	\$1,363.4	5.5%	4.3% - 6.8%	4.6%
NC	1,852	\$1,260.0	11.3%	5.9% - 16.6%	4.2%
NJ	1,606	\$1,153.2	9.3%	6.8% - 11.8%	3.9%
PA	2,125	\$1,072.9	7.0%	5.6% - 8.4%	3.6%
IL	2,187	\$1,028.4	6.0%	4.6% - 7.4%	3.5%
WA	899	\$970.1	11.9%	6.9% - 16.9%	3.3%
GA	1,492	\$958.8	9.2%	7.2% - 11.2%	3.2%
TN	1,415	\$906.8	9.0%	6.7% - 11.2%	3.1%
MI	1,671	\$883.9	6.9%	5.2% - 8.6%	3.0%
VA	1,330	\$748.7	7.9%	5.8% - 9.9%	2.5%
MD	1,193	\$659.4	5.2%	3.2% - 7.3%	2.2%
AL	823	\$649.6	8.8%	4.4% - 13.1%	2.2%
SC	820	\$640.2	11.5%	7.7% - 15.3%	2.2%
MA	1,466	\$609.7	4.6%	3.1% - 6.1%	2.1%
IN	1,156	\$579.1	7.3%	4.0% - 10.6%	2.0%
KY	959	\$548.4	7.9%	4.9% - 10.8%	1.9%
AZ	940	\$529.5	7.3%	5.1% - 9.4%	1.8%
LA	793	\$502.3	7.8%	5.3% - 10.2%	1.7%
MO	1,137	\$470.6	5.9%	3.8% - 7.9%	1.6%
WI	869	\$438.4	6.3%	3.6% - 9.0%	1.5%

State	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
MS	654	\$401.7	6.8%	3.6% - 9.9%	1.4%
CO	600	\$382.0	7.9%	4.7% - 11.1%	1.3%
AR	626	\$372.7	8.6%	5.3% - 11.8%	1.3%
KS	569	\$325.0	8.4%	5.3% - 11.4%	1.1%
IA	574	\$306.3	6.4%	2.7% - 10.0%	1.0%
OK	733	\$292.1	5.8%	4.0% - 7.7%	1.0%
NE	363	\$267.3	10.0%	5.2% - 14.8%	0.9%
MN	768	\$255.4	4.0%	2.4% - 5.6%	0.9%
WV	371	\$218.4	6.4%	3.0% - 9.7%	0.7%
NM	296	\$195.6	10.6%	5.6% - 15.5%	0.7%
DE	226	\$185.2	8.8%	4.3% - 13.2%	0.6%
NV	379	\$174.0	4.5%	1.6% - 7.5%	0.6%
CT	578	\$173.0	3.5%	1.1% - 5.8%	0.6%
UT	288	\$153.6	5.8%	2.5% - 9.1%	0.5%
OR	401	\$140.3	4.0%	2.3% - 5.8%	0.5%
ID	236	\$138.7	7.7%	2.9% - 12.4%	0.5%
ND	122	\$110.5	10.7%	0.9% - 20.5%	0.4%
PR	66	\$95.6	19.6%	6.0% - 33.1%	0.3%
VT	114	\$79.5	8.9%	0.5% - 17.4%	0.3%
SD	173	\$76.4	5.6%	1.1% - 10.1%	0.3%
NH	261	\$70.4	3.4%	1.3% - 5.5%	0.2%
RI	121	\$69.1	7.5%	1.9% - 13.1%	0.2%
MT	173	\$60.2	4.7%	1.4% - 8.0%	0.2%
DC	79	\$47.8	10.7%	3.0% - 18.5%	0.2%
ME	256	\$47.4	1.8%	0.2% - 3.4%	0.2%
HI	82	\$37.5	5.6%	1.5% - 9.7%	0.1%
WY	85	\$36.0	5.6%	0.2% - 11.0%	0.1%
AK	60	\$31.6	5.7%	0.3% - 11.1%	0.1%
<b>All States</b>	<b>49,998</b>	<b>\$29,715.5</b>	<b>7.5%</b>	<b>7.1% - 7.9%</b>	<b>100.0%</b>



**Table B9: Medicare FFS Projected Improper Payments by State – Parts A & B (Excluding Home Health and Hospice) (Dollars in Millions) (Unadjusted for Impact of A/B Rebilling)**

State	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
CA	3,114	\$2,145.8	6.3%	4.5% - 8.1%	7.2%
TX	2,643	\$2,081.3	8.6%	7.0% - 10.2%	7.0%
FL	2,725	\$1,520.8	6.4%	5.3% - 7.6%	5.1%
OH	1,469	\$1,120.8	9.6%	7.5% - 11.7%	3.8%
NY	2,071	\$1,084.3	4.7%	3.5% - 6.0%	3.7%
NJ	1,191	\$1,029.1	9.1%	6.4% - 11.8%	3.5%
NC	1,325	\$962.5	10.0%	3.8% - 16.2%	3.2%
PA	1,603	\$892.2	6.4%	5.0% - 7.8%	3.0%
WA	662	\$878.7	11.6%	6.3% - 16.9%	3.0%
TN	1,086	\$736.5	8.2%	5.8% - 10.5%	2.5%
GA	1,108	\$732.1	8.3%	6.3% - 10.3%	2.5%
MI	1,208	\$685.7	6.1%	4.4% - 7.8%	2.3%
IL	1,610	\$653.5	4.4%	3.2% - 5.5%	2.2%
VA	951	\$599.5	7.2%	5.0% - 9.3%	2.0%
MD	941	\$591.8	4.9%	2.8% - 7.0%	2.0%
IN	852	\$509.0	7.0%	3.4% - 10.5%	1.7%
SC	560	\$508.4	10.4%	6.4% - 14.3%	1.7%
KY	673	\$482.5	7.5%	4.3% - 10.6%	1.6%
MA	1,165	\$454.7	3.9%	2.4% - 5.4%	1.5%
AL	576	\$439.9	6.9%	3.4% - 10.3%	1.5%
AZ	718	\$423.9	6.7%	4.5% - 8.8%	1.4%
LA	549	\$329.0	6.2%	3.8% - 8.6%	1.1%
AR	427	\$309.4	7.7%	4.5% - 11.0%	1.0%
MO	846	\$304.5	4.2%	2.4% - 6.0%	1.0%
KS	428	\$297.5	8.5%	5.2% - 11.9%	1.0%
CO	402	\$286.9	6.6%	3.4% - 9.8%	1.0%
WI	618	\$279.1	4.5%	2.3% - 6.6%	0.9%
MS	458	\$259.9	4.8%	2.0% - 7.7%	0.9%
IA	389	\$253.2	5.8%	2.0% - 9.7%	0.9%
NE	271	\$220.1	8.8%	4.4% - 13.3%	0.7%
MN	597	\$208.2	3.6%	1.9% - 5.3%	0.7%
OK	524	\$181.9	4.4%	2.6% - 6.2%	0.6%
WV	262	\$178.0	5.6%	2.4% - 8.8%	0.6%
CT	432	\$147.8	3.3%	0.7% - 5.9%	0.5%
NM	196	\$143.2	9.0%	4.3% - 13.7%	0.5%
NV	271	\$136.2	4.0%	1.0% - 7.0%	0.5%
OR	285	\$126.4	4.0%	2.1% - 6.0%	0.4%

State	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
DE	168	\$122.9	6.3%	3.4% - 9.2%	0.4%
ID	157	\$122.6	7.8%	2.4% - 13.1%	0.4%
ND	94	\$104.1	10.4%	0.3% - 20.6%	0.4%
UT	191	\$97.4	4.4%	1.4% - 7.4%	0.3%
VT	82	\$75.2	8.9%	0.0% - 17.8%	0.3%
RI	104	\$67.4	7.6%	1.8% - 13.5%	0.2%
MT	117	\$56.4	5.0%	1.2% - 8.7%	0.2%
NH	207	\$41.9	2.3%	0.7% - 3.9%	0.1%
DC	56	\$37.9	9.4%	1.6% - 17.2%	0.1%
SD	137	\$37.6	3.0%	(0.0%) - 6.0%	0.1%
PR	39	\$32.6	14.2%	1.6% - 26.7%	0.1%
WY	56	\$29.0	4.8%	(0.6%) - 10.3%	0.1%
AK	41	\$28.0	5.7%	(0.2%) - 11.5%	0.1%
HI	66	\$26.4	5.0%	0.1% - 10.0%	0.1%
ME	178	\$16.8	0.7%	(0.0%) - 1.5%	0.1%
<b>All States</b>	<b>36,911</b>	<b>\$23,115.7</b>	<b>6.6%</b>	<b>6.1% - 7.0%</b>	<b>77.8%</b>

**Table B10: Medicare FFS Projected Improper Payments by State – DMEPOS Only  
(Dollars in Millions) (Unadjusted for Impact of A/B Rebilling)<sup>27</sup>**

State	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
CA	840	\$187.0	30.3%	25.3% - 35.3%	0.6%
AL	204	\$180.4	67.4%	39.1% - 95.7%	0.6%
FL	686	\$153.4	31.4%	25.9% - 36.9%	0.5%
TX	646	\$130.9	28.6%	22.9% - 34.3%	0.4%
NC	458	\$119.3	28.2%	16.0% - 40.5%	0.4%
TN	277	\$118.8	49.7%	32.1% - 67.4%	0.4%
NY	601	\$114.1	32.0%	23.8% - 40.2%	0.4%
IL	468	\$107.0	29.2%	18.3% - 40.0%	0.4%
OH	432	\$89.5	21.5%	8.0% - 35.1%	0.3%
VA	322	\$77.6	37.5%	29.0% - 45.9%	0.3%
MI	389	\$75.8	32.6%	25.5% - 39.7%	0.3%
PA	448	\$69.6	26.7%	20.6% - 32.8%	0.2%
GA	306	\$69.6	32.6%	24.7% - 40.5%	0.2%
NJ	370	\$60.5	24.8%	13.9% - 35.8%	0.2%
KY	260	\$54.4	32.3%	22.2% - 42.5%	0.2%
SC	234	\$50.8	30.3%	21.7% - 38.9%	0.2%
LA	179	\$47.8	33.1%	21.8% - 44.4%	0.2%
MO	255	\$46.5	26.6%	17.8% - 35.3%	0.2%
OK	164	\$45.6	38.7%	26.0% - 51.3%	0.2%
WI	220	\$44.2	32.3%	20.5% - 44.0%	0.2%
MS	161	\$41.8	34.5%	23.6% - 45.4%	0.1%
MA	241	\$39.3	19.4%	10.9% - 27.9%	0.1%
IN	277	\$39.2	28.1%	19.7% - 36.4%	0.1%
AR	185	\$37.7	27.2%	15.1% - 39.2%	0.1%
WA	210	\$37.7	23.3%	14.7% - 31.9%	0.1%
AZ	190	\$35.6	20.4%	10.2% - 30.7%	0.1%
MD	226	\$34.4	27.4%	17.7% - 37.1%	0.1%
CO	178	\$31.4	33.8%	22.7% - 44.9%	0.1%
MN	144	\$29.0	34.3%	17.6% - 51.0%	0.1%
KS	126	\$27.5	28.0%	12.3% - 43.6%	0.1%
CT	126	\$25.2	33.4%	21.1% - 45.8%	0.1%
IA	162	\$24.8	29.8%	19.2% - 40.3%	0.1%
NM	87	\$23.5	39.5%	21.9% - 57.1%	0.1%
WV	99	\$19.6	25.3%	12.9% - 37.7%	0.1%
NH	45	\$16.6	36.8%	4.1% - 69.4%	0.1%

<sup>27</sup> All estimates in this table are based on a minimum of 30 lines in the sample.

State	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
NV	86	\$16.3	27.2%	11.5% - 42.9%	0.1%
UT	80	\$14.5	25.3%	10.5% - 40.2%	0.1%
NE	85	\$14.2	28.6%	14.2% - 43.0%	0.1%
ME	65	\$12.9	32.6%	13.2% - 52.0%	0.0%
ID	70	\$12.9	11.4%	(1.6%) - 24.4%	0.0%
OR	102	\$12.7	16.7%	8.0% - 25.4%	0.0%
DE	51	\$9.4	28.6%	9.7% - 47.5%	0.0%
SD	31	\$4.0	24.1%	(7.6%) - 55.9%	0.0%
MT	51	\$3.5	16.9%	4.2% - 29.6%	0.0%
<b>All States (Incl. States Not Listed)</b>	<b>11,004</b>	<b>\$2,444.2</b>	<b>30.7%</b>	<b>28.0% - 33.4%</b>	<b>8.2%</b>

**Table B11: Medicare FFS Projected Improper Payments by State – Home Health and Hospice Only (Dollars in Millions) (Unadjusted for Impact of A/B Rebilling)<sup>28</sup>**

State	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
TX	229	\$660.0	18.0%	12.8% - 23.2%	2.2%
CA	202	\$381.6	8.1%	4.2% - 12.0%	1.3%
FL	174	\$339.3	9.9%	5.2% - 14.5%	1.1%
IL	109	\$268.0	14.2%	6.7% - 21.7%	0.9%
NC	69	\$178.2	15.3%	6.3% - 24.3%	0.6%
NY	90	\$165.0	11.6%	4.3% - 18.8%	0.6%
OH	71	\$162.8	11.8%	3.2% - 20.4%	0.6%
GA	78	\$157.2	11.0%	3.8% - 18.3%	0.5%
LA	65	\$125.4	12.6%	3.7% - 21.5%	0.4%
MI	74	\$122.4	9.6%	2.7% - 16.6%	0.4%
MO	36	\$119.6	18.9%	4.5% - 33.3%	0.4%
MA	60	\$115.7	8.3%	1.9% - 14.7%	0.4%
WI	31	\$115.0	19.4%	0.9% - 37.9%	0.4%
PA	74	\$111.1	9.0%	3.0% - 15.1%	0.4%
MS	35	\$100.0	22.4%	8.2% - 36.5%	0.3%
VA	57	\$71.7	7.6%	1.7% - 13.6%	0.2%
AZ	32	\$69.9	9.3%	(0.5%) - 19.0%	0.2%
OK	45	\$64.6	8.3%	1.9% - 14.7%	0.2%
NJ	45	\$63.6	7.6%	(0.1%) - 15.3%	0.2%
TN	52	\$51.6	5.7%	0.4% - 11.0%	0.2%
AL	43	\$29.3	4.0%	(0.3%) - 8.2%	0.1%
<b>All States (Incl. States Not Listed)</b>	<b>2,083</b>	<b>\$4,155.6</b>	<b>10.9%</b>	<b>9.6% - 12.3%</b>	<b>14.0%</b>

<sup>28</sup> All estimates in this table are based on a minimum of 30 lines in the sample.

# **Appendix C: Medicare Access and CHIP Reauthorization Act of 2015 Section 517 Reporting**

**Table C1: Services Paid under the Physician Fee Schedule (PFS) in which the Fee Schedule Amount is in Excess of \$250 and the Improper Payment Rate is in Excess of 20 Percent**

There were no services that had an improper payment rate that was in excess of 20 percent that also had a physician fee schedule amount greater than \$250.

# Appendix D: Projected Improper Payments and Type of Error by Type of Service for Each Claim Type

This series of tables is sorted in descending order by projected improper payments. All estimates in these tables are based on a minimum of 30 lines in the sample. For a full listing of all services with 30 or more claims, see Appendix G.

**Table D1: Top 20 Service Types with Highest Improper Payments: Part B**

Part B Services (BETOS Codes)	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percentage of Service Type Improper Payments by Type of Error					Percent of Overall Improper Payments
				No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other	
Office visits - established	\$1,017,331,298	6.6%	5.4% - 7.7%	2.8%	24.1%	0.0%	73.1%	0.0%	3.4%
Hospital visit - subsequent	\$755,207,786	12.9%	11.1% - 14.6%	12.1%	36.1%	0.0%	51.8%	0.0%	2.5%
Lab tests - other (non-Medicare fee schedule)	\$693,262,826	21.4%	17.9% - 24.9%	1.8%	96.5%	0.8%	0.4%	0.5%	2.3%
Hospital visit - initial	\$663,196,743	22.2%	20.2% - 24.3%	2.0%	28.0%	0.0%	70.0%	0.0%	2.2%
Minor procedures - other (Medicare fee schedule)	\$539,226,888	12.1%	9.5% - 14.8%	2.3%	80.9%	0.0%	7.2%	9.6%	1.8%
Ambulance	\$476,977,483	9.8%	7.1% - 12.6%	0.0%	57.9%	35.1%	7.0%	0.0%	1.6%
Office visits - new	\$383,093,483	12.7%	11.0% - 14.4%	0.7%	8.1%	0.0%	90.0%	1.1%	1.3%
Other drugs	\$347,672,448	4.3%	1.3% - 7.3%	0.2%	86.8%	2.7%	10.3%	0.0%	1.2%
Specialist - other	\$301,005,903	18.6%	12.8% - 24.5%	2.3%	91.7%	0.0%	0.6%	5.3%	1.0%
Emergency room visit	\$290,076,940	11.7%	9.7% - 13.7%	3.8%	13.2%	0.0%	83.0%	0.0%	1.0%
Specialist - psychiatry	\$266,074,312	24.6%	18.2% - 30.9%	1.4%	97.1%	0.0%	0.6%	0.9%	0.9%
Nursing home visit	\$257,492,434	12.0%	9.8% - 14.3%	5.3%	35.5%	2.8%	54.3%	2.1%	0.9%
Other tests - other	\$221,544,486	16.3%	11.4% - 21.2%	5.3%	94.6%	0.0%	0.1%	0.0%	0.7%
Chiropractic	\$199,604,215	37.3%	31.2% - 43.4%	0.0%	95.8%	2.7%	1.5%	0.0%	0.7%
Hospital visit - critical care	\$189,815,652	18.9%	13.7% - 24.1%	4.0%	41.2%	0.8%	54.0%	0.0%	0.6%
Anesthesia	\$156,137,236	7.3%	3.8% - 10.8%	0.0%	100.0%	0.0%	0.0%	0.0%	0.5%
Ambulatory procedures - other	\$147,821,095	17.4%	10.3% - 24.6%	3.1%	95.4%	0.0%	0.0%	1.5%	0.5%
Advanced imaging - CAT/CT/CTA: other	\$136,042,868	10.9%	6.5% - 15.4%	7.5%	92.5%	0.0%	0.0%	0.0%	0.5%
Major procedure - Other	\$116,250,240	8.4%	(1.1%) - 17.9%	0.2%	55.5%	44.2%	0.0%	0.0%	0.4%
Minor procedures - musculoskeletal	\$102,588,820	10.3%	2.9% - 17.7%	0.0%	97.9%	0.0%	0.3%	1.8%	0.3%
<b>All Type of Services (Incl. Codes Not Listed)</b>	<b>\$8,657,142,636</b>	<b>8.6%</b>	<b>7.9% - 9.3%</b>	<b>4.3%</b>	<b>61.3%</b>	<b>3.1%</b>	<b>30.0%</b>	<b>1.3%</b>	<b>29.1%</b>

**Table D2: Top 20 Service Types with Highest Improper Payments: DMEPOS**

DMEPOS (Policy Group)	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percentage of Service Type Improper Payments by Type of Error					Percent of Overall Improper Payments
				No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other	
Lower Limb Orthoses	\$297,988,587	63.5%	55.8% - 71.3%	1.0%	61.7%	32.8%	0.0%	4.5%	1.0%
CPAP	\$250,958,674	32.7%	28.2% - 37.3%	2.3%	83.5%	1.7%	0.6%	11.8%	0.8%
Oxygen Supplies/Equipment	\$172,518,085	29.5%	26.6% - 32.5%	1.8%	79.8%	0.6%	0.0%	17.8%	0.6%
Surgical Dressings	\$168,483,043	62.8%	54.0% - 71.6%	3.2%	82.5%	2.1%	0.8%	11.3%	0.6%
Lower Limb Prostheses	\$166,017,603	25.5%	(2.1%) - 53.1%	0.4%	98.9%	0.0%	0.0%	0.7%	0.6%
LSO	\$120,840,799	32.9%	26.7% - 39.2%	4.3%	78.1%	6.1%	0.0%	11.5%	0.4%
Diabetic Shoes	\$97,609,773	72.6%	63.5% - 81.7%	0.0%	84.9%	0.0%	0.0%	15.1%	0.3%
Ventilators	\$88,695,689	23.3%	18.6% - 28.0%	0.0%	77.4%	0.0%	0.0%	22.6%	0.3%
Nebulizers & Related Drugs	\$87,077,018	12.3%	8.4% - 16.1%	1.3%	80.0%	0.0%	3.4%	15.4%	0.3%
Upper Limb Orthoses	\$81,820,689	44.1%	34.3% - 53.8%	0.3%	72.8%	3.5%	0.0%	23.4%	0.3%
Glucose Monitor	\$74,021,564	32.8%	25.1% - 40.5%	0.0%	68.6%	3.7%	18.4%	9.3%	0.2%
Urological Supplies	\$70,873,477	23.8%	16.8% - 30.8%	2.4%	76.4%	0.1%	0.3%	20.8%	0.2%
Parenteral Nutrition	\$70,385,222	35.0%	26.0% - 44.1%	0.0%	65.9%	0.0%	0.9%	33.3%	0.2%
Infusion Pumps & Related Drugs	\$68,173,686	13.6%	9.7% - 17.4%	0.0%	81.1%	9.4%	1.7%	7.9%	0.2%
Immunosuppressive Drugs	\$65,748,609	20.8%	15.3% - 26.4%	0.2%	69.9%	1.2%	2.1%	26.6%	0.2%
All Policy Groups with Less than 30 Claims	\$65,741,451	52.5%	36.1% - 68.9%	2.8%	83.9%	2.0%	0.0%	11.4%	0.2%
Ostomy Supplies	\$65,544,520	29.4%	22.6% - 36.2%	1.0%	86.8%	3.9%	0.3%	8.0%	0.2%
Enteral Nutrition	\$45,023,581	31.4%	24.3% - 38.6%	2.7%	70.5%	0.7%	0.1%	26.0%	0.2%
Intravenous Immune Globulin	\$34,751,312	51.1%	(4.4%) -106.7%	0.0%	99.3%	0.0%	0.0%	0.7%	0.1%
Wheelchairs Options/Accessories	\$33,823,041	16.1%	5.9% - 26.4%	0.0%	90.9%	5.2%	0.1%	3.9%	0.1%
<b>All Type of Services (Incl. Codes Not Listed)</b>	<b>\$2,444,237,277</b>	<b>30.7%</b>	<b>28.0% - 33.4%</b>	<b>1.6%</b>	<b>78.1%</b>	<b>5.7%</b>	<b>1.0%</b>	<b>13.6%</b>	<b>8.2%</b>



**Table D3: Top Service Types with Highest Improper Payments: Part A Excluding Hospital IPPS**

Part A Excluding Hospital IPPS Services (TOB)	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percentage of Service Type Improper Payments by Type of Error					Percent of Overall Improper Payments
				No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other	
Hospital Inpatient (Part A)	\$2,628,185,018	25.2%	21.8% - 28.5%	0.0%	27.5%	71.8%	0.0%	0.7%	8.8%
SNF Inpatient	\$2,601,331,816	8.7%	6.9% - 10.4%	0.5%	69.5%	0.0%	4.3%	25.7%	8.8%
Hospital Outpatient	\$2,544,054,716	4.2%	2.8% - 5.5%	0.3%	88.3%	6.8%	0.4%	4.2%	8.6%
Home Health	\$2,337,172,146	12.1%	10.2% - 14.1%	1.8%	65.1%	14.7%	0.7%	17.6%	7.9%
Nonhospital based hospice	\$1,530,229,226	8.9%	6.8% - 11.0%	0.0%	71.5%	16.8%	10.9%	0.9%	5.1%
Clinic ESRD	\$439,607,610	3.9%	2.3% - 5.4%	7.8%	91.6%	0.0%	0.0%	0.6%	1.5%
CAH	\$389,803,048	5.9%	2.6% - 9.2%	0.0%	85.5%	0.1%	6.8%	7.6%	1.3%
Hospital based hospice	\$288,157,325	18.9%	11.8% - 26.0%	0.0%	81.7%	5.0%	8.3%	5.0%	1.0%
SNF Inpatient Part B	\$193,658,266	6.5%	(0.2%) - 13.3%	0.0%	98.0%	0.0%	0.6%	1.4%	0.7%
Hospital Other Part B	\$183,421,184	29.6%	18.2% - 41.0%	5.7%	89.0%	3.1%	0.2%	2.0%	0.6%
FQHC	\$80,085,973	6.3%	0.9% - 11.6%	21.0%	79.0%	0.0%	0.0%	0.0%	0.3%
SNF Outpatient	\$40,166,253	14.1%	(3.1%) - 31.3%	0.0%	100.0%	0.0%	0.0%	0.0%	0.1%
Clinic OPT	\$38,791,568	5.8%	0.0% - 11.7%	0.0%	72.3%	10.0%	0.0%	17.6%	0.1%
Clinical Rural Health	\$30,947,874	2.3%	0.2% - 4.3%	8.1%	91.9%	0.0%	0.0%	0.0%	0.1%
Clinic CORF	\$9,839,003	29.9%	14.3% - 45.5%	0.0%	79.6%	0.0%	0.5%	19.9%	0.0%
Hospital Inpatient Part B	\$5,493,436	0.9%	(0.1%) - 1.9%	0.0%	95.5%	3.6%	0.9%	0.0%	0.0%
<b>All Type of Services (Incl. Codes Not Listed)</b>	<b>\$13,340,944,463</b>	<b>8.1%</b>	<b>7.3% - 8.8%</b>	<b>1.0%</b>	<b>66.6%</b>	<b>20.1%</b>	<b>2.7%</b>	<b>9.6%</b>	<b>44.9%</b>

**Table D4: Top 20 Service Types with Highest Improper Payments: Part A Hospital IPPS**

Part A Hospital IPPS Services (MS-DRGs)	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percentage of Service Type Improper Payments by Type of Error					Percent of Overall Improper Payments
				No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other	
Major Hip And Knee Joint Replacement Or Reattachment Of Lower Extremity (469, 470)	\$693,508,390	10.1%	7.9% - 12.2%	0.0%	35.3%	63.3%	1.3%	0.0%	2.3%
Psychoses (885)	\$378,171,886	9.9%	3.0% - 16.7%	7.9%	80.1%	11.8%	0.1%	0.0%	1.3%
Septicemia Or Severe Sepsis WO MV >96 Hours (871, 872)	\$275,840,496	3.1%	(1.9%) - 8.1%	0.0%	0.0%	0.0%	100.0%	0.0%	0.9%
Endovascular Cardiac Valve Replacement (266, 267)	\$236,231,903	12.3%	6.4% - 18.1%	0.0%	83.7%	6.1%	0.8%	9.4%	0.8%
Spinal Fusion Except Cervical (459, 460)	\$164,937,576	8.7%	1.3% - 16.2%	0.0%	31.9%	40.8%	27.3%	0.0%	0.6%
Heart Failure & Shock (291, 292, 293)	\$125,598,571	2.6%	0.3% - 4.8%	0.0%	0.0%	51.1%	48.9%	0.0%	0.4%
Organic Disturbances & Intellectual Disability (884)	\$109,540,492	21.1%	7.4% - 34.8%	0.0%	10.5%	85.3%	4.1%	0.0%	0.4%
Degenerative Nervous System Disorders (056, 057)	\$103,318,415	13.7%	10.4% - 17.0%	0.0%	31.8%	64.5%	3.6%	0.0%	0.3%
Esophagitis, Gastroent & Misc Digest Disorders (391, 392)	\$88,617,581	7.6%	3.5% - 11.8%	7.3%	0.0%	92.6%	0.1%	0.0%	0.3%
Cardiac Arrhythmia & Conduction Disorders (308, 309, 310)	\$85,869,565	6.6%	3.1% - 10.1%	0.0%	0.0%	89.7%	10.3%	0.0%	0.3%
Other Musculoskeletal Sys & Conn Tiss O.R. Proc (515, 516, 517)	\$81,117,774	19.1%	7.7% - 30.5%	0.0%	0.0%	97.4%	2.6%	0.0%	0.3%
Chest Pain (313)	\$73,056,701	26.9%	18.0% - 35.9%	0.0%	0.0%	100.0%	0.0%	0.0%	0.2%
Kidney & Urinary Tract Infections (689, 690)	\$72,819,946	4.7%	0.5% - 8.9%	0.0%	0.0%	86.0%	14.0%	0.0%	0.2%
Cervical Spinal Fusion (471, 472, 473)	\$70,841,951	12.2%	4.7% - 19.8%	0.0%	23.8%	66.8%	9.4%	0.0%	0.2%
Extensive O.R. Procedure Unrelated To Principal Diagnosis (981, 982, 983)	\$67,881,752	5.1%	1.6% - 8.7%	0.0%	0.6%	79.4%	20.1%	0.0%	0.2%
Percutaneous Intracardiac Procedures (273, 274)	\$66,765,399	15.4%	1.2% - 29.6%	0.0%	54.8%	44.8%	0.4%	0.0%	0.2%
Lower Extrem & Humer Proc Except Hip,foot,femur (492, 493, 494)	\$62,762,497	9.4%	4.0% - 14.8%	0.0%	0.0%	98.6%	1.4%	0.0%	0.2%
Signs & Symptoms (947, 948)	\$57,215,765	20.8%	11.4% - 30.2%	2.1%	4.8%	80.6%	12.5%	0.0%	0.2%
Seizures (100, 101)	\$53,402,312	10.9%	3.4% - 18.3%	0.0%	0.0%	73.2%	26.8%	0.0%	0.2%
Cardiac Defibrillator Implant WO Cardiac Cath (226, 227)	\$53,375,432	13.3%	7.9% - 18.7%	0.0%	17.9%	73.2%	8.9%	0.0%	0.2%
<b>All Type of Services (Incl. Codes Not Listed)</b>	<b>\$5,273,215,801</b>	<b>4.2%</b>	<b>3.7% - 4.8%</b>	<b>1.0%</b>	<b>21.0%</b>	<b>59.0%</b>	<b>18.5%</b>	<b>0.5%</b>	<b>17.7%</b>

# Appendix E: Improper Payment Rates and Type of Error by Type of Service for Each Claim Type

Appendix E tables are sorted in descending order by improper payment rate. For a full listing of all services with 30 or more claims, see Appendix G.

**Table E1: Top 20 Service Type Improper Payment Rates: Part B**

Part B Services (BETOS Codes)	Improper Payment Rate	95% Confidence Interval	Percentage of Service Type Improper Payments by Type of Error					Percent of Overall Improper Payments
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other	
Chiropractic	37.3%	31.2% - 43.4%	0.0%	95.8%	2.7%	1.5%	0.0%	0.7%
Other - Medicare fee schedule	29.0%	17.2% - 40.8%	3.4%	91.7%	0.0%	0.7%	4.2%	0.3%
Other tests - EKG monitoring	25.9%	(1.5%) - 53.3%	64.7%	34.9%	0.0%	0.0%	0.4%	0.3%
Undefined codes	25.4%	(11.3%) - 62.0%	3.4%	90.2%	6.4%	0.0%	0.0%	0.1%
Other - non-Medicare fee schedule	24.9%	11.6% - 38.3%	26.0%	71.7%	0.0%	0.0%	2.4%	0.1%
Specialist - psychiatry	24.6%	18.2% - 30.9%	1.4%	97.1%	0.0%	0.6%	0.9%	0.9%
Hospital visit - initial	22.2%	20.2% - 24.3%	2.0%	28.0%	0.0%	70.0%	0.0%	2.2%
Lab tests - other (non-Medicare fee schedule)	21.4%	17.9% - 24.9%	1.8%	96.5%	0.8%	0.4%	0.5%	2.3%
Standard imaging - other	20.7%	11.7% - 29.7%	0.0%	96.4%	0.0%	0.0%	3.6%	0.2%
Home visit	19.8%	10.8% - 28.8%	0.1%	72.4%	0.0%	16.2%	11.4%	0.2%
Hospital visit - critical care	18.9%	13.7% - 24.1%	4.0%	41.2%	0.8%	54.0%	0.0%	0.6%
Specialist - other	18.6%	12.8% - 24.5%	2.3%	91.7%	0.0%	0.6%	5.3%	1.0%
Ambulatory procedures - other	17.4%	10.3% - 24.6%	3.1%	95.4%	0.0%	0.0%	1.5%	0.5%
Other tests - electrocardiograms	16.8%	11.5% - 22.1%	2.9%	90.0%	1.1%	6.0%	0.0%	0.2%
Other tests - other	16.3%	11.4% - 21.2%	5.3%	94.6%	0.0%	0.1%	0.0%	0.7%
Lab tests - bacterial cultures	16.1%	7.5% - 24.8%	0.0%	85.7%	0.0%	0.0%	14.3%	0.1%
Echography/ultrasonography - carotid arteries	16.1%	6.0% - 26.2%	5.9%	94.1%	0.0%	0.0%	0.0%	0.1%
Standard imaging - chest	14.4%	8.8% - 19.9%	7.7%	91.8%	0.0%	0.3%	0.3%	0.1%
Hospital visit - subsequent	12.9%	11.1% - 14.6%	12.1%	36.1%	0.0%	51.8%	0.0%	2.5%
Office visits - new	12.7%	11.0% - 14.4%	0.7%	8.1%	0.0%	90.0%	1.1%	1.3%
<b>Overall (incl. Service Types Not Listed)</b>	<b>8.6%</b>	<b>7.9% - 9.3%</b>	<b>4.3%</b>	<b>61.3%</b>	<b>3.1%</b>	<b>30.0%</b>	<b>1.3%</b>	<b>29.1%</b>

**Table E2: Top 20 Service Type Improper Payment Rates: DMEPOS**

DMEPOS (Policy Group)	Improper Payment Rate	95% Confidence Interval	Percentage of Service Type Improper Payments by Type of Error					Percent of Overall Improper Payments
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other	
Orthopedic Footwear	100.0%	100.0% - 100.0%	16.2%	74.7%	8.1%	0.0%	1.0%	0.0%
Lenses	78.0%	67.3% - 88.6%	1.9%	77.5%	0.8%	0.0%	19.8%	0.1%
Commodes/Bed Pans/Urinals	75.0%	62.3% - 87.6%	2.1%	81.8%	0.0%	0.0%	16.1%	0.0%
Diabetic Shoes	72.6%	63.5% - 81.7%	0.0%	84.9%	0.0%	0.0%	15.1%	0.3%
Lower Limb Orthoses	63.5%	55.8% - 71.3%	1.0%	61.7%	32.8%	0.0%	4.5%	1.0%
Surgical Dressings	62.8%	54.0% - 71.6%	3.2%	82.5%	2.1%	0.8%	11.3%	0.6%
All Policy Groups with Less than 30 Claims	52.5%	36.1% - 68.9%	2.8%	83.9%	2.0%	0.0%	11.4%	0.2%
Hospital Beds/Accessories	51.9%	43.3% - 60.5%	3.0%	86.6%	0.0%	2.5%	7.9%	0.1%
Intravenous Immune Globulin	51.1%	(4.4%) -106.7%	0.0%	99.3%	0.0%	0.0%	0.7%	0.1%
Tracheostomy Supplies	50.5%	31.2% - 69.8%	12.8%	60.5%	0.0%	0.0%	26.6%	0.1%
Suction Pump	49.4%	33.5% - 65.3%	0.0%	64.3%	2.7%	0.0%	33.0%	0.0%
Wheelchairs Manual	45.7%	37.6% - 53.8%	1.4%	95.9%	1.3%	0.0%	1.3%	0.1%
Support Surfaces	45.0%	18.3% - 71.6%	0.0%	88.5%	0.0%	0.0%	11.5%	0.0%
Upper Limb Orthoses	44.1%	34.3% - 53.8%	0.3%	72.8%	3.5%	0.0%	23.4%	0.3%
Negative Pressure Wound Therapy	42.7%	32.1% - 53.2%	0.0%	58.4%	7.6%	0.6%	33.3%	0.1%
Breast Prostheses	37.0%	25.0% - 49.0%	3.7%	80.0%	0.0%	0.8%	15.5%	0.1%
Repairs/DMEPOS	36.4%	13.2% - 59.6%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
Parenteral Nutrition	35.0%	26.0% - 44.1%	0.0%	65.9%	0.0%	0.9%	33.3%	0.2%
Patient Lift	34.7%	21.3% - 48.2%	0.0%	90.1%	0.0%	0.0%	9.9%	0.0%
LSO	32.9%	26.7% - 39.2%	4.3%	78.1%	6.1%	0.0%	11.5%	0.4%
<b>Overall (incl. Service Types Not Listed)</b>	<b>30.7%</b>	<b>28.0% - 33.4%</b>	<b>1.6%</b>	<b>78.1%</b>	<b>5.7%</b>	<b>1.0%</b>	<b>13.6%</b>	<b>8.2%</b>

**Table E3: Top Service Type Improper Payment Rates: Part A Excluding Hospital IPPS**

Part A Excluding Hospital IPPS Services (TOB)	Improper Payment Rate	95% Confidence Interval	Percentage of Service Type Improper Payments by Type of Error					Percent of Overall Improper Payments
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other	
Clinic CORF	29.9%	14.3% - 45.5%	0.0%	79.6%	0.0%	0.5%	19.9%	0.0%
Hospital Other Part B	29.6%	18.2% - 41.0%	5.7%	89.0%	3.1%	0.2%	2.0%	0.6%
Hospital Inpatient (Part A)	25.2%	21.8% - 28.5%	0.0%	27.5%	71.8%	0.0%	0.7%	8.8%
Hospital based hospice	18.9%	11.8% - 26.0%	0.0%	81.7%	5.0%	8.3%	5.0%	1.0%
SNF Outpatient	14.1%	(3.1%) - 31.3%	0.0%	100.0%	0.0%	0.0%	0.0%	0.1%
Home Health	12.1%	10.2% - 14.1%	1.8%	65.1%	14.7%	0.7%	17.6%	7.9%
Nonhospital based hospice	8.9%	6.8% - 11.0%	0.0%	71.5%	16.8%	10.9%	0.9%	5.1%
SNF Inpatient	8.7%	6.9% - 10.4%	0.5%	69.5%	0.0%	4.3%	25.7%	8.8%
SNF Inpatient Part B	6.5%	(0.2%) - 13.3%	0.0%	98.0%	0.0%	0.6%	1.4%	0.7%
FQHC	6.3%	0.9% - 11.6%	21.0%	79.0%	0.0%	0.0%	0.0%	0.3%
CAH	5.9%	2.6% - 9.2%	0.0%	85.5%	0.1%	6.8%	7.6%	1.3%
Clinic OPT	5.8%	0.0% - 11.7%	0.0%	72.3%	10.0%	0.0%	17.6%	0.1%
Hospital Outpatient	4.2%	2.8% - 5.5%	0.3%	88.3%	6.8%	0.4%	4.2%	8.6%
Clinic ESRD	3.9%	2.3% - 5.4%	7.8%	91.6%	0.0%	0.0%	0.6%	1.5%
Clinical Rural Health	2.3%	0.2% - 4.3%	8.1%	91.9%	0.0%	0.0%	0.0%	0.1%
Hospital Inpatient Part B	0.9%	(0.1%) - 1.9%	0.0%	95.5%	3.6%	0.9%	0.0%	0.0%
<b>Overall (incl. Service Types Not Listed)</b>	<b>8.1%</b>	<b>7.3% - 8.8%</b>	<b>1.0%</b>	<b>66.6%</b>	<b>20.1%</b>	<b>2.7%</b>	<b>9.6%</b>	<b>44.9%</b>

**Table E4: Top 20 Service Type Improper Payment Rates: Part A Hospital IPPS**

Part A Hospital IPPS Services (MS-DRGs)	Improper Payment Rate	95% Confidence Interval	Percentage of Service Type Improper Payments by Type of Error					Percent of Overall Improper Payments
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other	
Thyroid, Parathyroid & Thyroglossal Procedures (625, 626, 627)	59.7%	47.0% - 72.3%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
Female Reproductive System Reconstructive Procedures (748)	30.6%	19.3% - 41.9%	0.0%	2.7%	97.3%	0.0%	0.0%	0.0%
Cranial & Peripheral Nerve Disorders (073, 074)	27.8%	12.8% - 42.8%	0.0%	0.0%	100.0%	0.0%	0.0%	0.1%
Chest Pain (313)	26.9%	18.0% - 35.9%	0.0%	0.0%	100.0%	0.0%	0.0%	0.2%
Bone Diseases & Arthropathies (553, 554)	25.5%	12.5% - 38.5%	0.0%	0.0%	63.7%	36.3%	0.0%	0.1%
Organic Disturbances & Intellectual Disability (884)	21.1%	7.4% - 34.8%	0.0%	10.5%	85.3%	4.1%	0.0%	0.4%
Signs & Symptoms (947, 948)	20.8%	11.4% - 30.2%	2.1%	4.8%	80.6%	12.5%	0.0%	0.2%
Dysequilibrium (149)	20.6%	11.7% - 29.5%	0.0%	0.0%	100.0%	0.0%	0.0%	0.1%
Other Musculoskelet Sys & Conn Tiss O.R. Proc (515, 516, 517)	19.1%	7.7% - 30.5%	0.0%	0.0%	97.4%	2.6%	0.0%	0.3%
Transient Ischemia WO Thrombolytic (069)	16.8%	6.4% - 27.2%	0.0%	0.0%	100.0%	0.0%	0.0%	0.1%
Percutaneous Intracardiac Procedures (273, 274)	15.4%	1.2% - 29.6%	0.0%	54.8%	44.8%	0.4%	0.0%	0.2%
Aftercare, Musculoskeletal System & Connective Tissue (559, 560, 561)	14.8%	7.8% - 21.9%	0.0%	18.7%	72.7%	8.7%	0.0%	0.1%
Back & Neck Proc Exc Spinal Fusion (518, 519, 520)	14.7%	10.3% - 19.0%	0.0%	9.0%	87.8%	3.2%	0.0%	0.1%
Fx, Sprn, Strn & Disl Except Femur, Hip, Pelvis & Thigh (562, 563)	14.5%	5.2% - 23.7%	0.0%	0.0%	100.0%	0.0%	0.0%	0.1%
Atherosclerosis (302, 303)	14.2%	4.3% - 24.2%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
Degenerative Nervous System Disorders (056, 057)	13.7%	10.4% - 17.0%	0.0%	31.8%	64.5%	3.6%	0.0%	0.3%
Cardiac Defibrillator Implant WO Cardiac Cath (226, 227)	13.3%	7.9% - 18.7%	0.0%	17.9%	73.2%	8.9%	0.0%	0.2%
Other Disorders Of Nervous System (091, 092, 093)	12.7%	5.6% - 19.9%	0.0%	0.0%	86.6%	13.4%	0.0%	0.2%
Cardiac Pacemaker Device Replacement (258, 259)	12.5%	5.1% - 19.9%	0.0%	0.0%	59.7%	40.3%	0.0%	0.0%
Endovascular Cardiac Valve Replacement (266, 267)	12.3%	6.4% - 18.1%	0.0%	83.7%	6.1%	0.8%	9.4%	0.8%
<b>Overall (incl. Service Types Not Listed)</b>	<b>4.2%</b>	<b>3.7% - 4.8%</b>	<b>1.0%</b>	<b>21.0%</b>	<b>59.0%</b>	<b>18.5%</b>	<b>0.5%</b>	<b>17.7%</b>

# Appendix F: Projected Improper Payments by Type of Service for Each Type of Error

Appendix F tables are sorted in descending order by projected improper payments.

**Table F1: Top 20 Types of Services with No Documentation Errors**

Medicare FFS Services	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
Hospital visit - subsequent	\$91,074,842	1.6%	0.4% - 2.7%	0.3%
Other tests - EKG monitoring	\$57,136,668	16.8%	(9.9%) - 43.4%	0.2%
Home Health	\$43,178,669	0.2%	(0.1%) - 0.5%	0.1%
Clinic ESRD	\$34,126,955	0.3%	(0.1%) - 0.7%	0.1%
Psychoses (885)	\$30,057,531	0.8%	(0.3%) - 1.9%	0.1%
Office visits - established	\$28,008,584	0.2%	(0.1%) - 0.4%	0.1%
FQHC	\$16,786,970	1.3%	(1.3%) - 3.9%	0.1%
Echography/ultrasonography - other	\$16,675,961	2.7%	(2.5%) - 7.9%	0.1%
SNF Inpatient	\$14,222,259	0.0%	(0.0%) - 0.1%	0.0%
Nursing home visit	\$13,773,524	0.6%	(0.1%) - 1.4%	0.0%
Endoscopy - colonoscopy	\$13,408,429	1.5%	(1.4%) - 4.4%	0.0%
Hospital visit - initial	\$13,107,539	0.4%	0.0% - 0.8%	0.0%
Lab tests - other (non-Medicare fee schedule)	\$12,728,615	0.4%	0.1% - 0.7%	0.0%
Trach W MV >96 Hrs Or PDX Exc Face, Mouth & Neck (004)	\$12,542,815	1.0%	(0.9%) - 2.8%	0.0%
Minor procedures - other (Medicare fee schedule)	\$12,304,862	0.3%	(0.1%) - 0.7%	0.0%
Other tests - other	\$11,705,902	0.9%	(0.2%) - 1.9%	0.0%
Emergency room visit	\$11,079,255	0.4%	(0.2%) - 1.1%	0.0%
Hospital Other Part B	\$10,417,705	1.7%	(1.0%) - 4.3%	0.0%
Advanced imaging - CAT/CT/CTA: other	\$10,248,145	0.8%	(0.1%) - 1.8%	0.0%
Specialist - ophthalmology	\$9,383,985	0.4%	(0.4%) - 1.2%	0.0%
<b>Overall (Incl. Codes Not Listed)</b>	<b>\$593,702,244</b>	<b>0.1%</b>	<b>0.1% - 0.2%</b>	<b>2.0%</b>

**Table F2: Top 20 Types of Services with Insufficient Documentation Errors**

Medicare FFS Services	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
Hospital Outpatient	\$2,247,350,613	3.7%	2.4% - 4.9%	7.6%
SNF Inpatient	\$1,807,308,635	6.0%	4.6% - 7.5%	6.1%
Home Health	\$1,522,194,864	7.9%	6.3% - 9.5%	5.1%
Nonhospital based hospice	\$1,093,353,763	6.4%	4.5% - 8.2%	3.7%
Hospital Inpatient (Part A)	\$723,044,494	6.9%	4.9% - 8.9%	2.4%
Lab tests - other (non-Medicare fee schedule)	\$669,063,669	20.6%	17.2% - 24.1%	2.3%
Minor procedures - other (Medicare fee schedule)	\$436,451,003	9.8%	7.4% - 12.2%	1.5%
Clinic ESRD	\$402,712,632	3.6%	2.1% - 5.1%	1.4%
CAH	\$333,433,334	5.1%	1.8% - 8.3%	1.1%
Psychoses (885)	\$303,021,620	7.9%	1.1% - 14.7%	1.0%
Other drugs	\$301,875,873	3.7%	0.9% - 6.6%	1.0%
Ambulance	\$276,160,229	5.7%	3.8% - 7.6%	0.9%
Specialist - other	\$276,055,494	17.1%	11.4% - 22.8%	0.9%
Hospital visit - subsequent	\$272,870,966	4.6%	3.5% - 5.8%	0.9%
Specialist - psychiatry	\$258,356,405	23.9%	17.5% - 30.2%	0.9%
Office visits - established	\$245,574,658	1.6%	0.8% - 2.4%	0.8%
Major Hip And Knee Joint Replacement Or Reattachment Of Lower Extremity (469, 470)	\$245,099,295	3.6%	2.2% - 5.0%	0.8%
Hospital based hospice	\$235,296,926	15.4%	8.7% - 22.1%	0.8%
CPAP	\$209,673,785	27.4%	23.0% - 31.7%	0.7%
Other tests - other	\$209,654,796	15.5%	10.7% - 20.2%	0.7%
<b>Overall (Incl. Codes Not Listed)</b>	<b>\$17,213,763,483</b>	<b>4.3%</b>	<b>4.0% - 4.6%</b>	<b>57.9%</b>



**Table F3: Top 20 Types of Services with Medical Necessity Errors**

Medicare FFS Services	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
Hospital Inpatient (Part A)	\$1,888,049,556	18.1%	15.2% - 21.0%	6.4%
Major Hip And Knee Joint Replacement Or Reattachment Of Lower Extremity (469, 470)	\$439,194,650	6.4%	4.7% - 8.1%	1.5%
Home Health	\$343,844,310	1.8%	1.2% - 2.4%	1.2%
Nonhospital based hospice	\$256,718,467	1.5%	0.6% - 2.4%	0.9%
Hospital Outpatient	\$171,852,897	0.3%	0.0% - 0.6%	0.6%
Ambulance	\$167,446,789	3.5%	1.4% - 5.5%	0.6%
Lower Limb Orthoses	\$97,760,590	20.8%	15.7% - 26.0%	0.3%
Organic Disturbances & Intellectual Disability (884)	\$93,456,978	18.0%	4.7% - 31.3%	0.3%
Esophagitis, Gastroent & Misc Digest Disorders (391, 392)	\$82,084,844	7.1%	3.1% - 11.1%	0.3%
Other Musculoskelet Sys & Conn Tiss O.R. Proc (515, 516, 517)	\$79,010,161	18.6%	7.2% - 30.0%	0.3%
Cardiac Arrhythmia & Conduction Disorders (308, 309, 310)	\$77,035,698	5.9%	2.5% - 9.3%	0.3%
Chest Pain (313)	\$73,056,701	26.9%	18.0% - 35.9%	0.2%
Spinal Fusion Except Cervical (459, 460)	\$67,363,576	3.6%	(1.3%) - 8.4%	0.2%
Degenerative Nervous System Disorders (056, 057)	\$66,680,267	8.9%	6.5% - 11.2%	0.2%
Heart Failure & Shock (291, 292, 293)	\$64,141,582	1.3%	(0.7%) - 3.3%	0.2%
Kidney & Urinary Tract Infections (689, 690)	\$62,600,631	4.0%	(0.1%) - 8.2%	0.2%
Lower Extrem & Humer Proc Except Hip,foot,femur (492, 493, 494)	\$61,874,673	9.3%	3.8% - 14.7%	0.2%
Extensive O.R. Procedure Unrelated To Principal Diagnosis (981, 982, 983)	\$53,874,593	4.1%	0.6% - 7.5%	0.2%
Major procedure - Other	\$51,440,282	3.7%	(3.5%) - 10.9%	0.2%
Cervical Spinal Fusion (471, 472, 473)	\$47,356,737	8.2%	2.2% - 14.2%	0.2%
<b>Overall (Incl. Codes Not Listed)</b>	<b>\$6,202,923,642</b>	<b>1.6%</b>	<b>1.4% - 1.7%</b>	<b>20.9%</b>

**Table F4: Top 20 Types of Services with Incorrect Coding Errors**

Medicare FFS Services	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
Office visits - established	\$743,467,739	4.8%	3.9% - 5.7%	2.5%
Hospital visit - initial	\$464,101,253	15.6%	14.1% - 17.0%	1.6%
Hospital visit - subsequent	\$391,261,977	6.7%	5.9% - 7.4%	1.3%
Office visits - new	\$344,857,663	11.4%	9.9% - 12.9%	1.2%
Septicemia Or Severe Sepsis WO MV >96 Hours (871, 872)	\$275,840,496	3.1%	(1.9%) - 8.1%	0.9%
Emergency room visit	\$240,830,976	9.7%	8.1% - 11.3%	0.8%
Nonhospital based hospice	\$166,528,292	1.0%	0.5% - 1.4%	0.6%
Nursing home visit	\$139,770,318	6.5%	5.4% - 7.7%	0.5%
SNF Inpatient	\$110,597,622	0.4%	0.2% - 0.6%	0.4%
Hospital visit - critical care	\$102,575,166	10.2%	6.1% - 14.4%	0.3%
Heart Failure & Shock (291, 292, 293)	\$61,456,989	1.3%	0.3% - 2.3%	0.2%
Spinal Fusion Except Cervical (459, 460)	\$44,963,501	2.4%	(0.2%) - 5.0%	0.2%
Minor procedures - other (Medicare fee schedule)	\$38,878,058	0.9%	0.2% - 1.5%	0.1%
Other drugs	\$35,762,910	0.4%	(0.3%) - 1.2%	0.1%
Infectious & Parasitic Diseases W O.R. Procedure (853, 854, 855)	\$35,651,857	1.0%	0.2% - 1.7%	0.1%
Ambulance	\$33,318,753	0.7%	0.3% - 1.1%	0.1%
CAH	\$26,397,919	0.4%	(0.2%) - 1.0%	0.1%
Hospital based hospice	\$24,029,318	1.6%	0.1% - 3.1%	0.1%
Acute Myocardial Infarction, Discharged Alive (280, 281, 282)	\$23,862,217	1.9%	(0.2%) - 4.0%	0.1%
Simple Pneumonia & Pleurisy (193, 194, 195)	\$23,817,405	1.0%	0.0% - 2.0%	0.1%
<b>Overall (Incl. Codes Not Listed)</b>	<b>\$3,952,839,944</b>	<b>1.0%</b>	<b>0.9% - 1.1%</b>	<b>13.3%</b>

**Table F5: Top 20 Types of Services with Downcoding<sup>29</sup> Errors**

Medicare FFS Services	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
Office visits - established	\$346,728,494	2.2%	1.5% - 2.9%	1.2%
Septicemia Or Severe Sepsis WO MV >96 Hours (871, 872)	\$261,109,840	2.9%	(2.0%) - 7.9%	0.9%
Hospital visit - subsequent	\$53,017,212	0.9%	0.5% - 1.3%	0.2%
Heart Failure & Shock (291, 292, 293)	\$49,257,070	1.0%	0.1% - 1.9%	0.2%
Spinal Fusion Except Cervical (459, 460)	\$34,686,651	1.8%	(0.6%) - 4.2%	0.1%
Other drugs	\$31,819,836	0.4%	(0.3%) - 1.1%	0.1%
Emergency room visit	\$29,553,522	1.2%	0.4% - 2.0%	0.1%
Simple Pneumonia & Pleurisy (193, 194, 195)	\$23,817,405	1.0%	0.0% - 2.0%	0.1%
Office visits - new	\$23,425,516	0.8%	0.3% - 1.3%	0.1%
Acute Myocardial Infarction, Discharged Alive (280, 281, 282)	\$22,731,208	1.8%	(0.3%) - 3.9%	0.1%
Critical Access Hospital	\$21,732,748	0.3%	(0.2%) - 0.9%	0.1%
Minor procedures - other (Medicare fee schedule)	\$19,562,380	0.4%	(0.0%) - 0.9%	0.1%
Infectious & Parasitic Diseases W O.R. Procedure (853, 854, 855)	\$17,647,189	0.5%	(0.0%) - 1.0%	0.1%
Diabetes (637, 638, 639)	\$17,484,022	2.2%	(1.4%) - 5.8%	0.1%
Nursing home visit	\$14,396,019	0.7%	0.2% - 1.1%	0.0%
Other Circulatory System Diagnoses (314, 315, 316)	\$13,603,293	1.9%	(0.6%) - 4.4%	0.0%
Hip & Femur Procedures Except Major Joint (480, 481, 482)	\$12,711,452	0.7%	(0.4%) - 1.8%	0.0%
Hospital visit - initial	\$11,568,511	0.4%	(0.0%) - 0.8%	0.0%
Intracranial Hemorrhage Or Cerebral Infarction (064, 065, 066)	\$10,799,999	0.6%	(0.1%) - 1.2%	0.0%
G.I. Hemorrhage (377, 378, 379)	\$9,992,809	0.5%	(0.1%) - 1.1%	0.0%
<b>Overall (Incl. Codes Not Listed)</b>	<b>\$1,297,373,665</b>	<b>0.3%</b>	<b>0.2% - 0.4%</b>	<b>4.4%</b>

<sup>29</sup> Downcoding refers to billing a lower level service or a service with a lower payment than is supported by the medical record documentation.

**Table F6: Top 20 Types of Services with Other Errors**

Medicare FFS Services	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
SNF Inpatient	\$669,203,300	2.2%	1.2% - 3.3%	2.3%
Home Health	\$412,388,997	2.1%	1.2% - 3.1%	1.4%
Hospital Outpatient	\$106,705,944	0.2%	(0.1%) - 0.5%	0.4%
Minor procedures - other (Medicare fee schedule)	\$51,549,916	1.2%	0.3% - 2.0%	0.2%
Oxygen Supplies/Equipment	\$30,752,868	5.3%	3.9% - 6.7%	0.1%
Critical Access Hospital	\$29,762,010	0.5%	(0.1%) - 1.0%	0.1%
CPAP	\$29,500,602	3.8%	2.1% - 5.6%	0.1%
Parenteral Nutrition	\$23,404,126	11.7%	4.5% - 18.9%	0.1%
Endovascular Cardiac Valve Replacement (266, 267)	\$22,290,199	1.2%	(1.1%) - 3.4%	0.1%
Ventilators	\$20,008,449	5.3%	2.8% - 7.7%	0.1%
Upper Limb Orthoses	\$19,157,317	10.3%	4.3% - 16.3%	0.1%
Surgical Dressings	\$19,062,912	7.1%	2.6% - 11.6%	0.1%
Immunosuppressive Drugs	\$17,504,807	5.5%	1.6% - 9.5%	0.1%
Hospital Inpatient (Part A)	\$17,090,968	0.2%	(0.2%) - 0.5%	0.1%
Specialist - other	\$16,029,061	1.0%	(0.2%) - 2.2%	0.1%
Urological Supplies	\$14,769,459	5.0%	1.9% - 8.0%	0.0%
Diabetic Shoes	\$14,741,483	11.0%	4.0% - 17.9%	0.0%
Hospital based hospice	\$14,381,878	0.9%	(0.9%) - 2.8%	0.0%
LSO	\$13,916,063	3.8%	1.2% - 6.4%	0.0%
Nonhospital based hospice	\$13,628,704	0.1%	(0.0%) - 0.2%	0.0%
<b>Overall (Incl. Codes Not Listed)</b>	<b>\$1,752,310,863</b>	<b>0.4%</b>	<b>0.3% - 0.5%</b>	<b>5.9%</b>

# Appendix G: Projected Improper Payments by Type of Service for Each Claim Type

This series of tables is sorted in descending order by projected improper payments. All estimates in these tables are based on a minimum of 30 lines in the sample.

**Table G1: Improper Payment Rates by Service Type: Part B**

Part B Services (BETOS Codes)	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
Office visits - established	1,451	\$1,017,331,298	6.6%	5.4% - 7.7%	3.4%
Hospital visit - subsequent	1,559	\$755,207,786	12.9%	11.1% - 14.6%	2.5%
Lab tests - other (non-Medicare fee schedule)	2,495	\$693,262,826	21.4%	17.9% - 24.9%	2.3%
Hospital visit - initial	962	\$663,196,743	22.2%	20.2% - 24.3%	2.2%
Minor procedures - other (Medicare fee schedule)	1,421	\$539,226,888	12.1%	9.5% - 14.8%	1.8%
Ambulance	861	\$476,977,483	9.8%	7.1% - 12.6%	1.6%
Office visits - new	708	\$383,093,483	12.7%	11.0% - 14.4%	1.3%
Other drugs	1,096	\$347,672,448	4.3%	1.3% - 7.3%	1.2%
Specialist - other	889	\$301,005,903	18.6%	12.8% - 24.5%	1.0%
Emergency room visit	538	\$290,076,940	11.7%	9.7% - 13.7%	1.0%
Specialist - psychiatry	841	\$266,074,312	24.6%	18.2% - 30.9%	0.9%
Nursing home visit	665	\$257,492,434	12.0%	9.8% - 14.3%	0.9%
Other tests - other	874	\$221,544,486	16.3%	11.4% - 21.2%	0.7%
Chiropractic	364	\$199,604,215	37.3%	31.2% - 43.4%	0.7%
Hospital visit - critical care	266	\$189,815,652	18.9%	13.7% - 24.1%	0.6%
Anesthesia	285	\$156,137,236	7.3%	3.8% - 10.8%	0.5%
Ambulatory procedures - other	257	\$147,821,095	17.4%	10.3% - 24.6%	0.5%
Advanced imaging - CAT/CT/CTA: other	255	\$136,042,868	10.9%	6.5% - 15.4%	0.5%
Major procedure - Other	150	\$116,250,240	8.4%	(1.1%) - 17.9%	0.4%
Minor procedures - musculoskeletal	271	\$102,588,820	10.3%	2.9% - 17.7%	0.3%
Other - Medicare fee schedule	184	\$94,313,052	29.0%	17.2% - 40.8%	0.3%
Other tests - EKG monitoring	45	\$88,317,565	25.9%	(1.5%) - 53.3%	0.3%
Minor procedures - skin	285	\$82,699,301	7.0%	2.9% - 11.0%	0.3%
Dialysis services (Medicare Fee Schedule)	238	\$80,593,000	8.8%	4.6% - 13.1%	0.3%
Echography/ultrasonography - other	173	\$72,667,583	11.8%	4.6% - 18.9%	0.2%
Endoscopy - colonoscopy	49	\$64,044,607	7.1%	(0.5%) - 14.8%	0.2%
Specialist - ophthalmology	435	\$62,604,884	2.7%	1.0% - 4.5%	0.2%
Ambulatory procedures - skin	365	\$59,479,749	3.3%	1.7% - 4.9%	0.2%
All Codes With Less Than 30 Claims	208	\$56,023,028	0.9%	0.1% - 1.8%	0.2%
Standard imaging - other	153	\$55,728,015	20.7%	11.7% - 29.7%	0.2%

Part B Services (BETOS Codes)	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
Echography/ultrasonography - heart	159	\$54,027,566	5.4%	1.3% - 9.5%	0.2%
Home visit	339	\$48,508,363	19.8%	10.8% - 28.8%	0.2%
Other tests - electrocardiograms	466	\$47,491,986	16.8%	11.5% - 22.1%	0.2%
Lab tests - other (Medicare fee schedule)	204	\$46,944,115	3.0%	0.7% - 5.4%	0.2%
Echography/ultrasonography - carotid arteries	109	\$43,668,468	16.1%	6.0% - 26.2%	0.1%
Standard imaging - chest	321	\$41,373,627	14.4%	8.8% - 19.9%	0.1%
Lab tests - automated general profiles	662	\$33,920,271	9.9%	6.4% - 13.3%	0.1%
Eye procedure - cataract removal/lens insertion	108	\$33,228,590	1.7%	(0.5%) - 3.9%	0.1%
Undefined codes	836	\$32,932,084	25.4%	(11.3%) - 62.0%	0.1%
Standard imaging - musculoskeletal	330	\$31,074,523	7.2%	4.3% - 10.1%	0.1%
Lab tests - blood counts	342	\$23,890,402	8.9%	5.0% - 12.9%	0.1%
Advanced imaging - CAT/CT/CTA: brain/head/neck	133	\$22,954,044	6.1%	2.2% - 10.0%	0.1%
Echography/ultrasonography - abdomen/pelvis	74	\$17,859,177	5.6%	0.1% - 11.2%	0.1%
Other - non-Medicare fee schedule	164	\$16,824,153	24.9%	11.6% - 38.3%	0.1%
Oncology - radiation therapy	52	\$16,137,086	1.4%	(1.1%) - 3.9%	0.1%
Lab tests - bacterial cultures	97	\$15,549,128	16.1%	7.5% - 24.8%	0.1%
Advanced imaging - MRI/MRA: other	82	\$15,441,587	1.4%	(0.3%) - 3.1%	0.1%
Standard imaging - breast	103	\$13,551,719	2.7%	(1.7%) - 7.0%	0.0%
Echography/ultrasonography - eye	40	\$12,618,268	7.6%	(1.4%) - 16.7%	0.0%
Advanced imaging - MRI/MRA: brain/head/neck	47	\$12,532,060	2.9%	(1.4%) - 7.2%	0.0%
Lab tests - routine venipuncture (non Medicare fee schedule)	801	\$11,940,639	10.1%	7.5% - 12.7%	0.0%
Eye procedure - other	346	\$11,730,883	1.3%	(0.2%) - 2.9%	0.0%
Standard imaging - nuclear medicine	171	\$10,986,643	1.5%	0.4% - 2.7%	0.0%
Endoscopy - upper gastrointestinal	44	\$9,168,958	1.7%	(1.6%) - 4.9%	0.0%
Lab tests - urinalysis	238	\$6,224,862	12.5%	6.1% - 18.9%	0.0%
Imaging/procedure - other	126	\$4,567,664	2.7%	(1.1%) - 6.4%	0.0%
Oncology - other	459	\$3,594,962	1.5%	0.4% - 2.7%	0.0%
Immunizations/Vaccinations	287	\$2,304,607	0.2%	(0.1%) - 0.5%	0.0%
Other tests - cardiovascular stress tests	81	\$1,143,514	1.2%	(0.5%) - 2.9%	0.0%
Major procedure, cardiovascular-Other	70	\$94,025	0.0%	(0.0%) - 0.0%	0.0%
<b>All Type of Services (Incl. Codes Not Listed)</b>	<b>16,998</b>	<b>\$8,657,142,636</b>	<b>8.6%</b>	<b>7.9% - 9.3%</b>	<b>29.1%</b>

**Table G2: Improper Payment Rates by Service Type: DMEPOS**

DMEPOS (Policy Group)	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
Lower Limb Orthoses	643	\$297,988,587	63.5%	55.8% - 71.3%	1.0%
CPAP	1,100	\$250,958,674	32.7%	28.2% - 37.3%	0.8%
Oxygen Supplies/Equipment	1,303	\$172,518,085	29.5%	26.6% - 32.5%	0.6%
Surgical Dressings	350	\$168,483,043	62.8%	54.0% - 71.6%	0.6%
Lower Limb Prostheses	117	\$166,017,603	25.5%	(2.1%) - 53.1%	0.6%
LSO	331	\$120,840,799	32.9%	26.7% - 39.2%	0.4%
Diabetic Shoes	209	\$97,609,773	72.6%	63.5% - 81.7%	0.3%
Ventilators	355	\$88,695,689	23.3%	18.6% - 28.0%	0.3%
Nebulizers & Related Drugs	824	\$87,077,018	12.3%	8.4% - 16.1%	0.3%
Upper Limb Orthoses	238	\$81,820,689	44.1%	34.3% - 53.8%	0.3%
Glucose Monitor	758	\$74,021,564	32.8%	25.1% - 40.5%	0.2%
Urological Supplies	399	\$70,873,477	23.8%	16.8% - 30.8%	0.2%
Parenteral Nutrition	214	\$70,385,222	35.0%	26.0% - 44.1%	0.2%
Infusion Pumps & Related Drugs	662	\$68,173,686	13.6%	9.7% - 17.4%	0.2%
Immunosuppressive Drugs	644	\$65,748,609	20.8%	15.3% - 26.4%	0.2%
All Policy Groups with Less than 30 Claims	150	\$65,741,451	52.5%	36.1% - 68.9%	0.2%
Ostomy Supplies	329	\$65,544,520	29.4%	22.6% - 36.2%	0.2%
Enteral Nutrition	313	\$45,023,581	31.4%	24.3% - 38.6%	0.2%
Intravenous Immune Globulin	90	\$34,751,312	51.1%	(4.4%) -106.7%	0.1%
Wheelchairs Options/Accessories	286	\$33,823,041	16.1%	5.9% - 26.4%	0.1%
Negative Pressure Wound Therapy	113	\$32,488,033	42.7%	32.1% - 53.2%	0.1%
Wheelchairs Manual	303	\$31,105,263	45.7%	37.6% - 53.8%	0.1%
Lenses	86	\$30,815,042	78.0%	67.3% - 88.6%	0.1%
Oral Anti-Cancer Drugs	170	\$27,736,741	31.9%	20.1% - 43.7%	0.1%
Hospital Beds/Accessories	190	\$26,783,226	51.9%	43.3% - 60.5%	0.1%
Osteogenesis Stimulator	208	\$25,736,936	18.0%	13.0% - 23.1%	0.1%
Respiratory Assist Device	159	\$24,853,991	32.0%	23.4% - 40.5%	0.1%
Breast Prostheses	86	\$16,558,177	37.0%	25.0% - 49.0%	0.1%
Tracheostomy Supplies	45	\$15,210,063	50.5%	31.2% - 69.8%	0.1%
Orthopedic Footwear	251	\$13,622,588	100.0%	100.0% -100.0%	0.0%
Automatic External Defibrillator	99	\$10,360,384	5.6%	0.7% - 10.4%	0.0%
Wheelchairs Motorized	79	\$9,691,560	7.0%	1.6% - 12.5%	0.0%
Suction Pump	116	\$9,315,459	49.4%	33.5% - 65.3%	0.0%
Wheelchairs Seating	116	\$9,217,487	23.0%	7.5% - 38.4%	0.0%

DMEPOS (Policy Group)	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
Walkers	98	\$8,672,542	29.4%	15.9% - 42.8%	0.0%
Commodes/Bed Pans/Urinals	80	\$7,757,677	75.0%	62.3% - 87.6%	0.0%
HFCWO Device	51	\$5,323,159	11.7%	1.9% - 21.5%	0.0%
Support Surfaces	48	\$4,488,412	45.0%	18.3% - 71.6%	0.0%
Patient Lift	72	\$3,951,154	34.7%	21.3% - 48.2%	0.0%
Repairs/DMEPOS	41	\$2,725,943	36.4%	13.2% - 59.6%	0.0%
Canes/Crutches	40	\$1,727,018	31.8%	15.5% - 48.1%	0.0%
Misc Drugs	36	N/A	N/A	N/A	N/A
Routinely Denied Items	148	N/A	N/A	N/A	N/A
<b>All Type of Services (Incl. Codes Not Listed)</b>	<b>11,004</b>	<b>\$2,444,237,277</b>	<b>30.7%</b>	<b>28.0% - 33.4%</b>	<b>8.2%</b>



**Table G3: Improper Payment Rates by Service Type: Part A Excluding Hospital IPPS**

Part A Excluding Hospital IPPS Services (TOB)	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
Hospital Inpatient (Part A)	944	\$2,628,185,018	25.2%	21.8% - 28.5%	8.8%
SNF Inpatient	1,611	\$2,601,331,816	8.7%	6.9% - 10.4%	8.8%
Hospital Outpatient	2,254	\$2,544,054,716	4.2%	2.8% - 5.5%	8.6%
Home Health	1,175	\$2,337,172,146	12.1%	10.2% - 14.1%	7.9%
Nonhospital based hospice	767	\$1,530,229,226	8.9%	6.8% - 11.0%	5.1%
Clinic ESRD	638	\$439,607,610	3.9%	2.3% - 5.4%	1.5%
CAH	278	\$389,803,048	5.9%	2.6% - 9.2%	1.3%
Hospital based hospice	141	\$288,157,325	18.9%	11.8% - 26.0%	1.0%
SNF Inpatient Part B	94	\$193,658,266	6.5%	(0.2%) - 13.3%	0.7%
Hospital Other Part B	113	\$183,421,184	29.6%	18.2% - 41.0%	0.6%
FQHC	82	\$80,085,973	6.3%	0.9% - 11.6%	0.3%
SNF Outpatient	49	\$40,166,253	14.1%	(3.1%) - 31.3%	0.1%
Clinic OPT	36	\$38,791,568	5.8%	0.0% - 11.7%	0.1%
Clinical Rural Health	185	\$30,947,874	2.3%	0.2% - 4.3%	0.1%
Clinic CORF	78	\$9,839,003	29.9%	14.3% - 45.5%	0.0%
Hospital Inpatient Part B	51	\$5,493,436	0.9%	(0.1%) - 1.9%	0.0%
<b>All Type of Services (Incl. Codes Not Listed)</b>	<b>8,496</b>	<b>\$13,340,944,463</b>	<b>8.1%</b>	<b>7.3% - 8.8%</b>	<b>44.9%</b>

**Table G4: Improper Payment Rates by Service Type: Part A Hospital IPPS**

Part A Hospital IPPS Services (MS-DRGs)	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
Major Hip And Knee Joint Replacement Or Reattachment Of Lower Extremity (469, 470)	820	\$693,508,390	10.1%	7.9% - 12.2%	2.3%
All Codes With Less Than 30 Claims	1,626	\$613,124,259	2.8%	2.1% - 3.5%	2.1%
Psychoses (885)	287	\$378,171,886	9.9%	3.0% - 16.7%	1.3%
Septicemia Or Severe Sepsis WO MV >96 Hours (871, 872)	164	\$275,840,496	3.1%	(1.9%) - 8.1%	0.9%
Endovascular Cardiac Valve Replacement (266, 267)	103	\$236,231,903	12.3%	6.4% - 18.1%	0.8%
Spinal Fusion Except Cervical (459, 460)	56	\$164,937,576	8.7%	1.3% - 16.2%	0.6%
Heart Failure & Shock (291, 292, 293)	331	\$125,598,571	2.6%	0.3% - 4.8%	0.4%
Organic Disturbances & Intellectual Disability (884)	52	\$109,540,492	21.1%	7.4% - 34.8%	0.4%
Degenerative Nervous System Disorders (056, 057)	588	\$103,318,415	13.7%	10.4% - 17.0%	0.3%
Esophagitis, Gastroent & Misc Digest Disorders (391, 392)	163	\$88,617,581	7.6%	3.5% - 11.8%	0.3%
Cardiac Arrhythmia & Conduction Disorders (308, 309, 310)	266	\$85,869,565	6.6%	3.1% - 10.1%	0.3%
Other Musculoskelet Sys & Conn Tiss O.R. Proc (515, 516, 517)	138	\$81,117,774	19.1%	7.7% - 30.5%	0.3%
Chest Pain (313)	133	\$73,056,701	26.9%	18.0% - 35.9%	0.2%
Kidney & Urinary Tract Infections (689, 690)	102	\$72,819,946	4.7%	0.5% - 8.9%	0.2%
Cervical Spinal Fusion (471, 472, 473)	65	\$70,841,951	12.2%	4.7% - 19.8%	0.2%
Extensive O.R. Procedure Unrelated To Principal Diagnosis (981, 982, 983)	245	\$67,881,752	5.1%	1.6% - 8.7%	0.2%
Percutaneous Intracardiac Procedures (273, 274)	31	\$66,765,399	15.4%	1.2% - 29.6%	0.2%
Lower Extrem & Humer Proc Except Hip,foot,femur (492, 493, 494)	112	\$62,762,497	9.4%	4.0% - 14.8%	0.2%
Signs & Symptoms (947, 948)	177	\$57,215,765	20.8%	11.4% - 30.2%	0.2%
Seizures (100, 101)	71	\$53,402,312	10.9%	3.4% - 18.3%	0.2%
Cardiac Defibrillator Implant WO Cardiac Cath (226, 227)	144	\$53,375,432	13.3%	7.9% - 18.7%	0.2%
Renal Failure (682, 683, 684)	124	\$52,703,058	2.5%	(0.3%) - 5.3%	0.2%
Diabetes (637, 638, 639)	125	\$52,492,258	6.5%	1.1% - 11.9%	0.2%
ECMO Or Trach W MV >96 Hrs Or PDX Exc Face, Mouth & Neck (003)	55	\$49,330,746	2.2%	(1.1%) - 5.4%	0.2%
Respiratory Infections & Inflammations (177, 178, 179)	98	\$48,376,783	3.6%	0.2% - 6.9%	0.2%
Other Circulatory System Diagnoses (314, 315, 316)	70	\$48,252,569	6.7%	(0.2%) - 13.5%	0.2%
Circulatory Disorders Except AMI, W Card Cath (286, 287)	104	\$46,552,860	4.0%	0.1% - 7.8%	0.2%
Other Disorders Of Nervous System (091, 092, 093)	193	\$45,547,637	12.7%	5.6% - 19.9%	0.2%
Cardiac Valve & Oth Maj Cardiothoracic Proc WO Card Cath (219, 220, 221)	44	\$45,242,184	3.4%	(3.1%) - 9.8%	0.2%
Infectious & Parasitic Diseases W O.R. Procedure (853, 854, 855)	284	\$44,437,552	1.2%	0.3% - 2.1%	0.1%
Transient Ischemia WO Thrombolytic (069)	51	\$42,743,587	16.8%	6.4% - 27.2%	0.1%
Cranial & Peripheral Nerve Disorders (073, 074)	59	\$42,330,899	27.8%	12.8% - 42.8%	0.1%

Part A Hospital IPPS Services (MS-DRGs)	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
Syncope & Collapse (312)	50	\$41,589,081	8.4%	0.2% - 16.6%	0.1%
Other Vascular Procedures (252, 253, 254)	247	\$39,287,699	2.5%	0.7% - 4.3%	0.1%
Nonspecific Cerebrovascular Disorders (070, 071, 072)	80	\$37,587,096	7.7%	(1.3%) - 16.6%	0.1%
Permanent Cardiac Pacemaker Implant (242, 243, 244)	146	\$37,534,570	3.1%	0.9% - 5.3%	0.1%
Medical Back Problems (551, 552)	137	\$36,991,025	7.9%	3.6% - 12.3%	0.1%
Red Blood Cell Disorders (811, 812)	73	\$36,775,339	6.2%	(0.0%) - 12.4%	0.1%
Back & Neck Proc Exc Spinal Fusion (518, 519, 520)	301	\$36,265,852	14.7%	10.3% - 19.0%	0.1%
Misc Disorders Of Nutrition,metabolism,fluids/Electrolytes (640, 641)	99	\$35,435,882	3.2%	0.0% - 6.4%	0.1%
Chronic Obstructive Pulmonary Disease (190, 191, 192)	284	\$33,749,855	1.7%	0.4% - 3.0%	0.1%
Digestive Malignancy (374, 375, 376)	48	\$33,160,248	7.2%	(2.2%) - 16.5%	0.1%
Other Resp System O.R. Procedures (166, 167, 168)	57	\$32,691,428	3.0%	(1.2%) - 7.3%	0.1%
Other Digestive System Diagnoses (393, 394, 395)	113	\$31,921,884	5.5%	1.3% - 9.7%	0.1%
Fx, Sprn, Strn & Disl Except Femur, Hip, Pelvis & Thigh (562, 563)	60	\$31,822,283	14.5%	5.2% - 23.7%	0.1%
Hypertension (304, 305)	60	\$29,954,683	10.1%	2.9% - 17.4%	0.1%
Acute Myocardial Infarction, Discharged Alive (280, 281, 282)	165	\$29,460,153	2.4%	0.1% - 4.6%	0.1%
Simple Pneumonia & Pleurisy (193, 194, 195)	160	\$27,780,792	1.2%	0.2% - 2.2%	0.1%
Other Major Cardiovascular Procedures (270, 271, 272)	190	\$27,245,233	2.4%	(0.1%) - 4.9%	0.1%
Aftercare, Musculoskeletal System & Connective Tissue (559, 560, 561)	152	\$27,198,974	14.8%	7.8% - 21.9%	0.1%
Peripheral Vascular Disorders (299, 300, 301)	50	\$26,745,007	8.5%	1.0% - 16.1%	0.1%
Respiratory Neoplasms (180, 181, 182)	31	\$26,417,486	10.3%	1.4% - 19.1%	0.1%
Other Skin, Subcut Tiss & Breast Proc (579, 580, 581)	116	\$25,866,583	6.8%	0.2% - 13.4%	0.1%
Major Small & Large Bowel Procedures (329, 330, 331)	151	\$25,164,434	1.0%	0.1% - 1.9%	0.1%
Aortic And Heart Assist Procedures Except Pulsation Balloon (268, 269)	149	\$24,324,722	3.4%	(0.4%) - 7.2%	0.1%
Major Chest Procedures (163, 164, 165)	38	\$23,119,594	3.0%	(1.1%) - 7.0%	0.1%
Bone Diseases & Arthropathies (553, 554)	51	\$22,697,122	25.5%	12.5% - 38.5%	0.1%
Pulmonary Embolism (175, 176)	76	\$21,688,003	4.2%	(0.4%) - 8.8%	0.1%
Combined Anterior/Posterior Spinal Fusion (453, 454, 455)	158	\$21,616,031	1.6%	(1.1%) - 4.4%	0.1%
Pulmonary Edema & Respiratory Failure (189)	197	\$21,472,828	1.1%	(0.1%) - 2.2%	0.1%
Trach W MV >96 Hrs Or PDX Exc Face, Mouth & Neck (004)	98	\$20,181,545	1.5%	(0.6%) - 3.7%	0.1%
G.I. Hemorrhage (377, 378, 379)	229	\$19,829,574	1.1%	0.1% - 2.0%	0.1%
Laparoscopic Cholecystectomy WO C.D.E. (417, 418, 419)	58	\$19,773,817	3.7%	(1.5%) - 9.0%	0.1%
Cellulitis (602, 603)	152	\$19,051,858	2.4%	0.4% - 4.4%	0.1%
Dysequilibrium (149)	96	\$18,186,450	20.6%	11.7% - 29.5%	0.1%

Part A Hospital IPPS Services (MS-DRGs)	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
Complications Of Treatment (919, 920, 921)	37	\$18,047,111	4.8%	(1.9%) - 11.5%	0.1%
Major Joint/Limb Reattachment Procedure Of Upper Extremities (483)	51	\$16,849,079	1.8%	(1.7%) - 5.3%	0.1%
Hip & Femur Procedures Except Major Joint (480, 481, 482)	131	\$16,412,787	0.9%	(0.3%) - 2.0%	0.1%
Poisoning & Toxic Effects Of Drugs (917, 918)	56	\$15,913,881	4.0%	(0.6%) - 8.7%	0.1%
Intracranial Hemorrhage Or Cerebral Infarction (064, 065, 066)	177	\$15,712,362	0.8%	0.0% - 1.6%	0.1%
Respiratory System Diagnosis W Ventilator Support >96 Hours (207)	48	\$13,825,476	1.2%	(1.1%) - 3.4%	0.0%
Uterine & Adnexa Proc For Non-Malignancy (742, 743)	103	\$13,591,858	10.6%	4.0% - 17.1%	0.0%
Atherosclerosis (302, 303)	57	\$13,175,159	14.2%	4.3% - 24.2%	0.0%
Fractures Of Hip & Pelvis (535, 536)	59	\$12,894,498	6.7%	1.1% - 12.2%	0.0%
Major Hematol/Immun Diag Exc Sickl Cell Crisis & Coagul (808, 809, 810)	38	\$12,713,028	3.4%	(3.2%) - 10.0%	0.0%
Alcohol/Drug Abuse Or Dependence WO Rehabilitation Therapy (896, 897)	64	\$11,663,661	2.6%	(1.7%) - 6.9%	0.0%
Disorders Of Liver Except Malig,cirr,alc Hepa (441, 442, 443)	45	\$10,523,467	3.2%	(0.2%) - 6.6%	0.0%
Signs & Symptoms Of Musculoskeletal System & Conn Tissue (555, 556)	56	\$10,516,788	11.1%	2.9% - 19.3%	0.0%
Aftercare (949, 950)	53	\$8,955,993	11.9%	1.8% - 21.9%	0.0%
G.I. Obstruction (388, 389, 390)	107	\$8,370,047	1.5%	(0.4%) - 3.4%	0.0%
Other Kidney & Urinary Tract Diagnoses (698, 699, 700)	104	\$8,159,906	0.8%	(0.3%) - 2.0%	0.0%
Coronary Bypass WO Cardiac Cath (235, 236)	33	\$8,046,883	0.9%	(0.8%) - 2.5%	0.0%
AICD Generator Procedures (245)	91	\$8,015,106	10.8%	4.4% - 17.3%	0.0%
Major Gastrointestinal Disorders & Peritoneal Infections (371, 372, 373)	58	\$6,483,081	1.6%	(0.4%) - 3.5%	0.0%
Thyroid, Parathyroid & Thyroglossal Procedures (625, 626, 627)	88	\$6,439,102	59.7%	47.0% - 72.3%	0.0%
Other O.R. Procedures For Injuries (907, 908, 909)	30	\$6,170,108	1.4%	(1.4%) - 4.2%	0.0%
Female Reproductive System Reconstructive Procedures (748)	95	\$5,272,130	30.6%	19.3% - 41.9%	0.0%
Craniotomy & Endovascular Intracranial Procedures (025, 026, 027)	47	\$4,992,539	0.5%	(0.5%) - 1.5%	0.0%
Disorders Of Pancreas Except Malignancy (438, 439, 440)	58	\$3,947,572	1.1%	(1.1%) - 3.4%	0.0%
Extracranial Procedures (037, 038, 039)	38	\$3,209,460	1.0%	(0.9%) - 2.9%	0.0%
Stomach, Esophageal & Duodenal Proc (326, 327, 328)	40	\$2,553,661	0.3%	(0.3%) - 1.0%	0.0%
Cardiac Pacemaker Device Replacement (258, 259)	94	\$2,307,699	12.5%	5.1% - 19.9%	0.0%
Disorders Of The Biliary Tract (444, 445, 446)	38	\$1,969,907	0.6%	(0.6%) - 1.8%	0.0%
Revision Of Hip Or Knee Replacement (466, 467, 468)	46	\$1,784,750	0.2%	(0.2%) - 0.6%	0.0%
Traumatic Stupor & Coma, Coma <1 Hr (085, 086, 087)	31	\$1,291,694	0.5%	(0.2%) - 1.3%	0.0%
Bronchitis & Asthma (202, 203)	59	\$1,055,607	0.4%	(0.3%) - 1.0%	0.0%
Perc Cardiovasc Proc W Drug-Eluting Stent (247)	84	\$775,798	0.1%	(0.1%) - 0.2%	0.0%
Endocrine Disorders (643, 644, 645)	31	\$663,572	0.3%	(0.2%) - 0.8%	0.0%

Part A Hospital IPPS Services (MS-DRGs)	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
Malignancy Of Hepatobiliary System Or Pancreas (435, 436, 437)	31	N/A	0.0%	N/A	N/A
Pathological Fractures & Musculoskelet & Conn Tiss Malig (542, 543, 544)	34	N/A	0.0%	N/A	N/A
Percutaneous Cardiovascular Procedures W Drug-Eluting Stent (246)	47	N/A	0.0%	N/A	N/A
Respiratory System Diagnosis W Ventilator Support <=96 Hours (208)	42	N/A	0.0%	N/A	N/A
Septicemia Or Severe Sepsis W MV >96 Hours (870)	43	N/A	0.0%	N/A	N/A
<b>All Type of Services (Incl. Codes Not Listed)</b>	<b>13,500</b>	<b>\$5,273,215,801</b>	<b>4.2%</b>	<b>3.7% - 4.8%</b>	<b>17.7%</b>

# Appendix H: Projected Improper Payments by Referring Provider Type for Specific Types of Service

This series of tables is sorted in descending order by projected improper payments. All estimates in these tables are based on a minimum of 30 lines in the sample.

**Table H1: Improper Payment Rates for Office visits - established by Provider Type**

Office visits - established	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Type of Service Improper Payments
Internal Medicine	266	\$236,794,830	8.4%	4.8% - 11.9%	23.3%
Family Practice	255	\$132,150,499	4.3%	2.4% - 6.1%	13.0%
Podiatry	39	\$59,485,723	14.0%	2.9% - 25.2%	5.8%
Cardiology	113	\$59,083,166	4.5%	1.6% - 7.3%	5.8%
Urology	45	\$58,345,628	9.1%	1.3% - 17.0%	5.7%
Nurse Practitioner	115	\$55,924,997	6.5%	0.9% - 12.1%	5.5%
Neurology	55	\$30,341,953	8.1%	0.9% - 15.4%	3.0%
Nephrology	30	\$28,291,342	6.1%	(2.7%) - 14.9%	2.8%
Dermatology	42	\$25,459,541	4.8%	(0.2%) - 9.8%	2.5%
Physician Assistant	52	\$23,117,409	4.2%	0.2% - 8.2%	2.3%
Hematology/Oncology	50	\$19,928,648	3.7%	(0.9%) - 8.3%	2.0%
<b>All Provider Types</b>	<b>1,451</b>	<b>\$1,017,331,298</b>	<b>6.6%</b>	<b>5.4% - 7.7%</b>	<b>100.0%</b>

**Table H2: Improper Payment Rates for Hospital visit - subsequent by Provider Type**

Hospital visit - subsequent	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Type of Service Improper Payments
Internal Medicine	570	\$306,929,144	13.7%	11.0% - 16.4%	40.6%
Nephrology	88	\$63,751,636	19.2%	3.6% - 34.8%	8.4%
Family Practice	91	\$51,984,169	14.4%	8.9% - 19.9%	6.9%
Pulmonary Disease	99	\$43,501,561	12.8%	7.3% - 18.3%	5.8%
Infectious Disease	54	\$39,111,049	14.2%	5.1% - 23.3%	5.2%
Cardiology	108	\$37,523,073	9.8%	6.1% - 13.5%	5.0%
Unknown Provider Type	120	\$30,219,656	7.0%	4.2% - 9.9%	4.0%
Psychiatry	71	\$27,140,300	9.6%	4.7% - 14.5%	3.6%
Nurse Practitioner	91	\$25,884,650	11.1%	4.8% - 17.4%	3.4%
Physical Medicine and Rehabilitation	31	\$22,705,795	11.2%	2.8% - 19.7%	3.0%

Hospital visit - subsequent	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Type of Service Improper Payments
Physician Assistant	32	\$14,131,312	15.1%	6.3% - 23.8%	1.9%
General Surgery	30	\$10,854,342	11.7%	1.8% - 21.7%	1.4%
<b>All Provider Types</b>	<b>1,559</b>	<b>\$755,207,786</b>	<b>12.9%</b>	<b>11.1% - 14.6%</b>	<b>100.0%</b>

**Table H3: Improper Payment Rates for Lab tests - other (non-Medicare fee schedule) by Referring Provider**

Lab tests - other (non-Medicare fee schedule)	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Type of Service Improper Payments
Internal Medicine	814	\$171,001,426	13.9%	10.4% - 17.4%	24.7%
Family Practice	551	\$133,709,529	20.8%	11.1% - 30.4%	19.3%
Nurse Practitioner	262	\$117,151,577	36.2%	20.9% - 51.5%	16.9%
Anesthesiology	92	\$40,694,129	52.8%	40.3% - 65.3%	5.9%
Physician Assistant	116	\$38,480,856	24.2%	9.7% - 38.8%	5.6%
Physical Medicine and Rehabilitation	73	\$28,012,789	50.1%	35.4% - 64.7%	4.0%
Interventional Pain Management	67	\$27,617,949	42.9%	29.3% - 56.5%	4.0%
No Referring Provider Type	95	\$27,108,679	26.7%	6.5% - 46.9%	3.9%
Psychiatry	42	\$22,532,276	71.2%	54.2% - 88.1%	3.3%
Pain Management	36	\$19,664,922	64.8%	46.0% - 83.7%	2.8%
Gastroenterology	35	\$19,649,017	25.3%	(8.4%) - 59.1%	2.8%
Neurology	38	\$8,590,402	12.8%	2.3% - 23.4%	1.2%
Cardiology	68	\$4,872,790	8.1%	1.9% - 14.4%	0.7%
Urology	43	\$1,475,699	2.4%	(2.4%) - 7.3%	0.2%
<b>All Referring Providers</b>	<b>2,495</b>	<b>\$693,262,826</b>	<b>21.4%</b>	<b>17.9% - 24.9%</b>	<b>100.0%</b>

**Table H4: Improper Payment Rates for Lower Limb Orthoses by Referring Provider**

Lower Limb Orthoses	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Type of Service Improper Payments
General Surgery	204	\$79,191,596	66.1%	54.7% - 77.5%	26.6%
Family Practice	116	\$74,414,530	85.0%	72.8% - 97.2%	25.0%
Internal Medicine	79	\$54,600,311	66.2%	47.2% - 85.2%	18.3%
Podiatry	87	\$25,722,814	39.6%	16.1% - 63.2%	8.6%
Physician Assistant	33	\$8,273,801	47.4%	23.6% - 71.2%	2.8%
Nurse Practitioner	46	\$8,125,428	30.9%	13.0% - 48.8%	2.7%
<b>All Referring Providers</b>	<b>643</b>	<b>\$297,988,587</b>	<b>63.5%</b>	<b>55.8% - 71.3%</b>	<b>100.0%</b>

**Table H5: Improper Payment Rates for CPAP by Referring Provider**

CPAP	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Type of Service Improper Payments
Internal Medicine	580	\$124,520,816	34.4%	27.8% - 40.9%	49.6%
Family Practice	165	\$48,393,703	37.4%	26.3% - 48.6%	19.3%
Nurse Practitioner	93	\$27,595,399	35.7%	21.1% - 50.3%	11.0%
Neurology	63	\$12,418,748	20.7%	6.2% - 35.3%	4.9%
No Referring Provider Type	37	\$8,031,107	32.3%	10.2% - 54.3%	3.2%
Physician Assistant	47	\$5,631,959	25.6%	3.2% - 48.0%	2.2%
Neuropsychiatry	39	\$5,256,673	15.7%	(3.2%) - 34.6%	2.1%
<b>All Referring Providers</b>	<b>1,100</b>	<b>\$250,958,674</b>	<b>32.7%</b>	<b>28.2% - 37.3%</b>	<b>100.0%</b>



# Appendix I: Projected Improper Payments by Provider Type for Each Claim Type

This series of tables is sorted in descending order by projected improper payments. All estimates in these tables are based on a minimum of 30 lines in the sample.

**Table I1: Improper Payment Rates and Amounts by Provider Type: Part B<sup>30</sup>**

Providers Billing to Part B	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Provider Compliance Improper Payment Rate	Percent of Overall Improper Payments
Internal Medicine	1,829	\$1,171,140,876	13.5%	11.7% - 15.2%	18.8%	3.9%
Clinical Laboratory (Billing Independently)	2,231	\$720,194,509	19.2%	15.9% - 22.5%	22.6%	2.4%
Family Practice	969	\$615,595,816	10.3%	8.2% - 12.5%	16.4%	2.1%
Ambulance Service Supplier (e.g., private ambulance companies)	860	\$476,977,483	9.8%	7.1% - 12.6%	17.9%	1.6%
Physical Therapist in Private Practice	542	\$386,542,656	15.2%	11.5% - 19.0%	20.9%	1.3%
Cardiology	707	\$356,707,155	7.7%	5.8% - 9.5%	16.1%	1.2%
Ophthalmology	628	\$293,109,463	4.8%	1.0% - 8.6%	10.4%	1.0%
Emergency Medicine	540	\$285,489,840	11.4%	9.4% - 13.4%	16.5%	1.0%
Diagnostic Radiology	1,178	\$283,682,827	7.0%	5.1% - 8.9%	13.0%	1.0%
Nurse Practitioner	775	\$255,741,122	8.2%	5.4% - 10.9%	14.1%	0.9%
Nephrology	401	\$238,919,057	11.9%	7.7% - 16.0%	16.2%	0.8%
Podiatry	339	\$222,319,941	13.6%	8.2% - 19.0%	39.9%	0.7%
Chiropractic	367	\$199,604,215	37.3%	31.2% - 43.4%	43.9%	0.7%
Physical Medicine and Rehabilitation	141	\$192,699,911	23.4%	9.1% - 37.6%	25.7%	0.6%
Pulmonary Disease	231	\$169,751,185	13.0%	8.3% - 17.7%	18.0%	0.6%
IDTF	85	\$163,780,390	21.1%	7.4% - 34.7%	28.6%	0.6%
Orthopedic Surgery	236	\$141,053,178	4.2%	2.4% - 6.0%	12.3%	0.5%
Physician Assistant	336	\$127,980,596	7.4%	4.9% - 9.8%	15.6%	0.4%
Anesthesiology	217	\$123,590,626	7.1%	3.4% - 10.8%	16.5%	0.4%
Clinical Psychologist	108	\$122,110,280	24.4%	14.9% - 33.9%	27.6%	0.4%
Neurology	190	\$121,924,651	6.4%	3.0% - 9.7%	55.3%	0.4%
Hematology/Oncology	399	\$121,092,123	1.8%	0.4% - 3.2%	6.0%	0.4%
Psychiatry	182	\$117,331,612	14.3%	8.8% - 19.8%	22.9%	0.4%
Gastroenterology	166	\$116,408,849	10.2%	5.7% - 14.8%	18.8%	0.4%
All Provider Types With Less Than 30 Claims	205	\$113,493,799	5.9%	2.8% - 9.0%	19.1%	0.4%

<sup>30</sup> The dollars in error for the improper payment rate are based on the final allowed charges. The dollars in error for the provider compliance improper payment rate are based on initial allowed charges, which excludes MAC reductions and denials. The provider compliance rate is what the improper payment rate would be without MAC activities.

Providers Billing to Part B	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Provider Compliance Improper Payment Rate	Percent of Overall Improper Payments
Unknown Provider Type	339	\$111,531,334	7.2%	4.9% - 9.6%	12.9%	0.4%
Urology	146	\$99,400,620	6.1%	2.9% - 9.4%	11.3%	0.3%
Medical Oncology	132	\$94,281,870	8.7%	(0.3%) - 17.6%	13.4%	0.3%
CRNA	111	\$88,149,252	9.7%	3.5% - 15.9%	20.3%	0.3%
General Surgery	184	\$87,809,180	5.8%	3.2% - 8.5%	8.6%	0.3%
Clinical Social Worker	125	\$82,478,373	21.4%	13.1% - 29.7%	26.1%	0.3%
Dermatology	228	\$78,290,636	2.8%	0.8% - 4.9%	6.6%	0.3%
Ambulatory Surgical Center	141	\$77,029,705	2.2%	(0.3%) - 4.7%	14.4%	0.3%
Infectious Disease	97	\$74,117,017	13.3%	8.1% - 18.5%	15.0%	0.2%
Optometry	145	\$62,638,670	6.1%	2.1% - 10.2%	14.0%	0.2%
Cardiac Electrophysiology	85	\$61,456,415	12.8%	3.2% - 22.4%	18.9%	0.2%
Otolaryngology	87	\$52,406,389	5.6%	0.9% - 10.2%	14.0%	0.2%
Obstetrics/Gynecology	54	\$51,241,053	10.6%	3.2% - 18.0%	20.8%	0.2%
Portable X-Ray Supplier (Billing Independently)	115	\$49,862,888	24.2%	14.5% - 33.8%	36.3%	0.2%
Rheumatology	260	\$48,393,161	1.9%	0.0% - 3.8%	4.9%	0.2%
Vascular Surgery	84	\$45,255,338	10.5%	3.9% - 17.1%	15.8%	0.2%
Occupational Therapist in Private Practice	56	\$38,171,727	16.0%	3.7% - 28.4%	24.7%	0.1%
Pain Management	59	\$37,884,374	10.1%	(1.4%) - 21.5%	11.7%	0.1%
Pathology	156	\$33,824,563	3.2%	0.5% - 6.0%	8.2%	0.1%
Allergy/Immunology	37	\$31,461,206	33.3%	9.6% - 57.0%	33.0%	0.1%
Interventional Radiology	53	\$27,792,082	2.1%	(1.8%) - 6.0%	3.0%	0.1%
Endocrinology	68	\$26,967,660	5.6%	1.8% - 9.4%	6.1%	0.1%
Geriatric Medicine	45	\$23,554,903	14.1%	6.0% - 22.3%	18.0%	0.1%
Neurosurgery	31	\$18,862,359	1.7%	0.0% - 3.5%	11.9%	0.1%
Critical Care (Intensivists)	40	\$18,529,527	9.0%	0.7% - 17.3%	15.4%	0.1%
Radiation Oncology	79	\$13,613,816	1.0%	0.0% - 1.9%	2.2%	0.0%
Mass Immunization Roster Billers (Mass Immunizers have to roster bill assigned claims and can only bill for immunizations)	91	\$0	0.0%	0.0% - 0.0%	1.6%	0.0%
<b>Overall (Incl. Codes Not Listed)</b>	<b>16,998</b>	<b>\$8,657,142,636</b>	<b>8.6%</b>	<b>7.9% - 9.3%</b>	<b>16.8%</b>	<b>29.1%</b>

**Table I2: Improper Payment Rates and Amounts by Provider Type<sup>31</sup>: DMEPOS<sup>32</sup>**

Providers Billing to DMEPOS	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Provider Compliance Improper Payment Rate	Percent of Overall Improper Payments
Medical supply company not included in 51, 52, or 53	4,703	\$1,115,477,711	31.5%	28.9% - 34.0%	34.1%	3.8%
Pharmacy	3,576	\$501,703,228	21.6%	18.4% - 24.8%	25.4%	1.7%
Medical Supply Company with Respiratory Therapist	1,141	\$235,480,594	37.9%	33.4% - 42.3%	40.4%	0.8%
Individual orthotic personnel certified by an accrediting organization	143	\$162,204,490	41.3%	1.5% - 81.1%	39.8%	0.5%
All Provider Types With Less Than 30 Claims	317	\$97,460,983	44.0%	34.4% - 53.5%	47.4%	0.3%
Orthopedic Surgery	224	\$69,828,372	67.4%	56.7% - 78.0%	68.6%	0.2%
Podiatry	257	\$68,247,132	67.1%	51.8% - 82.4%	69.3%	0.2%
Medical supply company with prosthetic/orthotic personnel certified by an accrediting organization	123	\$50,669,898	26.3%	1.7% - 51.0%	28.9%	0.2%
Medical supply company with orthotic personnel certified by an accrediting organization	170	\$38,488,617	25.4%	10.5% - 40.3%	25.4%	0.1%
Individual prosthetic personnel certified by an accrediting organization	112	\$36,687,392	19.6%	4.4% - 34.8%	22.2%	0.1%
General Practice	79	\$23,856,232	60.8%	44.0% - 77.6%	63.0%	0.1%
Multispecialty Clinic or Group Practice	51	\$17,202,228	69.5%	48.6% - 90.4%	72.1%	0.1%
Optometry	39	\$15,316,044	74.2%	57.8% - 90.7%	72.9%	0.1%
Supplier of oxygen and/or oxygen related equipment	69	\$11,614,356	31.1%	18.3% - 44.0%	32.0%	0.0%
<b>Overall (Incl. Codes Not Listed)</b>	<b>11,004</b>	<b>\$2,444,237,277</b>	<b>30.7%</b>	<b>28.0% - 33.4%</b>	<b>33.4%</b>	<b>8.2%</b>

<sup>31</sup> Herein, “provider” will be used to refer to both providers and suppliers in DMEPOS provider type reporting.

<sup>32</sup> The dollars in error for the improper payment rate are based on the final allowed charges. The dollars in error for the provider compliance improper payment rate are based on initial allowed charges, which excludes MAC reductions and denials. The provider compliance rate is what the improper payment rate would be without MAC activities.

**Table I3: Improper Payment Rates and Amounts by Provider Type: Part A Excluding Hospital IPPS**

Providers Billing to Part A Excluding Hospital IPPS	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
SNF	1,754	\$2,835,156,335	8.5%	6.8% - 10.2%	9.5%
OPPS, Laboratory, Ambulatory	2,418	\$2,732,969,337	4.4%	3.1% - 5.7%	9.2%
HHA	1,175	\$2,337,172,146	12.1%	10.2% - 14.1%	7.9%
Hospice	908	\$1,818,386,551	9.7%	7.7% - 11.7%	6.1%
Inpatient Rehabilitation Hospitals	261	\$1,322,970,731	35.8%	29.6% - 42.0%	4.5%
Inpatient Rehab Unit	225	\$1,183,183,057	33.9%	27.2% - 40.6%	4.0%
ESRD	638	\$439,607,610	3.9%	2.3% - 5.4%	1.5%
CAH Outpatient Services	278	\$389,803,048	5.9%	2.6% - 9.2%	1.3%
Inpatient CAH	393	\$90,725,853	3.9%	1.9% - 5.9%	0.3%
FQHC	82	\$80,085,973	6.3%	0.9% - 11.6%	0.3%
ORF	36	\$38,791,568	5.8%	0.0% - 11.7%	0.1%
RHC	185	\$30,947,874	2.3%	0.2% - 4.3%	0.1%
All Codes With Less Than 30 Claims	8	\$25,150,899	17.8%	(15.7%) - 51.3%	0.1%
CORF	78	\$9,839,003	29.9%	14.3% - 45.5%	0.0%
Non PPS Short Term Hospital Inpatient	54	\$6,154,477	0.8%	(0.4%) - 2.0%	0.0%
<b>Overall (Incl. Codes Not Listed)</b>	<b>8,496</b>	<b>\$13,340,944,463</b>	<b>8.1%</b>	<b>7.3% - 8.8%</b>	<b>44.9%</b>

**Table I4: Improper Payment Rates and Amounts by Provider Type: Part A Hospital IPPS**

Providers Billing to Part A Hospital IPPS	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
DRG Short Term	12,758	\$4,733,229,884	4.1%	3.5% - 4.6%	15.9%
Other FI Service Types	545	\$475,355,783	11.0%	4.8% - 17.2%	1.6%
DRG Long Term	197	\$64,630,135	1.7%	0.4% - 2.9%	0.2%
<b>Overall (Incl. Codes Not Listed)</b>	<b>13,500</b>	<b>\$5,273,215,801</b>	<b>4.2%</b>	<b>3.7% - 4.8%</b>	<b>17.7%</b>

# Appendix J: Improper Payment Rates and Type of Error by Provider Type for Each Claim Type

**Table J1: Improper Payment Rates by Provider Type and Type of Error: Part B**

Provider Types Billing to Part B	Improper Payment Rate	Claims Reviewed	Percentage of Provider Type Improper Payments by Type of Error				
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
Chiropractic	37.3%	367	0.0%	95.8%	2.7%	1.5%	0.0%
Allergy/Immunology	33.3%	37	0.0%	95.1%	0.0%	4.9%	0.0%
Clinical Psychologist	24.4%	108	0.0%	100.0%	0.0%	0.0%	0.0%
Portable X-Ray Supplier (Billing Independently)	24.2%	115	0.0%	95.7%	0.0%	0.1%	4.2%
Physical Medicine and Rehabilitation	23.4%	141	1.8%	31.8%	31.5%	34.9%	0.0%
Clinical Social Worker	21.4%	125	4.5%	91.0%	0.0%	2.0%	2.5%
IDTF	21.1%	85	32.1%	67.9%	0.0%	0.0%	0.0%
Clinical Laboratory (Billing Independently)	19.2%	2,231	3.0%	94.0%	1.6%	0.4%	0.9%
Occupational Therapist in Private Practice	16.0%	56	0.0%	96.2%	0.0%	3.8%	0.0%
Physical Therapist in Private Practice	15.2%	542	3.0%	75.9%	0.0%	4.0%	17.1%
Psychiatry	14.3%	182	0.1%	59.3%	0.0%	39.1%	1.5%
Geriatric Medicine	14.1%	45	0.0%	43.6%	0.0%	43.4%	13.0%
Podiatry	13.6%	339	3.0%	72.6%	0.7%	23.7%	0.0%
Internal Medicine	13.5%	1,829	6.1%	47.3%	0.7%	45.7%	0.2%
Infectious Disease	13.3%	97	7.3%	26.9%	0.0%	65.8%	0.0%
Pulmonary Disease	13.0%	231	1.5%	53.7%	0.0%	44.8%	0.0%
Cardiac Electrophysiology	12.8%	85	0.8%	91.3%	0.0%	7.9%	0.0%
Nephrology	11.9%	401	19.4%	42.9%	0.1%	37.6%	0.0%
Emergency Medicine	11.4%	540	4.0%	17.6%	0.6%	77.8%	0.0%
Obstetrics/Gynecology	10.6%	54	0.0%	51.9%	0.0%	48.1%	0.0%
Vascular Surgery	10.5%	84	0.0%	64.1%	0.0%	35.9%	0.0%
Family Practice	10.3%	969	1.6%	58.2%	0.3%	37.4%	2.6%
Gastroenterology	10.2%	166	15.3%	50.7%	0.0%	34.0%	0.0%
Pain Management	10.1%	59	0.0%	94.3%	0.0%	5.7%	0.0%
Ambulance Service Supplier (e.g., private ambulance companies)	9.8%	860	0.0%	57.9%	35.1%	7.0%	0.0%
CRNA	9.7%	111	0.0%	100.0%	0.0%	0.0%	0.0%
Critical Care (Intensivists)	9.0%	40	0.0%	31.5%	0.0%	68.5%	0.0%
Medical Oncology	8.7%	132	0.0%	83.7%	0.5%	15.7%	0.0%

Provider Types Billing to Part B	Improper Payment Rate	Claims Reviewed	Percentage of Provider Type Improper Payments by Type of Error				
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
Nurse Practitioner	8.2%	775	4.5%	61.3%	0.1%	32.8%	1.3%
Cardiology	7.7%	707	6.9%	45.0%	0.2%	48.0%	0.0%
Physician Assistant	7.4%	336	10.1%	38.4%	0.0%	50.1%	1.4%
Unknown Provider Type	7.2%	339	6.1%	28.1%	0.0%	65.8%	0.0%
Anesthesiology	7.1%	217	1.9%	79.6%	0.0%	18.5%	0.0%
Diagnostic Radiology	7.0%	1,178	7.4%	91.6%	0.7%	0.3%	0.0%
Neurology	6.4%	190	2.8%	34.5%	0.0%	62.6%	0.0%
Optometry	6.1%	145	15.0%	55.0%	0.0%	17.2%	12.8%
Urology	6.1%	146	0.0%	17.9%	0.0%	82.1%	0.0%
All Provider Types With Less Than 30 Claims	5.9%	205	0.0%	40.2%	0.0%	59.8%	0.0%
General Surgery	5.8%	184	6.2%	29.4%	0.0%	64.4%	0.0%
Endocrinology	5.6%	68	0.0%	33.2%	7.2%	59.6%	0.0%
Otolaryngology	5.6%	87	0.0%	42.6%	0.0%	57.3%	0.1%
Ophthalmology	4.8%	628	0.0%	74.5%	0.0%	25.5%	0.0%
Orthopedic Surgery	4.2%	236	1.9%	52.2%	0.1%	45.8%	0.0%
Pathology	3.2%	156	1.7%	84.2%	2.3%	11.8%	0.0%
Dermatology	2.8%	228	0.0%	58.2%	0.0%	41.8%	0.0%
Ambulatory Surgical Center	2.2%	141	0.0%	100.0%	0.0%	0.0%	0.0%
Interventional Radiology	2.1%	53	1.4%	89.5%	0.0%	9.0%	0.0%
Rheumatology	1.9%	260	0.0%	62.8%	0.0%	37.2%	0.0%
Hematology/Oncology	1.8%	399	3.2%	61.6%	0.2%	35.0%	0.0%
Neurosurgery	1.7%	31	0.0%	27.7%	0.0%	72.3%	0.0%
Radiation Oncology	1.0%	79	22.6%	43.6%	0.0%	33.8%	0.0%
Mass Immunization Roster Billers (Mass Immunizers have to roster bill assigned claims and can only bill for immunizations)	0.0%	91	N/A	N/A	N/A	N/A	N/A
<b>All Provider Types</b>	<b>8.6%</b>	<b>16,998</b>	<b>4.3%</b>	<b>61.3%</b>	<b>3.1%</b>	<b>30.0%</b>	<b>1.3%</b>

**Table J2: Improper Payment Rates by Provider Type and Type of Error: DMEPOS**

Provider Types Billing to DMEPOS	Improper Payment Rate	Claims Reviewed	Percentage of Provider Type Improper Payments by Type of Error				
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
Optometry	74.2%	39	3.8%	74.5%	0.0%	0.0%	21.6%
Multispecialty Clinic or Group Practice	69.5%	51	0.0%	88.9%	0.0%	0.0%	11.1%
Orthopedic Surgery	67.4%	224	0.7%	85.1%	9.8%	0.0%	4.4%
Podiatry	67.1%	257	3.2%	89.4%	0.6%	0.0%	6.7%
General Practice	60.8%	79	8.4%	81.3%	6.6%	0.0%	3.7%
All Provider Types With Less Than 30 Claims	44.0%	317	0.8%	82.4%	7.5%	0.0%	9.3%
Individual orthotic personnel certified by an accrediting organization	41.3%	143	0.0%	96.4%	0.7%	0.0%	2.9%
Medical Supply Company with Respiratory Therapist	37.9%	1,141	3.7%	76.6%	2.2%	0.4%	17.1%
Medical supply company not included in 51, 52, or 53	31.5%	4,703	1.5%	75.9%	7.6%	1.0%	14.1%
Supplier of oxygen and/or oxygen related equipment	31.1%	69	0.0%	80.7%	6.9%	0.0%	12.4%
Medical supply company with prosthetic/orthotic personnel certified by an accrediting organization	26.3%	123	0.0%	78.5%	12.0%	0.0%	9.5%
Medical supply company with orthotic personnel certified by an accrediting organization	25.4%	170	11.2%	66.7%	12.3%	0.0%	9.9%
Pharmacy	21.6%	3,576	0.4%	74.7%	3.2%	2.5%	19.1%
Individual prosthetic personnel certified by an accrediting organization	19.6%	112	1.9%	80.2%	13.9%	0.0%	3.9%
<b>All Provider Types</b>	<b>30.7%</b>	<b>11,004</b>	<b>1.6%</b>	<b>78.1%</b>	<b>5.7%</b>	<b>1.0%</b>	<b>13.6%</b>

Table J3: Improper Payment Rates by Provider Type and Type of Error: Part A Excluding Hospital IPPS

Provider Types Billing to Part A Excluding Hospital IPPS	Improper Payment Rate	Claims Reviewed	Percentage of Provider Type Improper Payments by Type of Error				
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
Inpatient Rehabilitation Hospitals	35.8%	261	0.0%	18.1%	81.9%	0.0%	0.0%
Inpatient Rehab Unit	33.9%	225	0.0%	37.0%	61.6%	0.0%	1.4%
CORF	29.9%	78	0.0%	79.6%	0.0%	0.5%	19.9%
All Codes With Less Than 30 Claims	17.8%	8	0.0%	100.0%	0.0%	0.0%	0.0%
HHA	12.1%	1,175	1.8%	65.1%	14.7%	0.7%	17.6%
Hospice	9.7%	908	0.0%	73.1%	14.9%	10.5%	1.5%
SNF	8.5%	1,754	0.5%	71.9%	0.0%	3.9%	23.7%
FQHC	6.3%	82	21.0%	79.0%	0.0%	0.0%	0.0%
CAH Outpatient Services	5.9%	278	0.0%	85.5%	0.1%	6.8%	7.6%
ORF	5.8%	36	0.0%	72.3%	10.0%	0.0%	17.6%
OPPS, Laboratory, Ambulatory	4.4%	2,418	0.7%	88.4%	6.5%	0.4%	4.0%
ESRD	3.9%	638	7.8%	91.6%	0.0%	0.0%	0.6%
Inpatient CAH	3.9%	393	0.0%	22.4%	77.6%	0.0%	0.0%
RHC	2.3%	185	8.1%	91.9%	0.0%	0.0%	0.0%
Non PPS Short Term Hospital Inpatient	0.8%	54	0.0%	0.0%	100.0%	0.0%	0.0%
<b>All Provider Types</b>	<b>8.1%</b>	<b>8,496</b>	<b>1.0%</b>	<b>66.6%</b>	<b>20.1%</b>	<b>2.7%</b>	<b>9.6%</b>

Table J4: Improper Payment Rates by Provider Type and Type of Error: Part A Hospital IPPS

Provider Types Billing to Part A Hospital IPPS	Improper Payment Rate	Claims Reviewed	Percentage of Provider Type Improper Payments by Type of Error				
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
Other FI Service Types	11.0%	545	6.3%	73.2%	20.4%	0.1%	0.0%
DRG Short Term	4.1%	12,758	0.5%	16.0%	63.2%	19.8%	0.5%
DRG Long Term	1.7%	197	0.0%	0.0%	40.3%	59.7%	0.0%
<b>All Provider Types</b>	<b>4.2%</b>	<b>13,500</b>	<b>1.0%</b>	<b>21.0%</b>	<b>59.0%</b>	<b>18.5%</b>	<b>0.5%</b>



# Appendix K: Coding Information

**Table K1: E&M Service Types by Improper Payments**

E & M Codes	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percentage of Service Improper Payments by Type of Error					Percent of Overall Improper Payments
				No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other	
Initial hospital care (99223)	\$433,929,403	24.1%	21.9% - 26.2%	2.5%	17.6%	0.0%	79.9%	0.0%	1.5%
Office/outpatient visit est (99214)	\$423,978,684	5.0%	3.4% - 6.5%	4.8%	28.4%	0.0%	66.8%	0.0%	1.4%
Office/outpatient visit est (99213)	\$366,646,442	6.9%	4.6% - 9.1%	0.0%	18.6%	0.0%	81.4%	0.0%	1.2%
Subsequent hospital care (99233)	\$347,328,321	18.1%	16.0% - 20.2%	8.4%	21.0%	0.0%	70.6%	0.0%	1.2%
All Codes With Less Than 30 Claims	\$243,600,135	31.7%	22.7% - 40.7%	6.5%	85.4%	3.0%	4.2%	0.9%	0.8%
Emergency dept visit (99285)	\$228,420,881	13.8%	11.5% - 16.1%	4.9%	6.9%	0.0%	88.3%	0.0%	0.8%
Office/outpatient visit new (99204)	\$203,913,495	15.3%	12.7% - 17.8%	0.0%	6.4%	0.0%	91.4%	2.1%	0.7%
Critical care first hour (99291)	\$175,081,314	18.3%	13.1% - 23.5%	3.4%	38.8%	0.0%	57.8%	0.0%	0.6%
Subsequent hospital care (99232)	\$162,528,824	5.7%	3.1% - 8.3%	30.0%	46.8%	0.0%	23.2%	0.0%	0.5%
Initial hospital care (99222)	\$119,915,092	16.1%	11.7% - 20.5%	0.0%	22.2%	0.0%	77.8%	0.0%	0.4%
Office/outpatient visit est (99215)	\$108,347,080	9.9%	7.6% - 12.1%	4.4%	0.1%	0.0%	95.5%	0.0%	0.4%
Hospital discharge day (99239)	\$107,795,571	22.6%	17.8% - 27.3%	1.5%	37.1%	0.0%	61.4%	0.0%	0.4%
Office/outpatient visit new (99205)	\$93,515,232	18.8%	13.9% - 23.6%	0.0%	11.3%	0.0%	88.7%	0.0%	0.3%
Chron care mgmt srvc 20 min (99490)	\$86,469,127	66.2%	52.8% - 79.6%	5.3%	94.7%	0.0%	0.0%	0.0%	0.3%
Office/outpatient visit new (99203)	\$78,859,610	8.3%	5.8% - 10.8%	0.0%	6.4%	0.0%	93.6%	0.0%	0.3%
Office/outpatient visit est (99212)	\$76,309,850	18.6%	11.1% - 26.0%	3.1%	24.8%	0.0%	72.1%	0.0%	0.3%
Initial observation care (99220)	\$71,387,048	34.1%	25.2% - 43.0%	3.2%	76.3%	0.0%	20.5%	0.0%	0.2%
Nursing facility care init (99306)	\$59,431,412	33.0%	26.3% - 39.6%	3.5%	30.5%	0.0%	62.2%	3.8%	0.2%
Nursing fac care subseq (99309)	\$49,976,802	7.9%	3.8% - 12.1%	15.7%	27.2%	0.0%	57.2%	0.0%	0.2%
Subsequent hospital care (99231)	\$39,417,939	16.5%	10.3% - 22.8%	0.0%	17.1%	0.0%	82.9%	0.0%	0.1%
Nursing fac care subseq (99310)	\$37,694,898	25.0%	18.0% - 32.0%	4.2%	27.9%	0.0%	68.0%	0.0%	0.1%
Emergency dept visit (99284)	\$29,829,690	4.7%	0.7% - 8.6%	0.0%	68.5%	0.0%	31.5%	0.0%	0.1%
Nursing fac care subseq (99308)	\$28,938,196	4.8%	1.4% - 8.2%	0.0%	55.7%	19.8%	24.5%	0.0%	0.1%
Nursing facility care init (99305)	\$26,877,892	22.0%	16.5% - 27.5%	8.5%	17.4%	5.9%	68.2%	0.0%	0.1%
Emergency dept visit (99283)	\$26,047,297	14.8%	6.7% - 22.8%	0.0%	7.0%	0.0%	93.0%	0.0%	0.1%
Home visit est patient (99349)	\$22,811,273	18.8%	11.0% - 26.5%	0.1%	77.2%	0.0%	4.2%	18.5%	0.1%
Hospital discharge day (99238)	\$20,422,070	11.9%	5.6% - 18.2%	0.2%	97.8%	0.0%	1.9%	0.0%	0.1%

E & M Codes	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percentage of Service Improper Payments by Type of Error					Percent of Overall Improper Payments
				No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other	
Office/outpatient visit est (99211)	\$13,966,646	23.1%	14.6% - 31.6%	1.2%	74.2%	0.0%	24.5%	0.0%	0.0%
Office/outpatient visit new (99202)	\$4,307,399	3.0%	(1.3%) - 7.3%	63.1%	0.0%	0.0%	36.9%	0.0%	0.0%
<b>Overall (E&amp;M Codes)</b>	<b>\$3,792,519,141</b>	<b>11.3%</b>	<b>10.5% - 12.1%</b>	<b>4.7%</b>	<b>30.4%</b>	<b>0.2%</b>	<b>64.2%</b>	<b>0.4%</b>	<b>12.8%</b>

**Table K2: Impact of 1-Level E&M (Top 20)**

Final E & M Codes	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval
Office/outpatient visit est (99213)	\$259,749,671	4.9%	3.2% - 6.5%
Subsequent hospital care (99233)	\$223,337,430	11.6%	10.4% - 12.9%
Office/outpatient visit est (99214)	\$222,434,226	2.6%	1.8% - 3.5%
Emergency dept visit (99285)	\$180,333,447	10.9%	9.2% - 12.6%
Initial hospital care (99223)	\$131,668,511	7.3%	6.2% - 8.4%
Office/outpatient visit new (99204)	\$113,502,406	8.5%	6.8% - 10.2%
Office/outpatient visit est (99215)	\$68,571,411	6.3%	4.7% - 7.8%
Office/outpatient visit new (99203)	\$63,363,526	6.7%	4.6% - 8.7%
Hospital discharge day (99239)	\$62,764,466	13.1%	10.5% - 15.7%
Initial hospital care (99222)	\$45,154,997	6.1%	3.8% - 8.4%
Office/outpatient visit est (99212)	\$40,770,161	9.9%	5.1% - 14.8%
Subsequent hospital care (99232)	\$36,865,248	1.3%	0.7% - 1.9%
Subsequent hospital care (99231)	\$32,676,550	13.7%	8.0% - 19.4%
Office/outpatient visit new (99205)	\$30,294,928	6.1%	4.2% - 8.0%
Nursing fac care subseq (99309)	\$26,010,580	4.1%	2.2% - 6.1%
Emergency dept visit (99283)	\$24,223,590	13.7%	5.8% - 21.6%
Nursing fac care subseq (99310)	\$14,186,518	9.4%	5.3% - 13.6%
Nursing facility care init (99306)	\$11,356,321	6.3%	3.7% - 8.9%
Nursing facility care init (99305)	\$9,457,016	7.7%	5.2% - 10.3%
Emergency dept visit (99284)	\$9,390,305	1.5%	(0.2%) - 3.
All Other Codes	\$64,173,488	0.1%	0.1% - 0.1%
<b>Overall (1-Level E&amp;M Codes)</b>	<b>\$1,670,284,797</b>	<b>1.7%</b>	<b>1.5% - 1.8%</b>

**Table K3: Type of Services with Upcoding<sup>33</sup> Errors: Part B**

Part B Services (BETOS Codes)	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval
Hospital visit - initial	\$452,532,742	15.2%	13.8% - 16.6%
Office visits - established	\$396,739,245	2.6%	1.9% - 3.2%
Hospital visit - subsequent	\$338,244,765	5.8%	5.0% - 6.5%
Office visits - new	\$321,432,147	10.6%	9.2% - 12.1%
Emergency room visit	\$211,277,454	8.5%	7.1% - 9.9%
Nursing home visit	\$125,374,298	5.9%	4.8% - 6.9%
Hospital visit - critical care	\$102,401,684	10.2%	6.1% - 14.3%
Ambulance	\$30,351,033	0.6%	0.2% - 1.0%
Minor procedures - other (Medicare fee schedule)	\$19,315,678	0.4%	0.1% - 0.8%
Dialysis services (Medicare Fee Schedule)	\$18,005,613	2.0%	1.0% - 3.0%
Ambulatory procedures - skin	\$5,297,793	0.3%	(0.3%) - 0.9%
Specialist - ophthalmology	\$4,789,497	0.2%	(0.1%) - 0.5%
Lab tests - other (Medicare fee schedule)	\$4,000,347	0.3%	(0.2%) - 0.8%
Other drugs	\$3,943,075	0.0%	(0.0%) - 0.1%
Home visit	\$3,727,797	1.5%	(0.4%) - 3.5%
Lab tests - other (non-Medicare fee schedule)	\$3,076,572	0.1%	(0.0%) - 0.2%
Other tests - electrocardiograms	\$2,858,516	1.0%	(0.1%) - 2.1%
Lab tests - blood counts	\$2,391,792	0.9%	0.3% - 1.5%
Echography/ultrasonography - heart	\$2,210,793	0.2%	(0.2%) - 0.7%
Specialist - other	\$1,875,452	0.1%	(0.1%) - 0.3%
All Other Codes	\$5,475,741	0.0%	0.0% - 0.0%
<b>Overall (Part B)</b>	<b>\$2,055,322,035</b>	<b>2.1%</b>	<b>1.9% - 2.2%</b>

<sup>33</sup> Upcoding refers to billing a higher level service or a service with a higher payment than is supported by the medical record documentation

**Table K4: Type of Services with Upcoding Errors: DMEPOS**

DMEPOS (Policy Group) )	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval
Glucose Monitor	\$13,604,463	6.0%	2.8% - 9.2%
Nebulizers & Related Drugs	\$2,941,221	0.4%	(0.1%) - 0.9%
CPAP	\$1,598,515	0.2%	0.1% - 0.4%
Surgical Dressings	\$1,391,361	0.5%	(0.2%) - 1.2%
Immunosuppressive Drugs	\$1,368,248	0.4%	(0.2%) - 1.1%
Infusion Pumps & Related Drugs	\$1,137,108	0.2%	(0.1%) - 0.6%
Hospital Beds/Accessories	\$657,619	1.3%	(1.2%) - 3.7%
Parenteral Nutrition	\$622,562	0.3%	(0.1%) - 0.7%
Oral Anti-Cancer Drugs	\$287,698	0.3%	(0.3%) - 0.9%
Urological Supplies	\$210,707	0.1%	(0.1%) - 0.2%
Negative Pressure Wound Therapy	\$206,140	0.3%	(0.3%) - 0.8%
Breast Prostheses	\$138,138	0.3%	(0.3%) - 0.9%
Enteral Nutrition	\$23,417	0.0%	(0.0%) - 0.0%
Wheelchairs Options/Accessories	\$20,422	0.0%	(0.0%) - 0.0%
Ostomy Supplies	\$4,590	0.0%	(0.0%) - 0.0%
<b>Overall (DMEPOS)</b>	<b>\$24,212,207</b>	<b>0.3%</b>	<b>0.2% - 0.4%</b>

**Table K5: Type of Services with Upcoding Errors: Part A Excluding Hospital IPPS**

Part A Excluding Hospital IPPS Services (TOB)	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval
Nonhospital based hospice	\$166,314,704	1.0%	0.5% - 1.4%
SNF Inpatient	\$105,237,433	0.4%	0.1% - 0.6%
Hospital based hospice	\$23,979,500	1.6%	0.1% - 3.1%
Home Health	\$10,734,911	0.1%	(0.0%) - 0.1%
Hospital Outpatient	\$10,077,906	0.0%	0.0% - 0.0%
CAH	\$4,665,171	0.1%	(0.0%) - 0.2%
Hospital Other Part B	\$287,019	0.0%	(0.0%) - 0.1%
SNF Inpatient Part B	\$247,142	0.0%	(0.0%) - 0.0%
Clinic CORF	\$50,007	0.2%	(0.1%) - 0.4%
Hospital Inpatient Part B	\$24,096	0.0%	(0.0%) - 0.0%
<b>Overall (Part A Excluding Hospital IPPS)</b>	<b>\$321,617,889</b>	<b>0.2%</b>	<b>0.1% - 0.3%</b>

**Table K6: Type of Services with Upcoding Errors: Part A Hospital IPPS**

Part A Hospital IPPS Services (MS-DRGs)	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval
Infectious & Parasitic Diseases W O.R. Procedure (853, 854, 855)	\$18,004,668	0.5%	(0.1%) - 1.1%
ECMO Or Trach W MV >96 Hrs Or PDX Exc Face, Mouth & Neck (003)	\$14,908,349	0.7%	(0.6%) - 2.0%
Septicemia Or Severe Sepsis WO MV >96 Hours (871, 872)	\$14,730,656	0.2%	(0.2%) - 0.5%
Major Chest Procedures (163, 164, 165)	\$14,722,471	1.9%	(1.8%) - 5.6%
Other Resp System O.R. Procedures (166, 167, 168)	\$13,986,961	1.3%	(1.2%) - 3.8%
Major Small & Large Bowel Procedures (329, 330, 331)	\$12,286,235	0.5%	(0.1%) - 1.0%
Heart Failure & Shock (291, 292, 293)	\$12,199,919	0.3%	(0.2%) - 0.7%
Seizures (100, 101)	\$11,907,079	2.4%	(2.1%) - 6.9%
Spinal Fusion Except Cervical (459, 460)	\$10,276,850	0.5%	(0.5%) - 1.6%
Extensive O.R. Procedure Unrelated To Principal Diagnosis (981, 982, 983)	\$10,226,311	0.8%	0.2% - 1.4%
Trach W MV >96 Hrs Or PDX Exc Face, Mouth & Neck (004)	\$7,638,730	0.6%	(0.5%) - 1.7%
Pulmonary Embolism (175, 176)	\$4,828,411	0.9%	(0.8%) - 2.7%
Other Vascular Procedures (252, 253, 254)	\$4,771,576	0.3%	(0.3%) - 0.9%
Cardiac Defibrillator Implant WO Cardiac Cath (226, 227)	\$4,747,309	1.2%	(0.2%) - 2.5%
Organic Disturbances & Intellectual Disability (884)	\$4,527,380	0.9%	(0.8%) - 2.5%
Chronic Obstructive Pulmonary Disease (190, 191, 192)	\$3,928,415	0.2%	(0.1%) - 0.5%
Other Major Cardiovascular Procedures (270, 271, 272)	\$3,706,818	0.3%	(0.0%) - 0.7%
Kidney & Urinary Tract Infections (689, 690)	\$3,259,014	0.2%	(0.2%) - 0.6%
Major Gastrointestinal Disorders & Peritoneal Infections (371, 372, 373)	\$3,105,251	0.7%	(0.5%) - 2.0%
Respiratory Infections & Inflammations (177, 178, 179)	\$2,917,507	0.2%	(0.2%) - 0.6%
All Other Codes	\$77,634,241	0.1%	0.0% - 0.1%
<b>Overall (Part A Hospital IPPS)</b>	<b>\$254,314,149</b>	<b>0.2%</b>	<b>0.1% - 0.3%</b>

# Appendix L: Overpayments

Tables L1 through L4 provide for each claim type the service-specific overpayment rates. The tables are sorted in descending order by projected improper payments.

**Table L1: Top 20 Service-Specific Overpayment Rates: Part B**

Part B Services (HCPCS Codes)	Claims Reviewed	Lines Reviewed	Sample Dollars Overpaid	Total Sample Dollars Paid	Projected Dollars Overpaid	Overpayment Rate	95% Confidence Interval
All Codes With Less Than 30 Claims	4,996	8,497	\$57,357	\$961,044	\$2,128,970,771	5.8%	4.6% - 7.2%
Initial hospital care (99223)	685	686	\$31,867	\$132,362	\$432,620,087	24.0%	21.9% - 26.2%
Office/outpatient visit est (99214)	483	483	\$2,189	\$47,369	\$404,796,293	4.7%	3.4% - 6.5%
Subsequent hospital care (99233)	719	963	\$17,734	\$94,438	\$345,812,409	18.0%	16.0% - 20.2%
Emergency dept visit (99285)	321	321	\$7,338	\$53,017	\$228,420,881	13.8%	11.5% - 16.1%
Therapeutic exercises (97110)	304	320	\$2,448	\$13,741	\$202,697,906	17.5%	13.1% - 23.6%
Office/outpatient visit new (99204)	313	313	\$6,773	\$45,697	\$200,369,057	15.0%	12.7% - 17.8%
Critical care first hour (99291)	265	306	\$11,288	\$63,123	\$174,907,833	18.3%	13.1% - 23.5%
Subsequent hospital care (99232)	591	1,014	\$4,223	\$71,027	\$150,316,824	5.3%	3.1% - 8.3%
Drug test def 22+ classes (G0483)	204	204	\$26,744	\$45,139	\$149,227,273	58.9%	51.7% - 66.1%
Chiropract manj 3-4 regions (98941)	236	279	\$3,356	\$9,431	\$136,259,890	35.2%	28.3% - 42.1%
ALS1-emergency (A0427)	190	191	\$9,837	\$70,927	\$133,228,927	7.4%	2.1% - 12.7%
Psytx pt&/family 60 minutes (90837)	101	117	\$3,584	\$12,029	\$129,999,810	29.9%	19.5% - 40.3%
BLS (A0428)	352	366	\$10,210	\$68,936	\$129,685,364	14.5%	10.5% - 18.4%
BLS-emergency (A0429)	210	210	\$9,746	\$72,072	\$121,838,112	13.3%	8.7% - 18.0%
Ppps, subseq visit (G0439)	122	122	\$2,943	\$13,332	\$115,767,783	14.6%	7.2% - 21.9%
Initial hospital care (99222)	131	131	\$2,490	\$17,305	\$111,987,273	15.0%	11.7% - 20.5%
Hospital discharge day (99239)	176	176	\$4,107	\$17,696	\$107,795,571	22.6%	17.8% - 27.3%
Office/outpatient visit est (99215)	261	262	\$3,709	\$33,619	\$107,640,375	9.8%	7.6% - 12.1%
Manual therapy 1/> regions (97140)	277	290	\$1,789	\$8,402	\$98,946,482	19.8%	14.4% - 26.2%
All Other Codes	11,606	21,360	\$302,934	\$4,630,996	\$2,501,169,312	7.2%	7.6% - 9.3%
<b>Total (Part B)</b>	<b>16,998</b>	<b>36,611</b>	<b>\$522,665</b>	<b>\$6,481,699</b>	<b>\$8,112,458,231</b>	<b>8.1%</b>	<b>7.9% - 9.3%</b>

**Table L2: Top 20 Service-Specific Overpayment Rates: DMEPOS**

DMEPOS (HCPCS)	Claims Reviewed	Lines Reviewed	Sample Dollars Overpaid	Total Sample Dollars Paid	Projected Dollars Overpaid	Overpayment Rate	95% Confidence Interval
All Codes With Less Than 30 Claims	2,236	3,353	\$280,883	\$918,038	\$681,361,311	33.0%	23.7% - 42.5%
Oxygen concentrator (E1390)	987	1,013	\$16,363	\$61,457	\$120,778,843	26.5%	23.5% - 29.8%
LSO sc r ant/pos pnl pre ots (L0650)	156	156	\$43,940	\$151,514	\$78,165,645	30.0%	22.0% - 38.0%
Home vent non-invasive inter (E0466)	300	305	\$64,558	\$287,597	\$73,776,532	22.4%	17.5% - 27.3%
Ko adj jnt pos r sup pre ots (L1833)	158	169	\$70,215	\$93,826	\$66,424,747	74.3%	66.1% - 82.5%
Ko single upright prefab ots (L1851)	102	120	\$62,716	\$91,427	\$59,322,218	76.4%	64.9% - 87.9%
Blood glucose/reagent strips (A4253)	220	224	\$1,340	\$4,517	\$45,560,430	27.5%	20.5% - 34.5%
CPAP full face mask (A7030)	161	162	\$4,795	\$13,552	\$41,049,802	36.0%	27.8% - 44.2%
Diab shoe for density insert (A5500)	96	111	\$8,087	\$12,075	\$37,540,069	67.5%	57.5% - 77.6%
Replacement nasal cushion (A7032)	149	149	\$4,666	\$12,225	\$35,530,290	39.9%	29.1% - 50.6%
Cont airway pressure device (E0601)	204	221	\$2,010	\$6,967	\$35,495,954	28.7%	22.5% - 38.2%
Nasal application device (A7034)	124	124	\$2,173	\$6,734	\$31,721,355	32.2%	23.7% - 40.8%
Straight tip urine catheter (A4351)	88	90	\$6,684	\$28,516	\$31,087,136	23.8%	12.0% - 35.5%
Multi den insert direct form (A5512)	105	113	\$12,201	\$15,087	\$31,065,335	80.4%	68.9% - 91.8%
Replacement facemask interfa (A7031)	196	198	\$4,584	\$13,359	\$29,589,485	35.5%	27.5% - 43.5%
Multi den insert custom mold (A5513)	91	106	\$12,848	\$17,010	\$25,213,266	71.4%	55.6% - 87.3%
Alginate dressing <=16 sq in (A6196)	71	71	\$13,725	\$19,308	\$24,926,609	70.9%	58.7% - 83.0%
Neg press wound therapy pump (E2402)	104	104	\$22,702	\$50,942	\$23,716,191	44.9%	34.0% - 55.8%
Portable gaseous O2 (E0431)	471	480	\$2,822	\$6,898	\$21,552,816	41.3%	36.5% - 46.6%
Hosp bed semi-electr w/ matt (E0260)	110	113	\$2,691	\$4,936	\$20,499,546	54.3%	44.0% - 64.7%
All Other Codes	7,472	13,206	\$1,095,042	\$6,392,751	\$921,659,768	25.5%	24.0% - 27.2%
<b>Total (DMEPOS)</b>	<b>11,004</b>	<b>20,588</b>	<b>\$1,735,045</b>	<b>\$8,208,737</b>	<b>\$2,436,037,349</b>	<b>30.6%</b>	<b>28.0% - 33.4%</b>

**Table L3: Service-Specific Overpayment Rates: Part A Excluding Hospital IPPS**

Part A Excluding Hospital IPPS Services (TOB)	Claims Reviewed	Sample Dollars Overpaid	Total Sample Dollars Paid	Projected Dollars Overpaid	Overpayment Rate	95% Confidence Interval
Hospital Inpatient (Part A)	944	\$3,568,050	\$14,015,373	\$2,628,185,018	25.2%	21.8% - 28.5%
SNF Inpatient	1,611	\$807,505	\$9,401,562	\$2,573,616,481	8.6%	6.9% - 10.4%
Hospital Outpatient	2,254	\$46,774	\$1,114,961	\$2,544,054,716	4.2%	2.8% - 5.5%
Home Health	1,175	\$391,004	\$3,248,648	\$2,318,205,824	12.0%	10.2% - 14.1%
Nonhospital based hospice	767	\$253,868	\$2,819,077	\$1,530,015,638	8.9%	6.8% - 11.0%
Clinic ESRD	638	\$69,462	\$1,817,309	\$439,607,610	3.9%	2.3% - 5.4%
CAH	278	\$7,485	\$134,389	\$368,070,300	5.6%	2.6% - 9.2%
Hospital based hospice	141	\$94,709	\$496,902	\$288,107,507	18.9%	11.8% - 26.0%
SNF Inpatient Part B	94	\$5,733	\$86,182	\$192,740,125	6.5%	(0.2%) - 13.3%
Hospital Other Part B	113	\$1,226	\$4,166	\$183,421,184	29.6%	18.2% - 41.0%
FQHC	82	\$771	\$12,209	\$80,085,973	6.3%	0.9% - 11.6%
SNF Outpatient	49	\$3,598	\$24,839	\$40,166,253	14.1%	(3.1%) - 31.3%
Clinic OPT	36	\$793	\$14,227	\$38,791,568	5.8%	0.0% - 11.7%
Clinical Rural Health	185	\$754	\$26,232	\$30,947,874	2.3%	0.2% - 4.3%
Clinic CORF	78	\$6,363	\$20,653	\$9,839,003	29.9%	14.3% - 45.5%
Hospital Inpatient Part B	51	\$370	\$36,347	\$5,465,570	0.9%	(0.1%) - 1.9%
<b>Total (Part A Excluding Hospital IPPS)</b>	<b>8,496</b>	<b>\$5,258,464</b>	<b>\$33,273,075</b>	<b>\$13,271,320,646</b>	<b>8.0%</b>	<b>7.3% - 8.8%</b>



**Table L4: Top 20 Service-Specific Overpayment Rates: Part A Hospital IPPS**

Part A Inpatient Hospital PPS Services (DRG)	Claims Reviewed	Sample Dollars Overpaid	Total Sample Dollars Paid	Projected Dollars Overpaid	Overpayment Rate	95% Confidence Interval
All Codes With Less Than 30 Claims	3,043	\$1,263,655	\$44,875,046	\$1,060,951,617	2.8%	2.6% - 3.8%
Major Hip And Knee Joint Replacement Or Reattachment Of Lower Extremity WO MCC (470)	769	\$1,131,388	\$10,147,062	\$637,561,816	10.2%	8.2% - 12.6%
Psychoses (885)	287	\$264,059	\$2,893,052	\$377,699,751	9.9%	3.0% - 16.7%
Endovascular Cardiac Valve Replacement WO MCC (267)	51	\$352,766	\$2,225,480	\$140,009,470	13.0%	5.2% - 21.2%
Spinal Fusion Except Cervical WO MCC (460)	52	\$80,110	\$1,324,961	\$119,974,075	6.8%	0.4% - 16.1%
Organic Disturbances & Intellectual Disability (884)	52	\$117,878	\$546,623	\$109,540,492	21.1%	7.4% - 34.8%
Endovascular Cardiac Valve Replacement W MCC (266)	52	\$272,798	\$2,584,835	\$94,342,878	11.1%	2.4% - 19.8%
Degenerative Nervous System Disorders WO MCC (057)	541	\$888,630	\$5,629,274	\$86,527,412	15.4%	12.0% - 19.4%
Esophagitis, Gastroent & Misc Digest Disorders WO MCC (392)	108	\$57,569	\$575,016	\$75,311,896	9.8%	4.1% - 15.5%
Chest Pain (313)	133	\$151,516	\$591,294	\$73,056,701	26.9%	18.0% - 35.9%
Heart Failure & Shock W MCC (291)	121	\$12,470	\$1,168,600	\$61,490,298	1.5%	(0.3%) - 4.9%
Cervical Spinal Fusion WO CC/MCC (473)	45	\$153,290	\$655,620	\$51,690,324	24.6%	11.4% - 39.8%
ECMO Or Trach W MV >96 Hrs Or PDX Exc Face, Mouth & Neck W Maj O.R. (003)	55	\$158,164	\$6,244,151	\$49,330,746	2.2%	(1.1%) - 5.4%
Major Hip And Knee Joint Replacement Or Reattachment Of Lower Extremity W MCC Or Total Ankle Replacement (469)	51	\$71,448	\$1,108,072	\$46,749,738	7.3%	(1.2%) - 15.8%
Extensive O.R. Procedure Unrelated To Principal Diagnosis W MCC (981)	46	\$66,688	\$1,523,050	\$44,166,267	4.4%	(0.1%) - 8.9%
Cardiac Arrhythmia & Conduction Disorders WO CC/MCC (310)	80	\$51,244	\$335,105	\$42,829,148	15.1%	3.8% - 26.5%
Transient Ischemia WO Thrombolytic (069)	51	\$45,432	\$254,060	\$42,743,587	16.8%	6.4% - 27.2%
Signs & Symptoms WO MCC (948)	170	\$185,110	\$861,140	\$41,731,814	21.3%	16.3% - 30.6%
Syncope & Collapse (312)	50	\$23,430	\$285,411	\$41,589,081	8.4%	0.2% - 16.6%
Renal Failure W CC (683)	50	\$14,806	\$326,093	\$41,499,083	5.0%	(1.0%) - 12.8%
All Other Codes	7,693	\$5,648,774	\$116,329,939	\$1,313,178,222	2.1%	2.1% - 3.7%
<b>Total (Part A Hospital IPPS)</b>	<b>13,500</b>	<b>\$11,011,224</b>	<b>\$200,483,882</b>	<b>\$4,551,974,417</b>	<b>3.6%</b>	<b>3.7% - 4.8%</b>

**Table L5: Overpayment Rate: All Claim Types**

All Services	Claims Reviewed	Sample Dollars Overpaid	Total Sample Dollars Paid	Projected Dollars Overpaid	Overpayment Rate	95% Confidence Interval
<b>All</b>	49,998	\$18,527,398	\$248,447,393	\$28,371,790,642	7.1%	7.1% - 7.9%

# Appendix M: Underpayments

The following tables provide for each claim type the service-specific underpayment rates. The tables are sorted in descending order by projected dollars underpaid. All estimates in these tables are based on a minimum of 30 claims in the sample with at least one claim underpaid.

**Table M1: Service-Specific Underpayment Rates: Part B**

Part B Services (HCPCS Codes)	Claims Reviewed	Lines Reviewed	Sample Dollars Underpaid	Total Sample Dollars Paid	Projected Dollars Underpaid	Underpayment Rate	95% Confidence Interval
Office/outpatient visit est (99213)	329	330	\$1,082	\$21,492	\$268,372,320	5.0%	4.6% - 9.1%
Office/outpatient visit est (99212)	108	109	\$571	\$4,209	\$55,043,734	13.4%	11.1% - 26.0%
All Codes With Less Than 30 Claims	4,996	8,497	\$1,195	\$961,044	\$48,831,433	0.1%	4.6% - 7.2%
Subsequent hospital care (99231)	142	220	\$1,083	\$7,811	\$32,676,550	13.7%	10.3% - 22.8%
Office/outpatient visit est (99214)	483	483	\$154	\$47,369	\$19,182,391	0.2%	3.4% - 6.5%
Office/outpatient visit new (99203)	210	210	\$386	\$19,606	\$18,292,865	1.9%	5.8% - 10.8%
Emergency dept visit (99283)	64	64	\$348	\$3,624	\$17,707,996	10.0%	6.7% - 22.8%
Subsequent hospital care (99232)	591	1,014	\$280	\$71,027	\$12,211,999	0.4%	3.1% - 8.3%
Therapeutic exercises (97110)	304	320	\$118	\$13,741	\$9,696,676	0.8%	13.1% - 23.6%
Initial hospital care (99222)	131	131	\$135	\$17,305	\$7,927,819	1.1%	11.7% - 20.5%
Nursing fac care subseq (99308)	117	126	\$86	\$8,054	\$7,087,299	1.2%	1.4% - 8.2%
Emergency dept visit (99284)	100	100	\$113	\$10,982	\$6,318,810	1.0%	0.7% - 8.6%
Ther/proph/diag inj sc/im (96372)	300	303	\$42	\$6,712	\$5,756,578	3.0%	9.7% - 28.3%
Office/outpatient visit new (99204)	313	313	\$116	\$45,697	\$3,544,438	0.3%	12.7% - 17.8%
Office/outpatient visit est (99211)	124	127	\$304	\$2,239	\$3,423,343	5.7%	14.6% - 31.6%
Ground mileage (A0425)	659	673	\$238	\$42,054	\$2,967,720	0.4%	7.2% - 15.5%
Manual therapy 1/> regions (97140)	277	290	\$37	\$8,402	\$2,750,684	0.5%	14.4% - 26.2%
Nursing fac care subseq (99309)	109	112	\$35	\$8,964	\$2,562,516	0.4%	3.8% - 12.1%
All Other Codes	12,782	23,119	\$1,141	\$5,176,770	\$13,286,437	0.0%	10.6% - 12.5%
<b>Total (Part B)</b>	<b>16,998</b>	<b>36,611</b>	<b>\$7,598</b>	<b>\$6,481,699</b>	<b>\$544,684,405</b>	<b>0.5%</b>	<b>7.9% - 9.3%</b>

**Table M2: Service-Specific Underpayment Rates: DMEPOS**

DMEPOS (HCPs)	Claims Reviewed	Lines Reviewed	Sample Dollars Underpaid	Total Sample Dollars Paid	Projected Dollars Underpaid	Underpayment Rate	95% Confidence Interval
All Codes With Less Than 30 Claims	2,236	3,353	\$1,035	\$918,038	\$3,210,000	0.2%	23.7% - 42.5%
Cont airway pressure device (E0601)	204	221	\$122	\$6,967	\$2,074,817	1.7%	22.5% - 38.2%
Treprostinil, non-comp unit (J7686)	100	101	\$15,598	\$1,449,609	\$1,636,600	1.1%	0.7% - 9.4%
Oxygen concentrator (E1390)	987	1,013	\$77	\$61,457	\$542,610	0.1%	23.5% - 29.8%
Rad w/backup non inv intrfc (E0471)	63	67	\$215	\$12,898	\$462,470	1.4%	19.0% - 48.0%
Portable gaseous O2 (E0431)	471	480	\$19	\$6,898	\$133,824	0.3%	36.5% - 46.6%
Humidifier heated used w pap (E0562)	177	187	\$25	\$5,484	\$56,666	0.1%	6.3% - 30.2%
Adhesive remover, wipes (A4456)	52	52	\$14	\$976	\$31,839	1.1%	15.7% - 44.8%
Infusion supplies with pump (A4222)	238	262	\$75	\$41,828	\$29,682	0.1%	7.6% - 29.5%
Inj milrinone lactate / 5 mg (J2260)	102	124	\$26	\$10,323	\$10,132	0.2%	17.1% - 41.0%
Maint drug infus cath per wk (A4221)	364	372	\$20	\$15,201	\$7,826	0.2%	6.9% - 16.2%
Disp fee inhal drugs/30 days (Q0513)	406	406	\$33	\$12,342	\$3,462	0.0%	12.2% - 24.5%
All Other Codes	8,356	13,950	\$0	\$5,666,717	\$0	0.0%	29.5% - 32.7%
<b>Total (DMEPOS)</b>	<b>11,004</b>	<b>20,588</b>	<b>\$17,259</b>	<b>\$8,208,737</b>	<b>\$8,199,929</b>	<b>0.1%</b>	<b>28.0% - 33.4%</b>

**Table M3: Service-Specific Underpayment Rates: Part A Excluding Hospital IPPS**

Part A Excluding Hospital IPPS Services (TOB)	Claims Reviewed	Lines Reviewed	Sample Dollars Underpaid	Total Sample Dollars Paid	Projected Dollars Underpaid	Underpayment Rate	95% Confidence Interval
SNF Inpatient	1,611	1,611	\$9,337	\$9,401,562	\$27,715,335	0.1%	6.9% - 10.4%
CAH	278	278	\$429	\$134,389	\$21,732,748	0.3%	2.6% - 9.2%
Home Health	1,175	1,175	\$3,411	\$3,248,648	\$18,966,322	0.1%	10.2% - 14.1%
SNF Inpatient Part B	94	94	\$22	\$86,182	\$918,141	0.0%	(0.2%) - 13.3%
Nonhospital based hospice	767	767	\$37	\$2,819,077	\$213,588	0.0%	6.8% - 11.0%
Hospital based hospice	141	141	\$17	\$496,902	\$49,818	0.0%	11.8% - 26.0%
Hospital Inpatient Part B	51	51	\$2	\$36,347	\$27,866	0.0%	(0.1%) - 1.9%
All Other Codes	4,379	4,379	\$0	\$17,049,968	\$0	0.0%	5.8% - 8.0%
<b>Total (Part A Excluding Hospital IPPS)</b>	<b>8,496</b>	<b>8,496</b>	<b>\$13,253</b>	<b>\$33,273,075</b>	<b>\$69,623,817</b>	<b>0.0%</b>	<b>7.3% - 8.8%</b>

**Table M4: Service-Specific Underpayment Rates: Part A Hospital IPPS**

Part A Hospital IPPS Services (DRG)	Claims Reviewed	Lines Reviewed	Sample Dollars Underpaid	Total Sample Dollars Paid	Projected Dollars Underpaid	Underpayment Rate	95% Confidence Interval
Septicemia Or Severe Sepsis WO MV >96 Hours W MCC (871)	117	117	\$28,888	\$1,405,760	\$247,620,205	3.2%	(2.3%) - 9.1%
All Codes With Less Than 30 Claims	3,043	3,043	\$180,723	\$44,875,046	\$152,293,027	0.4%	2.6% - 3.8%
Heart Failure & Shock W MCC (291)	121	121	\$9,931	\$1,168,600	\$31,239,233	0.8%	(0.3%) - 4.9%
Spinal Fusion Except Cervical WO MCC (460)	52	52	\$24,808	\$1,324,961	\$26,242,818	1.5%	0.4% - 16.1%
Diabetes W CC (638)	79	79	\$17,000	\$535,301	\$16,091,016	3.6%	0.6% - 18.1%
Other Circulatory System Diagnoses W MCC (314)	49	49	\$14,967	\$630,444	\$13,603,293	2.2%	(0.2%) - 15.9%
Septicemia Or Severe Sepsis WO MV >96 Hours WO MCC (872)	47	47	\$4,993	\$356,099	\$13,489,635	1.2%	(1.2%) - 3.7%
Heart Failure & Shock W CC (292)	52	52	\$6,825	\$328,847	\$12,767,362	1.9%	(0.4%) - 7.7%
Acute Myocardial Infarction, Discharged Alive W MCC (280)	92	92	\$15,192	\$1,018,961	\$12,098,264	1.4%	(1.1%) - 4.1%
Acute Myocardial Infarction, Discharged Alive W CC (281)	53	53	\$12,687	\$353,164	\$10,632,944	3.5%	(0.5%) - 11.3%
Hip & Femur Procedures Except Major Joint W MCC (480)	35	35	\$11,418	\$718,026	\$10,451,066	1.7%	(1.5%) - 4.9%
Simple Pneumonia & Pleurisy W CC (194)	58	58	\$5,185	\$346,633	\$10,143,982	1.3%	0.0% - 2.7%
Simple Pneumonia & Pleurisy W MCC (193)	59	59	\$3,746	\$519,374	\$9,441,151	0.7%	(0.6%) - 1.9%
Intracranial Hemorrhage Or Cerebral Infarction WO CC/MCC (066)	38	38	\$11,081	\$196,408	\$9,270,022	5.5%	(0.5%) - 16.3%
Major Hip And Knee Joint Replacement Or Reattachment Of Lower Extremity WO MCC (470)	769	769	\$14,963	\$10,147,062	\$9,196,836	0.1%	8.2% - 12.6%
Cardiac Arrhythmia & Conduction Disorders W CC (309)	103	103	\$9,993	\$563,603	\$8,833,868	1.8%	0.6% - 8.7%
Respiratory Infections & Inflammations W CC (178)	42	42	\$10,629	\$406,051	\$8,301,617	2.5%	0.7% - 10.2%
Infectious & Parasitic Diseases W O.R. Procedure W MCC (853)	266	266	\$23,402	\$9,861,746	\$8,118,352	0.2%	0.1% - 1.7%
Renal Failure W CC (683)	50	50	\$3,271	\$326,093	\$7,640,363	0.9%	(1.0%) - 12.8%
Permanent Cardiac Pacemaker Implant W MCC (242)	46	46	\$15,865	\$1,092,912	\$6,784,317	1.5%	(0.8%) - 6.5%
All Other Codes	8,329	8,329	\$436,836	\$124,308,794	\$96,982,015	0.2%	4.0% - 5.4%
<b>Total (Part A Hospital IPPS)</b>	<b>13,500</b>	<b>13,500</b>	<b>\$862,402</b>	<b>\$200,483,882</b>	<b>\$721,241,384</b>	<b>0.6%</b>	<b>3.7% - 4.8%</b>

**Table M5: Underpayment Rate: All Claim Types**

All Services	Claims Reviewed	Lines Reviewed	Sample Dollars Underpaid	Total Sample Dollars Paid	Projected Dollars Underpaid	Underpayment Rate	95% Confidence Interval
<b>All</b>	49,998	79,195	\$900,512	\$248,447,393	\$1,343,749,535	0.3%	7.1% - 7.9%

# Appendix N: Statistics and Other Information for the CERT Sample

## Summary of Sampling and Estimation Methodology for the CERT Program

The improper payment rate calculation complies with the requirements of Office of Management and Budget (OMB) Circular A-123, Appendix C.

The sampling process for CERT follows a service level stratification plan. This system allots approximately 100 service level strata per claim type, except for Part A Excluding Hospital IPPS, for which service level stratification is not possible. For this case, strata were designated by a two-digit type of bill, which results in fewer than 20 strata. This stratification system, by design, leads to greater sample sizes for the larger Medicare Administrative Contractors (MACs). Thus, the precision is greater for larger MAC jurisdictions. However, MAC jurisdictions are sufficiently large, therefore all jurisdictions should observe ample number of claims to obtain internal precision goals of plus or minus three percentage points with 95% confidence.

### Improper Payment Rate Formula

Sampled claims are subject to reviews, and an improper payment rate is calculated based on those reviews. The improper payment rate is an estimate of the proportion of improper payments made in the Medicare program to the total payments made.

After the claims have been reviewed for improper payments, the sample is projected to the universe statistically using a combination of sampling weights and universe expenditure amounts. CERT utilizes a generalized estimator to handle national, contractor cluster, and service level estimation. National level estimation reduces to a better known estimator known as the separate ratio estimator. Using the separate ratio estimator, improper payment rates for contractor clusters are combined using their relative share of universe expenditures as weights.

### Generalized (“Hybrid”) Ratio Estimator

For CERT estimation, the Medicare universe can be partitioned by different groups. The groups relevant for developing the CERT estimator are defined as follows:

partition = group by which payment information is available (denoted by subscript ‘i’)

strata = sampling group (denoted by subscript ‘k’)

domain = area of interest within the universe (denoted by superscript ‘d’)

A partition is defined by the contractor cluster level payment amounts.<sup>34</sup> Strata are defined by service categorization and sampling quarter. Domains are areas that CERT focuses analysis on (e.g., motorized wheelchairs). Note for national level estimation, the domain, d, is the entire universe.

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<sup>34</sup> An A/B MAC consists of two contractor clusters. Each cluster represents their respective Part A and Part B claims. Expenditures (payments) are reported to CERT by contractor cluster. DMEPOS MACs are composed of a single cluster.

The estimator for a domain, d, is expressed as

$$\hat{R}_{HybridEstimator}^d = \frac{\hat{t}_e^{*d}}{\hat{t}_p^{*d}} = \frac{\sum_i \hat{t}_e^{*di}}{\sum_i \hat{t}_p^{*di}} = \frac{\sum_i \frac{\hat{t}_e^{di}}{\hat{t}_p^i} t_p^{*i}}{\sum_i \frac{\hat{t}_p^{di}}{\hat{t}_p^i} t_p^{*i}}$$

where,

$\hat{t}_e^{*d}$  = projected improper payment for the domain, d.

$\hat{t}_p^{*d}$  = projected payment for the domain, d.

$t_p^{*i}$  = known payment for partition 'i'

$\hat{t}_p^i$  = projected payment for partition 'i'.

$\hat{t}_e^{di}$  = projected error for domain 'd' in partition 'i'.

$\hat{t}_p^{di}$  = projected payment for domain 'd' in partition 'i'.

Now, the projected error and payment for domain 'd' within partition 'i' can be computed using the following formulas:

$$\hat{t}_e^{di} = \sum_{k=1}^a \frac{N_k}{n_k} \sum_{j=1}^{n_k^{di}} e_{kj} = \sum_{k=1}^a W_k \sum_{j=1}^{n_k^{di}} e_{kj}$$

$$\hat{t}_p^{di} = \sum_{k=1}^a \frac{N_k}{n_k} \sum_{j=1}^{n_k^{di}} p_{kj} = \sum_{k=1}^a W_k \sum_{j=1}^{n_k^{di}} p_{kj}$$

where

$N_k$  = total number of claims in the universe for strata 'k'

$n_k$  = total number of sampled claims for strata 'k'

The following tables provide information on the sample size for each category for which this report makes national estimates. These tables also show the number of claims containing errors and the percent of claims with payment errors. Data in these tables for Part B and DMEPOS data is expressed in terms of line items, and data in these tables for Part A data is expressed in terms of claims. Totals cannot be calculated for these categories since CMS uses different units for each type of service.

**Table N1: Lines in Error: Part B**

Variable		Lines Reviewed	Lines Containing Errors	Percent of Lines Containing Errors
<b>HCPCS</b>	All Codes With Less Than 30 Claims	8,497	1,164	13.7%
	Comprehen metabolic panel (80053)	495	40	8.1%
	Glycosylated hemoglobin test (83036)	478	51	10.7%
	Ground mileage (A0425)	673	90	13.4%
	Initial hospital care (99223)	686	326	47.5%
	Lipid panel (80061)	445	91	20.4%
	Office/outpatient visit est (99214)	483	52	10.8%
	Routine venipuncture (36415)	788	96	12.2%
	Subsequent hospital care (99232)	985	77	7.8%
	Subsequent hospital care (99233)	955	421	44.1%
	Other	22,075	3,743	17.0%
<b>TOS Code</b>	Ambulance	1,664	198	11.9%
	Hospital visit - subsequent	2,535	667	26.3%
	Lab tests - other (non-Medicare fee schedule)	5,829	1,426	24.5%
	Minor procedures - other (Medicare fee schedule)	2,300	319	13.9%
	Office visits - established	1,639	415	25.3%
	Other drugs	1,623	211	13.0%
	Other tests - other	986	227	23.0%
	Specialist - other	1,443	85	5.9%
	Specialist - psychiatry	1,201	145	12.1%
	Undefined codes	1,329	31	2.3%
	Other	16,011	2,427	15.2%
<b>Resolution Type<sup>35</sup></b>	Automated	9,035	324	3.6%
	Complex	22	5	22.7%
	None	27,486	5,821	21.2%
	Routine	17	1	5.9%
<b>Diagnosis Code</b>	All Codes With Less Than 30 Claims	1,759	298	16.9%
	Diabetes mellitus	1,612	190	11.8%
	General symptoms and signs	1,001	204	20.4%
	Hypertensive diseases	1,279	270	21.1%
	Metabolic disorders	1,199	214	17.8%

<sup>35</sup> Created using the type of review a line received based upon the resolution code that the contractor used to resolve the line.

Variable		Lines Reviewed	Lines Containing Errors	Percent of Lines Containing Errors
<b>Diagnosis Code (cont'd)</b>	Other dorsopathies	955	229	24.0%
	Other forms of heart disease	1,108	233	21.0%
	Persons encountering health services for examinations	1,105	117	10.6%
	Persons with potential health hazards related to family and personal history and certain conditions	1,831	705	38.5%
	Symptoms and signs involving the circulatory and respiratory systems	1,204	212	17.6%
	Other	23,507	3,479	14.8%



**Table N2: Lines in Error: DMEPOS**

Variable		Lines Reviewed	Lines Containing Errors	Percent of Lines Containing Errors
Service	All Codes With Less Than 30 Claims	3,353	1,082	32.3%
	Disp fee inhal drugs/30 days (Q0513)	406	54	13.3%
	Home vent non-invasive inter (E0466)	305	64	21.0%
	Lancets per box (A4259)	522	213	40.8%
	Maint drug infus cath per wk (A4221)	372	41	11.0%
	Oxygen concentrator (E1390)	1,013	211	20.8%
	Portable gaseous O2 (E0431)	480	158	32.9%
	Pos airway pressure filter (A7038)	397	117	29.5%
	Px sup fee anti-can sub pres (Q0512)	382	71	18.6%
	Sup fee antiem,antica,immuno (Q0511)	357	80	22.4%
	Other	13,001	3,855	29.7%
TOS Code	CPAP	2,398	722	30.1%
	Glucose Monitor	907	341	37.6%
	Immunosuppressive Drugs	1,349	250	18.5%
	Infusion Pumps & Related Drugs	1,674	248	14.8%
	Lower Limb Orthoses	934	514	55.0%
	Lower Limb Prostheses	889	147	16.5%
	Nebulizers & Related Drugs	1,504	253	16.8%
	Oxygen Supplies/Equipment	1,856	485	26.1%
	Parenteral Nutrition	820	186	22.7%
	Surgical Dressings	843	476	56.5%
	Other	7,414	2,324	31.3%
Resolution Type <sup>36</sup>	Automated	3,771	26	0.7%
	Complex	80	48	60.0%
	None	16,671	5,840	35.0%
	Routine	66	32	48.5%
Diagnosis Code	All Codes With Less Than 30 Claims	1,351	409	30.3%
	Chronic lower respiratory diseases	2,532	587	23.2%
	Diabetes mellitus	1,561	652	41.8%
	Episodic and paroxysmal disorders	2,609	776	29.7%
	In situ neoplasms	472	56	11.9%
	Osteoarthritis	706	395	55.9%
	Other disorders of the skin and subcutaneous tissue	535	305	57.0%
	Other forms of heart disease	718	178	24.8%
	Persons with potential health hazards related to family and personal history and certain conditions	3,008	685	22.8%
	Pulmonary heart disease and diseases of pulmonary circulation	648	54	8.3%
	Other	6,448	1,849	28.7%

<sup>36</sup> Created using the type of review a line received based upon the resolution code that the contractor used to resolve the line.

**Table N3: Claims in Error: Part A Excluding Hospital IPPS**

Variable		Claims Reviewed	Claims Containing Errors	Percent of Claims Containing Errors
<b>Type of Bill</b>	Clinic ESRD	638	32	5.0%
	Clinical Rural Health	185	7	3.8%
	CAH	278	53	19.1%
	Home Health	1,175	204	17.4%
	Hospital Inpatient (Part A)	944	214	22.7%
	Hospital Other Part B	113	36	31.9%
	Hospital Outpatient	2,254	276	12.2%
	Hospital based hospice	141	33	23.4%
	Nonhospital based hospice	767	132	17.2%
	SNF Inpatient	1,611	152	9.4%
	Other	390	61	15.6%
<b>TOS Code</b>	Clinic ESRD	638	32	5.0%
	Clinical Rural Health	185	7	3.8%
	CAH	278	53	19.1%
	Home Health	1,175	204	17.4%
	Hospital Inpatient (Part A)	944	214	22.7%
	Hospital Other Part B	113	36	31.9%
	Hospital Outpatient	2,254	276	12.2%
	Hospital based hospice	141	33	23.4%
	Nonhospital based hospice	767	132	17.2%
	SNF Inpatient	1,611	152	9.4%
	Other	390	61	15.6%
<b>Diagnosis Code</b>	Acute kidney failure and chronic kidney disease	739	46	6.2%
	All Codes With Less Than 30 Claims	447	53	11.9%
	Cerebrovascular diseases	348	70	20.1%
	Chronic lower respiratory diseases	279	40	14.3%
	Diabetes mellitus	218	39	17.9%
	Encounters for other specific health care	487	91	18.7%
	Hypertensive diseases	368	52	14.1%
	Injuries to the hip and thigh	189	39	20.6%
	Other degenerative diseases of the nervous system	266	39	14.7%
	Other forms of heart disease	409	66	16.1%
	Other	4,746	665	14.0%

**Table N4: Claims in Error: Part A Hospital IPPS**

Variable		Claims Reviewed	Claims Containing Errors	Percent of Claims Containing Errors
DRG Label	All Codes With Less Than 30 Claims	3,043	327	10.7%
	Chronic Obstructive Pulmonary Disease W MCC (190)	189	17	9.0%
	Degenerative Nervous System Disorders WO MCC (057)	541	122	22.6%
	G.I. Hemorrhage W CC (378)	162	8	4.9%
	Heart Failure & Shock WO CC/MCC (293)	158	15	9.5%
	Infectious & Parasitic Diseases W O.R. Procedure W MCC (853)	266	16	6.0%
	Major Hip And Knee Joint Replacement Or Reattachment Of Lower Extremity WO MCC (470)	769	109	14.2%
	Psychoses (885)	287	31	10.8%
	Pulmonary Edema & Respiratory Failure (189)	197	18	9.1%
	Signs & Symptoms WO MCC (948)	170	47	27.6%
	Other	7,718	1,064	13.8%
TOS Code	All Codes With Less Than 30 Claims	1,626	173	10.6%
	Back & Neck Proc Exc Spinal Fusion (518, 519, 520)	301	53	17.6%
	Cardiac Arrhythmia & Conduction Disorders (308, 309, 310)	266	25	9.4%
	Chronic Obstructive Pulmonary Disease (190, 191, 192)	284	25	8.8%
	Degenerative Nervous System Disorders (056, 057)	588	131	22.3%
	Heart Failure & Shock (291, 292, 293)	331	37	11.2%
	Infectious & Parasitic Diseases W O.R. Procedure (853, 854, 855)	284	20	7.0%
	Major Hip And Knee Joint Replacement Or Reattachment Of Lower Extremity (469, 470)	820	113	13.8%
	Other Vascular Procedures (252, 253, 254)	247	19	7.7%
	Psychoses (885)	287	31	10.8%
	Other	8,466	1,147	13.5%
Diagnosis Code	All Codes With Less Than 30 Claims	486	66	13.6%
	Cerebrovascular diseases	396	45	11.4%
	Complications of surgical and medical care, not elsewhere classified	704	78	11.1%
	Hypertensive diseases	518	68	13.1%
	Ischemic heart diseases	508	51	10.0%
	Osteoarthritis	754	124	16.4%
	Other bacterial diseases	550	35	6.4%
	Other diseases of intestines	390	30	7.7%
	Other forms of heart disease	817	102	12.5%
	Spondylopathies	422	70	16.6%
	Other	7,955	1,105	13.9%

**Table N5: “Included In” and “Excluded From” the Sample<sup>37</sup>**

Improper Payment Rate	Paid Line Items	Unpaid Line Items	Denied For Non-Medical Reasons	Automated Medical Review Denials	No Resolution	RTP	Late Resolution	Inpt, RAPS, Tech Errors
Paid Claim	Include	Include	Include	Include	Exclude	Exclude	Exclude	Exclude
No Resolution	Include	Include	Include	Include	Include	Exclude	Include	Exclude
Provider Compliance	Include	Include	Include	Include	Exclude	Exclude	Exclude	Exclude

**Table N6: Frequency of Claims “Included In” and “Excluded From” Each Improper Payment Rate: Part B**

Error Type	Included	Excluded	Total	Percent Included
Paid	16,998	435	17,433	97.5%
No Resolution	16,998	435	17,433	97.5%
Provider Compliance	16,998	435	17,433	97.5%

**Table N7: Frequency of Claims “Included In” and “Excluded From” Each Improper Payment Rate: DMEPOS**

Error Type	Included	Excluded	Total	Percent Included
Paid	11,004	351	11,355	96.9%
No Resolution	11,004	351	11,355	96.9%
Provider Compliance	11,004	351	11,355	96.9%

**Table N8: Frequency of Claims “Included In” and “Excluded From” Each Improper Payment Rate: Part A Including Hospital IPPS**

Error Type	Included	Excluded	Total	Percent Included
Paid	21,996	8,190	30,186	72.9%
No Resolution	22,010	8,176	30,186	72.9%
Provider Compliance	21,996	8,190	30,186	72.9%

<sup>37</sup>The dollars in error for the improper payment rate are based on the final allowed charges. The dollars in error for the provider compliance improper payment rate are based on the initial allowed charges, which is before MAC reductions and denials. The provider compliance rate is what the improper payment rate would be without MAC activities. The No Resolution rate is based on the number of claims where the contractor cannot track the outcome of the claim divided by no resolution claims plus all claims included in the paid or provider compliance improper payment rate.

# Appendix O: List of Acronyms

Acronym	Definition
AICD	Automatic Implantable Cardioverter Defibrillator
CAH	Critical Access Hospital
CAT/CT/CTA	Computed Axial Tomography/Computed Tomography/Computed Tomography Angiography
CBC	Complete Blood Count
CC	Comorbidity or Complication
CERT	Comprehensive Error Rate Testing
CMS	Centers for Medicare & Medicaid Services
CORF	Comprehensive Outpatient Rehabilitation Facility
CPAP	Continuous Positive Airway Pressure
CRNA	Certified Registered Nurse Anesthetist
DME	Durable Medical Equipment
DMEPOS	Durable Medical Equipment, Prosthetics, Orthotics & Supplies
DRG	Diagnosis Related Group
ECMO	Extracorporeal Membrane Oxygenation
EKG	Electrocardiogram
E&M	Evaluation and Management
ESRD	End-Stage Renal Disease
FI	Fiscal Intermediary
FQHC	Federally Qualified Health Center
FY	Fiscal Year
HCPCS	Healthcare Common Procedure Coding System
HFCWO	High Frequency Chest Wall Oscillation
HHA	Home Health Agency
IDTF	Independent Diagnostic Testing Facility
IPPS	Inpatient Prospective Payment System
LSO	Lumbar-Sacral Orthosis
MAC	Medicare Administrative Contractor
MCC	Major Complication or Comorbidity
MRA	Magnetic Resonance Angiogram
MRI	Magnetic Resonance Imaging
MS-DRG	Medicare Severity Diagnosis Related Group
MV	Mechanical Ventilation
OPT	Outpatient Physical Therapy
OPPS	Outpatient Prospective Payment System
OR	Operating Room
ORF	Outpatient Rehabilitation Facility
PDX	Principal Diagnosis
PPS	Prospective Payment System
RAP	Request for Advanced Payment
RHC	Rural Health Clinic
RTP	Return to Provider
SNF	Skilled Nursing Facility

Acronym	Definition
TENS	Transcutaneous Electrical Nerve Stimulation
TOB	Type of Bill
TOS	Type of Service
W	With
WBC	White Blood Cell
W/O	Without