U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES

2020 MEDICARE FEE-FOR-SERVICE SUPPLEMENTAL IMPROPER PAYMENT DATA

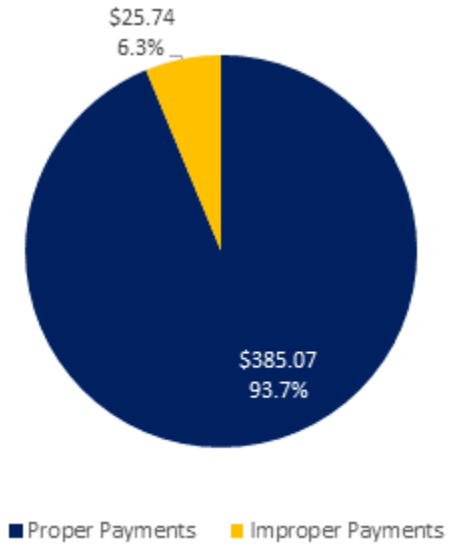
TABLE OF CONTENTS

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 Payment Integrity Information Act of 2019 (PIIA) 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.

93.7 Percent Accuracy Rate and 6.3 Percent Improper Payment Rate[1,2,3]

Figure 1: Payment Accuracy



[1] HHS published the 2020 Medicare FFS improper payment rate in the Federal Fiscal Year (FY) 2020 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 2020 Medicare FFS improper payment rate included claims submitted during the 12-month period from July 1, 2018 through June 30, 2019.

[2] CMS adjusted the improper payment rate by 0.3 percentage points ($1.2 billion) from 6.6 percent to 6.3 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 2020.

[3] 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 2020 National Improper Payments[4]

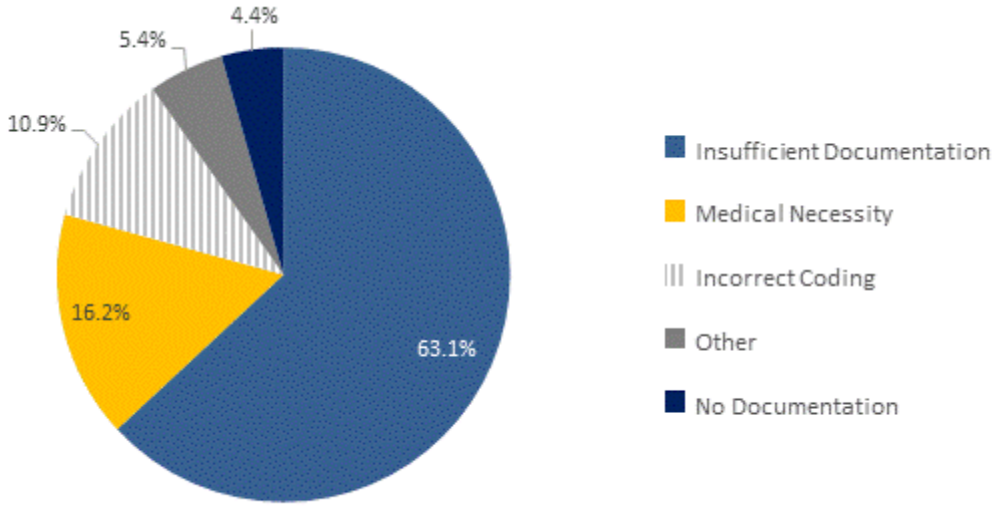
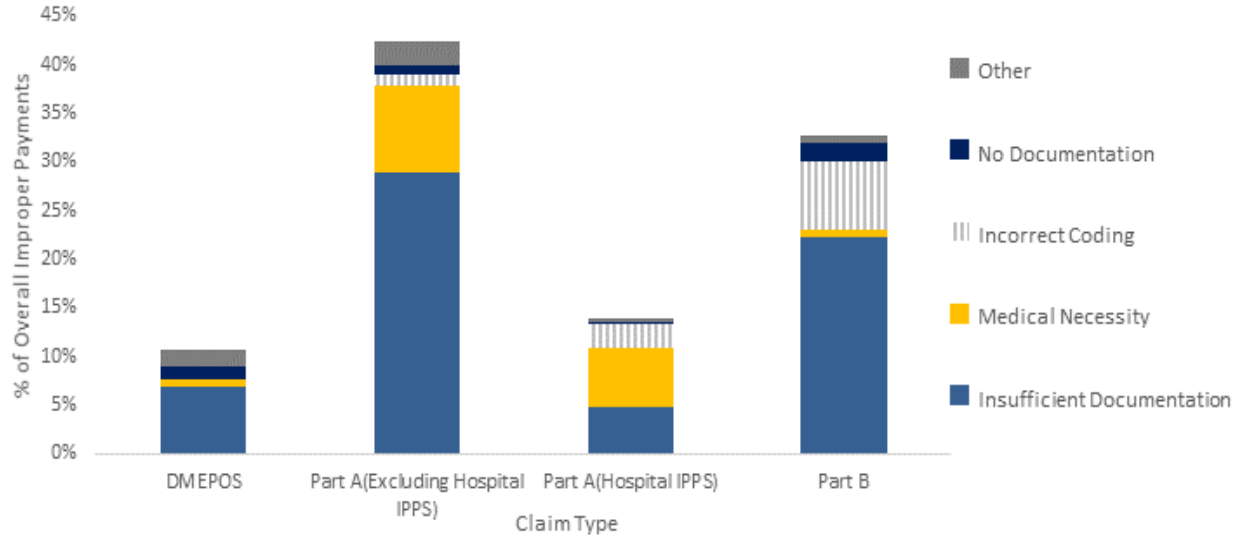


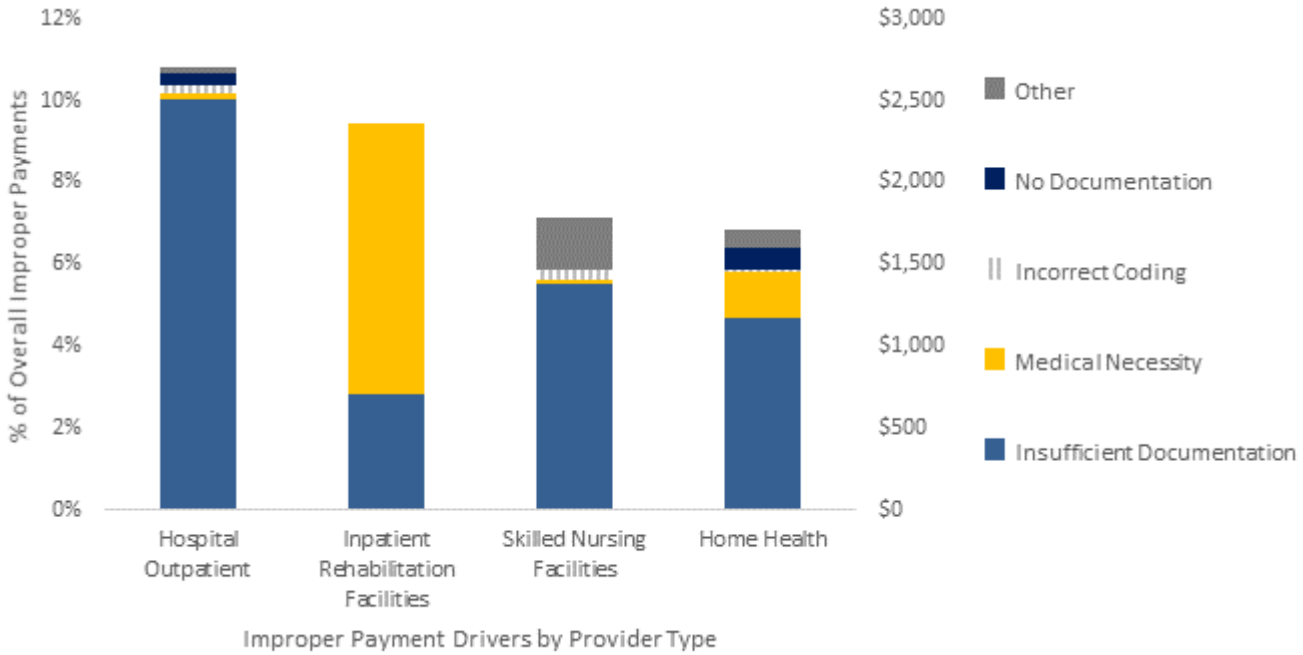
Figure 3: Improper Payment Rate Error Categories by Percentage of 2020 National Improper Payments by Claim Type (Adjusted for Impact of A/B Rebilling)[5]



[4] The percentages in this pie chart may not add up to 100 percent due to rounding.

[5] 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 2020 National Improper Payments and Improper Payments (in Millions) by Improper Payment Drivers



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 2020 report period was $2.8 billion, resulting in an improper payment rate of 4.0 percent.

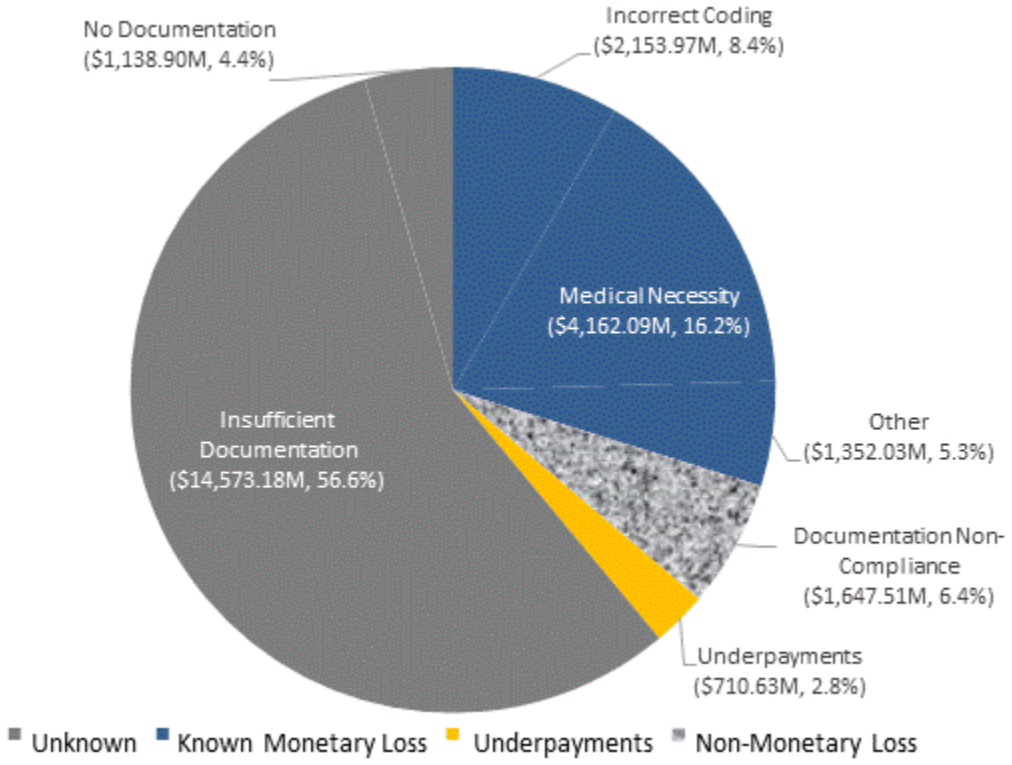
Inpatient rehabilitation facilities (IRF) is defined as any service with a provider type of either inpatient rehabilitation hospitals or inpatient rehabilitation unit. The projected improper payment amount for IRF during the 2020 report period was $2.4 billion, resulting in an improper payment rate of 30.8 percent.

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 2020 report period was $1.8 billion, resulting in an improper payment rate of 5.4 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 2020 report period was $1.8 billion, resulting in an improper payment rate of 9.3 percent.

Monetary Loss Findings[6]

Figure 5: Improper Payments (in Millions) and Percentage of Improper Payments by Monetary Loss and Improper Payment Rate Error Categories (Including Documentation Non-Compliance)[7,8]



[6] The FY 2020 HHS AFR contains detailed information on the Medicare FFS monetary loss findings.
[7] 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.
[8] The percentages in this pie chart may not add up to 100 percent due to rounding.

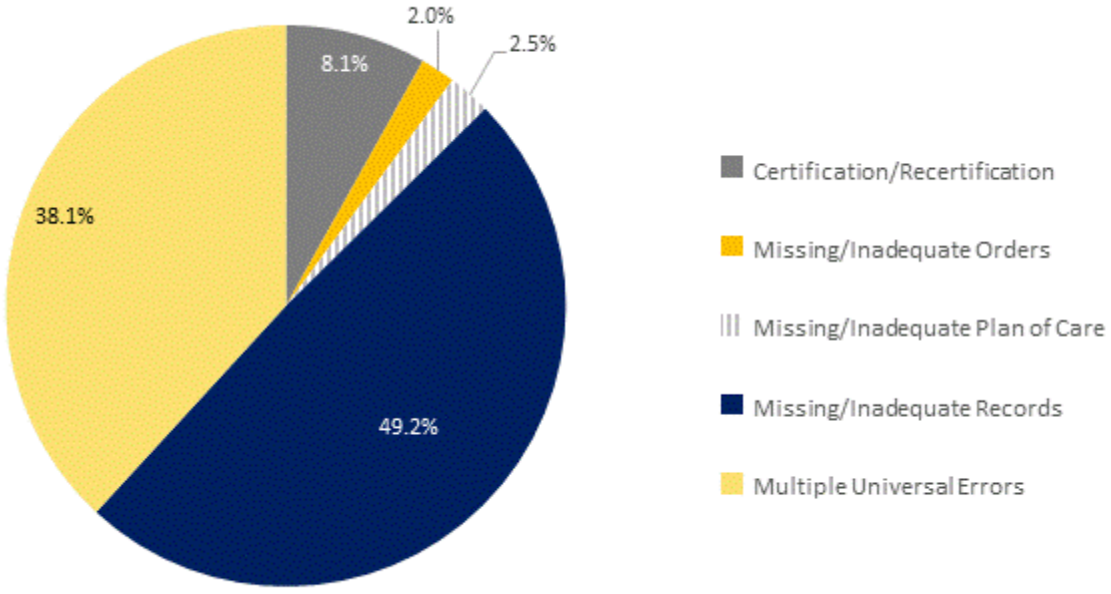
Detailed Information on Insufficient Documentation Errors by Claim Type

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[9]	Universal Error Definition
Missing/Inadequate Orders	A valid provider's order (or intent to order for certain services) for the service/supply has not been submitted or does not meet the required elements for the order.
Missing/Inadequate Plan of Care	A valid provider's plan of care for the service has not been submitted or 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.
Certification/Recertification	Certification/recertification requirements not met.

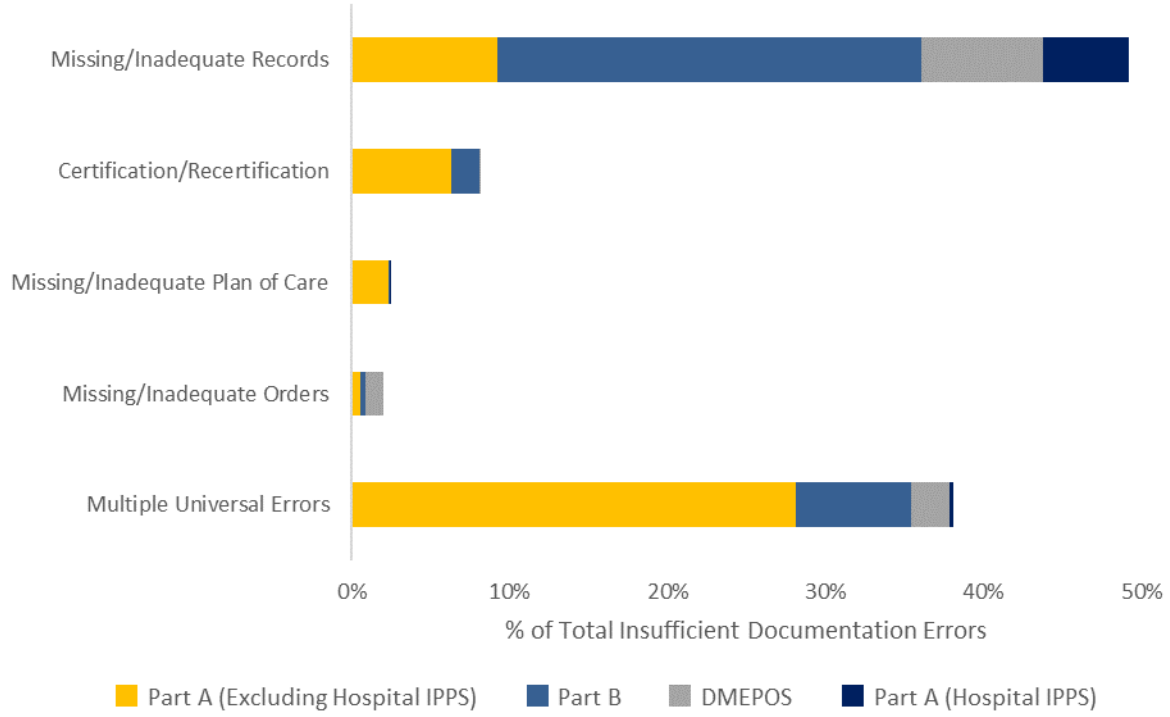
Figure 6: Universal Errors as a Percentage of Improper Payments Due to Insufficient Documentation[10]



[9] 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.

[10] The percentages in this pie chart may not add up to 100 percent due to seven 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[11]



[11] 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[12]

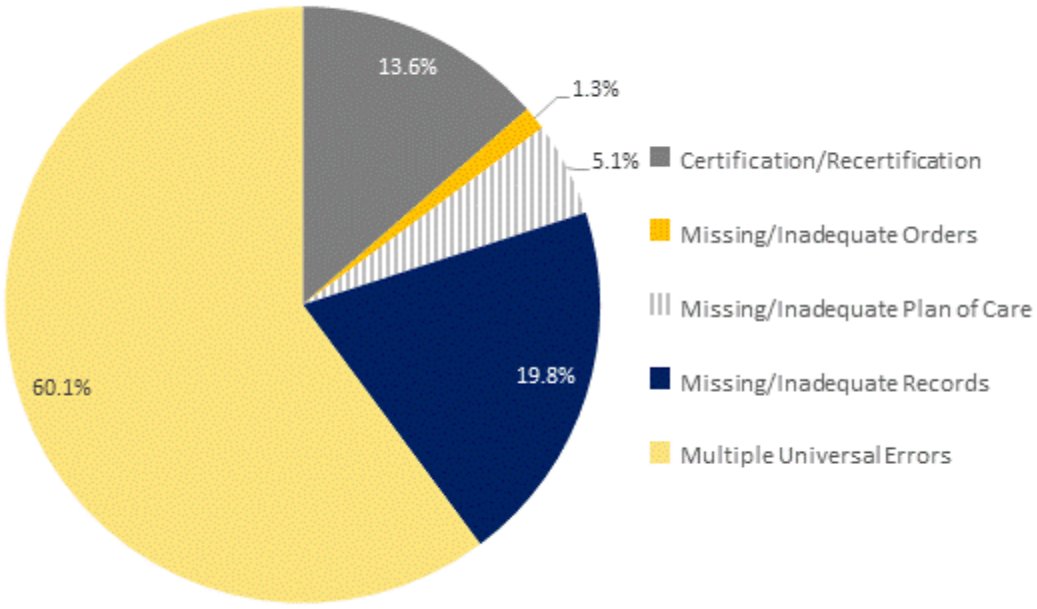


Table 1: Top Root Causes of Insufficient Documentation Errors in Part A (Excluding Hospital IPPS)

Top Root Cause for Part A (Excluding Hospital IPPS)	
Root Cause Description	**Universal Error Name**
Physician's Certification/Recertification - Inadequate	Certification/Recertification
Provider's intent to order (for certain services) - Missing	Missing/Inadequate Records
Order - Missing	Missing/Inadequate Orders
Order - Inadequate	Missing/Inadequate Orders
Documentation to support medical necessity - Missing	Missing/Inadequate Records
All required content of the plan of care - Inadequate	Missing/Inadequate Plan of Care

[12] 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 B

Figure 9: Universal Errors as a Percentage of Part B Improper Payments Due to Insufficient Documentation[13]

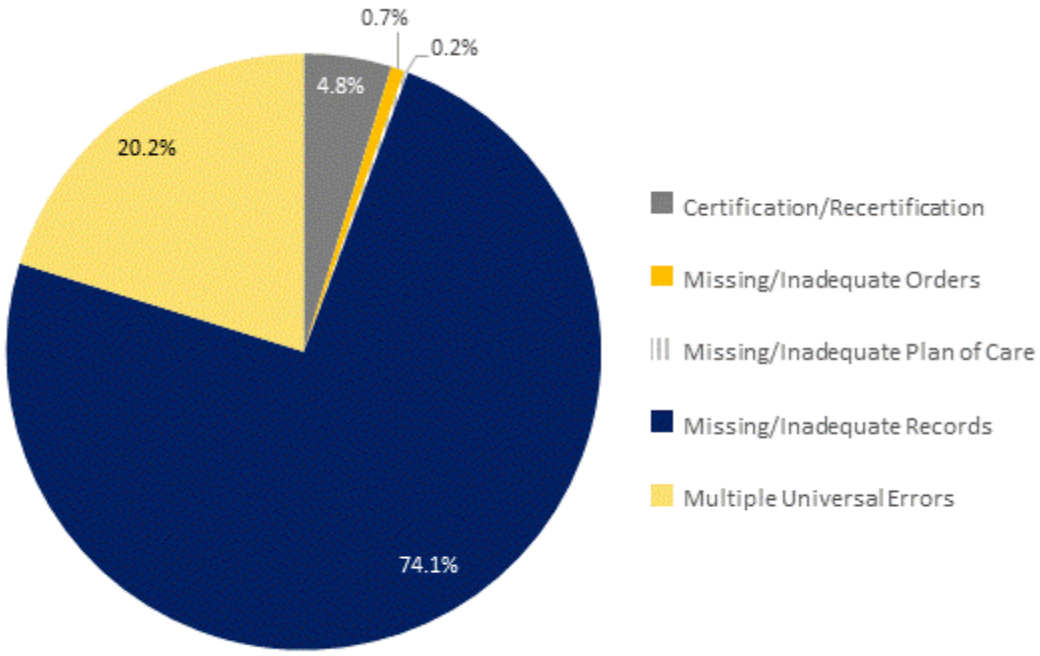


Table 2: Top Root Causes of Insufficient Documentation Errors in Part B

Top Root Cause for Part B	
Root Cause Description	**Universal Error Name**
Documentation to support medical necessity - Missing	Missing/Inadequate Records
Documentation to support the services were provided or other documentation required for payment of the code - Inadequate	Missing/Inadequate Records
Provider's intent to order (for certain services) - Missing	Missing/Inadequate Records
Order - Missing	Missing/Inadequate Orders
Documentation to support the services were provided or other documentation required for payment of the code - Missing	Missing/Inadequate Records
Documentation to support medical necessity - Inadequate	Missing/Inadequate Records

[13] 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.

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

Figure 10: Universal Errors as a Percentage of DMEPOS Improper Payments Due to Insufficient Documentation[14]

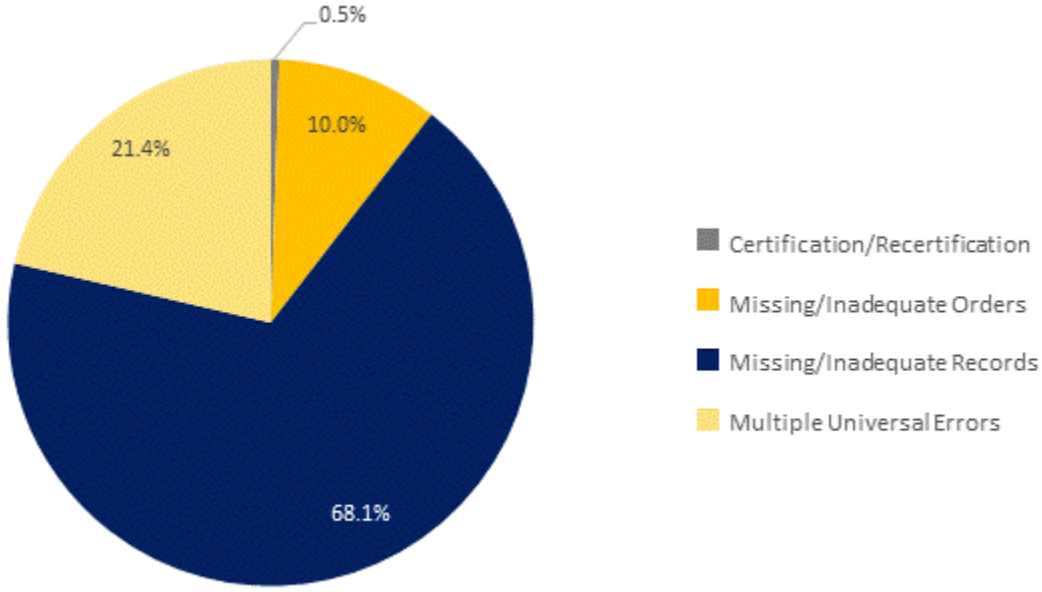


Table 3: Top Root Causes of Insufficient Documentation Errors in DMEPOS

Top Root Cause for DMEPOS	
Root Cause Description	**Universal Error Name**
Order - Inadequate	Missing/Inadequate Orders
Documentation to support coverage criteria - Missing	Missing/Inadequate Records
Documentation to support coverage criteria - Inadequate	Missing/Inadequate Records
Proof of delivery - Inadequate	Missing/Inadequate Records
Proof of delivery - Missing	Missing/Inadequate Records
Order - Missing	Missing/Inadequate Orders

[14] 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.

SUPPLEMENTAL STATISTICAL REPORTING

Appendix A: Summary of Projected Improper Payments Adjusted for A/B Rebill[15]

Table A1: 2020 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
Part A (Total)	30,715	22,000	$297.7	$14.5	4.9%	4.4% - 5.4%	56.4%
Part A (Excluding Hospital IPPS)	9,453	8,514	$177.4	$10.9	6.2%	5.3% - 7.0%	42.4%
Part A (Hospital IPPS)	21,262	13,486	$120.3	$3.6	3.0%	2.7% - 3.3%	14.0%
Part B	17,416	17,000	$104.4	$8.4	8.1%	7.4% - 8.8%	32.8%
DMEPOS	11,426	11,000	$8.7	$2.8	31.8%	29.9% - 33.7%	10.8%
Total	**59,557**	**50,000**	**$410.8**	**$25.7**	**6.3%**	**5.8% - 6.7%**	**100.0%**

Table A2: Comparison of 2019 and 2020 Overall Improper Payment Rates by Error Category (Adjusted for Impact of A/B Rebilling)

Error Category	2019	2020				
	Overall	Overall	Part A Excluding Hospital IPPS	Part A Hospital IPPS	Part B	DMEPOS
No Documentation	0.1%	0.3%	0.1%	0.0%	0.1%	0.1%
Insufficient Documentation	4.3%	4.0%	1.8%	0.3%	1.4%	0.4%
Medical Necessity	1.4%	1.0%	0.6%	0.4%	0.0%	0.0%
Incorrect Coding	1.0%	0.7%	0.1%	0.2%	0.4%	0.0%
Other	0.4%	0.3%	0.2%	0.0%	0.0%	0.1%
Total	**7.3%**	**6.3%**	**2.7%**	**0.9%**	**2.1%**	**0.7%**

[15] Adjusted for Medicare Part A to B rebilling of denied inpatient hospital claims.

Table A3: Improper Payment Rate Categories by Percentage of 2020 Overall Improper Payments (Adjusted for Impact of A/B Rebilling)

Error Category	Percent of Overall Improper Payments
No Documentation	4.4%
Insufficient Documentation	63.1%
Medical Necessity	16.2%
Incorrect Coding	10.9%
Other	5.4%
Total	**100.0%**

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
Part A (Total)	$297.7	$14.5	4.9%	$14.1	4.7%	$0.4	0.1%
Part A (Excluding Hospital IPPS)	$177.4	$10.9	6.2%	$10.9	6.1%	$0.1	0.0%
Part A(Hospital IPPS)	$120.3	$3.6	3.0%	$3.2	2.7%	$0.4	0.3%
Part B	$104.4	$8.4	8.1%	$8.2	7.8%	$0.3	0.2%
DMEPOS	$8.7	$2.8	31.8%	$2.8	31.7%	$0.0	0.1%
Total	**$410.8**	**$25.7**	**6.3%**	**$25.0**	**6.1%**	**$0.7**	**0.2%**

Table A5: 2020 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	$0.3	$0.1	$0.1	$0.0	$0.4	$0.0	$0.1	$1.1
Insufficient Documentation	$1.8	$1.2	$4.0	$2.0	$4.5	$1.4	$1.3	$16.2
Medical Necessity	$0.2	$0.3	$0.2	$3.3	$0.0	$0.0	$0.1	$4.2
Incorrect Coding	$0.0	$0.0	$0.2	$0.7	$1.6	$0.1	$0.2	$2.8
Other	$0.4	$0.1	$0.2	$0.1	$0.1	$0.3	$0.1	$1.4
Total	**$2.8**	**$1.8**	**$4.7**	**$6.1**	**$6.7**	**$1.8**	**$1.8**	**$25.7**

Table A6: Summary of National Improper Payment Rates by Year and by Error Category (Adjusted for Impact of A/B Rebilling)[16]

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[17]	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[18]	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[19]	Gross	0.2%	4.3%	3.0%	1.0%	0.1%	8.6%	91.4%
2012[20]	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%
2020	Gross	0.3%	4.0%	1.0%	0.7%	0.3%	6.3%	93.7%

[16] 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.
[17] FY 1996-2003 Improper payments were calculated as Overpayments - Underpayments
[18] FY 2004-2020 Improper payments were calculated as Overpayments + Underpayments
[19] The FY 2011 improper payment rate reported in this table is adjusted for the prospective impact of late appeals and documentation.
[20] The FY 2012-2020 improper payment rates reported in this table are adjusted for the impact of denied Part A inpatient claims under Part B.

Table A7: 2020 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	11,000	$8.7	$2.8	31.8%	29.9% - 33.7%	10.8%
Home Health & Hospice	2,074	$39.9	$3.2	7.9%	6.7% - 9.2%	12.3%
Parts A & B (Excluding Home Health & Hospice)	36,926	$362.2	$19.8	5.5%	5.0% - 5.9%	76.9%
Total	**50,000**	**$410.8**	**$25.7**	**6.3%**	**5.8% - 6.7%**	**100.0%**

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

Table B1: 2020 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
Part A (Total)	30,715	22,000	$297.7	$15.7	5.3%	4.8% - 5.8%	58.4%
Part A (Excluding Hospital IPPS)	9,453	8,514	$177.4	$10.9	6.2%	5.3% - 7.0%	40.5%
Part A (Hospital IPPS)	21,262	13,486	$120.3	$4.8	4.0%	3.6% - 4.4%	17.8%
Part B	17,416	17,000	$104.4	$8.4	8.1%	7.4% - 8.8%	31.3%
DMEPOS	11,426	11,000	$8.7	$2.8	31.8%	29.9% - 33.7%	10.3%
Total	**59,557**	**50,000**	**$410.8**	**$26.9**	**6.6%**	**6.1% - 7.0%**	**100.0%**

Table B2: Comparison of 2019 and 2020 Overall Improper Payment Rates by Error Category (Unadjusted for Impact of A/B Rebilling)

Error Category	2019	2020				
	Overall	Overall	Part A Excluding Hospital IPPS	Part A Hospital IPPS	Part B	DMEPOS
No Documentation	0.1%	0.3%	0.1%	0.0%	0.1%	0.1%
Insufficient Documentation	4.3%	4.0%	1.8%	0.3%	1.4%	0.4%
Medical Necessity	1.6%	1.3%	0.6%	0.7%	0.0%	0.0%
Incorrect Coding	1.0%	0.7%	0.1%	0.2%	0.4%	0.0%
Other	0.4%	0.3%	0.2%	0.0%	0.0%	0.1%
Total	**7.5%**	**6.6%**	**2.7%**	**1.2%**	**2.1%**	**0.7%**

Table B3: Improper Payment Rate Categories by Percentage of 2020 Overall Improper Payments (Unadjusted for Impact of A/B Rebilling)

Error Category	Percent of Overall Improper Payments
No Documentation	4.2%
Insufficient Documentation	60.3%
Medical Necessity	19.9%
Incorrect Coding	10.4%
Other	5.1%
Total	**100.0%**

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
Part A (Total)	$297.7	$15.7	5.3%	$15.3	5.1%	$0.4	0.1%
Part A (Excluding Hospital IPPS)	$177.4	$10.9	6.2%	$10.9	6.1%	$0.1	0.0%
Part A(Hospital IPPS)	$120.3	$4.8	4.0%	$4.4	3.7%	$0.4	0.3%
Part B	$104.4	$8.4	8.1%	$8.2	7.8%	$0.3	0.2%
DMEPOS	$8.7	$2.8	31.8%	$2.8	31.7%	$0.0	0.1%
Total	**$410.8**	**$26.9**	**6.6%**	**$26.2**	**6.4%**	**$0.7**	**0.2%**

Table B5: 2020 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	$0.3	$0.1	$0.1	$0.0	$0.4	$0.0	$0.1	$1.1
Insufficient Documentation	$1.8	$1.2	$4.0	$2.0	$4.5	$1.4	$1.3	$16.3
Medical Necessity	$0.2	$0.3	$0.2	$4.5	$0.0	$0.0	$0.1	$5.4
Incorrect Coding	$0.0	$0.0	$0.2	$0.7	$1.6	$0.1	$0.2	$2.8
Other	$0.4	$0.1	$0.2	$0.1	$0.1	$0.3	$0.1	$1.4
Total	**$2.8**	**$1.8**	**$4.7**	**$7.3**	**$6.7**	**$1.8**	**$1.8**	**$26.9**

Table B6: Summary of National Improper Payment Rates by Year and by Error Category (Unadjusted for Impact of A/B Rebilling)[21]

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[22]	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[23]	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%
2020	Gross	0.3%	4.0%	1.3%	0.7%	0.3%	6.6%	93.4%

[21] 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.
[22] FY 1996-2003 Improper payments were calculated as Overpayments - Underpayments
[23] FY 2004-2020 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	50,000	6.6%	$26.9	100.0%
Overall Part A(Hospital IPPS)	13,486	4.0%	$4.8	17.8%
0 or 1 day	1,800	19.9%	$1.9	7.0%
2 days	2,174	6.3%	$0.9	3.3%
3 days	2,261	4.6%	$0.8	2.9%
4 days	1,630	2.3%	$0.3	1.2%
5 days	1,141	2.2%	$0.2	0.8%
More than 5 days	4,480	1.3%	$0.7	2.6%

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
CA	4,153	$2,868.4	7.0%	5.9% - 8.2%	10.6%
TX	3,664	$2,555.7	8.4%	6.7% - 10.2%	9.5%
FL	3,552	$1,873.3	6.5%	5.3% - 7.6%	7.0%
TN	1,436	$1,436.5	10.4%	2.7% - 18.2%	5.3%
PA	2,199	$1,189.4	7.0%	5.4% - 8.7%	4.4%
GA	1,456	$1,175.2	11.7%	8.1% - 15.3%	4.4%
OH	1,959	$1,086.6	7.4%	5.8% - 9.0%	4.0%
NY	2,739	$1,009.3	4.0%	2.9% - 5.0%	3.8%
IL	2,066	$900.8	5.4%	3.8% - 7.0%	3.3%
NC	1,728	$870.6	7.5%	5.5% - 9.5%	3.2%
MD	1,112	$815.5	7.8%	2.5% - 13.0%	3.0%
NJ	1,559	$759.7	5.8%	4.0% - 7.5%	2.8%
KY	871	$745.9	13.2%	9.0% - 17.5%	2.8%
MA	1,423	$616.8	4.1%	2.8% - 5.4%	2.3%
MI	1,676	$605.7	4.4%	3.2% - 5.7%	2.3%
AZ	850	$602.0	8.5%	5.8% - 11.1%	2.2%
IN	1,207	$581.5	7.0%	5.0% - 9.0%	2.2%
VA	1,370	$551.2	5.4%	3.9% - 6.8%	2.1%
LA	857	$536.5	8.2%	5.2% - 11.3%	2.0%
MO	1,093	$534.6	6.9%	4.6% - 9.2%	2.0%

State	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
WA	887	$458.5	6.0%	3.2% - 8.8%	1.7%
SC	863	$433.3	7.2%	4.7% - 9.7%	1.6%
AL	813	$414.4	6.4%	4.1% - 8.7%	1.5%
OK	772	$405.5	6.8%	4.3% - 9.2%	1.5%
AR	650	$379.1	8.6%	5.4% - 11.9%	1.4%
KS	613	$337.7	6.4%	3.5% - 9.3%	1.3%
NV	395	$299.9	8.5%	3.3% - 13.6%	1.1%
MS	653	$275.3	5.9%	2.5% - 9.2%	1.0%
CO	660	$264.8	5.9%	3.9% - 7.9%	1.0%
MN	785	$262.5	3.8%	2.0% - 5.6%	1.0%
WI	923	$221.6	3.7%	2.3% - 5.2%	0.8%
PR	81	$205.6	28.7%	15.8% - 41.5%	0.8%
OR	448	$204.7	5.8%	3.3% - 8.4%	0.8%
WV	347	$164.5	6.2%	2.6% - 9.7%	0.6%
IA	588	$164.4	4.7%	2.7% - 6.7%	0.6%
CT	516	$150.2	3.0%	1.2% - 4.8%	0.6%
MT	183	$124.2	8.9%	1.6% - 16.2%	0.5%
NE	355	$109.9	3.1%	0.7% - 5.5%	0.4%
NM	250	$86.9	4.2%	1.1% - 7.3%	0.3%
DE	224	$83.2	5.0%	2.1% - 7.8%	0.3%
ME	242	$81.5	4.7%	0.7% - 8.7%	0.3%
UT	284	$67.6	1.9%	0.6% - 3.3%	0.3%
ID	249	$61.8	3.6%	1.3% - 6.0%	0.2%
NH	288	$58.9	2.5%	0.8% - 4.3%	0.2%
SD	181	$54.0	2.9%	(0.3%) - 6.0%	0.2%
WY	90	$52.9	4.5%	(0.6%) - 9.6%	0.2%
HI	93	$47.9	4.5%	0.1% - 8.8%	0.2%
AK	70	$39.2	6.2%	0.3% - 12.1%	0.2%
DC	92	$35.4	2.4%	(1.1%) - 5.9%	0.1%
RI	130	$28.2	4.0%	(0.1%) - 8.1%	0.1%
VT	141	$25.9	3.3%	0.9% - 5.6%	0.1%
ND	148	$18.1	2.3%	0.2% - 4.3%	0.1%
All States	**50,000**	**$26,938.1**	**6.6%**	**6.1% - 7.0%**	**100.0%**

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	3,106	$2,226.9	6.4%	5.2% - 7.6%	8.3%
TX	2,645	$1,885.6	7.2%	5.4% - 9.1%	7.0%
FL	2,737	$1,457.9	6.0%	4.8% - 7.2%	5.4%
TN	1,099	$1,319.7	10.6%	2.1% - 19.1%	4.9%
GA	1,089	$987.5	11.9%	7.7% - 16.1%	3.7%
OH	1,443	$869.1	6.8%	5.2% - 8.4%	3.2%
PA	1,669	$831.5	5.5%	4.0% - 6.9%	3.1%
NY	2,116	$804.9	3.4%	2.3% - 4.4%	3.0%
MD	860	$732.5	7.5%	1.9% - 13.0%	2.7%
NC	1,243	$709.9	7.0%	4.8% - 9.2%	2.6%
KY	608	$696.4	14.1%	9.3% - 18.9%	2.6%
NJ	1,169	$637.8	5.3%	3.5% - 7.0%	2.4%
MA	1,124	$490.1	3.6%	2.3% - 4.9%	1.8%
MI	1,221	$484.2	4.0%	2.7% - 5.3%	1.8%
AZ	620	$477.4	7.9%	5.1% - 10.7%	1.8%
LA	588	$470.4	8.9%	5.2% - 12.5%	1.8%
IL	1,535	$458.3	3.1%	2.0% - 4.1%	1.7%
MO	818	$422.3	6.0%	3.7% - 8.3%	1.6%
VA	998	$420.8	4.6%	3.1% - 6.1%	1.6%
WA	659	$384.6	5.6%	2.7% - 8.5%	1.4%
AL	557	$368.1	7.2%	4.4% - 10.1%	1.4%
SC	611	$351.7	6.6%	3.9% - 9.2%	1.3%
IN	856	$332.0	4.7%	3.1% - 6.2%	1.2%
AR	442	$266.2	6.8%	3.9% - 9.7%	1.0%
NV	313	$258.9	8.0%	2.6% - 13.5%	1.0%
KS	448	$245.1	5.4%	2.5% - 8.3%	0.9%
CO	456	$224.9	5.9%	3.6% - 8.2%	0.8%
OK	522	$211.2	4.3%	2.6% - 6.1%	0.8%
MS	447	$203.4	4.9%	1.3% - 8.5%	0.8%
PR	70	$201.6	32.0%	17.5% - 46.5%	0.8%
OR	318	$180.7	5.7%	2.9% - 8.4%	0.7%
MN	570	$169.3	2.8%	1.2% - 4.3%	0.6%
WI	691	$167.0	3.2%	1.6% - 4.7%	0.6%

State	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
WV	238	$119.5	4.8%	1.7% - 7.8%	0.4%
MT	128	$112.5	8.6%	0.9% - 16.2%	0.4%
CT	398	$108.9	2.4%	0.7% - 4.2%	0.4%
IA	406	$103.7	3.3%	1.7% - 5.0%	0.4%
NE	265	$93.2	2.8%	0.4% - 5.1%	0.4%
NM	175	$64.5	3.4%	0.5% - 6.2%	0.2%
DE	177	$54.3	3.7%	1.4% - 5.9%	0.2%
SD	150	$53.3	3.0%	(0.4%) - 6.4%	0.2%
UT	209	$51.2	1.6%	0.2% - 3.0%	0.2%
HI	76	$44.9	4.9%	(0.3%) - 10.1%	0.2%
ME	177	$44.3	2.8%	0.6% - 5.0%	0.2%
ID	179	$42.7	2.9%	0.9% - 5.0%	0.2%
NH	209	$41.3	1.9%	0.3% - 3.5%	0.2%
AK	56	$31.3	5.0%	(0.6%) - 10.7%	0.1%
DC	67	$28.6	2.0%	(1.2%) - 5.3%	0.1%
WY	53	$20.1	1.8%	(0.7%) - 4.3%	0.1%
RI	95	$14.0	2.5%	(1.8%) - 6.8%	0.1%
VT	97	$12.0	1.8%	(0.4%) - 4.0%	0.0%
ND	114	$10.6	1.5%	(0.0%) - 3.0%	0.0%
All States	**36,926**	**$21,004.0**	**5.8%**	**5.3% - 6.3%**	**78.0%**

Table B10: Medicare FFS Projected Improper Payments by State – DMEPOS Only (Dollars in Millions) (Unadjusted for Impact of A/B Rebilling)[24]

State	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
CA	844	$236.0	35.9%	29.1% - 42.7%	0.9%
FL	650	$199.9	33.6%	25.1% - 42.2%	0.7%
TX	670	$157.2	28.8%	23.1% - 34.6%	0.6%
IL	455	$131.1	39.0%	31.2% - 46.8%	0.5%
IN	311	$130.1	40.2%	21.8% - 58.5%	0.5%
NY	567	$129.2	36.4%	24.3% - 48.5%	0.5%
NC	433	$128.7	32.6%	23.7% - 41.5%	0.5%
PA	473	$122.6	34.5%	24.2% - 44.7%	0.5%
OH	428	$116.3	39.8%	29.7% - 49.9%	0.4%
TN	292	$100.5	31.5%	16.1% - 46.8%	0.4%
MI	390	$89.7	31.7%	23.5% - 39.8%	0.3%
GA	298	$84.2	35.6%	26.3% - 44.8%	0.3%
VA	329	$73.6	27.0%	19.6% - 34.4%	0.3%
MA	248	$68.8	38.5%	24.0% - 52.9%	0.3%
NJ	354	$66.2	31.5%	24.2% - 38.9%	0.3%
SC	222	$65.3	35.3%	21.7% - 48.8%	0.2%
AZ	197	$55.1	24.3%	10.7% - 38.0%	0.2%
WI	210	$54.6	35.1%	21.4% - 48.9%	0.2%
LA	195	$52.4	41.3%	27.9% - 54.7%	0.2%
MO	244	$51.3	27.0%	15.8% - 38.3%	0.2%
MS	183	$47.1	34.3%	22.2% - 46.5%	0.2%
AL	203	$46.0	29.2%	20.2% - 38.1%	0.2%
KY	232	$43.3	25.6%	16.6% - 34.6%	0.2%
KS	129	$42.8	31.2%	9.7% - 52.8%	0.2%
OK	178	$41.0	29.9%	19.0% - 40.8%	0.2%
MD	229	$39.5	26.6%	17.1% - 36.0%	0.2%
WA	197	$39.3	24.7%	14.5% - 34.9%	0.2%
MN	182	$39.2	33.3%	20.9% - 45.6%	0.2%
CO	186	$37.7	25.2%	15.8% - 34.6%	0.1%
AR	186	$31.9	23.0%	14.1% - 32.0%	0.1%
IA	166	$26.5	24.5%	14.0% - 35.0%	0.1%
NV	74	$24.8	26.2%	(3.2%) - 55.6%	0.1%

[24] 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
WV	105	$24.5	30.1%	16.3% - 43.9%	0.1%
NH	74	$17.6	22.5%	5.0% - 40.0%	0.1%
UT	65	$16.4	33.3%	18.7% - 47.9%	0.1%
CT	98	$16.2	31.8%	14.4% - 49.2%	0.1%
VT	40	$13.9	36.6%	14.6% - 58.7%	0.1%
OR	117	$12.9	13.6%	5.8% - 21.4%	0.1%
NE	79	$12.9	23.6%	6.4% - 40.8%	0.1%
MT	52	$11.6	20.6%	(0.2%) - 41.4%	0.0%
NM	69	$8.6	22.6%	7.6% - 37.5%	0.0%
DE	38	$8.5	35.0%	15.0% - 55.0%	0.0%
ID	61	$6.8	11.9%	(1.7%) - 25.5%	0.0%
ME	62	$6.0	8.1%	(0.7%) - 16.9%	0.0%
WY	33	$5.1	24.3%	2.4% - 46.2%	0.0%
All States (Incl. States Not Listed)	**11,000**	**$2,770.5**	**31.8%**	**29.9% - 33.7%**	**10.3%**

Table B11: Medicare FFS Projected Improper Payments by State – Home Health and Hospice Only (Dollars in Millions) (Unadjusted for Impact of A/B Rebilling)[25]

State	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
TX	349	$512.9	13.8%	9.2% - 18.5%	1.9%
CA	203	$405.5	7.8%	4.2% - 11.3%	1.5%
IL	76	$311.4	22.1%	10.1% - 34.0%	1.2%
PA	57	$235.3	16.8%	6.1% - 27.6%	0.9%
FL	165	$215.4	5.4%	1.6% - 9.3%	0.8%
OK	72	$153.4	15.6%	4.9% - 26.2%	0.6%
IN	40	$119.3	14.8%	3.5% - 26.0%	0.4%
GA	69	$103.4	7.0%	1.4% - 12.6%	0.4%
OH	88	$101.2	6.1%	0.3% - 11.8%	0.4%
NY	56	$75.2	6.4%	0.2% - 12.6%	0.3%
AZ	33	$69.4	8.0%	(0.2%) - 16.2%	0.3%
MO	31	$61.0	10.5%	(2.0%) - 23.0%	0.2%
MA	51	$58.0	5.2%	(1.3%) - 11.7%	0.2%
VA	43	$56.8	6.3%	0.1% - 12.4%	0.2%
NJ	36	$55.7	6.5%	(2.3%) - 15.2%	0.2%
MN	33	$54.0	8.0%	(1.9%) - 18.0%	0.2%
KS	36	$49.8	8.7%	(1.1%) - 18.4%	0.2%
WA	31	$34.6	6.3%	(1.9%) - 14.5%	0.1%
NC	52	$32.1	3.0%	(0.6%) - 6.5%	0.1%
MI	65	$31.8	2.4%	(0.5%) - 5.3%	0.1%
TN	45	$16.3	1.7%	(1.1%) - 4.4%	0.1%
LA	74	$13.7	1.3%	0.0% - 2.5%	0.1%
KY	31	$6.1	1.2%	(0.9%) - 3.2%	0.0%
AL	53	$0.3	0.0%	(0.0%) - 0.1%	0.0%
All States (Incl. States Not Listed)	**2,074**	**$3,163.6**	**7.9%**	**6.7% - 9.2%**	**11.7%**

[25] 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

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	$789,517,310	5.0%	3.8% - 6.2%	9.4%	37.5%	0.1%	50.8%	2.3%	2.9%
Lab tests - other (non-Medicare fee schedule)	$732,547,273	18.9%	14.7% - 23.2%	2.3%	87.4%	4.7%	0.1%	5.6%	2.7%
Minor procedures - other (Medicare fee schedule)	$623,963,987	14.6%	11.6% - 17.5%	5.9%	87.6%	0.9%	0.8%	4.8%	2.3%
Hospital visit - subsequent	$577,805,286	10.5%	9.0% - 12.1%	10.0%	43.3%	0.2%	45.3%	1.2%	2.1%
Specialist - other	$511,832,634	29.0%	22.2% - 35.8%	1.7%	94.3%	0.1%	3.7%	0.2%	1.9%
Hospital visit - initial	$509,891,697	17.6%	15.7% - 19.5%	4.2%	24.2%	0.0%	70.5%	1.1%	1.9%
Office visits - new	$399,356,727	13.0%	10.5% - 15.4%	3.2%	16.0%	0.0%	65.3%	15.5%	1.5%
Ambulance	$349,098,784	7.2%	5.1% - 9.3%	3.2%	62.5%	23.5%	10.8%	0.0%	1.3%
Other drugs	$303,934,305	3.0%	1.0% - 5.0%	10.4%	80.8%	0.8%	2.7%	5.3%	1.1%
Nursing home visit	$278,857,042	12.5%	9.9% - 15.0%	7.4%	40.6%	0.0%	52.0%	0.0%	1.0%
Ambulatory procedures - other	$259,450,541	21.5%	6.8% - 36.3%	2.1%	97.8%	0.0%	0.0%	0.1%	1.0%
Specialist - psychiatry	$226,193,747	16.7%	10.4% - 23.0%	10.2%	84.8%	0.7%	4.3%	0.0%	0.8%
Hospital visit - critical care	$215,362,914	20.1%	14.6% - 25.6%	3.4%	27.7%	0.0%	67.9%	1.0%	0.8%
Chiropractic	$211,029,522	36.1%	30.1% - 42.1%	2.3%	89.2%	3.2%	3.8%	1.5%	0.8%
Other tests - other	$171,254,513	9.3%	6.1% - 12.6%	0.8%	97.4%	0.8%	0.2%	0.8%	0.6%
Ambulatory procedures - skin	$169,372,693	9.1%	3.1% - 15.1%	3.1%	95.7%	1.2%	0.0%	0.0%	0.6%
Emergency room visit	$154,220,155	6.9%	5.0% - 8.7%	12.6%	18.4%	0.0%	69.0%	0.0%	0.6%
Anesthesia	$144,799,170	5.9%	2.4% - 9.4%	22.8%	77.0%	0.0%	0.0%	0.2%	0.5%
Advanced imaging - MRI/MRA: other	$121,071,638	11.1%	(2.8%) - 25.1%	2.6%	97.4%	0.0%	0.0%	0.0%	0.4%
Minor procedures - musculoskeletal	$119,692,669	9.1%	3.5% - 14.8%	2.1%	97.6%	0.0%	0.3%	0.0%	0.4%
All Type of Services (Incl. Codes Not Listed)	**$8,442,387,727**	**8.1%**	**7.4% - 8.8%**	**6.0%**	**68.2%**	**1.9%**	**21.6%**	**2.4%**	**31.3%**

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	$501,651,014	65.7%	58.1% - 73.4%	35.8%	32.3%	25.3%	0.1%	6.5%	1.9%
CPAP	$280,113,096	32.8%	27.6% - 37.9%	0.0%	89.9%	0.6%	0.5%	9.0%	1.0%
Surgical Dressings	$194,901,082	67.3%	59.8% - 74.8%	1.9%	82.4%	1.7%	1.9%	12.2%	0.7%
Lower Limb Prostheses	$179,185,823	29.2%	16.1% - 42.3%	0.2%	84.7%	0.0%	0.0%	15.1%	0.7%
LSO	$177,244,008	35.8%	29.5% - 42.1%	39.8%	47.1%	0.4%	0.0%	12.6%	0.7%
Oxygen Supplies/Equipment	$163,895,671	26.3%	22.6% - 29.9%	0.5%	77.5%	0.8%	0.0%	21.2%	0.6%
Upper Limb Orthoses	$136,046,370	42.3%	34.1% - 50.5%	35.5%	42.3%	7.5%	0.5%	14.2%	0.5%
Glucose Monitor	$103,947,079	34.2%	29.4% - 38.9%	1.5%	72.6%	0.5%	15.1%	10.2%	0.4%
Ventilators	$99,860,921	22.5%	17.9% - 27.0%	6.5%	62.5%	1.0%	0.0%	30.1%	0.4%
Urological Supplies	$89,128,546	21.7%	13.9% - 29.5%	0.1%	75.4%	0.2%	0.4%	23.9%	0.3%
Diabetic Shoes	$82,759,772	68.2%	60.9% - 75.5%	0.4%	72.3%	0.0%	0.0%	27.3%	0.3%
All Policy Groups with Less than 30 Claims	$75,311,599	59.8%	42.8% - 76.9%	19.3%	50.0%	0.3%	0.5%	29.9%	0.3%
Infusion Pumps & Related Drugs	$71,151,425	13.3%	9.6% - 17.0%	0.0%	80.3%	1.0%	1.2%	17.6%	0.3%
Enteral Nutrition	$65,943,420	39.3%	28.6% - 50.0%	0.1%	76.3%	4.4%	1.3%	18.0%	0.2%
Immunosuppressive Drugs	$60,876,944	17.0%	11.4% - 22.6%	6.9%	63.6%	0.2%	1.3%	28.1%	0.2%
Parenteral Nutrition	$53,627,217	31.6%	20.2% - 43.0%	0.0%	64.4%	2.6%	4.1%	28.9%	0.2%
Nebulizers & Related Drugs	$53,041,810	9.3%	6.4% - 12.3%	2.4%	69.8%	0.6%	2.3%	25.0%	0.2%
Ostomy Supplies	$45,146,581	22.1%	16.0% - 28.3%	2.5%	73.5%	5.5%	1.2%	17.2%	0.2%
Negative Pressure Wound Therapy	$37,924,488	36.3%	22.4% - 50.3%	2.7%	48.3%	2.7%	0.0%	46.4%	0.1%
Wheelchairs Manual	$37,135,905	42.5%	28.2% - 56.7%	0.9%	90.1%	0.7%	0.0%	8.3%	0.1%
All Type of Services (Incl. Codes Not Listed)	**$2,770,547,921**	**31.8%**	**29.9% - 33.7%**	**12.4%**	**65.0%**	**5.9%**	**1.1%**	**15.5%**	**10.3%**

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 Outpatient	$2,564,082,113	3.9%	1.9% - 5.8%	2.7%	92.6%	1.5%	2.0%	1.2%	9.5%
Hospital Inpatient (Part A)	$2,532,836,191	23.1%	19.8% - 26.4%	0.1%	29.5%	70.4%	0.0%	0.0%	9.4%
Home Health	$1,760,678,001	9.3%	7.5% - 11.2%	7.7%	68.7%	16.0%	1.2%	6.4%	6.5%
SNF Inpatient	$1,711,136,545	5.6%	4.1% - 7.1%	0.1%	76.3%	0.5%	3.9%	19.2%	6.4%
Nonhospital based hospice	$1,077,015,359	5.6%	3.8% - 7.3%	2.2%	64.3%	13.2%	13.5%	6.7%	4.0%
Hospital based hospice	$325,863,103	20.4%	13.1% - 27.7%	0.0%	90.9%	4.8%	4.4%	0.0%	1.2%
CAH	$255,770,718	3.9%	1.8% - 6.1%	0.0%	90.3%	3.2%	0.4%	6.0%	0.9%
Clinic ESRD	$227,667,163	1.7%	0.6% - 2.8%	0.0%	82.2%	0.0%	0.0%	17.8%	0.8%
Hospital Inpatient Part B	$117,981,803	25.8%	(10.6%) - 62.2%	0.0%	99.5%	0.0%	0.5%	0.0%	0.4%
SNF Inpatient Part B	$110,238,473	3.5%	(0.0%) - 7.1%	0.0%	87.2%	12.8%	0.0%	0.0%	0.4%
Hospital Other Part B	$96,602,232	17.0%	5.9% - 28.0%	0.0%	92.2%	0.0%	0.5%	7.3%	0.4%
Clinic OPT	$42,719,470	8.0%	0.7% - 15.4%	25.3%	45.2%	0.0%	0.0%	29.6%	0.2%
FQHC	$39,606,939	2.7%	(0.4%) - 5.8%	0.0%	93.2%	0.0%	0.0%	6.8%	0.1%
Clinical Rural Health	$31,325,015	2.0%	0.1% - 3.9%	59.2%	34.2%	0.0%	0.0%	6.6%	0.1%
SNF Outpatient	$17,491,036	6.0%	(1.8%) - 13.7%	0.0%	100.0%	0.0%	0.0%	0.0%	0.1%
Clinic CORF	$5,794,925	22.7%	2.8% - 42.5%	0.0%	44.7%	0.0%	0.0%	55.3%	0.0%
All Codes With Less Than 30 Claims	$0	0.0%	0.0% - 0.0%	N/A	N/A	N/A	N/A	N/A	0.0%
All Type of Services (Incl. Codes Not Listed)	**$10,916,809,087**	**6.2%**	**5.3% - 7.0%**	**2.4%**	**68.1%**	**21.0%**	**2.8%**	**5.7%**	**40.5%**

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)	$1,118,538,625	19.4%	15.9% - 22.8%	0.0%	27.2%	72.1%	0.7%	0.0%	4.2%
Endovascular Cardiac Valve Replacement (266, 267)	$293,444,818	15.1%	12.0% - 18.2%	0.0%	97.1%	1.7%	1.2%	0.0%	1.1%
Spinal Fusion Except Cervical (459, 460)	$161,785,171	10.6%	5.9% - 15.4%	0.0%	40.6%	48.6%	10.8%	0.0%	0.6%
Percutaneous Intracardiac Procedures (273, 274)	$126,857,975	22.1%	9.0% - 35.1%	0.0%	100.0%	0.0%	0.0%	0.0%	0.5%
GI Hemorrhage (377, 378, 379)	$119,633,485	6.2%	1.9% - 10.5%	0.0%	0.0%	85.5%	14.5%	0.0%	0.4%
Combined Anterior/Posterior Spinal Fusion (453, 454, 455)	$115,229,716	6.5%	1.7% - 11.3%	0.0%	78.3%	0.0%	21.7%	0.0%	0.4%
Heart Failure & Shock (291, 292, 293)	$112,495,098	2.6%	(0.7%) - 5.8%	0.0%	0.0%	62.4%	37.6%	0.0%	0.4%
Psychoses (885)	$101,936,099	2.9%	1.1% - 4.6%	0.0%	83.6%	8.9%	0.1%	7.4%	0.4%
Cervical Spinal Fusion (471, 472, 473)	$94,443,708	14.0%	5.6% - 22.5%	0.0%	9.5%	90.5%	0.0%	0.0%	0.4%
Major Joint/Limb Reattachment Procedure Of Upper Extremities (483)	$84,846,198	7.8%	2.1% - 13.5%	11.2%	71.3%	17.3%	0.3%	0.0%	0.3%
Chest Pain (313)	$79,189,064	26.9%	13.0% - 40.8%	0.0%	0.0%	100.0%	0.0%	0.0%	0.3%
Simple Pneumonia & Pleurisy (193, 194, 195)	$77,597,337	3.8%	0.5% - 7.1%	0.0%	0.0%	55.8%	19.1%	25.1%	0.3%
Degenerative Nervous System Disorders (056, 057)	$71,674,334	8.5%	5.7% - 11.3%	0.0%	23.7%	67.5%	7.9%	1.0%	0.3%
Cardiac Defibrillator Implant W/O Cardiac Cath (226, 227)	$68,336,017	15.7%	10.5% - 20.9%	0.0%	90.8%	6.8%	0.2%	2.2%	0.3%
Perc Cardiovasc Proc W Drug-Eluting Stent (247)	$66,779,065	4.9%	(0.8%) - 10.5%	0.0%	0.0%	80.1%	0.0%	19.9%	0.2%
Extensive OR Procedure Unrelated To Principal Diagnosis (981, 982, 983)	$64,748,377	4.4%	1.8% - 7.1%	0.0%	1.9%	34.3%	52.7%	11.1%	0.2%
ECMO Or Trach W MV >96 Hrs Or PDX Exc Face, Mouth & Neck (003)	$57,461,308	3.5%	(0.8%) - 7.7%	0.0%	0.0%	0.0%	16.7%	83.3%	0.2%

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	
Kidney & Urinary Tract Infections (689, 690)	$43,457,250	3.1%	(0.1%) - 6.3%	0.0%	0.0%	81.4%	18.6%	0.0%	0.2%
Esophagitis, Gastroent & Misc Digest Disorders (391, 392)	$43,002,778	3.9%	(0.3%) - 8.1%	0.0%	0.0%	90.2%	9.8%	0.0%	0.2%
Other Vascular Procedures (252, 253, 254)	$43,000,304	2.4%	(0.3%) - 5.1%	0.0%	0.0%	99.7%	0.3%	0.0%	0.2%
All Type of Services (Incl. Codes Not Listed)	**$4,808,317,206**	**4.0%**	**3.6% - 4.4%**	**0.6%**	**26.0%**	**57.0%**	**13.7%**	**2.7%**	**17.8%**

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	36.1%	30.1% - 42.1%	2.3%	89.2%	3.2%	3.8%	1.5%	0.8%
Other - non-Medicare fee schedule	34.0%	16.3% - 51.7%	0.0%	99.8%	0.0%	0.2%	0.0%	0.1%
Specialist - other	29.0%	22.2% - 35.8%	1.7%	94.3%	0.1%	3.7%	0.2%	1.9%
Standard imaging - other	25.8%	4.7% - 46.8%	2.2%	97.8%	0.0%	0.0%	0.0%	0.3%
Ambulatory procedures - other	21.5%	6.8% - 36.3%	2.1%	97.8%	0.0%	0.0%	0.1%	1.0%
Other - Medicare fee schedule	21.1%	11.4% - 30.7%	18.2%	55.6%	9.2%	1.0%	16.0%	0.2%
Hospital visit - critical care	20.1%	14.6% - 25.6%	3.4%	27.7%	0.0%	67.9%	1.0%	0.8%
Lab tests - other (non-Medicare fee schedule)	18.9%	14.7% - 23.2%	2.3%	87.4%	4.7%	0.1%	5.6%	2.7%
Undefined codes	18.6%	(3.8%) - 41.0%	11.4%	88.6%	0.0%	0.0%	0.0%	0.2%
Hospital visit - initial	17.6%	15.7% - 19.5%	4.2%	24.2%	0.0%	70.5%	1.1%	1.9%
Specialist - psychiatry	16.7%	10.4% - 23.0%	10.2%	84.8%	0.7%	4.3%	0.0%	0.8%
Home visit	16.1%	3.4% - 28.7%	0.0%	79.3%	0.0%	20.7%	0.0%	0.1%
Standard imaging - chest	15.5%	8.8% - 22.1%	28.6%	67.6%	1.0%	0.0%	2.8%	0.2%
Minor procedures - other (Medicare fee schedule)	14.6%	11.6% - 17.5%	5.9%	87.6%	0.9%	0.8%	4.8%	2.3%
Office visits - new	13.0%	10.5% - 15.4%	3.2%	16.0%	0.0%	65.3%	15.5%	1.5%
Nursing home visit	12.5%	9.9% - 15.0%	7.4%	40.6%	0.0%	52.0%	0.0%	1.0%
Advanced imaging - MRI/MRA: other	11.1%	(2.8%) - 25.1%	2.6%	97.4%	0.0%	0.0%	0.0%	0.4%
Lab tests - blood counts	11.1%	7.4% - 14.9%	0.0%	86.4%	0.0%	13.6%	0.0%	0.1%
Lab tests - urinalysis	11.0%	6.0% - 16.0%	0.0%	96.0%	0.5%	3.5%	0.0%	0.0%
Echography/ultrasonography - other	10.7%	4.5% - 16.9%	9.5%	77.4%	5.2%	7.9%	0.0%	0.3%
Overall (incl. Service Types Not Listed)	**8.1%**	**7.4% - 8.8%**	**6.0%**	**68.2%**	**1.9%**	**21.6%**	**2.4%**	**31.3%**

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	84.7%	59.6% -109.7%	13.6%	76.6%	9.7%	0.0%	0.1%	0.0%
Pneumatic Compression Device	76.4%	64.6% - 88.2%	0.0%	100.0%	0.0%	0.0%	0.0%	0.1%
Other Neuromuscular Stimulators	75.7%	58.7% - 92.7%	18.1%	81.9%	0.0%	0.0%	0.0%	0.0%
Lenses	74.6%	63.9% - 85.4%	1.1%	66.4%	0.0%	0.0%	32.6%	0.1%
Diabetic Shoes	68.2%	60.9% - 75.5%	0.4%	72.3%	0.0%	0.0%	27.3%	0.3%
Surgical Dressings	67.3%	59.8% - 74.8%	1.9%	82.4%	1.7%	1.9%	12.2%	0.7%
Lower Limb Orthoses	65.7%	58.1% - 73.4%	35.8%	32.3%	25.3%	0.1%	6.5%	1.9%
Commodes/Bed Pans/Urinals	63.0%	45.1% - 80.8%	2.2%	80.5%	0.0%	0.0%	17.4%	0.0%
All Policy Groups with Less than 30 Claims	59.8%	42.8% - 76.9%	19.3%	50.0%	0.3%	0.5%	29.9%	0.3%
Support Surfaces	48.5%	24.2% - 72.7%	33.8%	55.8%	0.0%	0.3%	10.1%	0.0%
Suction Pump	45.8%	23.8% - 67.8%	0.0%	87.9%	0.0%	0.0%	12.1%	0.0%
Tracheostomy Supplies	44.9%	23.6% - 66.2%	0.0%	65.6%	0.0%	4.5%	29.9%	0.1%
Wheelchairs Manual	42.5%	28.2% - 56.7%	0.9%	90.1%	0.7%	0.0%	8.3%	0.1%
Upper Limb Orthoses	42.3%	34.1% - 50.5%	35.5%	42.3%	7.5%	0.5%	14.2%	0.5%
Enteral Nutrition	39.3%	28.6% - 50.0%	0.1%	76.3%	4.4%	1.3%	18.0%	0.2%
Negative Pressure Wound Therapy	36.3%	22.4% - 50.3%	2.7%	48.3%	2.7%	0.0%	46.4%	0.1%
LSO	35.8%	29.5% - 42.1%	39.8%	47.1%	0.4%	0.0%	12.6%	0.7%
Hospital Beds/Accessories	35.7%	25.4% - 46.1%	0.0%	80.9%	0.0%	3.7%	15.3%	0.1%
Glucose Monitor	34.2%	29.4% - 38.9%	1.5%	72.6%	0.5%	15.1%	10.2%	0.4%
CPAP	32.8%	27.6% - 37.9%	0.0%	89.9%	0.6%	0.5%	9.0%	1.0%
Overall (incl. Service Types Not Listed)	**31.8%**	**29.9% - 33.7%**	**12.4%**	**65.0%**	**5.9%**	**1.1%**	**15.5%**	**10.3%**

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	
Hospital Inpatient Part B	25.8%	(10.6%) - 62.2%	0.0%	99.5%	0.0%	0.5%	0.0%	0.4%
Hospital Inpatient (Part A)	23.1%	19.8% - 26.4%	0.1%	29.5%	70.4%	0.0%	0.0%	9.4%
Clinic CORF	22.7%	2.8% - 42.5%	0.0%	44.7%	0.0%	0.0%	55.3%	0.0%
Hospital based hospice	20.4%	13.1% - 27.7%	0.0%	90.9%	4.8%	4.4%	0.0%	1.2%
Hospital Other Part B	17.0%	5.9% - 28.0%	0.0%	92.2%	0.0%	0.5%	7.3%	0.4%
Home Health	9.3%	7.5% - 11.2%	7.7%	68.7%	16.0%	1.2%	6.4%	6.5%
Clinic OPT	8.0%	0.7% - 15.4%	25.3%	45.2%	0.0%	0.0%	29.6%	0.2%
SNF Outpatient	6.0%	(1.8%) - 13.7%	0.0%	100.0%	0.0%	0.0%	0.0%	0.1%
SNF Inpatient	5.6%	4.1% - 7.1%	0.1%	76.3%	0.5%	3.9%	19.2%	6.4%
Nonhospital based hospice	5.6%	3.8% - 7.3%	2.2%	64.3%	13.2%	13.5%	6.7%	4.0%
CAH	3.9%	1.8% - 6.1%	0.0%	90.3%	3.2%	0.4%	6.0%	0.9%
Hospital Outpatient	3.9%	1.9% - 5.8%	2.7%	92.6%	1.5%	2.0%	1.2%	9.5%
SNF Inpatient Part B	3.5%	(0.0%) - 7.1%	0.0%	87.2%	12.8%	0.0%	0.0%	0.4%
FQHC	2.7%	(0.4%) - 5.8%	0.0%	93.2%	0.0%	0.0%	6.8%	0.1%
Clinical Rural Health	2.0%	0.1% - 3.9%	59.2%	34.2%	0.0%	0.0%	6.6%	0.1%
Clinic ESRD	1.7%	0.6% - 2.8%	0.0%	82.2%	0.0%	0.0%	17.8%	0.8%
All Codes With Less Than 30 Claims	0.0%	0.0% - 0.0%	N/A	N/A	N/A	N/A	N/A	0.0%
Overall (incl. Service Types Not Listed)	**6.2%**	**5.3% - 7.0%**	**2.4%**	**68.1%**	**21.0%**	**2.8%**	**5.7%**	**40.5%**

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	
Chest Pain (313)	26.9%	13.0% - 40.8%	0.0%	0.0%	100.0%	0.0%	0.0%	0.3%
Dysequilibrium (149)	23.6%	13.9% - 33.2%	5.9%	0.0%	90.7%	3.4%	0.0%	0.1%
Percutaneous Intracardiac Procedures (273, 274)	22.1%	9.0% - 35.1%	0.0%	100.0%	0.0%	0.0%	0.0%	0.5%
Bone Diseases & Arthropathies (553, 554)	20.6%	6.4% - 34.8%	0.0%	0.0%	100.0%	0.0%	0.0%	0.1%
Major Hip And Knee Joint Replacement Or Reattachment Of Lower Extremity (469, 470)	19.4%	15.9% - 22.8%	0.0%	27.2%	72.1%	0.7%	0.0%	4.2%
Transient Ischemia W/O Thrombolytic (069)	15.8%	4.0% - 27.5%	0.0%	0.0%	100.0%	0.0%	0.0%	0.1%
Cardiac Defibrillator Implant W/O Cardiac Cath (226, 227)	15.7%	10.5% - 20.9%	0.0%	90.8%	6.8%	0.2%	2.2%	0.3%
Bilateral Or Multiple Major Joint Procs Of Lower Extremity (461, 462)	15.7%	8.2% - 23.2%	0.0%	35.8%	64.2%	0.0%	0.0%	0.1%
Endovascular Cardiac Valve Replacement (266, 267)	15.1%	12.0% - 18.2%	0.0%	97.1%	1.7%	1.2%	0.0%	1.1%
Uterine & Adnexa Proc For Non-Malignancy (742, 743)	15.0%	7.0% - 23.0%	0.0%	3.7%	95.3%	0.0%	1.0%	0.0%
Aftercare, Musculoskeletal System & Connective Tissue (559, 560, 561)	14.2%	4.8% - 23.6%	0.0%	40.5%	56.1%	3.4%	0.0%	0.1%
Cervical Spinal Fusion (471, 472, 473)	14.0%	5.6% - 22.5%	0.0%	9.5%	90.5%	0.0%	0.0%	0.4%
Signs & Symptoms Of Musculoskeletal System & Conn Tissue (555, 556)	13.0%	6.0% - 20.0%	0.0%	6.9%	86.3%	0.0%	6.8%	0.0%
Fx, Sprn, Strn & Disl Except Femur, Hip, Pelvis & Thigh (562, 563)	12.8%	4.4% - 21.1%	0.0%	0.0%	97.2%	2.8%	0.0%	0.1%
Cranial & Peripheral Nerve Disorders (073, 074)	12.6%	3.6% - 21.7%	0.0%	0.0%	100.0%	0.0%	0.0%	0.1%
Other Musculoskelet Sys & Conn Tiss OR Proc (515, 516, 517)	12.4%	5.4% - 19.4%	0.0%	18.8%	77.3%	1.8%	2.0%	0.2%
Back & Neck Proc Exc Spinal Fusion (518, 519, 520)	12.3%	8.5% - 16.1%	2.4%	11.3%	75.0%	9.7%	1.5%	0.1%
Other Circulatory System OR Procedures (264)	11.2%	1.7% - 20.7%	0.0%	0.0%	27.8%	52.4%	19.9%	0.1%
Trauma To The Skin, Subcut Tiss & Breast (604, 605)	10.8%	4.5% - 17.0%	0.0%	0.0%	98.7%	1.3%	0.0%	0.0%
Spinal Fusion Except Cervical (459, 460)	10.6%	5.9% - 15.4%	0.0%	40.6%	48.6%	10.8%	0.0%	0.6%
Overall (incl. Service Types Not Listed)	**4.0%**	**3.6% - 4.4%**	**0.6%**	**26.0%**	**57.0%**	**13.7%**	**2.7%**	**17.8%**

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
Lower Limb Orthoses	$179,828,456	23.6%	14.5% - 32.6%	0.7%
Home Health	$135,400,927	0.7%	(0.1%) - 1.5%	0.5%
Office visits - established	$73,966,152	0.5%	0.0% - 0.9%	0.3%
LSO	$70,601,491	14.3%	8.9% - 19.6%	0.3%
Hospital Outpatient	$69,922,689	0.1%	0.0% - 0.2%	0.3%
Hospital visit - subsequent	$57,859,101	1.1%	0.3% - 1.8%	0.2%
Upper Limb Orthoses	$48,361,200	15.0%	8.0% - 22.1%	0.2%
Minor procedures - other (Medicare fee schedule)	$37,090,650	0.9%	(0.0%) - 1.8%	0.1%
Anesthesia	$33,060,548	1.3%	(0.5%) - 3.2%	0.1%
Other drugs	$31,694,194	0.3%	0.1% - 0.6%	0.1%
Nonhospital based hospice	$24,057,126	0.1%	(0.0%) - 0.3%	0.1%
Specialist - psychiatry	$23,041,333	1.7%	(1.2%) - 4.6%	0.1%
Hospital visit - initial	$21,445,755	0.7%	0.2% - 1.3%	0.1%
Nursing home visit	$20,653,808	0.9%	0.1% - 1.7%	0.1%
Emergency room visit	$19,432,003	0.9%	(0.0%) - 1.8%	0.1%
Clinical Rural Health	$18,541,334	1.2%	(0.4%) - 2.8%	0.1%
Lab tests - other (non-Medicare fee schedule)	$16,837,600	0.4%	0.1% - 0.7%	0.1%
Dialysis services (Medicare Fee Schedule)	$15,426,970	1.9%	(0.2%) - 4.0%	0.1%
All Policy Groups with Less than 30 Claims	$14,519,727	11.5%	(5.7%) - 28.8%	0.1%
Standard imaging - chest	$13,074,310	4.4%	0.1% - 8.8%	0.0%
Overall (Incl. Codes Not Listed)	**$1,138,901,660**	**0.3%**	**0.2% - 0.3%**	**4.2%**

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	$2,374,958,962	3.6%	1.7% - 5.5%	8.8%
SNF Inpatient	$1,306,136,415	4.3%	2.9% - 5.6%	4.8%
Home Health	$1,209,687,532	6.4%	4.9% - 7.9%	4.5%
Hospital Inpatient (Part A)	$747,812,897	6.8%	4.6% - 9.1%	2.8%
Nonhospital based hospice	$692,743,148	3.6%	2.2% - 5.0%	2.6%
Lab tests - other (non-Medicare fee schedule)	$640,129,763	16.5%	12.6% - 20.4%	2.4%
Minor procedures - other (Medicare fee schedule)	$546,293,578	12.8%	10.0% - 15.5%	2.0%
Specialist - other	$482,485,134	27.3%	20.5% - 34.2%	1.8%
Major Hip And Knee Joint Replacement Or Reattachment Of Lower Extremity (469, 470)	$304,665,802	5.3%	3.2% - 7.3%	1.1%
Hospital based hospice	$296,050,584	18.5%	11.4% - 25.6%	1.1%
Office visits - established	$295,804,199	1.9%	1.0% - 2.8%	1.1%
Endovascular Cardiac Valve Replacement (266, 267)	$285,059,691	14.7%	11.6% - 17.7%	1.1%
Ambulatory procedures - other	$253,804,067	21.1%	6.3% - 35.8%	0.9%
CPAP	$251,808,935	29.4%	24.5% - 34.4%	0.9%
Hospital visit - subsequent	$249,987,856	4.6%	3.3% - 5.8%	0.9%
Other drugs	$245,636,889	2.4%	0.5% - 4.3%	0.9%
CAH	$231,066,489	3.6%	1.5% - 5.6%	0.9%
Ambulance	$218,113,710	4.5%	2.6% - 6.4%	0.8%
Specialist - psychiatry	$191,898,455	14.2%	8.4% - 19.9%	0.7%
Chiropractic	$188,205,877	32.2%	26.0% - 38.4%	0.7%
Overall (Incl. Codes Not Listed)	**$16,247,644,733**	**4.0%**	**3.6% - 4.3%**	**60.3%**

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)	$1,783,024,686	16.3%	13.5% - 19.0%	6.6%
Major Hip And Knee Joint Replacement Or Reattachment Of Lower Extremity (469, 470)	$806,239,113	14.0%	10.9% - 17.0%	3.0%
Home Health	$282,086,023	1.5%	0.9% - 2.1%	1.0%
Nonhospital based hospice	$142,592,606	0.7%	(0.1%) - 1.5%	0.5%
Lower Limb Orthoses	$126,874,658	16.6%	9.5% - 23.7%	0.5%
GI Hemorrhage (377, 378, 379)	$102,307,286	5.3%	1.1% - 9.5%	0.4%
Cervical Spinal Fusion (471, 472, 473)	$85,483,287	12.7%	4.6% - 20.7%	0.3%
Ambulance	$81,978,434	1.7%	0.9% - 2.5%	0.3%
Chest Pain (313)	$79,189,064	26.9%	13.0% - 40.8%	0.3%
Spinal Fusion Except Cervical (459, 460)	$78,599,524	5.2%	1.9% - 8.4%	0.3%
Heart Failure & Shock (291, 292, 293)	$70,223,367	1.6%	(1.5%) - 4.7%	0.3%
Perc Cardiovasc Proc W Drug-Eluting Stent (247)	$53,501,236	3.9%	(1.4%) - 9.2%	0.2%
Degenerative Nervous System Disorders (056, 057)	$48,358,480	5.7%	3.4% - 8.1%	0.2%
Simple Pneumonia & Pleurisy (193, 194, 195)	$43,271,991	2.1%	(0.8%) - 5.0%	0.2%
Other Vascular Procedures (252, 253, 254)	$42,888,957	2.4%	(0.3%) - 5.1%	0.2%
Hospital Outpatient	$39,516,166	0.1%	(0.0%) - 0.1%	0.1%
Esophagitis, Gastroent & Misc Digest Disorders (391, 392)	$38,806,913	3.5%	(0.7%) - 7.7%	0.1%
Kidney & Urinary Tract Infections (689, 690)	$35,389,566	2.5%	(0.6%) - 5.7%	0.1%
Lab tests - other (non-Medicare fee schedule)	$34,224,511	0.9%	0.4% - 1.4%	0.1%
Other Musculoskelet Sys & Conn Tiss OR Proc (515, 516, 517)	$32,777,664	9.6%	3.4% - 15.8%	0.1%
Overall (Incl. Codes Not Listed)	**$5,355,295,147**	**1.3%**	**1.2% - 1.4%**	**19.9%**

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	$400,904,077	2.5%	2.0% - 3.1%	1.5%
Hospital visit - initial	$359,558,362	12.4%	11.0% - 13.8%	1.3%
Hospital visit - subsequent	$261,660,573	4.8%	4.1% - 5.4%	1.0%
Office visits - new	$260,603,679	8.5%	6.8% - 10.1%	1.0%
Hospital visit - critical care	$146,192,383	13.6%	8.5% - 18.8%	0.5%
Nonhospital based hospice	$145,253,922	0.7%	0.3% - 1.2%	0.5%
Nursing home visit	$145,042,842	6.5%	5.3% - 7.7%	0.5%
Emergency room visit	$106,443,883	4.7%	3.5% - 6.0%	0.4%
SNF Inpatient	$67,482,088	0.2%	0.0% - 0.4%	0.3%
Hospital Outpatient	$50,192,652	0.1%	0.0% - 0.1%	0.2%
Heart Failure & Shock (291, 292, 293)	$42,271,731	1.0%	(0.1%) - 2.0%	0.2%
Septicemia Or Severe Sepsis W/O MV >96 Hours (871, 872)	$37,967,730	0.4%	0.0% - 0.8%	0.1%
Ambulance	$37,741,259	0.8%	0.3% - 1.2%	0.1%
Extensive OR Procedure Unrelated To Principal Diagnosis (981, 982, 983)	$34,136,491	2.3%	0.3% - 4.3%	0.1%
Intracranial Hemorrhage Or Cerebral Infarction (064, 065, 066)	$26,660,954	1.8%	(0.0%) - 3.6%	0.1%
Combined Anterior/Posterior Spinal Fusion (453, 454, 455)	$25,002,005	1.4%	(0.0%) - 2.9%	0.1%
Coronary Bypass W/O Cardiac Cath (235, 236)	$22,492,881	2.8%	(2.6%) - 8.2%	0.1%
Home Health	$21,219,616	0.1%	0.0% - 0.2%	0.1%
Dialysis services (Medicare Fee Schedule)	$19,224,213	2.3%	1.0% - 3.7%	0.1%
Specialist - other	$19,064,064	1.1%	(0.2%) - 2.3%	0.1%
Overall (Incl. Codes Not Listed)	**$2,811,363,779**	**0.7%**	**0.6% - 0.7%**	**10.4%**

Table F5: Top 20 Types of Services with Downcoding[26] Errors

Medicare FFS Services	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
Office visits - established	$124,401,400	0.8%	0.5% - 1.1%	0.5%
Heart Failure & Shock (291, 292, 293)	$37,376,820	0.8%	(0.2%) - 1.9%	0.1%
Septicemia Or Severe Sepsis W/O MV >96 Hours (871, 872)	$27,553,983	0.3%	(0.0%) - 0.6%	0.1%
Intracranial Hemorrhage Or Cerebral Infarction (064, 065, 066)	$25,480,974	1.7%	(0.1%) - 3.5%	0.1%
Nursing home visit	$24,593,935	1.1%	0.5% - 1.7%	0.1%
Office visits - new	$23,701,372	0.8%	0.1% - 1.4%	0.1%
Hospital Outpatient	$23,632,102	0.0%	(0.0%) - 0.1%	0.1%
Hospital visit - subsequent	$20,544,168	0.4%	0.2% - 0.6%	0.1%
Combined Anterior/Posterior Spinal Fusion (453, 454, 455)	$17,671,280	1.0%	(0.4%) - 2.4%	0.1%
Extensive OR Procedure Unrelated To Principal Diagnosis (981, 982, 983)	$17,130,977	1.2%	(0.4%) - 2.7%	0.1%
Permanent Cardiac Pacemaker Implant (242, 243, 244)	$16,807,674	1.4%	(1.0%) - 3.7%	0.1%
Hospital visit - initial	$13,094,114	0.5%	0.0% - 0.9%	0.0%
Chronic Obstructive Pulmonary Disease (190, 191, 192)	$11,735,996	0.7%	0.0% - 1.4%	0.0%
Simple Pneumonia & Pleurisy (193, 194, 195)	$10,963,328	0.5%	(0.1%) - 1.2%	0.0%
Other Digestive System Diagnoses (393, 394, 395)	$10,790,629	2.0%	(1.4%) - 5.4%	0.0%
Traumatic Stupor & Coma, Coma >1 Hr (082, 083, 084)	$10,173,604	4.7%	(4.3%) - 13.7%	0.0%
Renal Failure (682, 683, 684)	$9,662,462	0.5%	(0.3%) - 1.2%	0.0%
Craniotomy & Endovascular Intracranial Procedures (025, 026, 027)	$8,537,826	0.8%	(0.8%) - 2.5%	0.0%
Extracranial Procedures (037, 038, 039)	$8,516,830	2.8%	(1.2%) - 6.7%	0.0%
Seizures (100, 101)	$8,127,507	1.3%	(1.2%) - 3.8%	0.0%
Overall (Incl. Codes Not Listed)	**$657,390,139**	**0.2%**	**0.1% - 0.2%**	**2.4%**

[26] 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	$327,801,233	1.1%	0.4% - 1.7%	1.2%
Home Health	$112,283,903	0.6%	0.1% - 1.1%	0.4%
Nonhospital based hospice	$72,368,558	0.4%	(0.1%) - 0.9%	0.3%
Office visits - new	$61,870,301	2.0%	0.6% - 3.4%	0.2%
ECMO Or Trach W MV >96 Hrs Or PDX Exc Face, Mouth & Neck (003)	$47,868,925	2.9%	(1.2%) - 7.0%	0.2%
Lab tests - other (non-Medicare fee schedule)	$40,692,458	1.1%	(0.5%) - 2.6%	0.2%
Clinic ESRD	$40,547,996	0.3%	(0.2%) - 0.8%	0.2%
Oxygen Supplies/Equipment	$34,815,533	5.6%	3.7% - 7.5%	0.1%
Lower Limb Orthoses	$32,789,956	4.3%	0.6% - 8.0%	0.1%
Ventilators	$30,027,142	6.8%	4.0% - 9.5%	0.1%
Minor procedures - other (Medicare fee schedule)	$29,712,483	0.7%	(0.0%) - 1.4%	0.1%
Hospital Outpatient	$29,491,644	0.0%	(0.0%) - 0.1%	0.1%
Lower Limb Prostheses	$27,052,804	4.4%	(0.8%) - 9.6%	0.1%
CPAP	$25,189,620	2.9%	1.2% - 4.7%	0.1%
Surgical Dressings	$23,706,711	8.2%	4.2% - 12.2%	0.1%
Diabetic Shoes	$22,554,105	18.6%	12.9% - 24.2%	0.1%
All Policy Groups with Less than 30 Claims	$22,525,646	17.9%	(4.0%) - 39.8%	0.1%
LSO	$22,302,744	4.5%	2.1% - 6.9%	0.1%
Urological Supplies	$21,258,042	5.2%	(0.1%) - 10.5%	0.1%
Simple Pneumonia & Pleurisy (193, 194, 195)	$19,467,037	1.0%	(0.7%) - 2.6%	0.1%
Overall (Incl. Codes Not Listed)	**$1,384,856,621**	**0.3%**	**0.3% - 0.4%**	**5.1%**

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	1,385	$789,517,310	5.0%	3.8% - 6.2%	2.9%
Lab tests - other (non-Medicare fee schedule)	2,032	$732,547,273	18.9%	14.7% - 23.2%	2.7%
Minor procedures - other (Medicare fee schedule)	1,391	$623,963,987	14.6%	11.6% - 17.5%	2.3%
Hospital visit - subsequent	1,775	$577,805,286	10.5%	9.0% - 12.1%	2.1%
Specialist - other	1,075	$511,832,634	29.0%	22.2% - 35.8%	1.9%
Hospital visit - initial	969	$509,891,697	17.6%	15.7% - 19.5%	1.9%
Office visits - new	551	$399,356,727	13.0%	10.5% - 15.4%	1.5%
Ambulance	806	$349,098,784	7.2%	5.1% - 9.3%	1.3%
Other drugs	1,020	$303,934,305	3.0%	1.0% - 5.0%	1.1%
Nursing home visit	731	$278,857,042	12.5%	9.9% - 15.0%	1.0%
Ambulatory procedures - other	455	$259,450,541	21.5%	6.8% - 36.3%	1.0%
Specialist - psychiatry	813	$226,193,747	16.7%	10.4% - 23.0%	0.8%
Hospital visit - critical care	274	$215,362,914	20.1%	14.6% - 25.6%	0.8%
Chiropractic	376	$211,029,522	36.1%	30.1% - 42.1%	0.8%
All Codes With Less Than 30 Claims	425	$185,468,657	2.8%	0.0% - 5.6%	0.7%
Other tests - other	752	$171,254,513	9.3%	6.1% - 12.6%	0.6%
Ambulatory procedures - skin	203	$169,372,693	9.1%	3.1% - 15.1%	0.6%
Emergency room visit	440	$154,220,155	6.9%	5.0% - 8.7%	0.6%
Anesthesia	344	$144,799,170	5.9%	2.4% - 9.4%	0.5%
Advanced imaging - MRI/MRA: other	173	$121,071,638	11.1%	(2.8%) - 25.1%	0.4%
Minor procedures - musculoskeletal	277	$119,692,669	9.1%	3.5% - 14.8%	0.4%
Eye procedure - cataract removal/lens insertion	209	$111,696,441	6.0%	2.5% - 9.5%	0.4%
Dialysis services (Medicare Fee Schedule)	143	$86,780,049	10.6%	5.1% - 16.0%	0.3%
Standard imaging - other	166	$73,431,532	25.8%	4.7% - 46.8%	0.3%
Echography/ultrasonography - other	197	$73,357,574	10.7%	4.5% - 16.9%	0.3%
Specialist - ophthalmology	480	$72,654,284	3.1%	1.5% - 4.6%	0.3%
Oncology - radiation therapy	59	$68,533,297	5.6%	0.9% - 10.3%	0.3%
Advanced imaging - CAT/CT/CTA: other	281	$67,819,288	5.1%	2.4% - 7.7%	0.3%
Major procedure - Other	166	$62,752,278	3.2%	(0.4%) - 6.8%	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	153	$61,154,792	7.0%	2.3% - 11.8%	0.2%
Lab tests - other (Medicare fee schedule)	178	$58,608,055	4.3%	0.7% - 7.8%	0.2%
Minor procedures - skin	299	$58,453,247	5.7%	2.8% - 8.5%	0.2%
Other - Medicare fee schedule	551	$54,912,652	21.1%	11.4% - 30.7%	0.2%
Undefined codes	763	$52,987,923	18.6%	(3.8%) - 41.0%	0.2%
Standard imaging - musculoskeletal	355	$47,972,066	10.5%	6.0% - 15.1%	0.2%
Standard imaging - chest	335	$45,749,401	15.5%	8.8% - 22.1%	0.2%
Lab tests - automated general profiles	419	$33,441,512	9.3%	5.9% - 12.6%	0.1%
Home visit	87	$32,518,305	16.1%	3.4% - 28.7%	0.1%
Advanced imaging - MRI/MRA: brain/head/neck	35	$30,826,298	10.4%	0.6% - 20.2%	0.1%
Other tests - electrocardiograms	408	$30,662,861	9.1%	5.3% - 13.0%	0.1%
Lab tests - blood counts	352	$28,081,338	11.1%	7.4% - 14.9%	0.1%
Advanced imaging - CAT/CT/CTA: brain/head/neck	127	$26,694,952	6.6%	2.5% - 10.7%	0.1%
Endoscopy - colonoscopy	70	$22,950,718	2.7%	(1.0%) - 6.5%	0.1%
Standard imaging - nuclear medicine	193	$22,644,981	0.8%	(0.2%) - 1.9%	0.1%
Other tests - EKG monitoring	40	$21,462,804	6.4%	(4.4%) - 17.2%	0.1%
Endoscopy - upper gastrointestinal	126	$18,707,917	3.6%	0.0% - 7.3%	0.1%
Eye procedure - other	196	$18,637,998	1.4%	(0.7%) - 3.5%	0.1%
Other - non-Medicare fee schedule	72	$16,461,413	34.0%	16.3% - 51.7%	0.1%
Echography/ultrasonography - carotid arteries	106	$15,095,560	5.7%	1.2% - 10.3%	0.1%
Standard imaging - breast	119	$11,490,732	1.9%	0.1% - 3.7%	0.0%
Lab tests - routine venipuncture (non-Medicare fee schedule)	463	$11,272,838	10.5%	7.1% - 13.8%	0.0%
Echography/ultrasonography - abdomen/pelvis	70	$8,794,113	4.5%	0.2% - 8.7%	0.0%
Major procedure, orthopedic - Hip replacement	103	$8,327,753	4.0%	(0.4%) - 8.4%	0.0%
Other tests - cardiovascular stress tests	91	$7,156,774	6.7%	(0.2%) - 13.5%	0.0%
Lab tests - bacterial cultures	91	$6,068,934	7.3%	1.5% - 13.2%	0.0%
Lab tests - urinalysis	202	$4,976,196	11.0%	6.0% - 16.0%	0.0%
Oncology - other	538	$4,153,585	1.4%	0.3% - 2.5%	0.0%
No Service Code	31	$3,441,703	0.8%	(0.5%) - 2.1%	0.0%
Imaging/procedure - other	133	$2,820,184	1.4%	(0.1%) - 3.0%	0.0%
Immunizations/Vaccinations	366	$2,383,064	0.1%	0.0% - 0.3%	0.0%
Major procedure, cardiovascular-Other	65	$1,731,049	0.1%	(0.2%) - 0.4%	0.0%
All Type of Services (Incl. Codes Not Listed)	**17,000**	**$8,442,387,727**	**8.1%**	**7.4% - 8.8%**	**31.3%**

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	794	$501,651,014	65.7%	58.1% - 73.4%	1.9%
CPAP	825	$280,113,096	32.8%	27.6% - 37.9%	1.0%
Surgical Dressings	461	$194,901,082	67.3%	59.8% - 74.8%	0.7%
Lower Limb Prostheses	383	$179,185,823	29.2%	16.1% - 42.3%	0.7%
LSO	443	$177,244,008	35.8%	29.5% - 42.1%	0.7%
Oxygen Supplies/Equipment	829	$163,895,671	26.3%	22.6% - 29.9%	0.6%
Upper Limb Orthoses	301	$136,046,370	42.3%	34.1% - 50.5%	0.5%
Glucose Monitor	924	$103,947,079	34.2%	29.4% - 38.9%	0.4%
Ventilators	352	$99,860,921	22.5%	17.9% - 27.0%	0.4%
Urological Supplies	390	$89,128,546	21.7%	13.9% - 29.5%	0.3%
Diabetic Shoes	401	$82,759,772	68.2%	60.9% - 75.5%	0.3%
All Policy Groups with Less than 30 Claims	160	$75,311,599	59.8%	42.8% - 76.9%	0.3%
Infusion Pumps & Related Drugs	558	$71,151,425	13.3%	9.6% - 17.0%	0.3%
Enteral Nutrition	259	$65,943,420	39.3%	28.6% - 50.0%	0.2%
Immunosuppressive Drugs	543	$60,876,944	17.0%	11.4% - 22.6%	0.2%
Parenteral Nutrition	123	$53,627,217	31.6%	20.2% - 43.0%	0.2%
Nebulizers & Related Drugs	1,150	$53,041,810	9.3%	6.4% - 12.3%	0.2%
Ostomy Supplies	332	$45,146,581	22.1%	16.0% - 28.3%	0.2%
Negative Pressure Wound Therapy	59	$37,924,488	36.3%	22.4% - 50.3%	0.1%
Wheelchairs Manual	236	$37,135,905	42.5%	28.2% - 56.7%	0.1%
Pneumatic Compression Device	63	$32,263,010	76.4%	64.6% - 88.2%	0.1%
Wheelchairs Options/Accessories	245	$28,964,191	17.6%	7.5% - 27.8%	0.1%
Respiratory Assist Device	112	$28,396,614	25.1%	16.2% - 34.1%	0.1%
Lenses	116	$26,347,148	74.6%	63.9% - 85.4%	0.1%
Hospital Beds/Accessories	148	$22,165,802	35.7%	25.4% - 46.1%	0.1%
Tracheostomy Supplies	32	$14,067,301	44.9%	23.6% - 66.2%	0.1%
Breast Prostheses	103	$11,672,261	31.8%	20.8% - 42.8%	0.0%
Osteogenesis Stimulator	151	$11,468,432	8.5%	3.2% - 13.8%	0.0%
Orthopedic Footwear	304	$10,980,385	84.7%	59.6% -109.7%	0.0%
Walkers	96	$9,865,587	29.4%	17.0% - 41.7%	0.0%
Suction Pump	90	$9,601,282	45.8%	23.8% - 67.8%	0.0%

DMEPOS (Policy Group)	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Overall Improper Payments
Automatic External Defibrillator	48	$8,414,869	5.5%	(2.4%) - 13.4%	0.0%
Oral Anti-Cancer Drugs	141	$8,208,799	22.1%	14.1% - 30.0%	0.0%
Commodes/Bed Pans/Urinals	81	$7,125,209	63.0%	45.1% - 80.8%	0.0%
HFCWO Device	53	$6,802,883	13.1%	3.1% - 23.1%	0.0%
Other Neuromuscular Stimulators	32	$6,431,501	75.7%	58.7% - 92.7%	0.0%
Support Surfaces	41	$6,370,160	48.5%	24.2% - 72.7%	0.0%
Wheelchairs Seating	92	$4,571,828	19.7%	4.2% - 35.3%	0.0%
Wheelchairs Motorized	93	$3,327,889	4.0%	0.1% - 7.9%	0.0%
Patient Lift	46	$2,936,095	28.2%	14.4% - 42.0%	0.0%
Canes/Crutches	43	$1,570,798	30.5%	14.5% - 46.5%	0.0%
Intravenous Immune Globulin	87	$103,107	0.2%	(0.2%) - 0.5%	0.0%
Misc Drugs	30	$0	N/A	N/A	0.0%
Routinely Denied Items	156	$0	N/A	N/A	0.0%
All Type of Services (Incl. Codes Not Listed)	**11,000**	**$2,770,547,921**	**31.8%**	**29.9% - 33.7%**	**10.3%**

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 Outpatient	2,218	$2,564,082,113	3.9%	1.9% - 5.8%	9.5%
Hospital Inpatient (Part A)	959	$2,532,836,191	23.1%	19.8% - 26.4%	9.4%
Home Health	1,187	$1,760,678,001	9.3%	7.5% - 11.2%	6.5%
SNF Inpatient	1,596	$1,711,136,545	5.6%	4.1% - 7.1%	6.4%
Nonhospital based hospice	742	$1,077,015,359	5.6%	3.8% - 7.3%	4.0%
Hospital based hospice	141	$325,863,103	20.4%	13.1% - 27.7%	1.2%
CAH	267	$255,770,718	3.9%	1.8% - 6.1%	0.9%
Clinic ESRD	640	$227,667,163	1.7%	0.6% - 2.8%	0.8%
Hospital Inpatient Part B	49	$117,981,803	25.8%	(10.6%) - 62.2%	0.4%
SNF Inpatient Part B	90	$110,238,473	3.5%	(0.0%) - 7.1%	0.4%
Hospital Other Part B	99	$96,602,232	17.0%	5.9% - 28.0%	0.4%
Clinic OPT	48	$42,719,470	8.0%	0.7% - 15.4%	0.2%
FQHC	87	$39,606,939	2.7%	(0.4%) - 5.8%	0.1%
Clinical Rural Health	256	$31,325,015	2.0%	0.1% - 3.9%	0.1%
SNF Outpatient	50	$17,491,036	6.0%	(1.8%) - 13.7%	0.1%
Clinic CORF	80	$5,794,925	22.7%	2.8% - 42.5%	0.0%
All Codes With Less Than 30 Claims	5	$0	0.0%	N/A	0.0%
All Type of Services (Incl. Codes Not Listed)	**8,514**	**$10,916,809,087**	**6.2%**	**5.3% - 7.0%**	**40.5%**

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)	534	$1,118,538,625	19.4%	15.9% - 22.8%	4.2%
All Codes With Less Than 30 Claims	1,854	$642,904,799	3.1%	2.4% - 3.9%	2.4%
Endovascular Cardiac Valve Replacement (266, 267)	468	$293,444,818	15.1%	12.0% - 18.2%	1.1%
Spinal Fusion Except Cervical (459, 460)	157	$161,785,171	10.6%	5.9% - 15.4%	0.6%
Percutaneous Intracardiac Procedures (273, 274)	43	$126,857,975	22.1%	9.0% - 35.1%	0.5%
GI Hemorrhage (377, 378, 379)	128	$119,633,485	6.2%	1.9% - 10.5%	0.4%
Combined Anterior/Posterior Spinal Fusion (453, 454, 455)	123	$115,229,716	6.5%	1.7% - 11.3%	0.4%
Heart Failure & Shock (291, 292, 293)	131	$112,495,098	2.6%	(0.7%) - 5.8%	0.4%
Psychoses (885)	590	$101,936,099	2.9%	1.1% - 4.6%	0.4%
Cervical Spinal Fusion (471, 472, 473)	82	$94,443,708	14.0%	5.6% - 22.5%	0.4%
Major Joint/Limb Reattachment Procedure Of Upper Extremities (483)	93	$84,846,198	7.8%	2.1% - 13.5%	0.3%
Chest Pain (313)	50	$79,189,064	26.9%	13.0% - 40.8%	0.3%
Simple Pneumonia & Pleurisy (193, 194, 195)	211	$77,597,337	3.8%	0.5% - 7.1%	0.3%
Degenerative Nervous System Disorders (056, 057)	592	$71,674,334	8.5%	5.7% - 11.3%	0.3%
Cardiac Defibrillator Implant W/O Cardiac Cath (226, 227)	154	$68,336,017	15.7%	10.5% - 20.9%	0.3%
Perc Cardiovasc Proc W Drug-Eluting Stent (247)	52	$66,779,065	4.9%	(0.8%) - 10.5%	0.2%
Extensive OR Procedure Unrelated To Principal Diagnosis (981, 982, 983)	178	$64,748,377	4.4%	1.8% - 7.1%	0.2%
ECMO Or Trach W MV >96 Hrs Or PDX Exc Face, Mouth & Neck (003)	50	$57,461,308	3.5%	(0.8%) - 7.7%	0.2%
Kidney & Urinary Tract Infections (689, 690)	149	$43,457,250	3.1%	(0.1%) - 6.3%	0.2%
Esophagitis, Gastroent & Misc Digest Disorders (391, 392)	97	$43,002,778	3.9%	(0.3%) - 8.1%	0.2%
Other Vascular Procedures (252, 253, 254)	114	$43,000,304	2.4%	(0.3%) - 5.1%	0.2%
Other Musculoskelet Sys & Conn Tiss OR Proc (515, 516, 517)	119	$42,380,012	12.4%	5.4% - 19.4%	0.2%
Renal Failure (682, 683, 684)	168	$41,924,830	2.0%	(0.1%) - 4.1%	0.2%
Chronic Obstructive Pulmonary Disease (190, 191, 192)	253	$39,098,737	2.3%	0.6% - 3.9%	0.1%
Septicemia Or Severe Sepsis W/O MV >96 Hours (871, 872)	306	$37,967,730	0.4%	0.0% - 0.8%	0.1%
Syncope & Collapse (312)	83	$37,268,822	9.6%	2.3% - 17.0%	0.1%
Other Disorders Of Nervous System (091, 092, 093)	205	$33,934,030	8.2%	3.8% - 12.7%	0.1%
Coronary Bypass W/O Cardiac Cath (235, 236)	38	$32,751,753	4.1%	(1.8%) - 10.0%	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
Peripheral Vascular Disorders (299, 300, 301)	71	$32,651,259	7.3%	1.4% - 13.3%	0.1%
Transient Ischemia W/O Thrombolytic (069)	48	$32,634,916	15.8%	4.0% - 27.5%	0.1%
Medical Back Problems (551, 552)	62	$30,787,259	7.0%	(0.1%) - 14.1%	0.1%
Organic Disturbances & Intellectual Disability (884)	122	$30,508,675	5.4%	1.1% - 9.8%	0.1%
Fx, Sprn, Strn & Disl Except Femur, Hip, Pelvis & Thigh (562, 563)	62	$30,217,803	12.8%	4.4% - 21.1%	0.1%
Seizures (100, 101)	99	$28,454,851	4.6%	0.4% - 8.8%	0.1%
Cranial & Peripheral Nerve Disorders (073, 074)	60	$28,372,676	12.6%	3.6% - 21.7%	0.1%
Cardiac Arrhythmia & Conduction Disorders (308, 309, 310)	197	$28,141,331	2.3%	0.4% - 4.2%	0.1%
Back & Neck Proc Exc Spinal Fusion (518, 519, 520)	303	$27,883,551	12.3%	8.5% - 16.1%	0.1%
Other Circulatory System OR Procedures (264)	47	$26,776,385	11.2%	1.7% - 20.7%	0.1%
Intracranial Hemorrhage Or Cerebral Infarction (064, 065, 066)	152	$26,660,954	1.8%	(0.0%) - 3.6%	0.1%
Lower Extrem & Humer Proc Except Hip,foot,femur (492, 493, 494)	126	$26,631,088	4.5%	0.2% - 8.7%	0.1%
Dysequilibrium (149)	101	$21,728,520	23.6%	13.9% - 33.2%	0.1%
Craniotomy & Endovascular Intracranial Procedures (025, 026, 027)	50	$21,507,097	2.1%	(0.9%) - 5.2%	0.1%
Poisoning & Toxic Effects Of Drugs (917, 918)	66	$21,102,844	5.2%	0.2% - 10.1%	0.1%
Aftercare, Musculoskeletal System & Connective Tissue (559, 560, 561)	141	$20,837,316	14.2%	4.8% - 23.6%	0.1%
Signs & Symptoms (947, 948)	208	$20,718,693	10.5%	6.3% - 14.8%	0.1%
Bilateral Or Multiple Major Joint Procs Of Lower Extremity (461, 462)	94	$19,097,401	15.7%	8.2% - 23.2%	0.1%
Complications Of Treatment (919, 920, 921)	43	$17,809,491	5.9%	(0.6%) - 12.3%	0.1%
Other Digestive System Diagnoses (393, 394, 395)	81	$17,166,365	3.2%	(0.7%) - 7.1%	0.1%
Other Kidney & Urinary Tract Diagnoses (698, 699, 700)	106	$16,872,537	1.6%	(0.2%) - 3.5%	0.1%
Permanent Cardiac Pacemaker Implant (242, 243, 244)	85	$16,807,674	1.4%	(1.0%) - 3.7%	0.1%
Laparoscopic Cholecystectomy W/O C.D.E. (417, 418, 419)	57	$15,630,055	3.3%	(0.6%) - 7.3%	0.1%
Infectious & Parasitic Diseases W OR Procedure (853, 854, 855)	69	$15,496,066	0.4%	(0.4%) - 1.2%	0.1%
Bone Diseases & Arthropathies (553, 554)	51	$15,331,093	20.6%	6.4% - 34.8%	0.1%
Stomach, Esophageal & Duodenal Proc (326, 327, 328)	40	$14,836,170	1.8%	(0.3%) - 3.9%	0.1%
Other Skin, Subcut Tiss & Breast Proc (579, 580, 581)	113	$14,577,293	8.8%	1.3% - 16.3%	0.1%
Other Respiratory System Diagnoses (205, 206)	30	$14,139,571	7.3%	(1.4%) - 16.0%	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
Traumatic Stupor & Coma, Coma >1 Hr (082, 083, 084)	31	$13,971,695	6.5%	(3.1%) - 16.0%	0.1%
Kidney & Ureter Procedures For Non-Neoplasm (659, 660, 661)	36	$13,858,190	3.9%	(1.5%) - 9.3%	0.1%
Diabetes (637, 638, 639)	119	$13,534,536	1.9%	(0.2%) - 4.0%	0.1%
Atherosclerosis (302, 303)	59	$12,303,745	10.5%	(1.2%) - 22.2%	0.0%
Other Major Cardiovascular Procedures (270, 271, 272)	251	$12,087,437	1.0%	0.4% - 1.6%	0.0%
Circulatory Disorders Except AMI, W Card Cath (286, 287)	93	$11,965,099	1.3%	(0.5%) - 3.2%	0.0%
Major Chest Procedures (163, 164, 165)	48	$11,829,731	1.5%	(0.5%) - 3.6%	0.0%
Nonspecific Cerebrovascular Disorders (070, 071, 072)	83	$11,724,003	2.9%	(1.3%) - 7.2%	0.0%
Trauma To The Skin, Subcut Tiss & Breast (604, 605)	105	$11,470,768	10.8%	4.5% - 17.0%	0.0%
Cellulitis (602, 603)	159	$10,949,453	1.3%	(0.4%) - 3.0%	0.0%
Signs & Symptoms Of Musculoskeletal System & Conn Tissue (555, 556)	108	$10,637,023	13.0%	6.0% - 20.0%	0.0%
Uterine & Adnexa Proc For Non-Malignancy (742, 743)	105	$10,563,454	15.0%	7.0% - 23.0%	0.0%
Other Resp System OR Procedures (166, 167, 168)	49	$10,344,673	1.2%	(0.5%) - 2.9%	0.0%
Respiratory Neoplasms (180, 181, 182)	37	$9,798,194	3.2%	(0.6%) - 7.0%	0.0%
Disorders Of Pancreas Except Malignancy (438, 439, 440)	70	$9,367,050	2.3%	(0.9%) - 5.5%	0.0%
Alcohol/Drug Abuse Or Dependence W/O Rehabilitation Therapy (896, 897)	68	$9,336,881	1.8%	(0.5%) - 4.2%	0.0%
AMI, Discharged Alive (280, 281, 282)	115	$9,303,183	0.6%	(0.3%) - 1.5%	0.0%
Bronchitis & Asthma (202, 203)	67	$9,185,117	2.9%	(2.7%) - 8.5%	0.0%
Extracranial Procedures (037, 038, 039)	36	$8,516,830	2.8%	(1.2%) - 6.7%	0.0%
Other Circulatory System Diagnoses (314, 315, 316)	105	$8,287,568	0.9%	(0.5%) - 2.4%	0.0%
Disorders Of The Biliary Tract (444, 445, 446)	41	$8,220,457	3.0%	(1.2%) - 7.1%	0.0%
Hip & Femur Procedures Except Major Joint (480, 481, 482)	153	$8,054,775	0.5%	(0.1%) - 1.0%	0.0%
Red Blood Cell Disorders (811, 812)	83	$7,764,395	1.2%	(1.2%) - 3.6%	0.0%
Pathological Fractures & Musculoskelet & Conn Tiss Malig (542, 543, 544)	61	$7,727,407	3.2%	(0.9%) - 7.2%	0.0%
AICD Generator Procedures (245)	98	$7,706,873	9.9%	4.6% - 15.1%	0.0%
Revision Of Hip Or Knee Replacement (466, 467, 468)	53	$7,570,021	0.8%	(0.2%) - 1.8%	0.0%
Craniotomy W Major Device Implant Or Acute Cns PDX (023)	48	$7,056,266	1.5%	(1.1%) - 4.1%	0.0%
Hypertension (304, 305)	69	$6,404,403	2.2%	(0.8%) - 5.2%	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
Misc Disorders Of Nutrition,metabolism,fluids/Electrolytes (640, 641)	102	$6,296,598	0.6%	(0.5%) - 1.7%	0.0%
Respiratory Infections & Inflammations (177, 178, 179)	115	$6,028,625	0.4%	(0.0%) - 0.9%	0.0%
Chemotherapy W/O Acute Leukemia As Secondary Diagnosis (846, 847, 848)	104	$5,089,419	2.0%	(0.5%) - 4.5%	0.0%
Traumatic Stupor & Coma, Coma <1 Hr (085, 086, 087)	39	$4,509,818	1.4%	(1.2%) - 4.1%	0.0%
Major Small & Large Bowel Procedures (329, 330, 331)	155	$4,134,510	0.2%	(0.1%) - 0.5%	0.0%
Cirrhosis & Alcoholic Hepatitis (432, 433, 434)	33	$4,111,290	1.5%	(1.4%) - 4.5%	0.0%
Pulmonary Embolism (175, 176)	70	$3,996,567	0.8%	(0.8%) - 2.5%	0.0%
Aftercare (949, 950)	44	$2,145,909	3.8%	(1.9%) - 9.5%	0.0%
Major Gastrointestinal Disorders & Peritoneal Infections (371, 372, 373)	54	$1,468,260	0.4%	(0.4%) - 1.2%	0.0%
Other Heart Assist System Implant (215)	53	$1,387,400	0.2%	(0.1%) - 0.5%	0.0%
Respiratory System Diagnosis W Ventilator Support >96 Hours (207)	51	$1,326,459	0.1%	(0.1%) - 0.3%	0.0%
GI Obstruction (388, 389, 390)	119	$1,228,716	0.2%	(0.0%) - 0.4%	0.0%
Aortic And Heart Assist Procedures Except Pulsation Balloon (268, 269)	143	$663,867	0.1%	(0.1%) - 0.3%	0.0%
Disorders Of Liver Except Malig,cirr,alc Hepa (441, 442, 443)	72	$324,139	0.1%	(0.0%) - 0.1%	0.0%
Pulmonary Edema & Respiratory Failure (189)	50	$30	0.0%	(0.0%) - 0.0%	0.0%
Cardiac Valve & Oth Maj Cardiothoracic Proc W/O Card Cath (219, 220, 221)	34	$0	0.0%	N/A	0.0%
Endocrine Disorders (643, 644, 645)	32	$0	0.0%	N/A	0.0%
Percutaneous Cardiovascular Procedures W Drug-Eluting Stent (246)	70	$0	0.0%	N/A	0.0%
Respiratory System Diagnosis W Ventilator Support <=96 Hours (208)	53	$0	0.0%	N/A	0.0%
Septicemia Or Severe Sepsis W MV >96 Hours (870)	37	$0	0.0%	N/A	0.0%
All Type of Services (Incl. Codes Not Listed)	**13,486**	**$4,808,317,206**	**4.0%**	**3.6% - 4.4%**	**17.8%**

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
Family Practice	205	$146,862,895	5.9%	3.3% - 8.5%	18.6%
Internal Medicine	230	$128,715,227	4.4%	2.1% - 6.7%	16.3%
Nurse Practitioner	131	$44,393,019	3.3%	1.0% - 5.6%	5.6%
Physician Assistant	83	$40,250,269	4.5%	0.9% - 8.1%	5.1%
Cardiology	102	$37,548,759	2.6%	(0.3%) - 5.4%	4.8%
Urology	39	$36,118,723	8.0%	0.7% - 15.2%	4.6%
Hematology/Oncology	53	$27,793,032	4.7%	(2.0%) - 11.3%	3.5%
Dermatology	57	$21,775,700	3.4%	0.4% - 6.4%	2.8%
Podiatry	47	$19,519,408	4.6%	0.9% - 8.3%	2.5%
Otolaryngology	34	$9,493,474	4.2%	(0.4%) - 8.9%	1.2%
Allergy/Immunology	31	$5,056,831	17.2%	(0.4%) - 34.9%	0.6%
All Provider Types With Less Than 30 Claims	33	$3,204,226	1.1%	(0.7%) - 2.9%	0.4%
Orthopedic Surgery	40	$2,903,857	0.7%	(0.6%) - 2.0%	0.4%
All Provider Types	**1,385**	**$789,517,310**	**5.0%**	**3.8% - 6.2%**	**100.0%**

Table H2: 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	656	$288,812,356	18.6%	11.0% - 26.2%	39.4%
Family Practice	421	$120,661,450	19.3%	13.8% - 24.8%	16.5%
Nurse Practitioner	241	$52,842,525	9.5%	4.6% - 14.3%	7.2%
Urology	32	$50,319,134	36.7%	(9.1%) - 82.5%	6.9%
General Surgery	48	$39,067,713	41.1%	9.4% - 72.8%	5.3%
Anesthesiology	102	$28,914,776	36.8%	25.9% - 47.7%	3.9%
Physician Assistant	100	$20,910,946	15.6%	6.6% - 24.6%	2.9%
Physical Medicine and Rehabilitation	70	$19,986,226	36.7%	24.0% - 49.5%	2.7%
No Referring Provider Type	64	$16,034,480	12.7%	2.5% - 22.9%	2.2%
Interventional Pain Management	53	$15,314,773	33.6%	19.4% - 47.8%	2.1%
Cardiology	45	$10,281,710	36.7%	13.5% - 60.0%	1.4%
Psychiatry	35	$7,778,089	21.9%	5.0% - 38.9%	1.1%
Gastroenterology	31	$7,646,088	7.0%	(0.8%) - 14.8%	1.0%
All Referring Providers	**2,032**	**$732,547,273**	**18.9%**	**14.7% - 23.2%**	**100.0%**

Table H3: Improper Payment Rates for Minor procedures - other (Medicare fee schedule) by Referring Provider

Minor procedures - other (Medicare fee schedule)	Claims Reviewed	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Percent of Type of Service Improper Payments
General Surgery	226	$217,587,558	20.7%	13.7% - 27.6%	34.9%
Internal Medicine	365	$144,244,418	13.7%	8.0% - 19.4%	23.1%
Family Practice	208	$77,512,126	13.5%	7.4% - 19.7%	12.4%
No Referring Provider Type	199	$47,630,866	12.4%	2.4% - 22.4%	7.6%
Nurse Practitioner	62	$22,940,810	11.8%	1.3% - 22.3%	3.7%
Neurology	55	$22,593,683	22.7%	1.7% - 43.7%	3.6%
Physician Assistant	38	$16,017,340	12.7%	(2.9%) - 28.2%	2.6%
Physical Medicine and Rehabilitation	42	$14,245,032	9.8%	1.6% - 18.0%	2.3%
Urology	34	$5,620,446	3.6%	(4.2%) - 11.5%	0.9%
All Referring Providers	**1,391**	**$623,963,987**	**14.6%**	**11.6% - 17.5%**	**100.0%**

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
Nurse Practitioner	92	$97,145,772	60.5%	39.4% - 81.5%	19.4%
General Surgery	217	$95,515,535	62.0%	45.6% - 78.5%	19.0%
Internal Medicine	87	$74,649,332	78.3%	57.0% - 99.6%	14.9%
Family Practice	128	$71,534,953	58.0%	40.6% - 75.3%	14.3%
Podiatry	117	$22,865,209	48.8%	36.0% - 61.7%	4.6%
Physician Assistant	49	$10,244,406	54.6%	28.7% - 80.6%	2.0%
All Referring Providers	**794**	**$501,651,014**	**65.7%**	**58.1% - 73.4%**	**100.0%**

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	427	$129,065,133	29.1%	22.5% - 35.7%	46.1%
Family Practice	132	$66,658,959	42.3%	27.9% - 56.7%	23.8%
Nurse Practitioner	87	$28,347,394	33.9%	17.7% - 50.1%	10.1%
Neurology	39	$8,660,277	25.5%	6.4% - 44.6%	3.1%
Physician Assistant	41	$8,616,049	23.1%	0.3% - 45.8%	3.1%
No Referring Provider Type	34	$6,392,837	27.1%	1.6% - 52.6%	2.3%
All Referring Providers	**825**	**$280,113,096**	**32.8%**	**27.6% - 37.9%**	**100.0%**

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[27]

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	1,749	$1,002,957,679	11.6%	10.0% - 13.3%	18.0%	3.7%
Clinical Laboratory (Billing Independently)	1,756	$676,057,433	17.0%	13.4% - 20.5%	26.8%	2.5%
Family Practice	942	$666,878,777	12.6%	10.1% - 15.1%	17.5%	2.5%
Physical Therapist in Private Practice	593	$506,593,037	17.8%	13.9% - 21.6%	22.6%	1.9%
Diagnostic Radiology	1,282	$373,837,070	8.4%	4.7% - 12.2%	13.5%	1.4%
Ambulance Service Supplier (e.g., private ambulance companies)	806	$349,098,784	7.2%	5.1% - 9.3%	15.3%	1.3%
Nurse Practitioner	894	$328,110,565	9.5%	6.6% - 12.5%	14.0%	1.2%
All Provider Types With Less Than 30 Claims	442	$272,124,168	10.6%	3.1% - 18.2%	25.0%	1.0%
Orthopedic Surgery	249	$269,781,959	8.8%	2.6% - 15.1%	24.0%	1.0%
Cardiology	646	$265,584,362	5.2%	3.6% - 6.8%	14.8%	1.0%
Emergency Medicine	499	$224,374,285	9.1%	6.5% - 11.6%	17.1%	0.8%
Chiropractic	386	$211,029,522	36.1%	30.1% - 42.1%	43.3%	0.8%
Nephrology	286	$209,377,071	12.8%	5.7% - 20.0%	28.1%	0.8%
Hematology/Oncology	271	$201,953,529	5.6%	1.0% - 10.2%	10.6%	0.7%
Podiatry	255	$182,435,036	12.9%	8.6% - 17.1%	16.9%	0.7%
Ophthalmology	584	$162,294,190	2.3%	1.3% - 3.2%	10.9%	0.6%
Physical Medicine and Rehabilitation	220	$132,754,517	10.4%	5.2% - 15.5%	13.9%	0.5%
Pulmonary Disease	222	$121,731,688	8.6%	5.7% - 11.6%	16.3%	0.5%
Physician Assistant	427	$120,100,714	5.4%	3.4% - 7.5%	11.6%	0.4%
Psychiatry	157	$118,172,564	12.2%	7.1% - 17.3%	18.0%	0.4%
General Surgery	116	$112,154,026	10.7%	1.2% - 20.1%	26.9%	0.4%
Clinical Psychologist	150	$111,347,080	16.5%	5.5% - 27.5%	22.5%	0.4%
Neurology	235	$101,938,338	5.6%	3.0% - 8.2%	10.4%	0.4%
CRNA	115	$101,544,231	9.5%	3.4% - 15.6%	14.3%	0.4%
Dermatology	204	$93,281,700	3.4%	1.3% - 5.5%	6.2%	0.3%
Gastroenterology	227	$91,058,513	6.2%	3.1% - 9.4%	10.9%	0.3%

[27] 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
Pain Management	86	$90,184,838	19.0%	3.6% - 34.4%	20.7%	0.3%
Medical Oncology	99	$88,313,949	2.5%	(1.4%) - 6.5%	4.2%	0.3%
Radiation Oncology	92	$81,326,182	5.7%	1.2% - 10.1%	15.6%	0.3%
Pathology	155	$81,022,510	7.0%	(0.9%) - 14.9%	18.7%	0.3%
Urology	139	$80,721,215	5.1%	1.7% - 8.6%	7.1%	0.3%
Portable X-Ray Supplier (Billing Independently)	129	$76,249,020	30.0%	5.8% - 54.2%	34.8%	0.3%
Clinical Social Worker	166	$74,567,921	15.2%	8.8% - 21.6%	18.3%	0.3%
Endocrinology	54	$71,891,275	14.8%	1.0% - 28.6%	17.0%	0.3%
Interventional Cardiology	94	$69,033,288	9.6%	2.4% - 16.9%	10.7%	0.3%
Ambulatory Surgical Center	225	$68,052,166	1.6%	0.4% - 2.9%	27.6%	0.3%
Optometry	213	$66,153,632	6.9%	3.2% - 10.5%	16.4%	0.2%
Anesthesiology	221	$65,292,259	3.6%	(0.0%) - 7.2%	12.0%	0.2%
Rheumatology	385	$63,058,065	2.8%	0.8% - 4.9%	3.4%	0.2%
General Practice	51	$62,695,741	23.5%	4.5% - 42.5%	26.4%	0.2%
Hospitalist	247	$60,002,287	7.0%	4.7% - 9.4%	15.2%	0.2%
Infectious Disease	115	$56,555,153	11.1%	6.2% - 16.0%	15.3%	0.2%
Otolaryngology	87	$43,484,714	5.4%	1.9% - 8.8%	12.5%	0.2%
IDTF	73	$34,595,965	5.2%	(0.8%) - 11.1%	9.3%	0.1%
Allergy/Immunology	46	$33,915,599	5.3%	(3.3%) - 13.8%	11.6%	0.1%
Interventional Pain Management	68	$31,558,550	5.3%	(0.0%) - 10.5%	7.5%	0.1%
Interventional Radiology	53	$27,102,222	1.8%	(1.6%) - 5.1%	2.5%	0.1%
Occupational Therapist in Private Practice	50	$25,934,726	9.1%	2.4% - 15.8%	10.5%	0.1%
Obstetrics/Gynecology	44	$22,088,130	8.1%	1.0% - 15.2%	15.1%	0.1%
Cardiac Electrophysiology	69	$21,459,222	6.0%	1.3% - 10.8%	54.8%	0.1%
Critical Care (Intensivists)	54	$21,062,740	9.7%	1.9% - 17.6%	26.1%	0.1%
Vascular Surgery	99	$19,495,520	1.3%	(0.7%) - 3.2%	7.1%	0.1%
Centralized Flu	80	$0	0.0%	0.0% - 0.0%	3.0%	0.0%
Mass Immunization Roster Billers (Mass Immunizers have to roster bill assigned claims and can only bill for immunizations)	107	$0	0.0%	0.0% - 0.0%	3.7%	0.0%
Overall (Incl. Codes Not Listed)	**17,000**	**$8,442,387,727**	**8.1%**	**7.4% - 8.8%**	**16.4%**	**31.3%**

Table I2: Improper Payment Rates and Amounts by Provider Type[28]: DMEPOS[29]

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	4,780	$1,559,907,357	35.4%	32.7% - 38.0%	37.7%	5.8%
Pharmacy	3,204	$408,989,118	18.8%	16.4% - 21.1%	24.5%	1.5%
Medical Supply Company with Respiratory Therapist	970	$213,884,066	30.4%	25.8% - 34.9%	33.7%	0.8%
All Provider Types With Less Than 30 Claims	339	$147,246,669	65.6%	51.5% - 79.7%	69.4%	0.5%
Individual orthotic personnel certified by an accrediting organization	245	$65,077,260	33.5%	19.0% - 48.0%	38.1%	0.2%
Podiatry	303	$65,074,507	68.4%	59.4% - 77.4%	68.3%	0.2%
Medical supply company with prosthetic/orthotic personnel certified by an accrediting organization	173	$60,085,086	34.9%	8.3% - 61.5%	40.0%	0.2%
Individual prosthetic personnel certified by an accrediting organization	237	$57,845,903	17.6%	9.2% - 26.0%	21.2%	0.2%
Medical supply company with orthotic personnel certified by an accrediting organization	142	$57,091,889	45.1%	19.5% - 70.7%	45.3%	0.2%
Orthopedic Surgery	282	$48,160,951	51.0%	35.6% - 66.5%	53.7%	0.2%
General Practice	77	$27,146,419	64.8%	40.3% - 89.2%	67.2%	0.1%
Supplier of oxygen and/or oxygen related equipment	54	$15,651,438	39.7%	19.6% - 59.8%	42.8%	0.1%
Optometry	55	$15,326,311	83.5%	69.8% - 97.2%	83.7%	0.1%
Individual prosthetic/orthotic personnel certified by an accrediting organization	46	$14,898,945	30.2%	6.8% - 53.6%	31.9%	0.1%
Multispecialty Clinic or Group Practice	59	$8,007,185	40.9%	16.3% - 65.6%	40.0%	0.0%
Ophthalmology	34	$6,154,816	68.8%	44.8% - 92.7%	68.5%	0.0%
Overall (Incl. Codes Not Listed)	**11,000**	**$2,770,547,921**	**31.8%**	**29.9% - 33.7%**	**35.3%**	**10.3%**

[28] Herein, "provider" will be used to refer to both providers and suppliers in DMEPOS provider type reporting.
[29] 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
OPPS, Laboratory, Ambulatory	2,367	$2,778,666,148	4.0%	2.1% - 5.9%	10.3%
SNF	1,736	$1,838,866,054	5.4%	4.1% - 6.8%	6.8%
HHA	1,191	$1,760,678,001	9.3%	7.5% - 11.2%	6.5%
Hospice	883	$1,402,878,462	6.7%	5.0% - 8.4%	5.2%
Inpatient Rehabilitation Hospitals	287	$1,301,903,898	30.8%	25.1% - 36.4%	4.8%
Inpatient Rehab Unit	243	$1,128,582,753	30.8%	24.1% - 37.6%	4.2%
CAH Outpatient Services	267	$255,770,718	3.9%	1.8% - 6.1%	0.9%
ESRD	640	$227,667,163	1.7%	0.6% - 2.8%	0.8%
Inpatient CAH	355	$81,865,985	3.9%	1.7% - 6.0%	0.3%
ORF	48	$42,719,470	8.0%	0.7% - 15.4%	0.2%
FQHC	87	$39,606,939	2.7%	(0.4%) - 5.8%	0.1%
RHC	256	$31,325,015	2.0%	0.1% - 3.9%	0.1%
All Codes With Less Than 30 Claims	16	$16,643,877	11.6%	(5.3%) - 28.5%	0.1%
CORF	80	$5,794,925	22.7%	2.8% - 42.5%	0.0%
Non PPS Short Term Hospital Inpatient	54	$3,839,678	0.5%	(0.3%) - 1.2%	0.0%
Other MAC Service Types	4	$0	0.0%	0.0% - 0.0%	0.0%
Overall (Incl. Codes Not Listed)	**8,514**	**$10,916,809,087**	**6.2%**	**5.3% - 7.0%**	**40.5%**

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	12,546	$4,643,905,380	4.1%	3.7% - 4.5%	17.2%
Other MAC Service Types	798	$122,047,306	3.1%	1.5% - 4.8%	0.5%
DRG Long Term	142	$42,364,520	1.5%	0.3% - 2.7%	0.2%
Overall (Incl. Codes Not Listed)	**13,486**	**$4,808,317,206**	**4.0%**	**3.6% - 4.4%**	**17.8%**

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	36.1%	386	2.3%	89.2%	3.2%	3.8%	1.5%
Portable X-Ray Supplier (Billing Independently)	30.0%	129	0.0%	100.0%	0.0%	0.0%	0.0%
General Practice	23.5%	51	1.2%	81.1%	4.7%	13.0%	0.0%
Pain Management	19.0%	86	0.0%	83.9%	0.0%	8.5%	7.6%
Physical Therapist in Private Practice	17.8%	593	3.8%	89.9%	0.0%	0.8%	5.5%
Clinical Laboratory (Billing Independently)	17.0%	1,756	4.5%	83.7%	5.1%	0.4%	6.3%
Clinical Psychologist	16.5%	150	18.7%	75.9%	1.3%	4.0%	0.0%
Clinical Social Worker	15.2%	166	3.0%	95.4%	0.0%	1.6%	0.0%
Endocrinology	14.8%	54	25.7%	63.6%	0.0%	10.7%	0.0%
Podiatry	12.9%	255	12.6%	64.9%	1.9%	20.6%	0.0%
Nephrology	12.8%	286	3.7%	67.0%	0.6%	24.7%	3.9%
Family Practice	12.6%	942	4.7%	60.4%	0.3%	29.3%	5.3%
Psychiatry	12.2%	157	0.0%	49.8%	0.0%	45.4%	4.8%
Internal Medicine	11.6%	1,749	6.5%	56.1%	1.0%	35.9%	0.4%
Infectious Disease	11.1%	115	6.6%	31.9%	0.0%	61.5%	0.0%
General Surgery	10.7%	116	5.8%	75.6%	0.0%	18.6%	0.0%
All Provider Types With Less Than 30 Claims	10.6%	442	12.2%	67.5%	0.5%	17.7%	2.0%
Physical Medicine and Rehabilitation	10.4%	220	1.2%	61.1%	0.0%	37.8%	0.0%
Critical Care (Intensivists)	9.7%	54	0.0%	12.4%	0.0%	87.6%	0.0%
Interventional Cardiology	9.6%	94	0.0%	43.2%	0.0%	56.8%	0.0%
Nurse Practitioner	9.5%	894	7.4%	59.6%	0.1%	24.2%	8.9%
CRNA	9.5%	115	32.0%	68.0%	0.0%	0.0%	0.0%
Occupational Therapist in Private Practice	9.1%	50	0.0%	92.4%	0.0%	0.0%	7.6%
Emergency Medicine	9.1%	499	9.7%	33.9%	0.0%	50.5%	5.8%
Orthopedic Surgery	8.8%	249	0.0%	83.5%	0.0%	16.5%	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
Pulmonary Disease	8.6%	222	3.5%	24.8%	0.0%	71.6%	0.0%
Diagnostic Radiology	8.4%	1,282	13.2%	85.7%	0.1%	1.0%	0.0%
Obstetrics/Gynecology	8.1%	44	13.6%	42.0%	0.0%	44.4%	0.0%
Ambulance Service Supplier (e.g., private ambulance companies)	7.2%	806	3.2%	62.5%	23.5%	10.8%	0.0%
Pathology	7.0%	155	0.0%	100.0%	0.0%	0.0%	0.0%
Hospitalist	7.0%	247	0.0%	31.6%	0.0%	68.3%	0.0%
Optometry	6.9%	213	0.5%	67.3%	1.4%	30.9%	0.0%
Gastroenterology	6.2%	227	6.1%	63.3%	0.1%	30.5%	0.0%
Cardiac Electrophysiology	6.0%	69	0.0%	54.7%	0.0%	45.3%	0.0%
Radiation Oncology	5.7%	92	7.4%	91.5%	0.0%	1.1%	0.0%
Hematology/Oncology	5.6%	271	11.3%	77.0%	0.0%	10.5%	1.2%
Neurology	5.6%	235	7.2%	41.6%	0.0%	51.2%	0.0%
Physician Assistant	5.4%	427	0.0%	55.9%	0.1%	43.8%	0.1%
Otolaryngology	5.4%	87	2.5%	22.0%	0.0%	75.5%	0.0%
Allergy/Immunology	5.3%	46	0.0%	84.5%	1.2%	14.2%	0.0%
Interventional Pain Management	5.3%	68	0.0%	85.0%	0.0%	15.0%	0.0%
Cardiology	5.2%	646	9.2%	51.0%	2.3%	35.0%	2.5%
IDTF	5.2%	73	0.0%	88.1%	0.0%	11.9%	0.0%
Urology	5.1%	139	0.0%	49.9%	0.0%	42.0%	8.1%
Anesthesiology	3.6%	221	2.5%	92.9%	0.0%	4.6%	0.0%
Dermatology	3.4%	204	1.4%	78.5%	0.0%	20.0%	0.0%
Rheumatology	2.8%	385	12.6%	60.1%	0.0%	27.3%	0.0%
Medical Oncology	2.5%	99	0.0%	90.2%	1.8%	8.0%	0.0%
Ophthalmology	2.3%	584	0.0%	76.7%	0.0%	23.3%	0.0%
Interventional Radiology	1.8%	53	33.0%	60.8%	0.0%	6.1%	0.0%
Ambulatory Surgical Center	1.6%	225	0.0%	99.9%	0.0%	0.1%	0.0%
Vascular Surgery	1.3%	99	0.0%	54.4%	0.0%	45.6%	0.0%
Centralized Flu	0.0%	80	N/A	N/A	N/A	N/A	N/A
Mass Immunization Roster Billers (Mass Immunizers have to roster bill assigned claims and can only bill for immunizations)	0.0%	107	N/A	N/A	N/A	N/A	N/A
All Provider Types	**8.1%**	**17,000**	**6.0%**	**68.2%**	**1.9%**	**21.6%**	**2.4%**

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	83.5%	55	1.8%	58.5%	0.0%	0.0%	39.6%
Ophthalmology	68.8%	34	0.0%	65.8%	0.0%	0.0%	34.2%
Podiatry	68.4%	303	0.4%	80.4%	0.8%	0.0%	18.4%
All Provider Types With Less Than 30 Claims	65.6%	339	1.8%	74.0%	1.9%	0.7%	21.6%
General Practice	64.8%	77	2.9%	79.6%	1.1%	0.0%	16.4%
Orthopedic Surgery	51.0%	282	1.3%	84.3%	6.5%	0.5%	7.4%
Medical supply company with orthotic personnel certified by an accrediting organization	45.1%	142	51.9%	38.8%	4.5%	0.0%	4.8%
Multispecialty Clinic or Group Practice	40.9%	59	28.8%	46.4%	18.6%	0.5%	5.7%
Supplier of oxygen and/or oxygen related equipment	39.7%	54	0.0%	95.1%	0.5%	0.0%	4.4%
Medical supply company not included in 51, 52, or 53	35.4%	4,780	18.5%	60.0%	8.3%	0.7%	12.5%
Medical supply company with prosthetic/orthotic personnel certified by an accrediting organization	34.9%	173	0.1%	82.3%	4.4%	0.0%	13.2%
Individual orthotic personnel certified by an accrediting organization	33.5%	245	2.0%	61.6%	4.5%	0.0%	31.9%
Medical Supply Company with Respiratory Therapist	30.4%	970	3.3%	69.0%	2.4%	0.8%	24.4%
Individual prosthetic/orthotic personnel certified by an accrediting organization	30.2%	46	0.0%	94.9%	2.1%	0.0%	3.0%
Pharmacy	18.8%	3,204	2.5%	70.2%	2.5%	4.1%	20.7%
Individual prosthetic personnel certified by an accrediting organization	17.6%	237	0.0%	86.3%	3.1%	0.0%	10.6%
All Provider Types	**31.8%**	**11,000**	**12.4%**	**65.0%**	**5.9%**	**1.1%**	**15.5%**

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 Rehab Unit	30.8%	243	0.0%	41.5%	58.5%	0.0%	0.0%
Inpatient Rehabilitation Hospitals	30.8%	287	0.0%	19.9%	80.1%	0.0%	0.0%
CORF	22.7%	80	0.0%	44.7%	0.0%	0.0%	55.3%
All Codes With Less Than 30 Claims	11.6%	16	0.0%	0.0%	100.0%	0.0%	0.0%
HHA	9.3%	1,191	7.7%	68.7%	16.0%	1.2%	6.4%
ORF	8.0%	48	25.3%	45.2%	0.0%	0.0%	29.6%
Hospice	6.7%	883	1.7%	70.5%	11.3%	11.4%	5.2%
SNF	5.4%	1,736	0.1%	77.2%	1.2%	3.7%	17.8%
OPPS, Laboratory, Ambulatory	4.0%	2,367	2.5%	92.9%	1.4%	1.8%	1.3%
CAH Outpatient Services	3.9%	267	0.0%	90.3%	3.2%	0.4%	6.0%
Inpatient CAH	3.9%	355	2.4%	23.8%	73.7%	0.0%	0.0%
FQHC	2.7%	87	0.0%	93.2%	0.0%	0.0%	6.8%
RHC	2.0%	256	59.2%	34.2%	0.0%	0.0%	6.6%
ESRD	1.7%	640	0.0%	82.2%	0.0%	0.0%	17.8%
Non PPS Short Term Hospital Inpatient	0.5%	54	0.0%	0.0%	100.0%	0.0%	0.0%
Other MAC Service Types	0.0%	4	N/A	N/A	N/A	N/A	N/A
All Provider Types	**6.2%**	**8,514**	**2.4%**	**68.1%**	**21.0%**	**2.8%**	**5.7%**

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
DRG Short Term	4.1%	12,546	0.6%	24.8%	58.3%	13.7%	2.6%
Other MAC Service Types	3.1%	798	0.0%	80.9%	12.1%	0.2%	6.8%
DRG Long Term	1.5%	142	0.0%	1.0%	51.0%	48.0%	0.0%
All Provider Types	**4.0%**	**13,486**	**0.6%**	**26.0%**	**57.0%**	**13.7%**	**2.7%**

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	
All Codes With Less Than 30 Claims	$368,396,811	23.7%	18.1% - 29.2%	4.9%	87.7%	1.1%	3.7%	2.6%	1.4%
Initial hospital care (99223)	$351,154,832	20.0%	17.8% - 22.3%	6.1%	17.1%	0.0%	76.8%	0.0%	1.3%
Subsequent hospital care (99233)	$305,673,947	14.9%	12.3% - 17.5%	5.2%	27.8%	0.0%	66.9%	0.0%	1.1%
Office/outpatient visit est (99214)	$274,837,443	3.1%	1.9% - 4.4%	25.8%	14.1%	0.0%	60.1%	0.0%	1.0%
Office/outpatient visit new (99204)	$245,565,048	17.3%	13.7% - 21.0%	0.0%	11.6%	0.0%	67.5%	20.9%	0.9%
Office/outpatient visit est (99213)	$213,355,775	4.0%	2.4% - 5.6%	0.0%	55.6%	0.0%	39.6%	4.8%	0.8%
Critical care first hour (99291)	$196,057,902	19.7%	14.2% - 25.2%	3.7%	22.9%	0.0%	72.2%	1.1%	0.7%
Office/outpatient visit est (99215)	$176,088,809	14.9%	6.1% - 23.6%	0.0%	34.6%	0.0%	60.7%	4.7%	0.7%
Subsequent hospital care (99232)	$152,085,881	6.1%	3.7% - 8.5%	22.7%	64.5%	0.0%	9.6%	3.1%	0.6%
Emergency dept visit (99285)	$124,991,848	7.9%	5.8% - 10.0%	10.2%	12.0%	0.0%	77.8%	0.0%	0.5%
Chron care mgmt srvc 20 min (99490)	$93,486,492	67.4%	58.1% - 76.8%	0.0%	100.0%	0.0%	0.0%	0.0%	0.3%
Initial hospital care (99222)	$78,686,816	11.6%	7.4% - 15.8%	0.0%	31.4%	0.0%	61.4%	7.2%	0.3%
Office/outpatient visit est (99212)	$58,255,859	14.4%	8.3% - 20.4%	3.5%	25.0%	0.0%	71.5%	0.0%	0.2%
Nursing fac care subseq (99309)	$57,576,046	8.7%	4.1% - 13.2%	10.6%	47.9%	0.0%	41.4%	0.0%	0.2%
Office/outpatient visit new (99205)	$57,361,533	12.8%	8.3% - 17.4%	0.0%	16.3%	0.0%	83.7%	0.0%	0.2%
Initial observation care (99220)	$55,128,381	23.5%	16.6% - 30.3%	0.0%	59.2%	0.0%	40.8%	0.0%	0.2%
Nursing facility care init (99306)	$54,520,427	28.9%	23.7% - 34.2%	6.0%	14.3%	0.0%	79.7%	0.0%	0.2%
Office/outpatient visit new (99203)	$52,250,929	5.3%	2.1% - 8.5%	0.0%	17.0%	0.0%	83.0%	0.0%	0.2%
Hospital discharge day (99239)	$50,657,501	11.2%	7.2% - 15.2%	9.3%	46.2%	0.0%	44.5%	0.0%	0.2%
Nursing fac care subseq (99308)	$44,146,720	7.6%	2.7% - 12.6%	13.8%	73.2%	0.0%	13.0%	0.0%	0.2%
Nursing fac care subseq (99310)	$28,214,268	18.9%	13.2% - 24.6%	4.8%	25.7%	0.0%	69.5%	0.0%	0.1%
Subsequent hospital care (99231)	$27,989,124	13.7%	7.4% - 20.1%	0.0%	26.2%	4.6%	64.7%	4.6%	0.1%
Nursing facility care init (99305)	$26,961,770	24.7%	18.1% - 31.4%	7.9%	23.9%	0.0%	68.2%	0.0%	0.1%
Office/outpatient visit est (99211)	$25,748,195	44.2%	27.0% - 61.3%	0.0%	89.8%	0.0%	10.2%	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	
Hospital discharge day (99238)	$17,758,664	12.3%	6.2% - 18.4%	4.5%	90.8%	0.0%	4.7%	0.0%	0.1%
Emergency dept visit (99284)	$17,652,211	3.3%	(0.5%) - 7.1%	24.3%	75.7%	0.0%	0.0%	0.0%	0.1%
Observation care discharge (99217)	$12,513,717	14.5%	7.9% - 21.2%	13.1%	81.4%	0.0%	0.0%	5.4%	0.0%
Emergency dept visit (99283)	$11,105,948	9.0%	(0.7%) - 18.7%	21.1%	0.0%	0.0%	78.9%	0.0%	0.0%
Office/outpatient visit new (99202)	$11,060,582	8.4%	0.7% - 16.1%	3.6%	33.8%	0.0%	30.9%	31.7%	0.0%
Prolong service w/o contact (99358)	$3,269,403	32.4%	21.1% - 43.7%	15.5%	73.4%	0.0%	0.0%	11.2%	0.0%
Prolonged service inpatient (99357)	$324,568	69.4%	55.2% - 83.7%	4.2%	82.9%	2.3%	0.0%	10.6%	0.0%
Prolong serv w/o contact add (99359)	$71,929	32.7%	14.3% - 51.0%	8.9%	69.6%	0.0%	10.9%	10.7%	0.0%
Overall (E&M Codes)	**$3,192,949,380**	**9.5%**	**8.7% - 10.3%**	**6.5%**	**37.6%**	**0.1%**	**53.1%**	**2.8%**	**11.9%**

Table K2: Impact of 1-Level E&M (Top 20)[30]

Final E & M Codes	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval
Subsequent hospital care (99233)	$200,889,209	9.8%	8.5% - 11.1%
Office/outpatient visit est (99214)	$145,579,313	1.7%	1.0% - 2.3%
Office/outpatient visit new (99204)	$94,942,914	6.7%	4.9% - 8.5%
Initial hospital care (99223)	$94,537,477	5.4%	4.4% - 6.4%
Emergency dept visit (99285)	$90,420,120	5.7%	4.3% - 7.2%
Office/outpatient visit est (99213)	$84,473,876	1.6%	0.8% - 2.4%
Office/outpatient visit est (99215)	$70,615,762	6.0%	3.8% - 8.1%
Office/outpatient visit est (99212)	$41,653,620	10.3%	5.5% - 15.1%
Initial hospital care (99222)	$33,805,557	5.0%	2.9% - 7.1%
Office/outpatient visit new (99203)	$32,651,631	3.3%	1.0% - 5.6%
Nursing fac care subseq (99309)	$23,837,053	3.6%	1.8% - 5.4%
Office/outpatient visit new (99205)	$20,631,094	4.6%	2.7% - 6.6%
Hospital discharge day (99239)	$20,098,775	4.4%	2.6% - 6.3%
Subsequent hospital care (99231)	$18,099,072	8.9%	3.4% - 14.4%
Nursing facility care init (99306)	$14,379,500	7.6%	5.0% - 10.2%
Nursing fac care subseq (99310)	$13,919,645	9.3%	6.3% - 12.3%
Initial observation care (99220)	$12,934,654	5.5%	3.3% - 7.7%
Subsequent hospital care (99232)	$12,884,690	0.5%	0.1% - 0.9%
Nursing facility care init (99305)	$7,065,655	6.5%	3.8% - 9.1%

[30] Table K2 shows the improper payment rate estimate for claims that were found in error due to 1-Level E&M coding difference.

Final E & M Codes	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval
Nursing fac care subseq (99308)	$5,750,557	1.0%	(0.1%) - 2.
All Other Codes	$65,968,942	0.1%	0.1% - 0.1%
Overall (1-Level E&M Codes)	**$1,105,139,116**	**1.1%**	**0.9% - 1.2%**

Table K3: Type of Services with Upcoding[31] Errors: Part B

Part B Services (BETOS Codes)	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval
Hospital visit - initial	$346,464,248	12.0%	10.6% - 13.3%
Office visits - established	$276,502,677	1.7%	1.3% - 2.2%
Hospital visit - subsequent	$241,116,405	4.4%	3.8% - 5.0%
Office visits - new	$236,902,307	7.7%	6.1% - 9.2%
Hospital visit - critical care	$141,603,408	13.2%	8.0% - 18.4%
Nursing home visit	$120,448,907	5.4%	4.3% - 6.4%
Emergency room visit	$99,103,648	4.4%	3.3% - 5.5%
Ambulance	$33,655,379	0.7%	0.3% - 1.1%
Specialist - other	$18,216,397	1.0%	(0.2%) - 2.3%
Dialysis services (Medicare Fee Schedule)	$17,575,290	2.1%	0.9% - 3.4%
Specialist - psychiatry	$7,133,819	0.5%	(0.1%) - 1.2%
Chiropractic	$7,043,846	1.2%	(0.3%) - 2.7%
Home visit	$6,609,515	3.3%	(0.7%) - 7.3%
Specialist - ophthalmology	$6,363,624	0.3%	(0.2%) - 0.7%
Echography/ultrasonography - other	$5,778,954	0.8%	(0.4%) - 2.1%
Other drugs	$4,637,449	0.0%	(0.0%) - 0.1%
Minor procedures - skin	$4,578,571	0.4%	(0.4%) - 1.3%
Lab tests - blood counts	$3,639,585	1.4%	0.7% - 2.2%
Eye procedure - cataract removal/lens insertion	$1,900,282	0.1%	(0.1%) - 0.3%
Minor procedures - other (Medicare fee schedule	$1,582,191	0.0%	(0.0%) - 0.1%
All Other Codes	$2,610,641	0.0%	0.0% - 0.0%
Overall (Part B)	**$1,583,467,143**	**1.5%**	**1.4% - 1.7%**

[31] 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	$15,683,028	5.2%	3.6% - 6.7%
Surgical Dressings	$3,631,437	1.3%	0.2% - 2.3%
Parenteral Nutrition	$2,223,051	1.3%	(1.0%) - 3.6%
CPAP	$1,361,716	0.2%	0.0% - 0.3%
Nebulizers & Related Drugs	$1,214,140	0.2%	(0.2%) - 0.6%
Enteral Nutrition	$846,867	0.5%	(0.1%) - 1.1%
Hospital Beds/Accessories	$828,455	1.3%	(1.3%) - 3.9%
Infusion Pumps & Related Drugs	$825,406	0.2%	0.0% - 0.3%
Immunosuppressive Drugs	$796,780	0.2%	(0.1%) - 0.5%
Upper Limb Orthoses	$645,089	0.2%	(0.2%) - 0.6%
Tracheostomy Supplies	$627,283	2.0%	(0.9%) - 4.9%
Ostomy Supplies	$545,160	0.3%	(0.1%) - 0.7%
All Policy Groups with Less than 30 Claims	$359,276	0.3%	(0.2%) - 0.8%
Urological Supplies	$337,593	0.1%	(0.0%) - 0.2%
Lower Limb Orthoses	$276,689	0.0%	(0.0%) - 0.1%
Breast Prostheses	$42,865	0.1%	(0.1%) - 0.3%
Wheelchairs Options/Accessories	$33,002	0.0%	(0.0%) - 0.1%
Diabetic Shoes	$27,223	0.0%	(0.0%) - 0.1%
Support Surfaces	$20,741	0.2%	(0.2%) - 0.5%
Overall (DMEPOS)	**$30,325,800**	**0.3%**	**0.3% - 0.4%**

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	$144,504,678	0.7%	0.3% - 1.2%
SNF Inpatient	$60,749,276	0.2%	0.0% - 0.4%
Hospital Outpatient	$26,560,549	0.0%	(0.0%) - 0.1%
Home Health	$18,021,612	0.1%	0.0% - 0.2%
Hospital based hospice	$14,319,930	0.9%	(0.1%) - 1.9%
Hospital Other Part B	$442,720	0.1%	(0.0%) - 0.2%
Overall (Part A Excluding Hospital IPPS)	**$264,598,765**	**0.1%**	**0.1% - 0.2%**

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
Coronary Bypass W/O Cardiac Cath (235, 236)	$22,492,881	2.8%	(2.6%) - 8.2%
Extensive OR Procedure Unrelated To Principal Diagnosis (981, 982, 983)	$17,005,513	1.2%	(0.1%) - 2.5%
Infectious & Parasitic Diseases W OR Procedure (853, 854, 855)	$15,172,626	0.4%	(0.4%) - 1.2%
Spinal Fusion Except Cervical (459, 460)	$14,752,797	1.0%	(0.9%) - 2.8%
GI Hemorrhage (377, 378, 379)	$11,558,794	0.6%	(0.4%) - 1.6%
Other Circulatory System OR Procedures (264)	$11,402,773	4.8%	(1.6%) - 11.1%
Septicemia Or Severe Sepsis W/O MV >96 Hours (871, 872)	$10,413,747	0.1%	(0.1%) - 0.3%
ECMO Or Trach W MV >96 Hrs Or PDX Exc Face, Mouth & Neck (003)	$9,592,383	0.6%	(0.6%) - 1.7%
Major Chest Procedures (163, 164, 165)	$7,890,110	1.0%	(1.0%) - 3.0%
Combined Anterior/Posterior Spinal Fusion (453, 454, 455)	$7,330,726	0.4%	(0.1%) - 0.9%
Seizures (100, 101)	$6,884,292	1.1%	(0.3%) - 2.5%
Syncope & Collapse (312)	$6,778,206	1.8%	(1.7%) - 5.2%
Renal Failure (682, 683, 684)	$5,837,250	0.3%	(0.3%) - 0.8%
Other Skin, Subcut Tiss & Breast Proc (579, 580, 581)	$5,268,392	3.2%	(2.5%) - 8.9%
Other Kidney & Urinary Tract Diagnoses (698, 699, 700)	$5,044,558	0.5%	(0.4%) - 1.3%
Heart Failure & Shock (291, 292, 293)	$4,894,911	0.1%	(0.0%) - 0.3%
Stomach, Esophageal & Duodenal Proc (326, 327, 328)	$4,238,678	0.5%	(0.5%) - 1.5%
Cirrhosis & Alcoholic Hepatitis (432, 433, 434)	$4,111,290	1.5%	(1.4%) - 4.5%
Alcohol/Drug Abuse Or Dependence W/O Rehabilitation Therapy (896, 897)	$4,003,682	0.8%	(0.7%) - 2.3%
Simple Pneumonia & Pleurisy (193, 194, 195)	$3,894,980	0.2%	(0.1%) - 0.5%
All Other Codes	$97,013,344	0.1%	0.1% - 0.2%
Overall (Part A Hospital IPPS)	**$275,581,931**	**0.2%**	**0.2% - 0.3%**

Appendix L: Overpayments

Tables L1 through L4 provide the service-specific overpayment rates for each claim type. 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	6,735	12,497	$161,384	$1,482,359	$2,834,316,752	6.2%	5.0% - 7.5%
Initial hospital care (99223)	670	672	$25,554	$128,003	$351,154,832	20.0%	17.8% - 22.3%
Subsequent hospital care (99233)	705	1,030	$15,249	$102,328	$305,588,700	14.9%	12.3% - 17.5%
Office/outpatient visit est (99214)	494	495	$1,500	$49,392	$267,875,270	3.1%	1.8% - 4.3%
Office/outpatient visit new (99204)	232	232	$6,106	$36,017	$242,472,939	17.1%	13.5% - 20.8%
Therapeutic exercises (97110)	362	382	$3,179	$15,220	$235,962,296	20.6%	15.0% - 26.3%
Critical care first hour (99291)	269	310	$11,081	$63,576	$196,057,902	19.7%	14.2% - 25.2%
Ppps, subseq visit (G0439)	235	235	$7,857	$25,136	$192,677,982	29.5%	19.7% - 39.3%
Office/outpatient visit est (99215)	119	126	$2,280	$16,058	$176,088,809	14.9%	6.1% - 23.6%
Chiropract manj 3-4 regions (98941)	241	290	$3,992	$10,459	$162,687,667	37.6%	30.3% - 44.9%
Subsequent hospital care (99232)	561	916	$3,829	$62,872	$150,563,504	6.1%	3.7% - 8.4%
Office/outpatient visit est (99213)	457	459	$876	$31,094	$137,824,722	2.6%	1.1% - 4.0%
Psytx pt&/family 60 minutes (90837)	100	153	$3,585	$17,555	$136,178,540	20.1%	9.1% - 31.1%
Emergency dept visit (99285)	314	314	$4,025	$50,132	$124,991,848	7.9%	5.8% - 10.0%
Cataract surg w/iol 1 stage (66984)	207	210	$8,463	$129,313	$111,696,441	6.2%	2.6% - 9.9%
Drug test def 22+ classes (G0483)	278	278	$25,900	$60,151	$104,686,170	42.7%	36.5% - 48.9%
Manual therapy 1/> regions (97140)	301	314	$1,866	$9,206	$102,306,345	19.5%	14.0% - 25.1%
BLS-emergency (A0429)	215	215	$8,137	$71,201	$96,943,794	10.9%	6.5% - 15.3%
Chron care mgmt srvc 20 min (99490)	107	109	$3,004	$4,357	$93,486,492	67.4%	58.1% - 76.8%
Therapeutic activities (97530)	237	247	$2,808	$13,561	$85,279,487	15.8%	10.6% - 21.1%
All Other Codes	10,431	15,223	$226,829	$4,085,734	$2,075,469,891	7.9%	7.2% - 8.7%
Total(Part B)	**17,000**	**34,707**	**$527,504**	**$6,463,723**	**$8,184,310,382**	**7.8%**	**7.1% - 8.6%**

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	2,758	6,315	$697,103	$3,069,914	$606,855,198	34.9%	28.6% - 41.2%
Ko single upright prefab ots (L1851)	66	93	$54,630	$73,118	$260,773,476	79.0%	67.4% - 90.7%
LSO sc r ant/pos pnl pre ots (L0650)	272	272	$77,010	$265,851	$145,230,150	34.3%	27.1% - 41.4%
Oxygen concentrator (E1390)	605	615	$10,992	$45,286	$121,872,310	24.4%	20.4% - 28.3%
Home vent non-invasive inter (E0466)	302	303	$60,606	$291,956	$84,662,125	21.2%	16.4% - 26.0%
Sewho airplan desig abdu pos (L3960)	69	69	$16,783	$46,170	$55,518,162	39.8%	25.3% - 54.2%
Coude tip urinary catheter (A4352)	50	50	$19,797	$74,898	$51,860,728	26.3%	11.4% - 41.3%
Blood glucose/reagent strips (A4253)	301	308	$2,397	$6,987	$50,486,668	34.4%	29.0% - 39.8%
CPAP full face mask (A7030)	122	122	$3,843	$11,661	$47,581,170	34.7%	25.1% - 44.2%
Ko adj jnt pos r sup pre ots (L1833)	247	265	$84,708	$145,035	$46,233,436	63.0%	55.6% - 70.5%
Combination oral/nasal mask (K0553)	138	139	$12,175	$33,490	$45,663,202	35.7%	27.5% - 43.8%
Replacement facemask interfa (A7031)	130	132	$3,946	$10,087	$43,856,989	40.5%	30.6% - 50.5%
Suspension sleeve lower ext (L2397)	239	267	$22,405	$30,700	$43,526,560	80.6%	71.4% - 89.8%
Collagen based wound filler (A6010)	61	61	$38,783	$58,805	$39,345,787	72.8%	56.9% - 88.7%
Nasal application device (A7034)	117	117	$2,535	$6,457	$37,485,108	38.1%	28.6% - 47.5%
Diab shoe for density insert (A5500)	173	229	$15,256	$22,318	$34,310,143	66.8%	59.3% - 74.2%
Who nontorsion jnts pre ots (L3916)	55	61	$10,910	$33,432	$30,023,906	38.2%	22.8% - 53.6%
Multi den insert direct form (A5512)	206	255	$24,912	$30,067	$29,373,262	80.2%	72.1% - 88.3%
Cont airway pressure device (E0601)	136	138	$1,058	$5,231	$28,683,262	19.7%	12.4% - 26.9%
Replacement nasal pillows (A7033)	88	88	$2,882	$6,293	$28,557,768	47.1%	34.0% - 60.3%
All Other Codes	7,588	12,104	$1,067,208	$5,650,195	$932,057,445	24.5%	22.9% - 26.1%
Total(DMEPOS)	**11,000**	**22,003**	**$2,229,939**	**$9,917,951**	**$2,763,956,852**	**31.7%**	**29.8% - 33.7%**

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 Outpatient	2,218	$43,739	$1,260,468	$2,536,757,352	3.8%	1.9% - 5.7%
Hospital Inpatient (Part A)	959	$3,567,277	$15,559,024	$2,532,271,596	23.1%	19.8% - 26.4%
Home Health	1,187	$485,728	$3,219,804	$1,757,479,998	9.3%	7.5% - 11.2%
SNF Inpatient	1,596	$548,312	$10,154,735	$1,691,410,153	5.6%	4.1% - 7.0%
Nonhospital based hospice	742	$159,871	$2,788,401	$1,076,266,115	5.6%	3.8% - 7.3%
Hospital based hospice	141	$103,858	$490,314	$325,750,368	20.4%	13.1% - 27.6%
CAH	267	$5,852	$138,687	$254,624,111	3.9%	1.8% - 6.0%
Clinic ESRD	640	$30,413	$2,027,465	$227,667,163	1.7%	0.6% - 2.8%
Hospital Inpatient Part B	49	$8,354	$29,579	$117,340,608	25.7%	(10.7%) - 62.1%
SNF Inpatient Part B	90	$3,188	$87,311	$104,882,674	3.4%	(0.2%) - 6.9%
Hospital Other Part B	99	$623	$3,522	$96,530,046	16.9%	5.9% - 28.0%
Clinic OPT	48	$989	$13,417	$42,719,470	8.0%	0.7% - 15.4%
FQHC	87	$451	$13,411	$39,606,939	2.7%	(0.4%) - 5.8%
Clinical Rural Health	256	$673	$39,013	$31,325,015	2.0%	0.1% - 3.9%
SNF Outpatient	50	$1,363	$28,396	$17,491,036	6.0%	(1.8%) - 13.7%
Clinic CORF	80	$2,946	$15,479	$5,721,546	22.4%	2.4% - 42.3%
All Other Codes	5	$0	$31,976	$0	0.0%	0.0% - 0.0%
Total(Part A Excluding Hospital IPPS)	**8,514**	**$4,963,637**	**$35,901,002**	**$10,857,844,190**	**6.1%**	**5.3% - 7.0%**

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
Major Hip And Knee Joint Replacement Or Reattachment Of Lower Extremity W/O MCC (470)	511	$1,341,881	$6,542,500	$1,106,234,348	20.4%	16.7% - 24.1%
All Codes With Less Than 30 Claims	3,108	$1,309,815	$47,894,675	$1,004,073,634	2.7%	2.2% - 3.3%
Endovascular Cardiac Valve Replacement W/O MCC (267)	255	$1,885,275	$10,961,445	$186,479,659	16.9%	12.3% - 21.5%
Spinal Fusion Except Cervical W/O MCC (460)	153	$407,433	$4,289,158	$144,236,615	10.1%	5.4% - 14.9%
Percutaneous Intracardiac Procedures W/O MCC (274)	32	$146,018	$543,625	$109,366,486	26.6%	10.7% - 42.5%
Endovascular Cardiac Valve Replacement W MCC (266)	213	$1,453,397	$11,065,117	$104,847,313	12.5%	8.7% - 16.2%
Psychoses (885)	590	$158,056	$5,828,556	$95,873,454	2.7%	0.9% - 4.4%
Major Joint/Limb Reattachment Procedure Of Upper Extremities (483)	93	$117,863	$1,432,478	$84,846,198	7.8%	2.1% - 13.5%
GI Hemorrhage W CC (378)	52	$31,816	$340,365	$84,137,441	9.7%	1.3% - 18.1%
Chest Pain (313)	50	$66,125	$245,232	$79,189,064	26.9%	13.0% - 40.8%
Heart Failure & Shock W MCC (291)	50	$8,554	$450,945	$72,867,807	2.0%	(1.7%) - 5.7%
Perc Cardiovasc Proc W Drug-Eluting Stent W/O MCC (247)	52	$36,053	$738,537	$66,779,065	4.9%	(0.8%) - 10.5%
Degenerative Nervous System Disorders W/O MCC (057)	544	$609,700	$6,203,510	$58,320,897	10.0%	7.0% - 12.9%
ECMO Or Trach W MV >96 Hrs Or PDX Exc Face, Mouth & Neck W Maj OR (003)	50	$211,580	$5,868,385	$57,461,308	3.5%	(0.8%) - 7.7%
Cervical Spinal Fusion W/O CC/MCC (473)	54	$240,055	$809,385	$52,367,499	27.4%	14.2% - 40.6%
Cardiac Defibrillator Implant W/O Cardiac Cath W/O MCC (227)	103	$864,197	$3,286,024	$43,978,078	25.5%	17.5% - 33.4%
Syncope & Collapse (312)	83	$39,749	$441,173	$37,268,822	9.6%	2.3% - 17.0%
Transient Ischemia W/O Thrombolytic (069)	48	$34,507	$225,436	$32,634,916	15.8%	4.0% - 27.5%
Simple Pneumonia & Pleurisy W MCC (193)	87	$13,212	$761,363	$30,702,997	2.5%	(1.9%) - 6.8%
Other Vascular Procedures W MCC (252)	52	$45,424	$1,573,560	$29,627,915	2.6%	(1.0%) - 6.2%
All Other Codes	7,306	$4,524,429	$100,848,581	$940,028,775	1.6%	1.4% - 1.9%
Total(Part A Hospital IPPS)	**13,486**	**$13,545,140**	**$210,350,051**	**$4,421,322,294**	**3.7%**	**3.3% - 4.0%**

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
All	**50,000**	**$21,266,220**	**$262,632,727**	**$26,227,433,717**	**6.4%**	**6.0% - 6.8%**

Appendix M: Underpayments

The following tables provide the service-specific underpayment rates for each claim type. 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)	457	459	$432	$31,094	$75,531,053	1.4%	0.7% - 2.2%
All Codes With Less Than 30 Claims	6,735	12,497	$2,147	$1,482,359	$62,140,100	0.1%	0.0% - 0.2%
Office/outpatient visit est (99212)	111	111	$401	$4,455	$39,583,383	9.8%	5.0% - 14.5%
Subsequent hospital care (99231)	128	193	$631	$6,848	$19,382,482	9.5%	3.8% - 15.2%
Office/outpatient visit new (99203)	107	107	$166	$10,088	$17,193,993	1.7%	(0.2%) - 3.7%
Emergency dept visit (99283)	41	41	$160	$2,091	$7,340,235	5.9%	(2.8%) - 14.7%
Office/outpatient visit est (99214)	494	495	$38	$49,392	$6,962,173	0.1%	(0.1%) - 0.2%
Nursing fac care subseq (99308)	109	123	$46	$7,100	$4,021,742	0.7%	(0.3%) - 1.7%
Office/outpatient visit new (99202)	70	70	$59	$4,052	$3,415,270	2.6%	(1.0%) - 6.2%
Office/outpatient visit new (99204)	232	232	$84	$36,017	$3,092,109	0.2%	(0.1%) - 0.5%
Therapeutic exercises (97110)	362	382	$38	$15,220	$2,925,503	0.3%	(0.2%) - 0.8%
Psytx pt&/family 45 minutes (90834)	106	119	$90	$8,700	$2,635,418	0.9%	(0.4%) - 2.2%
BLS (A0428)	277	282	$147	$51,227	$2,566,313	0.3%	(0.3%) - 1.0%
Office/outpatient visit est (99211)	130	136	$166	$2,398	$2,324,790	4.0%	0.0% - 8.0%
Nursing fac care subseq (99309)	131	133	$138	$10,692	$2,286,988	0.3%	(0.3%) - 1.0%
Subsequent hospital care (99232)	561	916	$131	$62,872	$1,522,377	0.1%	(0.0%) - 0.1%
Ground mileage (A0425)	695	701	$113	$58,134	$1,519,567	0.2%	(0.0%) - 0.4%
Chiropract manj 3-4 regions (98941)	241	290	$23	$10,459	$919,922	0.2%	(0.1%) - 0.5%
Ppps, subseq visit (G0439)	235	235	$53	$25,136	$847,667	0.1%	(0.1%) - 0.4%
Hospital discharge day (99238)	139	139	$69	$9,395	$837,472	0.6%	(0.2%) - 1.4%
All Other Codes	11,469	17,046	$463	$4,575,994	$1,028,789	0.0%	(0.0%) - 0.0%
Total(Part B)	**17,000**	**34,707**	**$5,594**	**$6,463,723**	**$258,077,346**	**0.2%**	**0.2% - 0.3%**

Table M2: Service-Specific Underpayment Rates: DMEPOS

DMEPOS (HCPCS)	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	2,758	6,315	$8,480	$3,069,914	$2,068,476	0.1%	(0.1%) - 0.4%
Arformoterol non-comp unit (J7605)	125	126	$581	$71,132	$1,320,386	0.8%	(0.8%) - 2.4%
Pneuma/vac walk boot pre ots (L4361)	49	49	$343	$10,101	$1,154,294	3.4%	(3.3%) - 10.1%
Straight tip urine catheter (A4351)	115	117	$188	$41,743	$622,523	0.4%	(0.4%) - 1.3%
Afo plastic molded w/ankle j (L1970)	50	55	$939	$35,041	$418,280	2.6%	(2.6%) - 7.8%
Budesonide non-comp unit (J7626)	109	111	$134	$16,160	$304,883	0.4%	(0.3%) - 1.0%
NDC 00004-1101-51 capecitabi (WW093)	134	135	$344	$40,146	$276,031	0.9%	(0.9%) - 2.8%
Dispense fee initial 30 day (G0333)	48	48	$57	$2,052	$218,484	2.8%	(2.8%) - 8.4%
Disp fee inhal drugs/30 days (Q0513)	257	257	$66	$8,019	$80,636	0.1%	(0.1%) - 0.3%
Albuterol ipratrop non-comp (J7620)	97	98	$12	$1,465	$46,917	0.3%	(0.3%) - 1.0%
Lube sterile packet (A4332)	60	62	$12	$1,395	$38,722	0.9%	(0.9%) - 2.7%
Sup fee antiem,antica,immuno (Q0511)	299	299	$24	$6,960	$19,265	0.1%	(0.1%) - 0.3%
Maint drug infus cath per wk (A4221)	268	277	$39	$11,423	$15,538	0.3%	(0.2%) - 0.7%
Infusion supplies with pump (A4222)	176	182	$37	$35,187	$4,901	0.0%	(0.0%) - 0.1%
Supply/ext inf pump syr type (K0552)	104	105	$3	$1,930	$1,735	0.2%	(0.2%) - 0.7%
All Other Codes	9,204	13,767	$0	$6,565,283	$0	0.0%	0.0% - 0.0%
Total(DMEPOS)	**11,000**	**22,003**	**$11,259**	**$9,917,951**	**$6,591,069**	**0.1%**	**0.0% - 0.1%**

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
Hospital Outpatient	2,218	2,218	$522	$1,260,468	$27,324,761	0.0%	(0.0%) - 0.1%
SNF Inpatient	1,596	1,596	$7,653	$10,154,735	$19,726,392	0.1%	(0.0%) - 0.2%
SNF Inpatient Part B	90	90	$156	$87,311	$5,355,799	0.2%	(0.2%) - 0.5%
Home Health	1,187	1,187	$774	$3,219,804	$3,198,003	0.0%	(0.0%) - 0.0%
CAH	267	267	$22	$138,687	$1,146,607	0.0%	(0.0%) - 0.1%
Nonhospital based hospice	742	742	$118	$2,788,401	$749,244	0.0%	(0.0%) - 0.0%
Hospital Inpatient Part B	49	49	$54	$29,579	$641,195	0.1%	(0.1%) - 0.4%
Hospital Inpatient (Part A)	959	959	$771	$15,559,024	$564,596	0.0%	(0.0%) - 0.0%
Hospital based hospice	141	141	$35	$490,314	$112,735	0.0%	(0.0%) - 0.0%
Clinic CORF	80	80	$53	$15,479	$73,379	0.3%	(0.3%) - 0.8%
Hospital Other Part B	99	99	$0	$3,522	$72,186	0.0%	(0.0%) - 0.0%
All Other Codes	1,086	1,086	$0	$2,153,678	$0	0.0%	0.0% - 0.0%
Total(Part A Excluding Hospital IPPS)	**8,514**	**8,514**	**$10,159**	**$35,901,002**	**$58,964,897**	**0.0%**	**0.0% - 0.1%**

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
All Codes With Less Than 30 Claims	3,108	3,108	$185,325	$47,894,675	$140,615,341	0.4%	0.2% - 0.5%
Heart Failure & Shock W MCC (291)	50	50	$4,362	$450,945	$34,110,461	0.9%	(0.3%) - 2.2%
Septicemia Or Severe Sepsis W/O MV >96 Hours W MCC (871)	256	256	$11,030	$3,286,845	$27,553,983	0.3%	(0.0%) - 0.7%
Intracranial Hemorrhage Or Cerebral Infarction W CC Or TPA In 24 Hrs (065)	52	52	$11,026	$352,756	$22,824,359	3.5%	(0.5%) - 7.5%
Extensive OR Procedure Unrelated To Principal Diagnosis W MCC (981)	115	115	$53,493	$3,492,876	$17,130,977	1.6%	(0.5%) - 3.7%
Permanent Cardiac Pacemaker Implant W CC (243)	45	45	$22,244	$737,087	$16,807,674	3.0%	(2.0%) - 8.0%
Renal Failure W CC (683)	53	53	$4,161	$322,114	$9,275,231	1.1%	(0.8%) - 3.0%
Seizures W/O MCC (101)	46	46	$7,759	$287,710	$8,127,507	2.9%	(2.7%) - 8.6%
Kidney & Urinary Tract Infections W MCC (689)	102	102	$10,267	$787,369	$8,067,684	1.3%	(0.4%) - 3.0%
Major Hip And Knee Joint Replacement Or Reattachment Of Lower Extremity W/O MCC (470)	511	511	$7,543	$6,542,500	$6,705,083	0.1%	(0.0%) - 0.3%
Chronic Obstructive Pulmonary Disease W MCC (190)	167	167	$8,404	$1,404,648	$6,295,949	0.6%	(0.2%) - 1.4%
Psychoses (885)	590	590	$8,567	$5,828,556	$6,062,645	0.2%	(0.2%) - 0.5%
Respiratory Infections & Inflammations W CC (178)	54	54	$10,036	$432,766	$5,660,383	2.3%	(0.3%) - 4.9%
Simple Pneumonia & Pleurisy W CC (194)	59	59	$4,031	$378,295	$5,403,357	0.8%	(0.6%) - 2.2%
Hip & Femur Procedures Except Major Joint W CC (481)	88	88	$6,078	$1,248,934	$4,846,774	0.5%	(0.3%) - 1.3%
Esophagitis, Gastroent & Misc Digest Disorders W/O MCC (392)	49	49	$1,249	$260,458	$4,195,865	0.6%	(0.5%) - 1.6%
Simple Pneumonia & Pleurisy W MCC (193)	87	87	$3,481	$761,363	$4,179,834	0.3%	(0.3%) - 1.0%
Disorders Of Pancreas Except Malignancy W CC (439)	35	35	$5,209	$216,673	$4,175,881	2.5%	(2.3%) - 7.4%
Major Small & Large Bowel Procedures W/O CC/MCC (331)	51	51	$7,085	$629,621	$4,134,510	1.2%	(0.6%) - 3.0%
Chronic Obstructive Pulmonary Disease W/O CC/MCC (192)	36	36	$3,769	$195,986	$3,116,111	2.1%	(1.9%) - 6.1%
All Other Codes	7,932	7,932	$247,862	$134,837,873	$47,705,303	0.1%	0.1% - 0.1%
Total(Part A Hospital IPPS)	**13,486**	**13,486**	**$622,983**	**$210,350,051**	**$386,994,912**	**0.3%**	**0.2% - 0.4%**

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
All	**50,000**	**78,710**	**$649,996**	**$262,632,727**	**$710,628,223**	**0.2%**	**0.1% - 0.2%**

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.[32] 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.

[32] 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

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

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
HCPCS	All Codes With Less Than 30 Claims	12,497	1,657	13.3%
	Drug test prsmv chem anlyzr (80307)	381	126	33.1%
	Ground mileage (A0425)	701	63	9.0%
	Initial hospital care (99223)	672	249	37.1%
	Office/outpatient visit est (99213)	459	29	6.3%
	Office/outpatient visit est (99214)	495	32	6.5%
	Routine venipuncture (36415)	451	49	10.9%
	Subsequent hospital care (99232)	875	72	8.2%
	Subsequent hospital care (99233)	1,015	367	36.2%
	Therapeutic exercises (97110)	382	67	17.5%
	Other	16,700	2,409	14.4%
TOS Code	Ambulance	1,639	135	8.2%
	Hospital visit - initial	972	337	34.7%
	Hospital visit - subsequent	2,862	737	25.8%
	Lab tests - other (non-Medicare fee schedule)	3,937	744	18.9%
	Minor procedures - other (Medicare fee schedule)	2,268	347	15.3%
	Office visits - established	1,422	195	13.7%
	Other drugs	1,363	193	14.2%
	Specialist - other	1,724	287	16.6%
	Specialist - psychiatry	1,198	79	6.6%
	Undefined codes	1,360	18	1.3%
	Other	15,883	2,048	12.9%
Resolution Type[33]	Automated	8,804	347	3.9%
	Complex	9	1	11.1%
	None	25,809	4,771	18.5%
	Routine	6	1	16.7%

[33] 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
Diagnosis Code	All Codes With Less Than 30 Claims	1,707	219	12.8%
	Diabetes mellitus	1,117	194	17.4%
	General symptoms and signs	945	178	18.8%
	Hypertensive diseases	1,110	217	19.5%
	Inflammatory polyarthropathies	1,009	108	10.7%
	Other dorsopathies	1,154	192	16.6%
	Other forms of heart disease	1,068	177	16.6%
	Persons encountering health services for examinations	1,544	166	10.8%
	Persons with potential health hazards related to family and personal history and certain conditions	1,529	369	24.1%
	Symptoms and signs involving the circulatory and respiratory systems	1,493	256	17.1%
	Other	21,952	3,044	13.9%

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	6,315	1,653	26.2%
	Blood glucose/reagent strips (A4253)	308	151	49.0%
	Home vent non-invasive inter (E0466)	303	62	20.5%
	Lancets per box (A4259)	467	172	36.8%
	Maint drug infus cath per wk (A4221)	277	28	10.1%
	Nebulizer with compression (E0570)	561	120	21.4%
	Oxygen concentrator (E1390)	615	120	19.5%
	Pos airway pressure filter (A7038)	320	114	35.6%
	Px sup fee anti-can sub pres (Q0512)	293	53	18.1%
	Sup fee antiem,antica,immuno (Q0511)	299	56	18.7%
	Other	12,245	3,852	31.5%
TOS Code	CPAP	1,822	559	30.7%
	Glucose Monitor	1,047	405	38.7%
	Immunosuppressive Drugs	1,061	181	17.1%
	Infusion Pumps & Related Drugs	1,327	182	13.7%
	Lower Limb Orthoses	1,324	645	48.7%
	Lower Limb Prostheses	3,074	654	21.3%
	Nebulizers & Related Drugs	1,711	293	17.1%
	Ostomy Supplies	864	201	23.3%
	Oxygen Supplies/Equipment	1,162	279	24.0%
	Surgical Dressings	1,082	606	56.0%
	Other	7,529	2,376	31.6%
Resolution Type[34]	Automated	3,519	36	1.0%
	Complex	41	12	29.3%
	None	18,361	6,305	34.3%
	Routine	82	28	34.1%
Diagnosis Code	All Codes With Less Than 30 Claims	1,370	327	23.9%
	Chronic lower respiratory diseases	2,501	505	20.2%
	Diabetes mellitus	2,246	1,042	46.4%
	Episodic and paroxysmal disorders	1,975	603	30.5%
	In situ neoplasms	522	44	8.4%
	Injuries to the knee and lower leg	641	195	30.4%
	Osteoarthritis	921	491	53.3%
	Other disorders of the skin and subcutaneous tissue	658	342	52.0%
	Other joint disorders	478	162	33.9%
	Persons with potential health hazards related to family and personal history and certain conditions	4,650	1,041	22.4%
	Other	6,041	1,629	27.0%

[34] 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
Type Of Bill	Clinic ESRD	640	15	2.3%
	Clinical Rural Health	256	5	2.0%
	CAH	267	55	20.6%
	Home Health	1,187	244	20.6%
	Hospital Inpatient (Part A)	959	192	20.0%
	Hospital Other Part B	99	20	20.2%
	Hospital Outpatient	2,218	216	9.7%
	Hospital based hospice	141	40	28.4%
	Nonhospital based hospice	742	76	10.2%
	SNF Inpatient	1,596	93	5.8%
	Other	409	49	12.0%
TOS Code	Clinic ESRD	640	15	2.3%
	Clinical Rural Health	256	5	2.0%
	CAH	267	55	20.6%
	Home Health	1,187	244	20.6%
	Hospital Inpatient (Part A)	959	192	20.0%
	Hospital Other Part B	99	20	20.2%
	Hospital Outpatient	2,218	216	9.7%
	Hospital based hospice	141	40	28.4%
	Nonhospital based hospice	742	76	10.2%
	SNF Inpatient	1,596	93	5.8%
	Other	409	49	12.0%
Diagnosis Code	Acute kidney failure and chronic kidney disease	741	27	3.6%
	All Codes With Less Than 30 Claims	473	60	12.7%
	Cerebrovascular diseases	369	54	14.6%
	Chronic lower respiratory diseases	283	36	12.7%
	Diabetes mellitus	273	58	21.2%
	Encounters for other specific health care	462	73	15.8%
	Hypertensive diseases	399	75	18.8%
	Other degenerative diseases of the nervous system	265	32	12.1%
	Other forms of heart disease	395	46	11.6%
	Persons encountering health services for examinations	213	16	7.5%
	Other	4,641	528	11.4%

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	3,108	315	10.1%
	Chronic Obstructive Pulmonary Disease W MCC (190)	167	16	9.6%
	Degenerative Nervous System Disorders W/O MCC (057)	544	95	17.5%
	Endovascular Cardiac Valve Replacement W MCC (266)	213	52	24.4%
	Endovascular Cardiac Valve Replacement W/O MCC (267)	255	62	24.3%
	Major Hip And Knee Joint Replacement Or Reattachment Of Lower Extremity W/O MCC (470)	511	115	22.5%
	Psychoses (885)	590	42	7.1%
	Septicemia Or Severe Sepsis W/O MV >96 Hours W MCC (871)	256	17	6.6%
	Signs & Symptoms W/O MCC (948)	202	46	22.8%
	Spinal Fusion Except Cervical W/O MCC (460)	153	23	15.0%
	Other	7,487	993	13.3%
TOS Code	All Codes With Less Than 30 Claims	1,854	219	11.8%
	Back & Neck Proc Exc Spinal Fusion (518, 519, 520)	303	57	18.8%
	Chronic Obstructive Pulmonary Disease (190, 191, 192)	253	24	9.5%
	Degenerative Nervous System Disorders (056, 057)	592	102	17.2%
	Endovascular Cardiac Valve Replacement (266, 267)	468	114	24.4%
	Major Hip And Knee Joint Replacement Or Reattachment Of Lower Extremity (469, 470)	534	117	21.9%
	Other Major Cardiovascular Procedures (270, 271, 272)	251	24	9.6%
	Psychoses (885)	590	42	7.1%
	Septicemia Or Severe Sepsis W/O MV >96 Hours (871, 872)	306	19	6.2%
	Simple Pneumonia & Pleurisy (193, 194, 195)	211	33	15.6%
	Other	8,124	1,025	12.6%
Diagnosis Code	All Codes With Less Than 30 Claims	495	48	9.7%
	Cerebrovascular diseases	431	47	10.9%
	Complications of surgical and medical care, not elsewhere classified	741	101	13.6%
	Hypertensive diseases	390	56	14.4%
	Ischemic heart diseases	460	51	11.1%
	Osteoarthritis	627	152	24.2%
	Other bacterial diseases	439	31	7.1%
	Other degenerative diseases of the nervous system	337	52	15.4%
	Other forms of heart disease	968	155	16.0%
	Spondylopathies	481	87	18.1%
	Other	8,117	996	12.3%

Table N5: "Included In" and "Excluded From" the Sample[35]

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	17,000	416	17,416	97.6%
No Resolution	17,000	416	17,416	97.6%
Provider Compliance	17,000	416	17,416	97.6%

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

Error Type	Included	Excluded	Total	Percent Included
Paid	11,000	426	11,426	96.3%
No Resolution	11,000	426	11,426	96.3%
Provider Compliance	11,000	426	11,426	96.3%

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	22,000	8,715	30,715	71.6%
No Resolution	22,000	8,715	30,715	71.6%
Provider Compliance	22,000	8,715	30,715	71.6%

[35]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
AMI	Acute Myocardial Infarction
CAH	Critical Access Hospital
CAT/CT/CTA	Computed Axial Tomography/Computed Tomography/Computed Tomography Angiography
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
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
FQHC	Federally Qualified Health Center
FY	Fiscal Year
GI	Gastrointestinal
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
NDC	National Drug Code
OPT	Outpatient Physical Therapy
OPPS	Outpatient Prospective Payment System
OR	Operating Room
ORF	Outpatient Rehabilitation Facility
PDX	Principal Diagnosis
RAP	Request for Advanced Payment
RHC	Rural Health Clinic

Acronym	Definition
RTP	Return to Provider
SNF	Skilled Nursing Facility
TOB	Type of Bill
TOS	Type of Service
W	With
W/O	Without