



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

The Supplementary Appendices for the

Medicare

Fee-for-Service

2015 Improper

Payments Report

APPENDIX ORGANIZATION

Note that the appendices have been reorganized. Table numbers do not correlate with table numbers in previous years' appendices.

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Appendix A: Summary of Projected Improper Payments Adjusted for A/B Rebill¹

Table A1: 2015 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 Payment	Projected Improper Payment	Improper Payment Rate	95% Confidence Interval
Part A (Total)	26,217	20,279	\$260.0	\$28.7	11.0%	10.2% - 11.8%
Part A (Excluding Hospital IPPS)	8,314	7,415	\$147.4	\$21.7	14.7%	13.4% - 16.0%
Part A (Hospital IPPS)	17,903	12,864	\$112.6	\$7.0	6.2%	5.6% - 6.8%
Part B	19,071	18,317	\$90.4	\$11.5	12.7%	11.8% - 13.6%
DMEPOS	11,552	11,007	\$8.0	\$3.2	39.9%	35.5% - 44.4%
Overall	56,840	49,603	\$358.3	\$43.3	12.1%	11.4% - 12.7%

Table A2: Comparison of 2014 and 2015 National Improper Payment Rates by Error Category (Adjusted for Impact of A/B Rebilling)

Error Category	2014	2015				
	Total	Total	Part A Excluding Hospital IPPS	Part A Hospital IPPS	Part B	DMEPOS
No Documentation	0.1%	0.2%	0.0%	0.0%	0.1%	0.0%
Insufficient Documentation	8.2%	8.1%	4.9%	0.3%	2.2%	0.7%
Medical Necessity	2.7%	2.1%	0.8%	1.2%	0.1%	0.0%
Incorrect Coding	1.6%	1.3%	0.1%	0.4%	0.8%	0.0%
Other	0.2%	0.4%	0.2%	0.0%	0.1%	0.1%
Total	12.7%	12.1%	6.1%	1.9%	3.2%	0.9%

¹ Adjusted for Medicare Part A to B rebilling of denied inpatient hospital claims.

Table A3: Improper Payment Rate Categories by Percentage of 2015 National Improper Payments (Adjusted for Impact of A/B Rebilling)

Error Category	Percent of 2015 National Improper Payment Rate
No Documentation	1.3%
Insufficient Documentation	67.3%
Medical Necessity	17.3%
Incorrect Coding	10.8%
Other	3.3%
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	Improper Payment Amount	Improper Payment Rate	Improper Payment Amount	Improper Payment Rate	Improper Payment Amount	Improper Payment Rate
Part A (Total)	\$260.0	\$28.7	11.0%	\$27.7	10.7%	\$0.9	0.4%
Part A (Excluding Hospital IPPS)	\$147.4	\$21.7	14.7%	\$21.6	14.7%	\$0.1	0.0%
Part A(Hospital IPPS)	\$112.6	\$7.0	6.2%	\$6.1	5.4%	\$0.9	0.8%
Part B	\$90.4	\$11.5	12.7%	\$11.2	12.4%	\$0.3	0.3%
DMEPOS	\$8.0	\$3.2	39.9%	\$3.2	39.9%	\$0.0	0.0%
Total	\$358.3	\$43.3	12.1%	\$42.1	11.7%	\$1.3	0.4%

Table A5: 2015 Projected Improper Payments (Dollars in Billions) by Type of Error and Clinical Setting (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	\$0.1	\$0.0	\$0.0	\$0.0	\$0.4	\$0.0	\$0.1	\$0.6
Insufficient Documentation	\$2.6	\$9.6	\$4.4	\$1.7	\$5.5	\$3.0	\$2.4	\$29.2
Medical Necessity	\$0.1	\$0.4	\$1.0	\$5.7	\$0.1	\$0.1	\$0.1	\$7.5
Incorrect Coding	\$0.0	\$0.0	\$0.2	\$1.3	\$2.7	\$0.3	\$0.1	\$4.7
Other	\$0.4	\$0.0	\$0.2	\$0.1	\$0.2	\$0.5	\$0.0	\$1.4
Total	\$3.2	\$10.1	\$5.8	\$8.8	\$8.8	\$4.0	\$2.7	\$43.3

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

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 ²	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 ³	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 ⁴	Gross	0.2%	4.3%	3.0%	1.0%	0.1%	8.6%	91.4%
2012 ⁵	Gross	0.2%	5.0%	1.9%	1.3%	0.1%	8.5%	91.5%
2013 ⁵	Gross	0.2%	6.1%	2.2%	1.5%	0.2%	10.1%	89.9%
2014 ⁵	Gross	0.1%	8.2%	2.7%	1.6%	0.2%	12.7%	87.3%
2015 ⁵	Gross	0.2%	8.1%	2.1%	1.3%	0.4%	12.1%	87.9%

² FY 1996-2003 Improper payments were calculated as Overpayments - Underpayments

³ FY 2004-2012 Improper payments were calculated as Overpayments + absolute value of Underpayments

⁴ The FY 2011 improper payment rate reported in this table is adjusted for the prospective impact of late appeals and documentation.

⁵ The FY 2012, 2013, 2014, and 2015 improper payment rates reported in this table are adjusted for the impact of denied Part A inpatient claims under Part B.

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

Table B1: 2015 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 Payment	Projected Improper Payment	Improper Payment Rate	95% Confidence Interval
Part A (Total)	26,217	20,279	\$260.0	\$30.0	11.5%	10.7% - 12.4%
Part A (Excluding Hospital IPPS)	8,314	7,415	\$147.4	\$21.7	14.7%	13.4% - 16.0%
Part A (Hospital IPPS)	17,903	12,864	\$112.6	\$8.3	7.4%	6.8% - 8.1%
Part B	19,071	18,317	\$90.4	\$11.5	12.7%	11.8% - 13.6%
DMEPOS	11,552	11,007	\$8.0	\$3.2	39.9%	35.6% - 44.2%
Overall	56,840	49,603	\$358.3	\$44.7	12.5%	11.8% - 13.1%

Table B2: Comparison of 2014 and 2015 National Improper Payment Rates by Error Category (Unadjusted for Impact of A/B Rebilling)

Error Category	2014	2015				
	Total	Total	Part A Excluding Hospital IPPS	Part A Hospital IPPS	Part B	DMEPOS
No Documentation	0.1%	0.2%	0.0%	0.0%	0.1%	0.0%
Insufficient Documentation	8.2%	8.2%	4.9%	0.3%	2.2%	0.7%
Medical Necessity	3.6%	2.5%	0.8%	1.6%	0.1%	0.0%
Incorrect Coding	1.6%	1.3%	0.1%	0.4%	0.8%	0.0%
Other	0.2%	0.4%	0.2%	0.0%	0.1%	0.1%
Total	13.6%	12.5%	6.1%	2.3%	3.2%	0.9%

Table B3: Improper Payment Rate Categories by Percentage of 2015 National Improper Payments (Unadjusted for Impact of A/B Rebilling)

Error Category	Percent of 2015 National Improper Payment Rate
No Documentation	1.3%
Insufficient Documentation	65.4%
Medical Necessity	19.7%
Incorrect Coding	10.5%
Other	3.2%
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	Improper Payment Amount	Improper Payment Rate	Improper Payment Amount	Improper Payment Rate	Improper Payment Amount	Improper Payment Rate
Part A (Total)	\$260.0	\$30.0	11.5%	\$29.1	11.2%	\$0.9	0.4%
Part A (Excluding Hospital IPPS)	\$147.4	\$21.7	14.7%	\$21.6	14.7%	\$0.1	0.0%
Part A(Hospital IPPS)	\$112.6	\$8.3	7.4%	\$7.5	6.6%	\$0.9	0.8%
Part B	\$90.4	\$11.5	12.7%	\$11.2	12.4%	\$0.3	0.3%
DMEPOS	\$8.0	\$3.2	39.9%	\$3.2	39.9%	\$0.0	0.0%
Total	\$358.3	\$44.7	12.5%	\$43.4	12.1%	\$1.3	0.4%

Table B5: 2015 Projected Improper Payments (Dollars in Billions) by Type of Error and Clinical Setting (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	\$0.1	\$0.0	\$0.0	\$0.0	\$0.4	\$0.0	\$0.1	\$0.6
Insufficient Documentation	\$2.6	\$9.6	\$4.4	\$1.7	\$5.5	\$3.0	\$2.4	\$29.2
Medical Necessity	\$0.1	\$0.4	\$1.0	\$7.0	\$0.1	\$0.1	\$0.1	\$8.8
Incorrect Coding	\$0.0	\$0.0	\$0.2	\$1.3	\$2.7	\$0.3	\$0.1	\$4.7
Other	\$0.4	\$0.1	\$0.2	\$0.1	\$0.2	\$0.5	\$0.0	\$1.4
Total	\$3.2	\$10.1	\$5.8	\$10.2	\$8.9	\$4.0	\$2.7	\$44.7

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

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 ⁶	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 ⁷	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%

⁶ FY 1996-2003 Improper payments were calculated as Overpayments - Underpayments

⁷ FY 2004-2012 Improper payments were calculated as Overpayments + absolute value of Underpayments

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

Part A Inpatient PPS Length of Stay	Number of Claims Sampled	Improper Payment Rate	Projected Improper Payment	Proportion of Overall CERT Error
All CERT	49,603	12.5%	\$44.7	100.0%
Overall Part A(Hospital IPPS)	12,864	7.4%	\$8.3	18.6%
0 or 1 day	1,944	27.8%	\$2.1	4.8%
2 days	2,074	11.2%	\$1.4	3.0%
3 days	2,173	8.7%	\$1.4	3.1%
4 days	1,507	6.0%	\$0.7	1.5%
5 days	1,084	6.5%	\$0.6	1.3%
More than 5 days	4,082	3.9%	\$2.2	4.9%

Table B8: Projected Improper Payments by State (Unadjusted for Impact of A/B Rebilling)

State	Projected Improper Payments (Millions)	Improper Payment rate	Claims Reviewed	95% Confidence Interval	Percentage of Total Error
CA	\$4,659.8	14.1%	4,065	11.4% - 16.8%	10.4%
TX	\$4,393.8	17.6%	3,472	15.6% - 19.7%	9.8%
FL	\$3,569.9	13.1%	3,687	11.2% - 15.0%	8.0%
NY	\$2,411.4	11.1%	3,060	9.3% - 12.9%	5.4%
IL	\$2,392.8	15.0%	2,257	12.1% - 17.9%	5.4%
PA	\$1,995.6	14.0%	2,084	11.2% - 16.8%	4.5%
NJ	\$1,823.4	14.0%	1,586	10.7% - 17.3%	4.1%
OH	\$1,802.9	13.7%	1,866	10.2% - 17.3%	4.0%
GA	\$1,627.3	16.7%	1,513	12.4% - 21.0%	3.6%
MI	\$1,523.8	11.3%	1,895	9.5% - 13.2%	3.4%
LA	\$1,267.1	19.7%	804	16.0% - 23.5%	2.8%
NC	\$1,206.7	10.9%	1,919	8.4% - 13.5%	2.7%
VA	\$1,011.2	12.6%	1,293	10.1% - 15.1%	2.3%
KY	\$930.7	15.9%	875	9.0% - 22.9%	2.1%
AL	\$912.6	14.7%	963	11.2% - 18.3%	2.0%
MA	\$905.0	6.0%	1,405	4.6% - 7.3%	2.0%
IN	\$896.6	11.2%	1,089	8.3% - 14.1%	2.0%
SC	\$823.0	13.2%	773	9.2% - 17.3%	1.8%
TN	\$793.0	7.0%	1,477	4.8% - 9.2%	1.8%
MO	\$774.6	10.8%	1,070	8.1% - 13.5%	1.7%
MD	\$773.2	8.1%	1,072	5.5% - 10.8%	1.7%

State	Projected Improper Payments (Millions)	Improper Payment rate	Claims Reviewed	95% Confidence Interval	Percentage of Total Error
AZ	\$714.9	12.1%	795	6.3% - 18.0%	1.6%
OK	\$705.6	16.5%	750	11.8% - 21.2%	1.6%
WA	\$624.5	10.6%	872	7.7% - 13.6%	1.4%
MS	\$552.8	14.3%	578	9.9% - 18.7%	1.2%
MN	\$541.9	9.2%	740	4.3% - 14.1%	1.2%
AR	\$431.7	11.4%	568	7.2% - 15.6%	1.0%
CO	\$401.6	12.0%	591	8.1% - 15.8%	0.9%
WI	\$389.7	7.5%	752	5.3% - 9.8%	0.9%
KS	\$370.1	11.0%	641	7.9% - 14.2%	0.8%
IA	\$363.3	10.2%	547	5.7% - 14.6%	0.8%
UT	\$295.9	11.6%	286	4.6% - 18.5%	0.7%
CT	\$294.1	5.8%	595	4.1% - 7.6%	0.7%
NV	\$290.7	13.2%	324	9.4% - 17.0%	0.7%
NH	\$247.4	13.8%	255	8.5% - 19.1%	0.6%
NM	\$215.5	15.8%	218	8.4% - 23.3%	0.5%
OR	\$211.2	6.4%	432	3.4% - 9.5%	0.5%
WV	\$198.5	12.2%	341	7.9% - 16.4%	0.4%
PR	\$182.9	27.6%	107	17.2% - 38.0%	0.4%
NE	\$150.1	6.2%	325	3.1% - 9.4%	0.3%
DE	\$129.5	10.6%	174	5.4% - 15.7%	0.3%
US Territories	\$143.4	23.1%	94	15.6% - 30.6%	0.3%
MT	\$103.8	10.5%	130	5.5% - 15.5%	0.2%
ND	\$101.8	17.4%	133	10.5% - 24.3%	0.2%
DC	\$88.1	13.7%	80	5.5% - 21.9%	0.2%
ID	\$84.0	6.5%	235	4.2% - 8.9%	0.2%
ME	\$82.6	4.0%	275	1.9% - 6.1%	0.2%
VT	\$72.7	8.8%	119	0.9% - 16.7%	0.2%
WY	\$66.2	17.3%	85	13.4% - 21.2%	0.1%
SD	\$59.2	8.3%	144	5.7% - 11.0%	0.1%
RI	\$58.5	5.9%	138	1.4% - 10.3%	0.1%
AK	\$30.4	6.0%	54	4.9% - 7.1%	0.1%
All States	\$44,697.0	12.5%	49,603	11.8% - 13.1%	100.0%

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

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

Service Label	PFS Amount	Error Rate	Confidence Interval
Replace aortic valve perq (33361)	\$1,420.8	26.1%	14.7% - 37.5%
Replace aortic valve open (33362)	\$1,553.4	25.8%	13.1% - 38.5%
CT abd & pelv w/ contrast (74177)	\$314.1	21.5%	13.6% - 29.5%
Spine fusion extra segment (22614)	\$414.7	20.8%	(1.8%) - 43.3%

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 this table are based on a minimum of 30 lines in the sample.

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	Type of Error					Percent of Overall Improper Payment
				No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other	
Lab tests - other (non-Medicare Fee Schedule)	\$1,159,548,803	39.0%	34.2% - 43.9%	0.3%	97.8%	1.2%	0.1%	0.6%	2.7%
Office visits - established	\$1,141,913,178	7.7%	6.6% - 8.8%	4.8%	35.5%	0.0%	59.7%	0.0%	2.6%
Hospital visit - subsequent	\$1,048,419,405	19.1%	17.3% - 20.9%	4.3%	55.9%	0.4%	38.3%	1.0%	2.4%
Hospital visit - initial	\$888,882,432	30.2%	28.4% - 32.0%	3.7%	29.1%	0.0%	66.2%	0.9%	2.1%
Ambulance	\$734,079,079	15.7%	11.6% - 19.7%	5.4%	79.5%	10.7%	2.6%	1.8%	1.7%
Minor procedures - other (Medicare Fee Schedule)	\$593,574,346	20.1%	16.9% - 23.3%	1.2%	81.7%	1.0%	1.6%	14.5%	1.4%
Office visits - new	\$490,841,942	17.8%	15.4% - 20.1%	0.7%	18.2%	0.9%	77.1%	3.1%	1.1%
Nursing home visit	\$362,260,716	19.8%	15.6% - 23.9%	9.9%	40.8%	0.0%	49.3%	0.0%	0.8%
Specialist - psychiatry	\$311,258,894	30.8%	23.7% - 37.8%	0.2%	96.9%	2.5%	0.0%	0.4%	0.7%
Chiropractic	\$299,130,240	51.7%	46.3% - 57.0%	0.3%	95.8%	3.3%	0.6%	0.0%	0.7%
Emergency room visit	\$292,397,866	13.6%	11.5% - 15.7%	0.0%	9.7%	0.6%	89.7%	0.0%	0.7%
Lab tests - other (Medicare Fee Schedule)	\$270,988,901	15.2%	6.4% - 23.9%	2.4%	93.9%	1.2%	0.8%	1.6%	0.6%
Hospital visit - critical care	\$267,748,423	27.8%	23.9% - 31.7%	1.4%	41.7%	0.2%	56.2%	0.5%	0.6%
Other tests - other	\$257,957,552	17.6%	12.0% - 23.1%	2.2%	89.9%	6.6%	1.2%	0.0%	0.6%
Anesthesia	\$241,654,272	11.4%	5.7% - 17.1%	4.0%	78.3%	0.0%	17.7%	0.0%	0.6%
Other drugs	\$225,205,407	3.5%	1.3% - 5.8%	9.7%	86.7%	0.7%	2.9%	0.0%	0.5%
Major procedure - Other	\$158,604,068	9.8%	0.8% - 18.7%	0.0%	99.7%	0.3%	0.0%	0.0%	0.4%
Dialysis services (Medicare Fee Schedule)	\$147,792,301	17.8%	12.3% - 23.2%	4.9%	59.8%	0.0%	22.2%	13.1%	0.3%
Specialist - other	\$136,900,637	19.4%	11.6% - 27.1%	13.1%	75.5%	0.0%	5.6%	5.7%	0.3%
Advanced imaging - CAT/CT/CTA: other	\$129,739,583	12.4%	6.6% - 18.2%	3.3%	91.7%	0.0%	5.0%	0.0%	0.3%

Part B Services (BETOS Codes)	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Type of Error					Percent of Overall Improper Payment
				No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other	
All Type of Services (Incl. Codes Not Listed)	\$11,486,406,389	12.7%	11.8% - 13.6%	3.8%	68.2%	1.7%	24.6%	1.7%	26.5%

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

DMEPOS Service (HCPCS)	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Type of Error					Percent of Overall Improper Payment
				No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other	
Oxygen Supplies/Equipment	\$541,134,091	48.5%	45.1% - 51.8%	0.7%	86.2%	1.6%	0.0%	11.5%	1.2%
CPAP	\$248,346,601	40.4%	33.6% - 47.2%	0.1%	88.7%	2.9%	0.0%	8.3%	0.6%
Glucose Monitor	\$139,795,750	42.9%	37.6% - 48.1%	0.7%	64.3%	13.9%	16.7%	4.5%	0.3%
Immunosuppressive Drugs	\$135,696,074	45.4%	37.2% - 53.6%	0.1%	70.2%	0.0%	0.1%	29.5%	0.3%
Lower Limb Orthoses	\$130,146,239	46.3%	38.0% - 54.6%	2.4%	87.3%	2.9%	0.0%	7.5%	0.3%
Lower Limb Prostheses	\$127,267,572	23.7%	11.2% - 36.1%	0.0%	90.5%	0.0%	0.4%	9.0%	0.3%
Nebulizers & Related Drugs	\$125,070,267	11.0%	3.5% - 18.4%	3.6%	84.5%	1.8%	0.0%	10.1%	0.3%
Infusion Pumps & Related Drugs	\$119,662,255	27.9%	11.7% - 44.1%	0.5%	91.4%	2.3%	0.0%	5.7%	0.3%
Diabetic Shoes	\$118,850,286	66.0%	54.8% - 77.2%	2.4%	90.3%	0.1%	0.0%	7.2%	0.3%
Enteral Nutrition	\$114,939,708	51.5%	42.3% - 60.8%	0.4%	88.0%	0.2%	0.0%	11.4%	0.3%
Wheelchairs Manual	\$112,771,748	81.3%	71.3% - 91.2%	1.8%	87.9%	0.8%	0.0%	9.6%	0.3%
Urological Supplies	\$110,153,534	48.8%	35.5% - 62.0%	0.1%	69.2%	0.8%	0.0%	30.0%	0.3%
Surgical Dressings	\$99,186,486	72.5%	63.3% - 81.7%	1.5%	87.7%	1.0%	0.0%	9.7%	0.2%
LSO	\$91,265,153	51.6%	41.7% - 61.5%	5.5%	79.1%	1.2%	0.0%	14.2%	0.2%
Hospital Beds/Accessories	\$85,475,145	85.3%	78.9% - 91.7%	0.4%	91.1%	1.7%	0.0%	6.8%	0.2%
Wheelchairs Options/Accessories	\$81,390,780	35.6%	17.3% - 53.8%	8.3%	80.8%	5.4%	0.0%	5.5%	0.2%
Respiratory Assist Device	\$75,351,493	67.7%	58.8% - 76.6%	0.6%	88.1%	2.1%	0.0%	9.2%	0.2%
Oral Anti-Cancer Drugs	\$74,794,669	28.0%	17.2% - 38.7%	0.0%	71.1%	0.0%	0.0%	28.9%	0.2%
All Policy Groups with Less than 30 Claims	\$74,763,549	43.1%	26.8% - 59.5%	0.4%	92.7%	0.0%	0.0%	6.9%	0.2%
Ostomy Supplies	\$71,004,658	41.9%	33.4% - 50.4%	0.0%	85.4%	1.3%	0.0%	13.3%	0.2%
All Type of Services (Incl. Codes Not Listed)	\$3,181,282,257	39.9%	35.6% - 44.2%	1.6%	83.0%	1.9%	0.8%	12.7%	7.3%

Table D3: Top 20 Service Types with Highest Improper Payments: Part A Excluding Hospital IPPS

Part A Services Excluding Hospital IPPS (TOB)	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Type of Error					Percent of Overall Improper Payment
				No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other	
Home Health	\$10,081,911,400	59.0%	55.7% - 62.3%	0.3%	94.8%	4.1%	0.3%	0.5%	23.3%
SNF Inpatient	\$3,510,926,699	10.4%	8.6% - 12.1%	0.2%	78.7%	1.6%	8.3%	11.2%	8.1%
Hospital Outpatient	\$2,526,045,543	4.9%	3.4% - 6.3%	0.1%	79.1%	11.5%	5.6%	3.6%	5.8%
Hospital Inpatient (Part A)	\$1,838,847,595	29.7%	24.8% - 34.6%	0.2%	27.2%	71.4%	0.0%	1.1%	4.2%
Nonhospital based hospice	\$1,428,981,208	10.7%	6.9% - 14.5%	0.0%	51.3%	44.9%	3.8%	0.0%	3.3%
Clinic ESRD	\$880,079,457	7.9%	5.9% - 10.0%	0.0%	100.0%	0.0%	0.0%	0.0%	2.0%
SNF Inpatient Part B	\$360,947,440	19.4%	11.0% - 27.8%	0.0%	49.2%	19.7%	0.0%	31.1%	0.8%
CAH	\$349,468,164	6.4%	3.1% - 9.8%	0.0%	88.0%	4.9%	1.5%	5.5%	0.8%
Hospital based hospice	\$250,308,820	18.9%	8.2% - 29.5%	0.0%	79.6%	13.6%	0.0%	6.8%	0.6%
Hospital Other Part B	\$192,238,866	20.5%	8.4% - 32.6%	9.8%	87.7%	0.0%	0.8%	1.7%	0.4%
SNF Outpatient	\$97,063,533	46.5%	31.2% - 61.8%	0.0%	85.8%	0.0%	0.0%	14.2%	0.2%
Clinic OPT	\$54,120,813	7.4%	1.4% - 13.4%	0.0%	62.3%	0.0%	0.0%	37.7%	0.1%
Hospital Inpatient Part B	\$42,896,457	5.8%	0.3% - 11.3%	0.0%	98.7%	0.0%	1.3%	0.0%	0.1%
FQHC	\$33,054,272	4.2%	(1.6%) - 10.1%	0.0%	100.0%	0.0%	0.0%	0.0%	0.1%
Clinical Rural Health	\$29,055,535	2.9%	0.7% - 5.1%	15.7%	84.3%	0.0%	0.0%	0.0%	0.1%
Clinic CORF	\$11,459,894	34.2%	16.7% - 51.6%	3.1%	70.9%	0.0%	3.4%	22.6%	0.0%
All Codes With Less Than 30 Claims	\$8,764,118	1.0%	0.9% - 1.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
All Type of Services (Incl. Codes Not Listed)	\$21,696,169,816	14.7%	13.4% - 16.0%	0.3%	80.8%	13.1%	2.4%	3.4%	50.1%

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	Type of Error					Percent of Overall Improper Payment
				No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other	
Major Joint Replacement Or Reattachment Of Lower Extremity (469, 470)	\$359,081,955	5.5%	3.4% - 7.7%	0.0%	88.6%	4.0%	7.4%	0.0%	0.8%
Psychoses (885)	\$351,305,555	8.4%	5.0% - 11.7%	0.0%	36.2%	54.3%	0.2%	9.4%	0.8%
Esophagitis, Gastroent & Misc Digest Disorders (391, 392)	\$277,403,789	20.4%	15.8% - 24.9%	0.0%	6.0%	86.5%	5.0%	2.5%	0.6%
Kidney & Urinary Tract Infections (689, 690)	\$240,676,138	19.1%	11.6% - 26.5%	0.0%	0.0%	99.8%	0.2%	0.0%	0.6%
Heart Failure & Shock (291 , 292, 293)	\$220,376,467	5.9%	3.8% - 7.9%	0.0%	19.2%	57.4%	23.4%	0.0%	0.5%
Circulatory Disorders Except Ami, W Card Cath (286, 287)	\$214,473,263	15.5%	10.5% - 20.4%	0.0%	2.1%	94.1%	3.8%	0.0%	0.5%
Perc Cardiovasc Proc W Drug-Eluting Stent (246, 247)	\$212,567,324	11.2%	6.3% - 16.0%	0.0%	5.5%	93.0%	1.5%	0.0%	0.5%
Misc Disorders of Nutrition, metabolism, fluids/ Electrolytes (640, 641)	\$207,068,070	17.2%	2.7% - 31.8%	0.0%	0.0%	98.6%	1.4%	0.0%	0.5%
Renal Failure (682, 683, 684)	\$179,363,686	7.8%	5.1% - 10.5%	0.0%	6.7%	64.7%	28.6%	0.0%	0.4%
Permanent Cardiac Pacemaker Implant (242, 243, 244)	\$166,848,914	13.0%	10.8% - 15.2%	0.0%	3.8%	95.0%	0.7%	0.6%	0.4%
Back & Neck Proc Exc Spinal Fusion (490, 491)	\$148,972,369	34.6%	29.7% - 39.4%	0.0%	10.7%	79.2%	10.1%	0.0%	0.3%
Chronic Obstructive Pulmonary Disease (190, 191, 192)	\$145,741,664	7.5%	4.3% - 10.7%	0.0%	15.6%	58.4%	26.1%	0.0%	0.3%
Transient Ischemia (069)	\$142,995,056	44.9%	32.4% - 57.3%	0.0%	6.6%	92.9%	0.5%	0.0%	0.3%
Chest Pain (313)	\$136,772,894	45.9%	37.6% - 54.1%	0.0%	2.2%	96.8%	1.0%	0.0%	0.3%
Syncope & Collapse (312)	\$132,102,045	28.0%	14.8% - 41.2%	0.0%	22.0%	71.8%	6.2%	0.0%	0.3%
Cardiac Defibrillator Implant W/O Cardiac Cath (226, 227)	\$125,093,281	25.6%	22.6% - 28.6%	0.0%	6.3%	90.9%	2.2%	0.6%	0.3%
Cardiac Arrhythmia & Conduction Disorders (308, 309, 310)	\$119,854,973	9.5%	5.6% - 13.4%	0.0%	5.9%	68.7%	25.4%	0.0%	0.3%
Degenerative Nervous System Disorders (056, 057)	\$117,968,633	19.8%	8.9% - 30.6%	0.0%	3.6%	96.4%	0.0%	0.0%	0.3%
Red Blood Cell Disorders (811, 812)	\$111,832,432	14.2%	7.1% - 21.3%	0.0%	0.0%	85.3%	14.7%	0.0%	0.3%

Part A Hospital IPPS Services (MS-DRGs)	Projected Improper Payments	Improper Payment Rate	95% Confidence Interval	Type of Error					Percent of Overall Improper Payment
				No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other	
Medical Back Problems (551, 552)	\$108,692,863	21.2%	15.6% - 26.7%	0.0%	4.1%	92.6%	0.6%	2.7%	0.3%
All Type of Services (Incl. Codes Not Listed)	\$8,333,107,590	7.4%	6.8% - 8.1%	0.0%	14.7%	68.6%	15.7%	1.0%	19.2%

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.

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

Part B Services (BETOS Codes)	Improper Payment Rate	95% Confidence Interval	Type of Error					Percent of Overall Improper Payment
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other	
Chiropractic	51.7%	46.3% - 57.0%	0.3%	95.8%	3.3%	0.6%	0.0%	0.7%
Lab tests - other (non-Medicare Fee Schedule)	39.0%	34.2% - 43.9%	0.3%	97.8%	1.2%	0.1%	0.6%	2.7%
Specialist - psychiatry	30.8%	23.7% - 37.8%	0.2%	96.9%	2.5%	0.0%	0.4%	0.7%
Hospital visit - initial	30.2%	28.4% - 32.0%	3.7%	29.1%	0.0%	66.2%	0.9%	2.0%
Hospital visit - critical care	27.8%	23.9% - 31.7%	1.4%	41.7%	0.2%	56.2%	0.5%	0.6%
Minor procedures - other (Medicare Fee Schedule)	20.1%	16.9% - 23.3%	1.2%	81.7%	1.0%	1.6%	14.5%	1.4%
Nursing home visit	19.8%	15.6% - 23.9%	9.9%	40.8%	0.0%	49.3%	0.0%	0.8%
Specialist - other	19.4%	11.6% - 27.1%	13.1%	75.5%	0.0%	5.6%	5.7%	0.3%
Hospital visit - subsequent	19.1%	17.3% - 20.9%	4.3%	55.9%	0.4%	38.3%	1.0%	2.3%
Dialysis services (Medicare Fee Schedule)	17.8%	12.3% - 23.2%	4.9%	59.8%	0.0%	22.2%	13.1%	0.3%
Office visits - new	17.8%	15.4% - 20.1%	0.7%	18.2%	0.9%	77.1%	3.1%	1.1%
Other tests - other	17.6%	12.0% - 23.1%	2.2%	89.9%	6.6%	1.2%	0.0%	0.6%
Ambulance	15.7%	11.6% - 19.7%	5.4%	79.5%	10.7%	2.6%	1.8%	1.6%
Lab tests - other (Medicare Fee Schedule)	15.2%	6.4% - 23.9%	2.4%	93.9%	1.2%	0.8%	1.6%	0.6%
Emergency room visit	13.6%	11.5% - 15.7%	0.0%	9.7%	0.6%	89.7%	0.0%	0.7%
Advanced imaging - CAT/CT/CTA: other	12.4%	6.6% - 18.2%	3.3%	91.7%	0.0%	5.0%	0.0%	0.3%
Anesthesia	11.4%	5.7% - 17.1%	4.0%	78.3%	0.0%	17.7%	0.0%	0.5%
Major procedure - Other	9.8%	0.8% - 18.7%	0.0%	99.7%	0.3%	0.0%	0.0%	0.4%
Office visits - established	7.7%	6.6% - 8.8%	4.8%	35.5%	0.0%	59.7%	0.0%	2.5%
Other drugs	3.5%	1.3% - 5.8%	9.7%	86.7%	0.7%	2.9%	0.0%	0.5%
Overall (Incl. Service Types Not Listed)	12.7%	11.8% - 13.6%	3.8%	68.2%	1.7%	24.6%	1.7%	25.5%

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

DMEPOS (HCPCS)	Improper Payment Rate	95% Confidence Interval	Type of Error					Percent of Overall Improper Payment
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other	
Hospital Beds/Accessories	85.3%	78.9% - 91.7%	0.4%	91.1%	1.7%	0.0%	6.8%	0.2%
Wheelchairs Manual	81.3%	71.3% - 91.2%	1.8%	87.9%	0.8%	0.0%	9.6%	0.3%
Surgical Dressings	72.5%	63.3% - 81.7%	1.5%	87.7%	1.0%	0.0%	9.7%	0.2%
Respiratory Assist Device	67.7%	58.8% - 76.6%	0.6%	88.1%	2.1%	0.0%	9.2%	0.2%
Diabetic Shoes	66.0%	54.8% - 77.2%	2.4%	90.3%	0.1%	0.0%	7.2%	0.3%
LSO	51.6%	41.7% - 61.5%	5.5%	79.1%	1.2%	0.0%	14.2%	0.2%
Enteral Nutrition	51.5%	42.3% - 60.8%	0.4%	88.0%	0.2%	0.0%	11.4%	0.3%
Urological Supplies	48.8%	35.5% - 62.0%	0.1%	69.2%	0.8%	0.0%	30.0%	0.3%
Oxygen Supplies/Equipment	48.5%	45.1% - 51.8%	0.7%	86.2%	1.6%	0.0%	11.5%	1.2%
Lower Limb Orthoses	46.3%	38.0% - 54.6%	2.4%	87.3%	2.9%	0.0%	7.5%	0.3%
Immunosuppressive Drugs	45.4%	37.2% - 53.6%	0.1%	70.2%	0.0%	0.1%	29.5%	0.3%
All Policy Groups with Less than 30 Claims	43.1%	26.8% - 59.5%	0.4%	92.7%	0.0%	0.0%	6.9%	0.2%
Glucose Monitor	42.9%	37.6% - 48.1%	0.7%	64.3%	13.9%	16.7%	4.5%	0.3%
Ostomy Supplies	41.9%	33.4% - 50.4%	0.0%	85.4%	1.3%	0.0%	13.3%	0.2%
CPAP	40.4%	33.6% - 47.2%	0.1%	88.7%	2.9%	0.0%	8.3%	0.6%
Wheelchairs Options/Accessories	35.6%	17.3% - 53.8%	8.3%	80.8%	5.4%	0.0%	5.5%	0.2%
Oral Anti-Cancer Drugs	28.0%	17.2% - 38.7%	0.0%	71.1%	0.0%	0.0%	28.9%	0.2%
Infusion Pumps & Related Drugs	27.9%	11.7% - 44.1%	0.5%	91.4%	2.3%	0.0%	5.7%	0.3%
Lower Limb Prostheses	23.7%	11.2% - 36.1%	0.0%	90.5%	0.0%	0.4%	9.0%	0.3%
Nebulizers & Related Drugs	11.0%	3.5% - 18.4%	3.6%	84.5%	1.8%	0.0%	10.1%	0.3%
Overall (Incl. Service Types Not Listed)	39.9%	35.6% - 44.2%	1.6%	83.0%	1.9%	0.8%	12.7%	7.2%

Table E3: Top 20 Service Type Improper Payment Rates: Part A Excluding Hospital IPPS

Part A Services Excluding Hospital IPPS (TOB)	Improper Payment Rate	95% Confidence Interval	Type of Error					Percent of Overall Improper Payment
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other	
Home Health	59.0%	55.7% - 62.3%	0.3%	94.8%	4.1%	0.3%	0.5%	23.2%
SNF Outpatient	46.5%	31.2% - 61.8%	0.0%	85.8%	0.0%	0.0%	14.2%	0.2%
Clinic CORF	34.2%	16.7% - 51.6%	3.1%	70.9%	0.0%	3.4%	22.6%	0.0%
Hospital Inpatient (Part A)	29.7%	24.8% - 34.6%	0.2%	27.2%	71.4%	0.0%	1.1%	4.2%
Hospital Other Part B	20.5%	8.4% - 32.6%	9.8%	87.7%	0.0%	0.8%	1.7%	0.4%
SNF Inpatient Part B	19.4%	11.0% - 27.8%	0.0%	49.2%	19.7%	0.0%	31.1%	0.8%
Hospital based hospice	18.9%	8.2% - 29.5%	0.0%	79.6%	13.6%	0.0%	6.8%	0.6%
Nonhospital based hospice	10.7%	6.9% - 14.5%	0.0%	51.3%	44.9%	3.8%	0.0%	3.3%
SNF Inpatient	10.4%	8.6% - 12.1%	0.2%	78.7%	1.6%	8.3%	11.2%	8.1%
Clinic ESRD	7.9%	5.9% - 10.0%	0.0%	100.0%	0.0%	0.0%	0.0%	2.0%
Clinic OPT	7.4%	1.4% - 13.4%	0.0%	62.3%	0.0%	0.0%	37.7%	0.1%
CAH	6.4%	3.1% - 9.8%	0.0%	88.0%	4.9%	1.5%	5.5%	0.8%
Hospital Inpatient Part B	5.8%	0.3% - 11.3%	0.0%	98.7%	0.0%	1.3%	0.0%	0.1%
Hospital Outpatient	4.9%	3.4% - 6.3%	0.1%	79.1%	11.5%	5.6%	3.6%	5.8%
FQHC	4.2%	(1.6%) - 10.1%	0.0%	100.0%	0.0%	0.0%	0.0%	0.1%
Clinical Rural Health	2.9%	0.7% - 5.1%	15.7%	84.3%	0.0%	0.0%	0.0%	0.1%
All Codes With Less Than 30 Claims	1.0%	0.9% - 1.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
Overall (Incl. Service Types Not Listed)	14.7%	13.4% - 16.0%	0.3%	80.8%	13.1%	2.4%	3.4%	49.9%

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	Type of Error					Percent of Overall Improper Payment
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other	
Chest Pain (313)	45.9%	37.6% - 54.1%	0.0%	2.2%	96.8%	1.0%	0.0%	0.3%
Transient Ischemia (069)	44.9%	32.4% - 57.3%	0.0%	6.6%	92.9%	0.5%	0.0%	0.3%
Back & Neck Proc Exc Spinal Fusion (490, 491)	34.6%	29.7% - 39.4%	0.0%	10.7%	79.2%	10.1%	0.0%	0.3%
Syncope & Collapse (312)	28.0%	14.8% - 41.2%	0.0%	22.0%	71.8%	6.2%	0.0%	0.3%
Cardiac Defibrillator Implant W/O Cardiac Cath (226, 227)	25.6%	22.6% - 28.6%	0.0%	6.3%	90.9%	2.2%	0.6%	0.3%
Medical Back Problems (551, 552)	21.2%	15.6% - 26.7%	0.0%	4.1%	92.6%	0.6%	2.7%	0.3%
Esophagitis, Gastroent & Misc Digest Disorders (391, 392)	20.4%	15.8% - 24.9%	0.0%	6.0%	86.5%	5.0%	2.5%	0.6%
Degenerative Nervous System Disorders (056, 057)	19.8%	8.9% - 30.6%	0.0%	3.6%	96.4%	0.0%	0.0%	0.3%
Kidney & Urinary Tract Infections (689, 690)	19.1%	11.6% - 26.5%	0.0%	0.0%	99.8%	0.2%	0.0%	0.6%
Misc Disorders Of Nutrition,metabolism,fluids/ Electrolytes (640, 641)	17.2%	2.7% - 31.8%	0.0%	0.0%	98.6%	1.4%	0.0%	0.5%
Circulatory Disorders Except Ami, W Card Cath (286, 287)	15.5%	10.5% - 20.4%	0.0%	2.1%	94.1%	3.8%	0.0%	0.5%
Red Blood Cell Disorders (811, 812)	14.2%	7.1% - 21.3%	0.0%	0.0%	85.3%	14.7%	0.0%	0.3%
Permanent Cardiac Pacemaker Implant (242, 243, 244)	13.0%	10.8% - 15.2%	0.0%	3.8%	95.0%	0.7%	0.6%	0.4%
Perc Cardiovasc Proc W Drug-Eluting Stent (246, 247)	11.2%	6.3% - 16.0%	0.0%	5.5%	93.0%	1.5%	0.0%	0.5%
Cardiac Arrhythmia & Conduction Disorders (308, 309, 310)	9.5%	5.6% - 13.4%	0.0%	5.9%	68.7%	25.4%	0.0%	0.3%
Psychoses (885)	8.4%	5.0% - 11.7%	0.0%	36.2%	54.3%	0.2%	9.4%	0.8%
Renal Failure (682, 683, 684)	7.8%	5.1% - 10.5%	0.0%	6.7%	64.7%	28.6%	0.0%	0.4%
Chronic Obstructive Pulmonary Disease (190, 191, 192)	7.5%	4.3% - 10.7%	0.0%	15.6%	58.4%	26.1%	0.0%	0.3%
Heart Failure & Shock (291, 292, 293)	5.9%	3.8% - 7.9%	0.0%	19.2%	57.4%	23.4%	0.0%	0.5%
Major Joint Replacement Or Reattachment Of Lower Extremity (469, 470)	5.5%	3.4% - 7.7%	0.0%	88.6%	4.0%	7.4%	0.0%	0.8%
Overall (Incl. Service Types Not Listed)	7.4%	6.8% - 8.1%	0.0%	14.7%	68.6%	15.7%	1.0%	19.2%

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

All Services	No Documentation Errors			
	Improper Payment Rate	Projected Improper Payments	95% Confidence Interval	Percent of Overall Improper Payment
Office visits - established	0.4%	\$54,700,858	0.1% - 0.7%	0.1%
Hospital visit - subsequent	0.8%	\$45,528,786	0.4% - 1.3%	0.1%
Oncology - radiation therapy	4.4%	\$42,258,129	(2.5%) - 11.3%	0.1%
Ambulance	0.8%	\$39,800,046	(0.1%) - 1.8%	0.1%
Nursing home visit	2.0%	\$35,821,085	0.1% - 3.9%	0.1%
Home Health	0.2%	\$34,939,377	(0.1%) - 0.5%	0.1%
Hospital visit - initial	1.1%	\$33,188,944	0.6% - 1.7%	0.1%
Home visit	12.0%	\$29,591,635	4.2% - 19.9%	0.1%
Other drugs	0.3%	\$21,795,352	(0.3%) - 1.0%	0.1%
Hospital Other Part B	2.0%	\$18,827,211	1.0% - 3.0%	0.0%
Specialist - other	2.5%	\$17,897,674	(1.8%) - 6.8%	0.0%
Anesthesia	0.5%	\$9,766,325	(0.4%) - 1.4%	0.0%
Echography/ultrasonography - carotid arteries	3.3%	\$9,663,467	(3.1%) - 9.8%	0.0%
SNF Inpatient	0.0%	\$8,706,479	(0.0%) - 0.1%	0.0%
Other - non-Medicare Fee Schedule	5.0%	\$8,550,736	(4.4%) - 14.3%	0.0%
Dialysis services (Medicare Fee Schedule)	0.9%	\$7,226,240	0.5% - 1.2%	0.0%
Minor procedures - other (Medicare Fee Schedule)	0.2%	\$7,100,555	(0.0%) - 0.5%	0.0%
Specialist - ophthalmology	0.3%	\$6,840,252	(0.2%) - 0.8%	0.0%
Wheelchairs Motorized	4.7%	\$6,811,368	1.8% - 7.5%	0.0%
Negative Pressure Wound Therapy	6.5%	\$6,794,769	(0.9%) - 14.0%	0.0%
Overall (Incl. Codes Not Listed)	0.2%	\$567,590,202	0.1% - 0.2%	1.3%

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

All Services	Insufficient Documentation Errors			
	Improper Payment Rate	Projected Improper Payments	95% Confidence Interval	Percent of Overall Improper Payment
Home Health	55.9%	\$9,562,041,399	52.6% - 59.3%	22.1%
SNF Inpatient	8.2%	\$2,763,305,577	6.5% - 9.8%	6.4%
Hospital Outpatient	3.9%	\$1,998,564,246	2.7% - 5.0%	4.6%
Lab tests - other (non-Medicare Fee Schedule)	38.2%	\$1,134,008,541	33.3% - 43.0%	2.6%
Clinic ESRD	7.9%	\$880,073,902	5.9% - 10.0%	2.0%
Nonhospital based hospice	5.5%	\$733,459,394	2.5% - 8.5%	1.7%
Hospital visit - subsequent	10.7%	\$586,442,780	9.1% - 12.3%	1.4%
Ambulance	12.4%	\$583,424,716	8.6% - 16.3%	1.3%
Hospital Inpatient (Part A)	8.1%	\$500,985,483	5.3% - 10.9%	1.2%
Minor procedures - other (Medicare Fee Schedule)	16.4%	\$484,785,228	13.5% - 19.3%	1.1%
Oxygen Supplies/Equipment	41.8%	\$466,528,181	38.5% - 45.1%	1.1%
Office visits - established	2.7%	\$405,909,164	1.9% - 3.6%	0.9%
Major Joint Replacement Or Reattachment Of Lower Extremity (469, 470)	4.9%	\$318,082,316	2.8% - 7.0%	0.7%
CAH	5.6%	\$307,581,692	2.5% - 8.8%	0.7%
Specialist - psychiatry	29.8%	\$301,750,840	22.8% - 36.9%	0.7%
Chiropractic	49.5%	\$286,599,467	44.1% - 54.9%	0.7%
Hospital visit - initial	8.8%	\$259,058,227	7.3% - 10.3%	0.6%
Lab tests - other (Medicare Fee Schedule)	14.3%	\$254,540,576	5.5% - 23.0%	0.6%
Other tests - other	15.8%	\$231,922,624	10.3% - 21.3%	0.5%
CPAP	35.8%	\$220,321,647	29.2% - 42.4%	0.5%
Overall (Incl. Codes Not Listed)	8.2%	\$29,226,099,937	7.6% - 8.7%	67.5%

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

All Services	Medical Necessity Errors			
	Improper Payment Rate	Projected Improper Payments	95% Confidence Interval	Percent of Overall Improper Payment
Hospital Inpatient (Part A)	21.2%	\$1,313,071,465	16.9% - 25.5%	3.0%
Nonhospital based hospice	4.8%	\$641,028,960	2.3% - 7.3%	1.5%
Home Health	2.4%	\$411,383,512	1.6% - 3.2%	0.9%
Hospital Outpatient	0.6%	\$290,410,111	(0.2%) - 1.3%	0.7%
Kidney & Urinary Tract Infections (689, 690)	19.0%	\$240,249,135	11.6% - 26.5%	0.6%
Esophagitis, Gastroent & Misc Digest Disorders (391, 392)	17.6%	\$239,973,841	13.3% - 22.0%	0.6%
Misc Disorders Of Nutrition,metabolism,fluids/Electrolytes (640, 641)	17.0%	\$204,111,302	2.4% - 31.6%	0.5%
Circulatory Disorders Except Ami, W Card Cath (286, 287)	14.5%	\$201,820,429	9.7% - 19.4%	0.5%
Perc Cardiovasc Proc W Drug-Eluting Stent (246, 247)	10.4%	\$197,686,961	5.7% - 15.1%	0.5%
Psychoses (885)	4.5%	\$190,601,081	2.5% - 6.6%	0.4%
Permanent Cardiac Pacemaker Implant (242, 243, 244)	12.4%	\$158,426,446	10.3% - 14.4%	0.4%
Transient Ischemia (069)	41.7%	\$132,832,794	29.1% - 54.3%	0.3%
Chest Pain (313)	44.4%	\$132,414,867	36.1% - 52.7%	0.3%
Heart Failure & Shock (291, 292, 293)	3.4%	\$126,465,774	1.8% - 4.9%	0.3%
Back & Neck Proc Exc Spinal Fusion (490, 491)	27.4%	\$117,942,605	22.9% - 31.9%	0.3%
Renal Failure (682, 683, 684)	5.1%	\$115,964,717	2.5% - 7.6%	0.3%
Degenerative Nervous System Disorders (056, 057)	19.1%	\$113,769,777	8.2% - 29.9%	0.3%
Cardiac Defibrillator Implant W/O Cardiac Cath (226, 227)	23.3%	\$113,674,924	20.3% - 26.2%	0.3%
Medical Back Problems (551, 552)	19.6%	\$100,622,753	14.3% - 24.9%	0.2%
Red Blood Cell Disorders (811, 812)	12.1%	\$95,360,875	5.1% - 19.2%	0.2%
Overall (Incl. Codes Not Listed)	2.5%	\$8,799,421,521	2.2% - 2.7%	20.3%

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

All Services	Incorrect Coding Errors			
	Improper Payment Rate	Projected Improper Payments	95% Confidence Interval	Percent of Overall Improper Payment
Office visits - established	4.6%	\$681,170,231	3.9% - 5.3%	1.6%
Hospital visit - initial	20.0%	\$588,233,055	18.7% - 21.3%	1.4%
Hospital visit - subsequent	7.3%	\$401,881,610	6.5% - 8.2%	0.9%
Office visits - new	13.7%	\$378,541,856	12.0% - 15.4%	0.9%
SNF Inpatient	0.9%	\$291,590,573	0.5% - 1.2%	0.7%
Emergency room visit	12.2%	\$262,227,864	10.3% - 14.1%	0.6%
Nursing home visit	9.8%	\$178,702,843	8.0% - 11.5%	0.4%
Hospital visit - critical care	15.6%	\$150,511,035	13.1% - 18.1%	0.3%
Hospital Outpatient	0.3%	\$142,389,929	(0.0%) - 0.6%	0.3%
Septicemia Or Severe Sepsis W/O Mv 96+ Hours (871, 872)	1.4%	\$82,245,333	(0.1%) - 3.0%	0.2%
Major Cardiovasc Procedures (237, 238)	3.8%	\$61,182,033	1.9% - 5.6%	0.1%
Nonhospital based hospice	0.4%	\$54,492,854	(0.2%) - 1.0%	0.1%
Heart Failure & Shock (291, 292, 293)	1.4%	\$51,628,256	0.6% - 2.2%	0.1%
Renal Failure (682, 683, 684)	2.2%	\$51,294,026	1.3% - 3.2%	0.1%
Coronary Bypass W/O Cardiac Cath (235, 236)	4.3%	\$43,697,194	3.1% - 5.5%	0.1%
Anesthesia	2.0%	\$42,737,872	(1.9%) - 5.9%	0.1%
Simple Pneumonia & Pleurisy (193, 194, 195)	1.7%	\$40,794,105	0.4% - 3.0%	0.1%
Chronic Obstructive Pulmonary Disease (190, 191, 192)	2.0%	\$37,975,731	0.5% - 3.4%	0.1%
Acute Myocardial Infarction, Discharged Alive (280, 281, 282)	3.1%	\$34,228,066	0.8% - 5.5%	0.1%
Dialysis services (Medicare Fee Schedule)	3.9%	\$32,843,499	2.5% - 5.4%	0.1%
Overall (Incl. Codes Not Listed)	1.3%	\$4,679,299,780	1.2% - 1.4%	10.8%

Table F5: Top 20 Types of Services with Downcoding⁸ Errors

All Services	Downcoding Errors			
	Improper Payment Rate	Projected Improper Payments	95% Confidence Interval	Percent of Overall Improper Payment
Office visits - established	1.4%	\$209,379,169	0.9% - 1.9%	0.5%
Septicemia Or Severe Sepsis W/O Mv 96+ Hours (871, 872)	1.2%	\$70,075,076	(0.3%) - 2.8%	0.2%
Coronary Bypass W/O Cardiac Cath (235, 236)	4.3%	\$43,697,194	3.1% - 5.5%	0.1%
Simple Pneumonia & Pleurisy (193, 194, 195)	1.4%	\$32,795,330	0.3% - 2.5%	0.1%
Chronic Obstructive Pulmonary Disease (190, 191, 192)	1.6%	\$30,452,083	0.2% - 2.9%	0.1%
Heart Failure & Shock (291, 292, 293)	0.8%	\$28,593,365	0.2% - 1.3%	0.1%
Other Respiratory System Diagnoses (205, 206)	10.5%	\$26,837,045	(8.7%) - 29.7%	0.1%
Renal Failure (682, 683, 684)	1.1%	\$25,277,366	0.3% - 1.9%	0.1%
Nursing home visit	1.3%	\$23,772,140	0.5% - 2.1%	0.1%
Hospital visit - subsequent	0.4%	\$23,495,599	0.2% - 0.7%	0.1%
Major Joint Replacement Or Reattachment Of Lower Extremity (469, 470)	0.3%	\$20,132,777	(0.1%) - 0.7%	0.0%
Cardiac Arrhythmia & Conduction Disorders (308, 309, 310)	1.5%	\$19,313,386	(0.1%) - 3.2%	0.0%
Other Circulatory System Diagnoses (314, 315, 316)	2.3%	\$19,291,253	1.4% - 3.3%	0.0%
Other Skin, Subcut Tiss & Breast Proc (579, 580, 581)	4.2%	\$19,164,938	0.1% - 8.4%	0.0%
Acute Myocardial Infarction, Discharged Alive (280, 281, 282)	1.7%	\$18,451,212	(0.1%) - 3.4%	0.0%
Intracranial Hemorrhage Or Cerebral Infarction (064, 065, 066)	1.2%	\$18,277,808	0.0% - 2.4%	0.0%
Home Health	0.1%	\$17,380,930	(0.1%) - 0.3%	0.0%
Signs & Symptoms (947, 948)	3.1%	\$13,372,894	1.8% - 4.3%	0.0%
Back & Neck Proc Exc Spinal Fusion (490, 491)	3.1%	\$13,185,322	1.2% - 4.9%	0.0%
Other Vascular Procedures (252, 253, 254)	0.8%	\$10,413,042	0.4% - 1.3%	0.0%
Overall (Incl. Codes Not Listed)	0.3%	\$1,178,156,241	0.3% - 0.4%	2.7%

⁸ 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

All Services	Other Errors			
	Improper Payment Rate	Projected Improper Payments	95% Confidence Interval	Percent of Overall Improper Payment
SNF Inpatient	1.2%	\$391,915,331	0.5% - 1.8%	0.9%
SNF Inpatient Part B	6.0%	\$112,355,568	0.4% - 11.6%	0.3%
Hospital Outpatient	0.2%	\$91,100,884	(0.0%) - 0.4%	0.2%
Minor procedures - other (Medicare Fee Schedule)	2.9%	\$86,058,541	1.6% - 4.3%	0.2%
Oxygen Supplies/Equipment	5.6%	\$62,292,000	4.1% - 7.0%	0.1%
Home Health	0.3%	\$46,933,519	(0.0%) - 0.6%	0.1%
Immunosuppressive Drugs	13.4%	\$40,080,122	8.2% - 18.6%	0.1%
Urological Supplies	14.6%	\$33,043,957	3.6% - 25.6%	0.1%
Psychoses (885)	0.8%	\$32,897,109	(0.6%) - 2.2%	0.1%
Oral Anti-Cancer Drugs	8.1%	\$21,583,426	0.6% - 15.6%	0.0%
Hospital Inpatient (Part A)	0.3%	\$21,018,917	(0.1%) - 0.7%	0.0%
CPAP	3.3%	\$20,546,116	1.4% - 5.3%	0.0%
Clinic OPT	2.8%	\$20,380,804	(1.5%) - 7.1%	0.0%
Dialysis services (Medicare Fee Schedule)	2.3%	\$19,344,110	(1.1%) - 5.7%	0.0%
CAH	0.4%	\$19,201,382	(0.3%) - 1.0%	0.0%
Hospital based hospice	1.3%	\$16,972,507	(1.2%) - 3.8%	0.0%
Office visits - new	0.6%	\$15,394,382	(0.3%) - 1.4%	0.0%
Ventilators	12.1%	\$14,322,534	(0.8%) - 25.1%	0.0%
Osteogenesis Stimulator	16.4%	\$13,829,861	8.1% - 24.6%	0.0%
SNF Outpatient	6.6%	\$13,745,375	(1.2%) - 14.3%	0.0%
Overall (Incl. Codes Not Listed)	0.4%	\$1,424,554,613	0.3% - 0.5%	3.3%

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 this table 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)	Improper Payment Rate					Percent of Overall Improper Payment
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval	
Lab tests - other (non-Medicare Fee Schedule)	39.0%	4,140	\$1,159,548,803	2.5%	34.2% - 43.9%	2.7%
Office visits - established	7.7%	1,879	\$1,141,913,178	0.6%	6.6% - 8.8%	2.6%
Hospital visit - subsequent	19.1%	1,844	\$1,048,419,405	0.9%	17.3% - 20.9%	2.4%
Hospital visit - initial	30.2%	1,312	\$888,882,432	0.9%	28.4% - 32.0%	2.1%
Ambulance	15.7%	400	\$734,079,079	2.1%	11.6% - 19.7%	1.7%
Minor procedures - other (Medicare Fee Schedule)	20.1%	1,145	\$593,574,346	1.6%	16.9% - 23.3%	1.4%
Office visits - new	17.8%	797	\$490,841,942	1.2%	15.4% - 20.1%	1.1%
Nursing home visit	19.8%	448	\$362,260,716	2.1%	15.6% - 23.9%	0.8%
Specialist - psychiatry	30.8%	747	\$311,258,894	3.6%	23.7% - 37.8%	0.7%
Chiropractic	51.7%	451	\$299,130,240	2.7%	46.3% - 57.0%	0.7%
Emergency room visit	13.6%	407	\$292,397,866	1.1%	11.5% - 15.7%	0.7%
Lab tests - other (Medicare Fee Schedule)	15.2%	508	\$270,988,901	4.5%	6.4% - 23.9%	0.6%
Hospital visit - critical care	27.8%	418	\$267,748,423	2.0%	23.9% - 31.7%	0.6%
Other tests - other	17.6%	451	\$257,957,552	2.8%	12.0% - 23.1%	0.6%
Anesthesia	11.4%	280	\$241,654,272	2.9%	5.7% - 17.1%	0.6%
Other drugs	3.5%	482	\$225,205,407	1.1%	1.3% - 5.8%	0.5%
All Codes With Less Than 30 Claims	6.5%	211	\$212,771,997	2.0%	2.5% - 10.5%	0.5%
Major procedure - Other	9.8%	234	\$158,604,068	4.6%	0.8% - 18.7%	0.4%
Dialysis services (Medicare Fee Schedule)	17.8%	199	\$147,792,301	2.8%	12.3% - 23.2%	0.3%
Specialist - other	19.4%	908	\$136,900,637	3.9%	11.6% - 27.1%	0.3%
Advanced imaging - CAT/CT/CTA: other	12.4%	236	\$129,739,583	3.0%	6.6% - 18.2%	0.3%
Oncology - radiation therapy	12.7%	130	\$122,418,476	4.2%	4.4% - 21.0%	0.3%
Eye procedure - cataract removal/lens insertion	5.1%	109	\$111,385,618	2.3%	0.5% - 9.7%	0.3%

Part B Services (BETOS Codes)	Improper Payment Rate					Percent of Overall Improper Payment
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval	
Echography/ultrasonography - other	13.4%	214	\$92,997,233	2.8%	8.0% - 18.8%	0.2%
Standard imaging - chest	26.1%	233	\$92,293,028	3.3%	19.6% - 32.7%	0.2%
Standard imaging - nuclear medicine	7.4%	136	\$91,552,242	3.3%	0.9% - 13.9%	0.2%
Echography/ultrasonography - heart	12.4%	151	\$90,926,232	2.9%	6.7% - 18.1%	0.2%
Ambulatory procedures - skin	4.4%	222	\$87,238,281	1.3%	1.7% - 7.0%	0.2%
Advanced imaging - MRI/MRA: other	7.9%	166	\$87,086,184	2.3%	3.4% - 12.4%	0.2%
Standard imaging - other	22.9%	112	\$82,388,803	4.5%	14.2% - 31.7%	0.2%
Specialist - ophthalmology	3.7%	468	\$81,602,781	0.9%	1.9% - 5.5%	0.2%
Eye procedure - other	7.8%	123	\$81,023,952	2.1%	3.7% - 11.8%	0.2%
Minor procedures - musculoskeletal	5.8%	249	\$80,911,868	1.1%	3.6% - 8.0%	0.2%
Standard imaging - musculoskeletal	13.0%	387	\$79,320,842	1.7%	9.7% - 16.4%	0.2%
Other - non-Medicare Fee Schedule	40.3%	119	\$69,109,351	5.2%	30.2% - 50.5%	0.2%
Home visit	25.9%	52	\$63,650,639	5.4%	15.4% - 36.4%	0.1%
Lab tests - blood counts	21.3%	939	\$63,294,657	1.7%	17.9% - 24.7%	0.1%
Lab tests - automated general profiles	19.6%	1,100	\$61,087,290	1.4%	16.9% - 22.3%	0.1%
Minor procedures - skin	3.9%	297	\$55,096,782	1.0%	2.0% - 5.8%	0.1%
Other - Medicare Fee Schedule	23.0%	115	\$52,852,737	5.3%	12.7% - 33.3%	0.1%
Ambulatory procedures - other	7.2%	203	\$51,280,940	1.6%	4.0% - 10.4%	0.1%
Other tests - electrocardiograms	17.4%	365	\$50,217,751	1.8%	13.9% - 21.0%	0.1%
No Service Code	10.5%	53	\$44,640,289	3.1%	4.5% - 16.4%	0.1%
Oncology - other	11.9%	93	\$41,996,754	1.3%	9.4% - 14.3%	0.1%
Lab tests - bacterial cultures	36.9%	161	\$35,794,111	5.6%	25.9% - 47.8%	0.1%
Advanced imaging - CAT/CT/CTA: brain/head/neck	13.8%	73	\$35,159,906	2.5%	8.9% - 18.8%	0.1%
Imaging/procedure - other	5.3%	138	\$34,184,554	1.4%	2.5% - 8.0%	0.1%
Echography/ultrasonography - carotid arteries	11.6%	54	\$33,396,345	4.3%	3.1% - 20.1%	0.1%
Lab tests - routine venipuncture (non Medicare Fee Schedule)	21.6%	988	\$31,112,279	1.7%	18.3% - 24.9%	0.1%
Echography/ultrasonography - abdomen/pelvis	8.7%	102	\$29,916,879	2.5%	3.7% - 13.6%	0.1%
Endoscopy - colonoscopy	2.4%	78	\$25,365,472	0.8%	0.9% - 4.0%	0.1%
Major procedure, cardiovascular-Other	2.7%	167	\$25,269,176	0.6%	1.4% - 4.0%	0.1%
Endoscopy - upper gastrointestinal	4.6%	66	\$24,769,670	2.1%	0.4% - 8.8%	0.1%
Other tests - EKG monitoring	7.1%	58	\$22,495,710	2.6%	2.1% - 12.1%	0.1%
Echography/ultrasonography - eye	12.1%	46	\$16,700,172	3.4%	5.4% - 18.8%	0.0%

Part B Services (BETOS Codes)	Improper Payment Rate					Percent of Overall Improper Payment
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval	
Lab tests - urinalysis	27.0%	591	\$16,195,195	1.8%	23.4% - 30.6%	0.0%
Standard imaging - breast	4.4%	131	\$15,624,150	2.8%	(1.0%) - 9.9%	0.0%
Endoscopy - cystoscopy	3.0%	55	\$8,436,103	0.5%	2.0% - 4.0%	0.0%
Other tests - cardiovascular stress tests	4.6%	49	\$6,577,187	1.2%	2.3% - 6.9%	0.0%
Lab tests - glucose	24.7%	77	\$6,275,406	0.6%	23.6% - 25.8%	0.0%
Major procedure, orthopedic - other	0.8%	182	\$5,254,275	0.3%	0.2% - 1.4%	0.0%
Immunizations/Vaccinations	0.5%	353	\$3,662,686	0.3%	(0.1%) - 1.1%	0.0%
Endoscopy - other	0.7%	162	\$2,372,819	0.3%	(0.0%) - 1.3%	0.0%
Major procedure - explor/decompr/excis disc	0.6%	139	\$937,199	0.2%	0.1% - 1.0%	0.0%
Ambulatory procedures - lithotripsy	5.2%	76	\$588,990	2.3%	0.7% - 9.8%	0.0%
Chemotherapy	0.0%	56	\$275,333	0.0%	0.0% - 0.1%	0.0%
Advanced imaging - MRI/MRA: brain/head/neck	0.0%	37	N/A	N/A	N/A	N/A
Undefined codes	N/A	795	N/A	N/A	N/A	N/A
All Type of Services (Incl. Codes Not Listed)	12.7%	18,317	\$11,486,406,389	0.4%	11.8% - 13.6%	26.5%

Table G2: Improper Payment Rates by Service Type: DMEPOS

DMEPOS (HCPCS)	Improper Payment Rate					Percent of Overall Improper Payment
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval	
Oxygen Supplies/Equipment	48.5%	1,415	\$541,134,091	1.7%	45.1% - 51.8%	1.2%
CPAP	40.4%	626	\$248,346,601	3.5%	33.6% - 47.2%	0.6%
Glucose Monitor	42.9%	1,278	\$139,795,750	2.7%	37.6% - 48.1%	0.3%
Immunosuppressive Drugs	45.4%	348	\$135,696,074	4.2%	37.2% - 53.6%	0.3%
Lower Limb Orthoses	46.3%	295	\$130,146,239	4.2%	38.0% - 54.6%	0.3%
Lower Limb Prostheses	23.7%	961	\$127,267,572	6.3%	11.2% - 36.1%	0.3%
Nebulizers & Related Drugs	11.0%	685	\$125,070,267	3.8%	3.5% - 18.4%	0.3%
Infusion Pumps & Related Drugs	27.9%	218	\$119,662,255	8.3%	11.7% - 44.1%	0.3%
Diabetic Shoes	66.0%	180	\$118,850,286	5.7%	54.8% - 77.2%	0.3%
Enteral Nutrition	51.5%	416	\$114,939,708	4.7%	42.3% - 60.8%	0.3%
Wheelchairs Manual	81.3%	277	\$112,771,748	5.1%	71.3% - 91.2%	0.3%
Urological Supplies	48.8%	291	\$110,153,534	6.8%	35.5% - 62.0%	0.3%
Surgical Dressings	72.5%	265	\$99,186,486	4.7%	63.3% - 81.7%	0.2%
LSO	51.6%	125	\$91,265,153	5.0%	41.7% - 61.5%	0.2%
Hospital Beds/Accessories	85.3%	255	\$85,475,145	3.3%	78.9% - 91.7%	0.2%
Wheelchairs Options/Accessories	35.6%	910	\$81,390,780	9.3%	17.3% - 53.8%	0.2%
Respiratory Assist Device	67.7%	110	\$75,351,493	4.5%	58.8% - 76.6%	0.2%
Oral Anti-Cancer Drugs	28.0%	60	\$74,794,669	5.5%	17.2% - 38.7%	0.2%
All Policy Groups with Less than 30 Claims	43.1%	175	\$74,763,549	8.3%	26.8% - 59.5%	0.2%
Ostomy Supplies	41.9%	300	\$71,004,658	4.3%	33.4% - 50.4%	0.2%
Parenteral Nutrition	42.3%	115	\$62,944,531	6.0%	30.6% - 54.0%	0.1%
Wheelchairs Motorized	34.7%	840	\$50,536,991	6.0%	22.9% - 46.5%	0.1%
Misc DMEPOS	90.7%	46	\$42,124,653	2.5%	85.7% - 95.7%	0.1%
Ventilators	35.0%	30	\$41,311,997	10.0%	15.3% - 54.6%	0.1%
Walkers	59.6%	88	\$33,690,065	6.6%	46.6% - 72.6%	0.1%
TENS	86.1%	112	\$33,295,564	4.4%	77.4% - 94.7%	0.1%
Osteogenesis Stimulator	37.4%	117	\$31,620,642	9.6%	18.6% - 56.3%	0.1%
Upper Limb Orthoses	45.8%	144	\$26,626,660	6.3%	33.4% - 58.1%	0.1%
Commodes/Bed Pans/Urinals	100.0%	77	\$24,887,933	0.0%	100.0% - 100.0%	0.1%
Negative Pressure Wound Therapy	23.3%	52	\$24,164,545	6.9%	9.8% - 36.7%	0.1%
Support Surfaces	69.2%	194	\$22,621,971	6.0%	57.4% - 80.9%	0.1%

DMEPOS (HCPCS)	Improper Payment Rate					Percent of Overall Improper Payment
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval	
Lenses	45.2%	111	\$19,263,970	5.8%	33.9% - 56.5%	0.0%
Patient Lift	71.6%	76	\$17,779,459	6.0%	59.9% - 83.3%	0.0%
Wheelchair Seating	50.4%	528	\$16,855,557	6.5%	37.6% - 63.2%	0.0%
Breast Prostheses	33.9%	53	\$12,493,374	8.2%	17.8% - 50.1%	0.0%
Tracheostomy Supplies	47.0%	49	\$8,215,285	9.7%	28.0% - 66.0%	0.0%
Impotence Aid	51.7%	59	\$8,071,168	7.4%	37.1% - 66.2%	0.0%
Suction Pump	45.7%	100	\$6,752,166	7.7%	30.6% - 60.8%	0.0%
Speech Generating Devices	36.3%	101	\$5,202,193	5.5%	25.5% - 47.1%	0.0%
Orthopedic Footwear	64.9%	46	\$4,954,331	22.4%	21.0% -108.8%	0.0%
Repairs DMEPOS	82.6%	106	\$4,684,256	5.2%	72.4% - 92.8%	0.0%
Canes/Crutches	54.1%	56	\$3,444,217	7.5%	39.4% - 68.8%	0.0%
POV	63.4%	103	\$2,674,671	7.0%	49.6% - 77.2%	0.0%
Intravenous Immune Globulin	0.0%	51	N/A	N/A	N/A	N/A
Misc Drugs	N/A	37	N/A	N/A	N/A	N/A
Routinely Denied Items	N/A	134	N/A	N/A	N/A	N/A
All Type of Services (Incl. Codes Not Listed)	39.9%	11,007	\$3,181,282,257	2.2%	35.6% - 44.2%	7.3%

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

Part A Services Excluding Hospital IPPS (TOB)	Improper Payment Rate					Percent of Overall Improper Payment
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval	
Home Health	59.0%	1,154	\$10,081,911,400	1.7%	55.7% - 62.3%	23.3%
SNF Inpatient	10.4%	1,836	\$3,510,926,699	0.9%	8.6% - 12.1%	8.1%
Hospital Outpatient	4.9%	1,607	\$2,526,045,543	0.7%	3.4% - 6.3%	5.8%
Hospital Inpatient (Part A)	29.7%	883	\$1,838,847,595	2.5%	24.8% - 34.6%	4.2%
Nonhospital based hospice	10.7%	349	\$1,428,981,208	2.0%	6.9% - 14.5%	3.3%
Clinic ESRD	7.9%	634	\$880,079,457	1.0%	5.9% - 10.0%	2.0%
SNF Inpatient Part B	19.4%	89	\$360,947,440	4.3%	11.0% - 27.8%	0.8%
CAH	6.4%	274	\$349,468,164	1.7%	3.1% - 9.8%	0.8%
Hospital based hospice	18.9%	50	\$250,308,820	5.4%	8.2% - 29.5%	0.6%
Hospital Other Part B	20.5%	134	\$192,238,866	6.2%	8.4% - 32.6%	0.4%
SNF Outpatient	46.5%	48	\$97,063,533	7.8%	31.2% - 61.8%	0.2%
Clinic OPT	7.4%	42	\$54,120,813	3.1%	1.4% - 13.4%	0.1%
Hospital Inpatient Part B	5.8%	48	\$42,896,457	2.8%	0.3% - 11.3%	0.1%
FQHC	4.2%	50	\$33,054,272	3.0%	(1.6%) - 10.1%	0.1%
Clinical Rural Health	2.9%	156	\$29,055,535	1.1%	0.7% - 5.1%	0.1%
Clinic CORF	34.2%	52	\$11,459,894	8.9%	16.7% - 51.6%	0.0%
All Codes With Less Than 30 Claims	1.0%	9	\$8,764,118	0.0%	0.9% - 1.0%	0.0%
All Type of Services (Incl. Codes Not Listed)	14.7%	7,415	\$21,696,169,816	0.7%	13.4% - 16.0%	50.1%

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

Part A Hospital IPPS Services (MS-DRGs)	Improper Payment Rate					Percent of Overall Improper Payment
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval	
All Codes With Less Than 30 Claims	7.5%	900	\$1,699,556,068	0.9%	5.8% - 9.2%	3.9%
Major Joint Replacement Or Reattachment Of Lower Extremity (469, 470)	5.5%	431	\$359,081,955	1.1%	3.4% - 7.7%	0.8%
Psychoses (885)	8.4%	445	\$351,305,555	1.7%	5.0% - 11.7%	0.8%
Esophagitis, Gastroent & Misc Digest Disorders (391, 392)	20.4%	302	\$277,403,789	2.3%	15.8% - 24.9%	0.6%
Kidney & Urinary Tract Infections (689, 690)	19.1%	77	\$240,676,138	3.8%	11.6% - 26.5%	0.6%
Heart Failure & Shock (291, 292, 293)	5.9%	303	\$220,376,467	1.0%	3.8% - 7.9%	0.5%
Circulatory Disorders Except Ami, W Card Cath (286, 287)	15.5%	137	\$214,473,263	2.5%	10.5% - 20.4%	0.5%
Perc Cardiovasc Proc W Drug-Eluting Stent (246, 247)	11.2%	150	\$212,567,324	2.5%	6.3% - 16.0%	0.5%
Misc Disorders Of Nutrition,metabolism,fluids/Electrolytes (640, 641)	17.2%	74	\$207,068,070	7.4%	2.7% - 31.8%	0.5%
Renal Failure (682, 683, 684)	7.8%	225	\$179,363,686	1.4%	5.1% - 10.5%	0.4%
Permanent Cardiac Pacemaker Implant (242, 243, 244)	13.0%	486	\$166,848,914	1.1%	10.8% - 15.2%	0.4%
Back & Neck Proc Exc Spinal Fusion (490, 491)	34.6%	395	\$148,972,369	2.5%	29.7% - 39.4%	0.3%
Chronic Obstructive Pulmonary Disease (190, 191, 192)	7.5%	146	\$145,741,664	1.6%	4.3% - 10.7%	0.3%
Transient Ischemia (069)	44.9%	45	\$142,995,056	6.3%	32.4% - 57.3%	0.3%
Chest Pain (313)	45.9%	167	\$136,772,894	4.2%	37.6% - 54.1%	0.3%
Syncope & Collapse (312)	28.0%	44	\$132,102,045	6.8%	14.8% - 41.2%	0.3%
Cardiac Defibrillator Implant W/O Cardiac Cath (226, 227)	25.6%	742	\$125,093,281	1.5%	22.6% - 28.6%	0.3%
Cardiac Arrhythmia & Conduction Disorders (308, 309, 310)	9.5%	138	\$119,854,973	2.0%	5.6% - 13.4%	0.3%
Degenerative Nervous System Disorders (056, 057)	19.8%	47	\$117,968,633	5.5%	8.9% - 30.6%	0.3%
Red Blood Cell Disorders (811, 812)	14.2%	72	\$111,832,432	3.6%	7.1% - 21.3%	0.3%
Medical Back Problems (551, 552)	21.2%	148	\$108,692,863	2.8%	15.6% - 26.7%	0.3%
Septicemia Or Severe Sepsis W/O Mv 96+ Hours (871, 872)	1.9%	235	\$106,330,548	0.9%	0.1% - 3.6%	0.2%
Other Vascular Procedures (252, 253, 254)	8.2%	287	\$101,795,331	1.8%	4.7% - 11.6%	0.2%
Cellulitis (602, 603)	10.8%	64	\$100,348,228	2.8%	5.4% - 16.2%	0.2%
G.I. Hemorrhage (377, 378, 379)	5.9%	142	\$98,397,708	1.7%	2.6% - 9.2%	0.2%
Cranial & Peripheral Nerve Disorders (073, 074)	40.8%	50	\$96,153,859	4.1%	32.7% - 49.0%	0.2%
Acute Myocardial Infarction, Discharged Alive (280, 281, 282)	8.5%	57	\$93,005,447	3.5%	1.6% - 15.5%	0.2%
Simple Pneumonia & Pleurisy (193, 194, 195)	3.9%	160	\$92,672,590	1.3%	1.3% - 6.4%	0.2%

Part A Hospital IPPS Services (MS-DRGs)	Improper Payment Rate					Percent of Overall Improper Payment
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval	
Lower Extrem & Humer Proc Except Hip,foot,femur (492, 493, 494)	21.9%	50	\$89,226,264	4.9%	12.2% - 31.6%	0.2%
Peripheral Vascular Disorders (299, 300, 301)	15.1%	72	\$84,839,158	1.8%	11.6% - 18.7%	0.2%
Other Musculoskelet Sys & Conn Tiss O.R. Proc (515, 516, 517)	26.2%	196	\$80,025,594	0.6%	25.0% - 27.5%	0.2%
Other Circulatory System Diagnoses (314, 315, 316)	9.7%	65	\$79,633,689	2.2%	5.4% - 14.0%	0.2%
Laparoscopic Cholecystectomy W/O C.D.E. (417, 418, 419)	11.2%	94	\$75,340,847	4.3%	2.7% - 19.7%	0.2%
Pulmonary Edema & Respiratory Failure (189)	6.6%	62	\$74,396,101	2.7%	1.3% - 11.8%	0.2%
Signs & Symptoms (947, 948)	16.5%	54	\$71,598,163	3.3%	10.0% - 23.0%	0.2%
Revision Of Hip Or Knee Replacement (466, 467, 468)	8.0%	54	\$69,036,493	0.6%	6.9% - 9.1%	0.2%
Other Digestive System Diagnoses (393, 394, 395)	13.4%	119	\$66,883,585	2.0%	9.5% - 17.3%	0.2%
Seizures (100, 101)	17.9%	47	\$66,538,490	4.1%	9.7% - 26.0%	0.2%
G.I. Obstruction (388, 389, 390)	10.1%	50	\$65,065,645	3.8%	2.7% - 17.5%	0.2%
Extensive O.R. Procedure Unrelated To Principal Diagnosis (981, 982, 983)	5.1%	194	\$64,842,733	1.2%	2.7% - 7.4%	0.1%
Other Respiratory System Diagnoses (205, 206)	24.6%	63	\$62,877,519	10.2%	4.6% - 44.6%	0.1%
Major Cardiovasc Procedures (237, 238)	3.8%	53	\$61,182,033	0.9%	1.9% - 5.6%	0.1%
Perc Cardiovasc Proc W/O Coronary Artery Stent (250, 251)	12.6%	207	\$60,551,402	1.8%	9.0% - 16.2%	0.1%
Coronary Bypass W/O Cardiac Cath (235, 236)	5.4%	47	\$55,001,578	1.2%	3.0% - 7.8%	0.1%
Fx, Sprn, Strn & Disl Except Femur, Hip, Pelvis & Thigh (562, 563)	26.2%	105	\$51,450,192	3.5%	19.2% - 33.1%	0.1%
ECMO Or Trach W Mv 96+ Hrs Or Pdx Exc Face, Mouth & Neck (003)	2.1%	44	\$48,221,846	1.5%	(0.9%) - 5.1%	0.1%
Hip & Femur Procedures Except Major Joint (480, 481, 482)	2.2%	62	\$43,416,068	1.6%	(0.8%) - 5.3%	0.1%
Perc Cardiovasc Proc W Non-Drug-Eluting Stent (248, 249)	9.3%	56	\$40,736,721	2.8%	3.8% - 14.8%	0.1%
Biopsies Of Musculoskeletal System & Connective Tissue (477, 478, 479)	22.0%	202	\$40,441,991	1.4%	19.2% - 24.8%	0.1%
Other Disorders Of Nervous System (091, 092, 093)	15.6%	65	\$40,307,049	2.0%	11.7% - 19.5%	0.1%
Major Gastrointestinal Disorders & Peritoneal Infections (371, 372, 373)	7.1%	67	\$39,963,325	1.1%	5.0% - 9.2%	0.1%
Trach W Mv 96+ Hrs Or Pdx Exc Face, Mouth & Neck (004)	2.7%	72	\$39,955,233	2.3%	(1.7%) - 7.1%	0.1%
Dysequilibrium (149)	43.6%	102	\$39,799,157	4.7%	34.3% - 52.9%	0.1%
Other Skin, Subcut Tiss & Breast Proc (579, 580, 581)	8.7%	205	\$39,376,831	4.3%	0.2% - 17.2%	0.1%
Signs & Symptoms Of Musculoskeletal System & Conn Tissue (555, 556)	26.3%	47	\$38,047,611	3.0%	20.5% - 32.2%	0.1%
Other Circulatory System O.R. Procedures (264)	12.7%	39	\$36,770,280	4.7%	3.5% - 22.0%	0.1%

Part A Hospital IPPS Services (MS-DRGs)	Improper Payment Rate					Percent of Overall Improper Payment
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval	
Cardiac Valve & Oth Maj Cardiothoracic Proc W Card Cath (216, 217, 218)	4.2%	96	\$35,285,444	2.1%	0.0% - 8.3%	0.1%
Atherosclerosis (302, 303)	19.6%	48	\$33,868,343	4.1%	11.6% - 27.6%	0.1%
Diabetes (637, 638, 639)	5.1%	71	\$33,696,085	0.7%	3.7% - 6.5%	0.1%
Cardiac Valve & Oth Maj Cardiothoracic Proc W/O Card Cath (219, 220, 221)	1.6%	99	\$33,084,975	1.3%	(1.0%) - 4.1%	0.1%
Fractures Of Hip & Pelvis (535, 536)	22.8%	50	\$32,438,361	5.7%	11.6% - 33.9%	0.1%
Intracranial Hemorrhage Or Cerebral Infarction (064, 065, 066)	2.2%	77	\$32,169,221	1.1%	(0.0%) - 4.4%	0.1%
Hypertension (304, 305)	23.3%	47	\$30,292,956	4.7%	14.1% - 32.4%	0.1%
Spinal Fusion Except Cervical (459, 460)	1.5%	51	\$29,353,597	1.5%	(1.4%) - 4.4%	0.1%
Cervical Spinal Fusion (471, 472, 473)	4.3%	53	\$28,190,829	2.2%	(0.0%) - 8.5%	0.1%
Rehabilitation (945, 946)	24.9%	101	\$28,018,031	4.3%	16.6% - 33.3%	0.1%
Bone Diseases & Arthropathies (553, 554)	32.5%	56	\$25,365,265	5.1%	22.5% - 42.5%	0.1%
Uterine & Adnexa Proc For Non-Malignancy (742, 743)	11.4%	48	\$24,451,662	2.5%	6.5% - 16.4%	0.1%
Septicemia Or Severe Sepsis W Mv 96+ Hours (870)	1.4%	99	\$22,483,992	0.8%	(0.2%) - 3.0%	0.1%
Other Kidney & Urinary Tract Procedures (673, 674, 675)	8.0%	201	\$22,229,847	1.5%	5.1% - 10.9%	0.1%
Bilateral Or Multiple Major Joint Procs Of Lower Extremity (461, 462)	10.5%	42	\$19,936,641	3.5%	3.5% - 17.4%	0.0%
Stomach, Esophageal & Duodenal Proc (326, 327, 328)	1.9%	108	\$18,834,476	0.7%	0.5% - 3.3%	0.0%
Female Reproductive System Reconstructive Procedures (748)	53.8%	100	\$17,196,536	5.4%	43.2% - 64.3%	0.0%
Respiratory Signs & Symptoms (204)	27.2%	49	\$16,839,178	5.7%	16.0% - 38.4%	0.0%
Thyroid, Parathyroid & Thyroglossal Procedures (625, 626, 627)	42.3%	100	\$16,329,040	3.2%	36.0% - 48.6%	0.0%
Combined Anterior/Posterior Spinal Fusion (453, 454, 455)	2.3%	499	\$12,806,672	0.3%	1.6% - 3.0%	0.0%
Postoperative & Post-Traumatic Infections (862, 863)	6.9%	50	\$12,759,213	0.5%	5.8% - 7.9%	0.0%
Transurethral Prostatectomy (713, 714)	49.8%	211	\$12,740,253	3.9%	42.2% - 57.5%	0.0%
Major Joint & Limb Reattachment Proc Of Upper Extremity (483, 484)	2.1%	50	\$12,695,943	0.6%	1.1% - 3.2%	0.0%
Major Chest Procedures (163, 164, 165)	1.1%	58	\$12,184,110	0.5%	0.2% - 2.0%	0.0%
AICD Generator Procedures (245)	19.4%	493	\$11,350,375	2.0%	15.4% - 23.4%	0.0%
Cardiac Pacemaker Device Replacement (258, 259)	9.6%	199	\$6,091,947	1.5%	6.7% - 12.5%	0.0%
Respiratory System Diagnosis W Ventilator Support 96+ Hours (207)	0.3%	34	\$5,818,976	0.0%	0.2% - 0.4%	0.0%
Coronary Bypass W Cardiac Cath (233, 234)	0.4%	99	\$4,674,129	0.3%	(0.1%) - 0.9%	0.0%
Spinal Fus Exc Cerv W Spinal Curv/Malig/Infec Or 9+ Fus (456, 457, 458)	1.8%	482	\$4,499,727	0.2%	1.4% - 2.3%	0.0%

Part A Hospital IPPS Services (MS-DRGs)	Improper Payment Rate					Percent of Overall Improper Payment
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval	
Respiratory Infections & Inflammations (177, 178, 179)	0.4%	59	\$4,445,019	0.0%	0.3% - 0.5%	0.0%
Kidney Transplant (652)	0.0%	41	\$5	0.0%	(0.0%) - 0.0%	0.0%
Other Resp System O.R. Procedures (166, 167, 168)	0.0%	54	\$1	0.0%	0.0% - 0.0%	0.0%
Infectious & Parasitic Diseases W O.R. Procedure (853, 854, 855)	0.0%	31	N/A	N/A	N/A	N/A
Major Small & Large Bowel Procedures (329, 330, 331)	0.0%	46	N/A	N/A	N/A	N/A
All Type of Services (Incl. Codes Not Listed)	7.4%	12,864	\$8,333,107,590	0.3%	6.8% - 8.1%	19.2%

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 Lab tests - other (non-Medicare Fee Schedule) by Referring Provider

Lab tests - other (non-Medicare Fee Schedule)	Improper Payment Rate					Percent of Type of Service Improper Payment
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval	
Internal Medicine	27.7%	1,533	\$331,689,151	2.0%	23.7% - 31.7%	28.6%
Family Practice	35.8%	920	\$255,992,678	2.5%	30.9% - 40.6%	22.1%
Cardiology	68.4%	125	\$135,563,500	2.6%	63.3% - 73.5%	11.7%
No Referring Provider Type	49.5%	254	\$73,797,431	3.7%	42.2% - 56.9%	6.4%
Interventional Pain Management	79.0%	130	\$57,102,904	3.2%	72.7% - 85.2%	4.9%
Nurse Practitioner	38.8%	222	\$54,467,353	4.4%	30.2% - 47.5%	4.7%
Anesthesiology	65.6%	162	\$50,755,383	7.3%	51.3% - 79.8%	4.4%
Physical Medicine and Rehabilitation	76.7%	145	\$50,552,630	5.3%	66.2% - 87.2%	4.4%
Obstetrics/Gynecology	40.0%	51	\$29,898,091	9.2%	22.0% - 57.9%	2.6%
General Surgery	64.4%	67	\$19,183,551	4.9%	54.8% - 74.0%	1.7%
General Practice	53.0%	46	\$17,094,667	1.9%	49.2% - 56.7%	1.5%
Physician Assistant	30.0%	90	\$15,789,032	4.3%	21.7% - 38.4%	1.4%
Gastroenterology	46.8%	47	\$15,029,591	2.0%	42.9% - 50.6%	1.3%
Pain Management	76.1%	64	\$14,755,379	0.6%	74.9% - 77.3%	1.3%
Psychiatry	68.3%	65	\$10,065,243	0.6%	67.0% - 69.5%	0.9%
Neurology	24.7%	59	\$4,582,519	0.5%	23.8% - 25.7%	0.4%
Urology	12.8%	41	\$3,898,959	2.1%	8.6% - 16.9%	0.3%
All Referring Providers	39.0%	4,140	\$1,159,548,803	2.5%	34.2% - 43.9%	100.0%

Table H2: Improper Payment Rates for Oxygen Supplies/Equipment by Referring Provider

Oxygen Supplies/Equipment	Improper Payment Rate					Percent of Type of Service Improper Payment
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval	
Internal Medicine	47.4%	767	\$277,533,771	2.3%	42.8% - 51.9%	51.3%
Family Practice	50.5%	381	\$157,976,604	3.3%	44.1% - 57.0%	29.2%
Nurse Practitioner	49.2%	89	\$35,743,959	6.3%	36.8% - 61.6%	6.6%
Physician Assistant	45.9%	41	\$14,959,289	9.3%	27.6% - 64.2%	2.8%
No Referring Provider Type	39.2%	55	\$14,395,307	8.2%	23.1% - 55.4%	2.7%
Cardiology	39.5%	30	\$11,716,282	9.4%	21.1% - 58.0%	2.2%
All Referring Providers	48.5%	1,415	\$541,134,091	1.7%	45.1% - 51.8%	100.0%

Table H3: Improper Payment Rates for CPAP by Referring Provider

CPAP	Improper Payment Rate					Percent of Type of Service Improper Payment
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval	
Internal Medicine	41.7%	345	\$135,854,163	4.1%	33.7% - 49.8%	54.7%
Family Practice	38.6%	96	\$42,202,198	8.1%	22.8% - 54.5%	17.0%
Nurse Practitioner	71.9%	33	\$23,794,906	2.6%	66.8% - 77.1%	9.6%
No Referring Provider Type	33.7%	45	\$8,700,860	0.7%	32.2% - 35.1%	3.5%
Neurology	18.2%	36	\$4,027,838	2.6%	13.1% - 23.3%	1.6%
All Referring Providers	40.4%	626	\$248,346,601	3.5%	33.6% - 47.2%	100.0%

Table H4: Improper Payment Rates for Nebulizers & Related Drugs by Referring Provider

Nebulizers & Related Drugs	Improper Payment Rate					Percent of Type of Service Improper Payment
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval	
Internal Medicine	13.1%	337	\$70,388,211	6.2%	1.0% - 25.2%	56.3%
Family Practice	26.9%	203	\$43,483,296	5.6%	16.0% - 37.8%	34.8%
Nurse Practitioner	9.3%	52	\$4,222,111	3.5%	2.4% - 16.2%	3.4%
All Referring Providers	11.0%	685	\$125,070,267	3.8%	3.5% - 18.4%	100.0%

Table H5: Improper Payment Rates for Glucose Monitor by Referring Provider

Glucose Monitor	Improper Payment Rate					Percent of Type of Service Improper Payment
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval	
Internal Medicine	40.9%	553	\$58,089,832	3.7%	33.7% - 48.0%	41.6%
Family Practice	42.9%	490	\$52,690,511	3.5%	36.1% - 49.7%	37.7%
Nurse Practitioner	58.0%	78	\$16,079,631	4.8%	48.6% - 67.4%	11.5%
Physician Assistant	44.0%	53	\$6,363,028	7.0%	30.3% - 57.6%	4.6%
No Referring Provider Type	34.2%	55	\$4,126,226	10.9%	12.9% - 55.5%	3.0%
All Referring Providers	42.9%	1,278	\$139,795,750	2.7%	37.6% - 48.1%	100.0%

Table H6: Improper Payment Rates for Lower Limb Prostheses by Referring Provider

Lower Limb Prostheses	Improper Payment Rate					Percent of Type of Service Improper Payment
	Improper Payment Rate	Number of Line Items (Sample)	Projected Improper Payments	Standard Error	95% Confidence Interval	
Internal Medicine	38.6%	216	\$31,850,769	3.4%	32.0% - 45.3%	25.0%
Family Practice	30.5%	247	\$31,812,335	2.8%	25.0% - 35.9%	25.0%
General Surgery	11.3%	267	\$27,963,833	6.4%	(1.3%) - 23.8%	22.0%
Physical Medicine and Rehabilitation	31.9%	122	\$20,846,354	2.6%	26.8% - 36.9%	16.4%
No Referring Provider Type	24.5%	40	\$3,613,179	3.5%	17.6% - 31.4%	2.8%
All Referring Providers	23.7%	961	\$127,267,572	6.3%	11.2% - 36.1%	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 this table are based on a minimum of 30 lines in the sample.

Table I1: Improper Payment Rates and Amounts by Provider Type: Part B

Providers Billing to Part B	Improper Payment Rate				Provider Compliance Improper Payment Rate	Percent of Overall Improper Payment
	Improper Payment Rate	Projected Improper Payments	Sampled Claims	95% Confidence Interval		
Clinical Laboratory (Billing Independently)	37.1%	\$1,417,712,370	3,667	31.9% - 42.3%	39.5%	3.3%
Internal Medicine	14.8%	\$1,355,650,424	2,014	13.2% - 16.4%	21.0%	3.1%
Cardiology	14.5%	\$762,783,716	899	10.9% - 18.1%	20.6%	1.8%
Ambulance Service Supplier (e.g., private ambulance companies)	15.7%	\$734,079,079	400	11.6% - 19.7%	23.2%	1.7%
Family Practice	12.3%	\$650,942,297	958	10.5% - 14.2%	18.5%	1.5%
Diagnostic Radiology	12.1%	\$430,479,052	1,126	9.3% - 14.9%	19.0%	1.0%
Physical Therapist in Private Practice	23.4%	\$400,389,403	548	19.0% - 27.9%	30.6%	0.9%
Emergency Medicine	13.8%	\$330,241,653	522	11.8% - 15.7%	21.3%	0.8%
Chiropractic	51.7%	\$299,130,240	468	46.3% - 57.0%	58.8%	0.7%
Nephrology	17.7%	\$297,637,273	364	14.4% - 20.9%	23.1%	0.7%
Pulmonary Disease	20.1%	\$297,172,837	334	17.1% - 23.1%	27.2%	0.7%
Ophthalmology	4.2%	\$295,141,421	577	2.4% - 6.0%	8.8%	0.7%
All Provider Types With Less Than 30 Claims	7.6%	\$289,050,453	265	1.5% - 13.7%	22.4%	0.7%
Orthopedic Surgery	8.5%	\$279,954,355	330	5.1% - 11.9%	14.3%	0.6%
Psychiatry	28.8%	\$252,255,408	265	25.8% - 31.7%	35.8%	0.6%
Hematology/Oncology	9.1%	\$233,422,184	298	6.2% - 12.0%	18.2%	0.5%
Anesthesiology	11.4%	\$230,412,665	268	6.8% - 16.0%	18.5%	0.5%
General Surgery	9.4%	\$181,664,753	206	5.2% - 13.7%	17.1%	0.4%
Neurology	12.8%	\$174,676,045	266	10.8% - 14.8%	18.6%	0.4%
Podiatry	10.7%	\$173,950,271	334	7.5% - 13.8%	24.4%	0.4%
Clinical Psychologist	28.9%	\$152,561,963	111	20.5% - 37.4%	33.7%	0.4%
Gastroenterology	8.6%	\$149,441,229	230	6.6% - 10.6%	13.4%	0.3%

Providers Billing to Part B	Improper Payment Rate				Provider Compliance Improper Payment Rate	Percent of Overall Improper Payment
	Improper Payment Rate	Projected Improper Payments	Sampled Claims	95% Confidence Interval		
Urology	8.3%	\$146,745,158	241	1.9% - 14.7%	14.1%	0.3%
Nurse Practitioner	9.2%	\$144,380,794	408	7.7% - 10.6%	21.1%	0.3%
Radiation Oncology	9.6%	\$137,102,852	163	3.4% - 15.9%	23.9%	0.3%
CRNA	15.0%	\$120,434,098	121	4.8% - 25.2%	22.2%	0.3%
Ambulatory Surgical Center	4.5%	\$116,865,040	122	2.6% - 6.4%	50.6%	0.3%
Clinical Social Worker	29.8%	\$111,851,231	108	20.5% - 39.2%	34.3%	0.3%
Physical Medicine and Rehabilitation	15.8%	\$107,604,180	160	13.6% - 18.0%	24.4%	0.2%
Physician Assistant	9.8%	\$104,324,328	260	7.4% - 12.3%	17.9%	0.2%
Dermatology	3.6%	\$103,763,025	188	2.1% - 5.1%	15.1%	0.2%
Otolaryngology	10.6%	\$103,755,018	230	6.0% - 15.2%	14.0%	0.2%
Interventional Pain Management	21.6%	\$73,325,828	74	19.1% - 24.1%	27.7%	0.2%
Endocrinology	15.4%	\$70,227,145	90	13.0% - 17.9%	22.2%	0.2%
Rheumatology	6.6%	\$69,682,752	79	6.0% - 7.3%	11.2%	0.2%
Pathology	6.7%	\$65,463,908	315	3.5% - 9.9%	22.5%	0.2%
IDTF	7.4%	\$63,004,746	102	3.0% - 11.8%	17.6%	0.1%
Infectious Disease	13.0%	\$62,047,049	111	11.1% - 15.0%	17.8%	0.1%
General Practice	13.0%	\$55,047,615	63	12.1% - 13.9%	23.1%	0.1%
Allergy/Immunology	27.5%	\$52,471,021	55	25.1% - 29.9%	33.1%	0.1%
Medical Oncology	4.4%	\$48,017,506	104	2.9% - 5.8%	12.0%	0.1%
Obstetrics/Gynecology	17.0%	\$45,463,830	57	9.6% - 24.4%	25.4%	0.1%
Geriatric Medicine	28.9%	\$43,603,444	38	18.7% - 39.1%	35.7%	0.1%
Optometry	5.9%	\$42,986,687	135	3.5% - 8.4%	17.5%	0.1%
Unassigned	11.7%	\$42,008,280	70	8.6% - 14.9%	13.0%	0.1%
Thoracic Surgery	28.5%	\$34,366,269	48	16.0% - 41.0%	31.6%	0.1%
Critical Care (Intensivists)	21.1%	\$33,366,121	66	16.5% - 25.7%	34.0%	0.1%
Pain Management	7.8%	\$26,575,240	49	7.4% - 8.2%	10.5%	0.1%
Neurosurgery	6.0%	\$23,465,180	87	4.4% - 7.7%	28.2%	0.1%
Vascular Surgery	2.2%	\$22,349,079	62	1.2% - 3.2%	3.3%	0.1%
Occupational Therapist in Private Practice	24.8%	\$18,152,872	36	15.9% - 33.6%	28.8%	0.0%
Cardiac Surgery	6.2%	\$7,843,670	58	6.2% - 6.2%	59.8%	0.0%
Unknown Provider Type	1.5%	\$1,363,331	66	1.1% - 2.0%	9.8%	0.0%
Mass Immunization Roster Billers (Mass Immunizers have to roster bill assigned claims and can only bill for immunizations)	0.0%	\$0	115	0.0% - 0.0%	4.2%	0.0%

Providers Billing to Part B	Improper Payment Rate				Provider Compliance Improper Payment Rate	Percent of Overall Improper Payment
	Improper Payment Rate	Projected Improper Payments	Sampled Claims	95% Confidence Interval		
All Provider Types	12.7%	\$11,486,406,389	18,317	11.8% - 13.6%	22.2%	26.5%

Table I2: Improper Payment Rates and Amounts by Provider Type: DMEPOS

Providers Billing to DMEPOS	Improper Payment Rate				Provider Compliance Improper Payment Rate	Percent of Overall Improper Payment
	Improper Payment Rate	Projected Improper Payments	Sampled Claims	95% Confidence Interval		
Medical Supply Company not included in 51, 52, or 53	49.9%	\$1,618,058,589	5,079	46.4% - 53.5%	53.1%	3.7%
Pharmacy	27.5%	\$772,541,959	2,924	19.6% - 35.4%	28.1%	1.8%
Medical Supply Company with Respiratory Therapist	48.7%	\$312,424,705	1,047	44.0% - 53.3%	51.8%	0.7%
Individual prosthetic personnel certified by an accrediting organization	36.5%	\$78,463,566	434	29.3% - 43.7%	41.9%	0.2%
Individual orthotic personnel certified by an accrediting organization	23.9%	\$77,859,429	380	4.0% - 43.8%	25.6%	0.2%
Podiatry	66.8%	\$55,235,280	101	52.8% - 80.8%	72.0%	0.1%
All Provider Types With Less Than 30 Claims	34.4%	\$54,876,871	192	23.5% - 45.4%	38.3%	0.1%
Medical Supply Company with prosthetic/orthotic personnel certified by an accrediting organization	40.1%	\$48,872,649	217	32.8% - 47.4%	41.7%	0.1%
Medical Supply Company with orthotic personnel certified by an accrediting organization	48.2%	\$47,458,700	164	26.4% - 70.1%	47.8%	0.1%
Orthopedic Surgery	46.2%	\$37,929,592	120	32.8% - 59.6%	47.9%	0.1%
Supplier of oxygen and/or oxygen related equipment	36.0%	\$16,395,297	51	25.2% - 46.8%	38.4%	0.0%
Medical Supply Company with prosthetic personnel certified by an accrediting organization	40.5%	\$11,642,162	55	35.2% - 45.9%	44.3%	0.0%
Ophthalmology	55.7%	\$10,956,719	40	41.1% - 70.2%	62.0%	0.0%
Medical Supply Company with Pedorthic Personnel	59.1%	\$10,852,341	40	49.3% - 68.9%	58.8%	0.0%
Multispecialty Clinic or Group Practice	57.9%	\$8,488,909	33	29.0% - 86.8%	53.0%	0.0%
Optometry	42.0%	\$8,325,298	49	25.0% - 58.9%	48.7%	0.0%
General Practice	34.0%	\$7,778,853	40	23.4% - 44.6%	38.8%	0.0%
Individual prosthetic/orthotic personnel certified by an accrediting organization	16.4%	\$3,121,338	41	9.4% - 23.4%	20.1%	0.0%
All Provider Types	39.9%	\$3,181,282,257	11,007	35.6% - 44.2%	42.0%	7.3%

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

Providers Billing to Part A Excluding Hospital IPPS	Improper Payment Rate				Percent of Overall Improper Payment
	Improper Payment Rate	Projected Improper Payments	Sampled Claims	95% Confidence Interval	
HHA	59.0%	\$10,081,911,400	1,159	55.7% - 62.2%	23.3%
SNF	11.0%	\$3,968,937,672	1,973	9.3% - 12.8%	9.2%
OPPS, Laboratory, Ambulatory	5.1%	\$2,761,180,866	1,792	3.7% - 6.5%	6.4%
Hospice	11.4%	\$1,679,290,028	399	7.8% - 15.1%	3.9%
Inpatient Rehabilitation Hospitals	55.7%	\$1,068,954,138	224	46.5% - 64.9%	2.5%
ESRD	7.9%	\$880,079,457	634	5.9% - 10.0%	2.0%
Inpatient Rehab Unit	34.4%	\$605,148,584	227	25.2% - 43.5%	1.4%
CAH	6.4%	\$349,468,164	274	3.1% - 9.8%	0.8%
Inpatient Critical Access Hospital	7.5%	\$91,413,437	362	2.9% - 12.1%	0.2%
Non PPS Short Term Hospital Inpatient	6.2%	\$61,843,177	54	4.1% - 8.3%	0.1%
Outpatient Rehab Facility (ORF)	7.4%	\$54,120,813	42	1.4% - 13.4%	0.1%
FQHC	4.2%	\$33,054,272	50	(1.6%) - 10.1%	0.1%
RHCs	2.9%	\$29,055,535	156	0.7% - 5.1%	0.1%
All Codes With Less Than 30 Claims	20.7%	\$20,252,379	14	15.1% - 26.3%	0.0%
Comprehensive Outpatient Rehab Facility (CORF)	34.2%	\$11,459,894	52	16.7% - 51.6%	0.0%
Other Service Types Billing to Part A Excluding Hospital IPPS	0.0%	\$0	3	N/A	0.0%
Overall (Incl. Codes Not Listed)	14.7%	\$21,696,169,816	7,415	13.4% - 16.0%	50.1%

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

Provider Types Billing to Part A Hospital IPPS	Improper Payment Rate				Percent of Overall Improper Payment
	Improper Payment Rate	Projected Improper Payments	Sampled Claims	95% Confidence Interval	
DRG Short Term	7.3%	\$7,665,229,878	12,274	6.7% - 8.0%	17.7%
Other Service Types Billing to Part A Hospital IPPS	10.1%	\$477,444,784	426	7.1% - 13.1%	1.1%
DRG Long Term	6.1%	\$190,432,928	164	2.3% - 9.8%	0.4%
Overall (Incl. Codes Not Listed)	7.4%	\$8,333,107,590	12,864	6.8% - 8.1%	19.2%

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	Sampled Claims	Type of Error				
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
Chiropractic	51.7%	468	0.3%	95.8%	3.3%	0.6%	0.0%
Clinical Laboratory (Billing Independently)	37.1%	3,667	0.8%	96.6%	2.0%	0.3%	0.3%
Clinical Social Worker	29.8%	108	0.0%	100.0%	0.0%	0.0%	0.0%
Clinical Psychologist	28.9%	111	0.0%	94.9%	5.1%	0.0%	0.0%
Geriatric Medicine	28.9%	38	53.9%	24.7%	0.0%	21.4%	0.0%
Psychiatry	28.8%	265	11.2%	49.9%	0.0%	38.7%	0.3%
Thoracic Surgery	28.5%	48	0.0%	48.2%	0.0%	51.8%	0.0%
Allergy/Immunology	27.5%	55	0.0%	71.7%	25.5%	2.7%	0.0%
Occupational Therapist in Private Practice	24.8%	36	0.0%	91.8%	0.0%	0.0%	8.2%
Physical Therapist in Private Practice	23.4%	548	0.1%	82.8%	0.0%	1.1%	15.9%
Interventional Pain Management	21.6%	74	2.9%	93.4%	0.2%	3.5%	0.0%
Critical Care (Intensivists)	21.1%	66	5.1%	45.5%	0.0%	49.4%	0.0%
Pulmonary Disease	20.1%	334	0.0%	46.6%	0.0%	52.2%	1.2%
Nephrology	17.7%	364	4.3%	53.4%	0.0%	35.8%	6.5%
Obstetrics/Gynecology	17.0%	57	4.7%	12.5%	1.3%	60.0%	21.5%
Physical Medicine and Rehabilitation	15.8%	160	4.0%	56.2%	0.0%	39.8%	0.0%
Ambulance Service Supplier (e.g., private ambulance companies)	15.7%	400	5.4%	79.5%	10.7%	2.6%	1.8%
Endocrinology	15.4%	90	0.0%	64.2%	0.0%	35.8%	0.0%
CRNA	15.0%	121	8.1%	91.9%	0.0%	0.0%	0.0%
Internal Medicine	14.8%	2,014	3.9%	49.8%	1.1%	43.9%	1.3%
Cardiology	14.5%	899	2.1%	69.2%	0.0%	28.7%	0.0%
Emergency Medicine	13.8%	522	0.6%	23.0%	0.7%	71.9%	3.7%
General Practice	13.0%	63	22.7%	39.3%	0.0%	23.0%	15.0%
Infectious Disease	13.0%	111	13.4%	14.4%	0.0%	72.2%	0.0%
Neurology	12.8%	266	2.1%	43.7%	0.0%	53.8%	0.4%
Family Practice	12.3%	958	8.2%	56.6%	0.7%	33.9%	0.7%
Diagnostic Radiology	12.1%	1,126	2.0%	97.8%	0.0%	0.2%	0.0%

Provider Types Billing to Part B	Improper Payment Rate	Sampled Claims	Type of Error				
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
Unassigned	11.7%	70	0.0%	71.9%	2.7%	25.4%	0.0%
Anesthesiology	11.4%	268	0.3%	75.2%	0.0%	24.6%	0.0%
Podiatry	10.7%	334	0.0%	71.5%	0.0%	28.5%	0.0%
Otolaryngology	10.6%	230	11.9%	61.1%	0.0%	26.6%	0.4%
Physician Assistant	9.8%	260	17.9%	41.3%	0.0%	40.8%	0.0%
Radiation Oncology	9.6%	163	30.8%	62.2%	0.0%	7.0%	0.0%
General Surgery	9.4%	206	1.1%	54.5%	0.0%	44.3%	0.0%
Nurse Practitioner	9.2%	408	12.7%	35.9%	0.0%	47.2%	4.1%
Hematology/Oncology	9.1%	298	1.3%	59.3%	2.4%	36.9%	0.0%
Gastroenterology	8.6%	230	2.1%	51.1%	0.0%	46.7%	0.0%
Orthopedic Surgery	8.5%	330	1.0%	57.7%	1.8%	33.8%	5.6%
Urology	8.3%	241	0.9%	67.1%	0.0%	29.9%	2.1%
Pain Management	7.8%	49	0.0%	49.9%	5.7%	44.4%	0.0%
All Provider Types With Less Than 30 Claims	7.6%	265	2.0%	84.6%	0.9%	12.5%	0.0%
IDTF	7.4%	102	0.0%	100.0%	0.0%	0.0%	0.0%
Pathology	6.7%	315	10.0%	81.5%	6.8%	1.6%	0.0%
Rheumatology	6.6%	79	0.0%	73.5%	0.4%	26.0%	0.0%
Cardiac Surgery	6.2%	58	0.0%	0.6%	0.0%	99.4%	0.0%
Neurosurgery	6.0%	87	0.0%	20.0%	6.0%	74.0%	0.0%
Optometry	5.9%	135	12.1%	61.3%	0.0%	26.6%	0.0%
Ambulatory Surgical Center	4.5%	122	0.0%	100.0%	0.0%	0.0%	0.0%
Medical Oncology	4.4%	104	0.0%	45.1%	0.8%	54.1%	0.0%
Ophthalmology	4.2%	577	8.7%	72.5%	0.8%	16.2%	1.8%
Dermatology	3.6%	188	0.0%	55.7%	6.0%	34.2%	4.1%
Vascular Surgery	2.2%	62	0.0%	32.8%	0.0%	67.2%	0.0%
Unknown Provider Type	1.5%	66	0.0%	0.0%	0.0%	100.0%	0.0%
Mass Immunization Roster Billers (Mass Immunizers have to roster bill assigned claims and can only bill for immunizations)	0.0%	115	N/A	N/A	N/A	N/A	N/A
All Provider Types	12.7%	18,317	3.8%	68.2%	1.7%	24.6%	1.7%

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

Provider Types Billing to DMEPOS	Improper Payment Rate	Sampled Claims	Type of Error				
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
Podiatry	66.8%	101	0.0%	94.7%	0.2%	0.0%	5.2%
Medical Supply Company with Pedorthic Personnel	59.1%	40	26.0%	65.1%	4.0%	2.6%	2.3%
Multispecialty Clinic or Group Practice	57.9%	33	5.2%	71.8%	0.0%	0.0%	23.0%
Ophthalmology	55.7%	40	0.0%	54.8%	0.0%	0.0%	45.2%
Medical Supply Company not included in 51, 52, or 53	49.9%	5,079	2.2%	85.2%	2.1%	0.7%	9.7%
Medical Supply Company with Respiratory Therapist	48.7%	1,047	0.9%	78.0%	3.0%	0.1%	18.1%
Medical Supply Company with orthotic personnel certified by an accrediting organization	48.2%	164	1.4%	95.5%	0.0%	0.0%	3.1%
Orthopedic Surgery	46.2%	120	0.0%	79.7%	2.4%	0.0%	17.9%
Optometry	42.0%	49	0.0%	30.4%	0.0%	0.0%	69.6%
Medical Supply Company with prosthetic personnel certified by an accrediting organization	40.5%	55	0.0%	79.8%	0.1%	0.0%	20.1%
Medical Supply Company with prosthetic/orthotic personnel certified by an accrediting organization	40.1%	217	0.0%	91.6%	0.0%	1.0%	7.4%
Individual prosthetic personnel certified by an accrediting organization	36.5%	434	0.0%	89.5%	3.6%	0.0%	7.0%
Supplier of oxygen and/or oxygen related equipment	36.0%	51	0.0%	100.0%	0.0%	0.0%	0.0%
All Provider Types With Less Than 30 Claims	34.4%	192	0.9%	66.3%	0.4%	0.0%	32.4%
General Practice	34.0%	40	0.0%	96.1%	0.0%	0.0%	3.9%
Pharmacy	27.5%	2,924	0.8%	79.3%	1.5%	1.4%	16.9%
Individual orthotic personnel certified by an accrediting organization	23.9%	380	2.2%	89.3%	0.0%	0.0%	8.5%
Individual prosthetic/orthotic personnel certified by an accrediting organization	16.4%	41	0.0%	90.3%	1.4%	0.0%	8.3%
All Provider Types	39.9%	11,007	1.6%	83.0%	1.9%	0.8%	12.7%

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	Sampled Claims	Type of Error				
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
HHA	59.0%	1,159	0.3%	94.8%	4.1%	0.3%	0.5%
Inpatient Rehabilitation Hospitals	55.7%	224	0.0%	12.8%	87.2%	0.0%	0.0%
Inpatient Rehab Unit	34.4%	227	0.0%	48.4%	51.6%	0.0%	0.0%
Comprehensive Outpatient Rehab Facility (CORF)	34.2%	52	3.1%	70.9%	0.0%	3.4%	22.6%
All Codes With Less Than 30 Claims	20.7%	14	0.0%	100.0%	0.0%	0.0%	0.0%
Hospice	11.4%	399	0.0%	55.5%	40.2%	3.2%	1.0%
SNF	11.0%	1,973	0.2%	76.2%	3.2%	7.3%	13.1%
ESRD	7.9%	634	0.0%	100.0%	0.0%	0.0%	0.0%
Inpatient CAH	7.5%	362	4.1%	39.0%	51.8%	0.0%	5.0%
Outpatient Rehab Facility (ORF)	7.4%	42	0.0%	62.3%	0.0%	0.0%	37.7%
CAH Outpatient Services	6.4%	274	0.0%	88.0%	4.9%	1.5%	5.5%
Non PPS Short Term Hospital Inpatient	6.2%	54	0.0%	39.2%	34.3%	0.0%	26.5%
OPPS, Laboratory, Ambulatory	5.1%	1,792	0.8%	80.0%	10.5%	5.2%	3.4%
FQHC	4.2%	50	0.0%	100.0%	0.0%	0.0%	0.0%
RHCs	2.9%	156	15.7%	84.3%	0.0%	0.0%	0.0%
Other Service Types Billing to Part A Excluding Hospital IPPS	0.0%	3	N/A	N/A	N/A	N/A	N/A
All Provider Types	14.7%	7,415	0.3%	80.8%	13.1%	2.4%	3.4%

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	Sampled Claims	Type of Error				
			No Doc	Insufficient Doc	Medical Necessity	Incorrect Coding	Other
Other Service Types Billing to Part A Hospital IPPS	10.1%	426	0.0%	42.7%	56.5%	0.2%	0.6%
DRG Short Term	7.3%	12,274	0.0%	13.3%	68.9%	16.7%	1.1%
DRG Long Term	6.1%	164	0.0%	0.0%	85.7%	14.3%	0.0%
All Provider Types	7.4%	12,864	0.0%	14.7%	68.6%	15.7%	1.0%

Appendix K: Coding Information

Table K1: HCPCS Code 99233

Fiscal Year	Number of Lines Reviewed	Number of Lines Questioned	Percent of Lines in Error
1996	217	115	53.0%
1997	416	128	30.8%
1998	457	114	24.9%
1999	187	102	54.5%
2000	449	220	49.0%
2001	338	142	42.0%
2002	228	174	76.3%
2003	709	435	61.4%
2004	768	391	50.9%
2005	1,079	474	43.9%
2006	1,102	440	39.9%
2007	1,157	532	46.0%
2008	1,032	489	47.4%
2009	882	433	49.1%
2010	697	366	52.5%
2011	611	316	51.7%
2012	992	586	59.1%
2013	1,255	626	49.9%
2014	1,268	739	58.3%
2015	1,304	658	50.5%

Table K2: HCPCS Code 99214

Fiscal Year	Number of Lines Reviewed	Number of Lines Questioned	Percent of Lines in Error
1996	140	54	38.6%
1997	234	86	36.8%
1998	168	63	37.5%
1999	143	81	56.6%
2000	191	71	37.2%
2001	214	67	31.3%
2002	104	24	23.1%
2003	2,798	687	24.6%
2004	3,250	589	18.1%
2005	4,436	648	14.6%
2006	4,491	609	13.6%
2007	4,287	602	14.0%
2008	4,301	608	14.1%
2009	3,342	617	18.5%
2010	2,829	569	20.1%
2011	2,316	404	17.4%
2012	1,403	260	18.5%
2013	922	111	12.0%
2014	902	131	14.5%
2015	776	111	14.3%

Table K3: HCPCS Code 99232

Fiscal Year	Number of Lines Reviewed	Number of Lines Questioned	Percent of Lines in Error
1996	597	266	44.6%
1997	1,159	350	30.2%
1998	911	181	19.9%
1999	837	279	33.3%
2000	881	270	30.6%
2001	964	146	15.1%
2002	488	179	36.7%
2003	2,213	855	38.6%
2004	2,485	754	30.3%
2005	3,194	555	17.4%
2006	3,236	295	9.1%
2007	3,164	393	12.4%
2008	2,728	316	11.6%
2009	2,180	326	15.0%
2010	1,693	290	17.1%
2011	1,600	240	15.0%
2012	1,490	221	14.8%
2013	1,201	176	14.7%
2014	1,297	214	16.5%
2015	1,321	222	16.8%

Table K4 provides information on the impact of one-level disagreement between Part B MACs and providers when coding E&M services.

Table K4: Impact of 1-Level E&M (Top 20)

Final E & M Codes	Incorrect Coding Errors		
	Improper Payment Rate	Projected Improper Payments	95% Confidence Interval
Office/outpatient visit est (99214)	3.2%	\$235,074,887	2.4% - 3.9%
Subsequent hospital care (99233)	11.6%	\$207,445,871	10.4% - 12.8%
Emergency dept visit (99285)	12.9%	\$182,760,719	11.0% - 14.9%
Office/outpatient visit est (99213)	2.7%	\$154,704,861	1.6% - 3.8%
Office/outpatient visit new (99204)	7.9%	\$90,962,077	6.3% - 9.6%
Office/outpatient visit est (99215)	8.5%	\$90,118,498	7.2% - 9.8%
Subsequent hospital care (99232)	2.8%	\$75,238,185	1.9% - 3.8%
Initial hospital care (99223)	4.3%	\$74,595,920	3.5% - 5.1%
Initial hospital care (99222)	7.2%	\$59,648,062	5.9% - 8.5%
Office/outpatient visit est (99212)	8.8%	\$45,831,523	5.3% - 12.4%
Office/outpatient visit new (99203)	5.1%	\$45,679,397	2.9% - 7.4%
Hospital discharge day (99239)	7.9%	\$28,456,552	6.2% - 9.7%
Office/outpatient visit new (99205)	5.9%	\$27,599,456	4.5% - 7.2%
Emergency dept visit (99284)	3.9%	\$22,027,904	3.2% - 4.7%
Nursing fac care subseq (99309)	3.5%	\$18,466,532	1.9% - 5.0%
Subsequent hospital care (99231)	5.4%	\$15,220,625	1.6% - 9.1%
Nursing fac care subseq (99308)	2.4%	\$13,923,099	(0.2%) - 5.1%
Nursing facility care init (99306)	5.6%	\$10,908,898	3.6% - 7.7%
Emergency dept visit (99283)	5.9%	\$10,022,349	1.6% - 10.2%
Nursing fac care subseq (99310)	9.3%	\$9,392,224	6.0% - 12.6%
All Other Codes	0.1%	\$50,766,595	0.0% - 0.1%
Overall	1.6%	\$1,468,844,235	1.5% - 1.8%

Table K5: Type of Services with Upcoding⁹ Errors: Part B

Part B Services (BETOS Codes)	Upcoding Errors		
	Improper Payment Rate	Projected Improper Payments	95% Confidence Interval
Hospital visit - initial	19.6%	\$578,407,410	18.3% - 21.0%
Office visits - established	3.2%	\$471,791,063	2.7% - 3.7%
Hospital visit - subsequent	6.9%	\$378,386,012	6.1% - 7.7%
Office visits - new	13.6%	\$374,510,803	11.9% - 15.3%
Emergency room visit	12.0%	\$257,553,526	10.1% - 13.8%
Nursing home visit	8.5%	\$154,930,703	6.9% - 10.0%
Hospital visit - critical care	15.3%	\$147,923,289	12.9% - 17.8%
Anesthesia	2.0%	\$42,737,872	(1.9%) - 5.9%
Dialysis services (Medicare Fee Schedule)	3.9%	\$32,843,499	2.5% - 5.4%
Ambulance	0.4%	\$17,770,427	(0.0%) - 0.8%
Advanced imaging - MRI/MRA: other	1.2%	\$13,353,077	(1.2%) - 3.6%
Specialist - ophthalmology	0.4%	\$8,088,303	(0.0%) - 0.8%
Minor procedures - skin	0.6%	\$7,783,285	(0.4%) - 1.5%
Specialist - other	1.1%	\$7,715,024	(1.0%) - 3.2%
Advanced imaging - CAT/CT/CTA: other	0.6%	\$6,492,959	0.5% - 0.8%
Other drugs	0.1%	\$4,962,915	(0.1%) - 0.2%
Home visit	1.8%	\$4,371,671	(0.2%) - 3.7%
Lab tests - blood counts	1.2%	\$3,433,880	0.8% - 1.5%
Other tests - other	0.2%	\$3,191,149	(0.2%) - 0.6%
Standard imaging - Nuclear Medicine	0.2%	\$2,811,763	(0.2%) - 0.7%
All Other Codes	0.0%	\$12,752,844	0.0% - 0.1%
Overall	2.8%	\$2,531,811,473	2.6% - 3.0%

⁹ Upcoding refers to billing a higher level service or a service with a higher payment than is supported by the medical record documentation

Table K6: Type of Services with Upcoding Errors: DMEPOS

DMEPOS (HCPCS)	Upcoding Errors		
	Improper Payment Rate	Projected Improper Payments	Improper Payment Rate
Glucose Monitor	7.1%	\$23,253,148	5.2% - 9.0%
Lower Limb Prosthesis	0.1%	\$477,222	(0.1%) - 0.3%
Immunosuppressive Drugs	0.0%	\$146,607	(0.0%) - 0.1%
Parenteral Nutrition	0.0%	\$62,167	(0.0%) - 0.1%
Wheelchair Options/Accessories	0.0%	\$3,380	(0.0%) - 0.0%
Overall	0.3%	\$23,942,525	0.2% - 0.4%

Table K7: Type of Services with Upcoding Errors: Part A Excluding Hospital IPPS

Part A Services Excluding Hospital IPPS (TOB)	Upcoding Errors		
	Improper Payment Rate	Projected Improper Payments	95% Confidence Interval
SNF Inpatient	0.8%	\$285,556,812	0.5% - 1.2%
Hospital Outpatient	0.3%	\$133,629,382	(0.1%) - 0.6%
Nonhospital based hospice	0.4%	\$54,492,854	(0.2%) - 1.0%
Home Health	0.1%	\$9,232,663	(0.0%) - 0.1%
CAH	0.1%	\$5,397,029	(0.0%) - 0.2%
Hospital Other Part B	0.2%	\$1,589,353	0.0% - 0.3%
Hospital Inpatient Part B	0.1%	\$558,081	(0.0%) - 0.2%
Clinic CORF	1.2%	\$388,155	(0.6%) - 2.9%
SNF Outpatient	0.0%	\$95	0.0% - 0.0%
Overall	0.3%	\$490,844,422	0.2% - 0.5%

Table K8: Type of Services with Upcoding Errors: Part A Hospital IPPS

Part A Hospital IPPS Services (MS-DRGs)	Upcoding Errors		
	Improper Payment Rate	Projected Improper Payments	95% Confidence Interval
Major Cardiovasc Procedures (237, 238)	3.3%	\$53,935,618	1.7% - 4.9%
Renal Failure (682, 683, 684)	1.1%	\$26,016,660	0.6% - 1.6%
Biopsies Of Musculoskeletal System & Connective Tissue (477, 478, 479)	13.5%	\$24,777,945	12.3% - 14.6%
Heart Failure & Shock (291, 292, 293)	0.6%	\$23,034,891	0.0% - 1.2%
Extensive O.R. Procedure Unrelated To Principal Diagnosis (981, 982, 983)	1.5%	\$19,327,499	(0.0%) - 3.0%
Acute Myocardial Infarction, Discharged Alive (280, 281, 282)	1.4%	\$15,776,854	(0.2%) - 3.1%
Other Digestive System Diagnoses (393, 394, 395)	2.7%	\$13,632,147	2.4% - 3.1%
Septicemia Or Severe Sepsis W/O Mv 96+ Hours (871, 872)	0.2%	\$12,170,257	0.1% - 0.4%
Cardiac Arrhythmia & Conduction Disorders (308, 309, 310)	0.9%	\$11,138,069	(0.5%) - 2.3%
Red Blood Cell Disorders (811, 812)	1.2%	\$9,394,465	1.0% - 1.4%
Other Circulatory System Diagnoses (314, 315, 316)	1.1%	\$9,319,174	(0.1%) - 2.4%
Bilateral Or Multiple Major Joint Procs Of Lower Extremity (461, 462)	4.3%	\$8,253,317	0.9% - 7.8%
Cellulitis (602, 603)	0.9%	\$8,055,739	0.6% - 1.1%
Simple Pneumonia & Pleurisy (193, 194, 195)	0.3%	\$7,998,775	(0.3%) - 1.0%
Chronic Obstructive Pulmonary Disease (190, 191, 192)	0.4%	\$7,523,648	(0.2%) - 0.9%
Major Joint Replacement Or Reattachment Of Lower Extremity (469, 470)	0.1%	\$6,605,023	(0.1%) - 0.3%
Atherosclerosis (302, 303)	3.8%	\$6,534,317	3.2% - 4.3%
Other Kidney & Urinary Tract Procedures (673, 674, 675)	2.2%	\$6,001,291	1.0% - 3.4%
Pulmonary Edema & Respiratory Failure (189)	0.5%	\$5,817,921	(0.5%) - 1.5%
Septicemia Or Severe Sepsis W Mv 96+ Hours (870)	0.4%	\$5,742,728	(0.3%) - 1.0%
All Other Codes	0.2%	\$173,488,780	0.1% - 0.4%
Overall	0.4%	\$454,545,118	0.3% - 0.5%

Appendix L: Overpayments

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

Table L1: Service-Specific Overpayment Rates: Part B

Part B Services (BETOS Codes)	Sampled Claims	Number of Lines in Sample	Dollars Overpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Overpaid	Overpayment Rate
All Codes With Less Than 30 Claims	5,420	9,409	\$114,518	\$1,035,293	\$2,872,307,254	8.7%
Initial hospital care (99223)	821	823	\$48,904	\$149,764	\$568,030,624	32.4%
Subsequent hospital care (99233)	866	1,344	\$32,862	\$125,170	\$463,152,254	26.0%
Office/outpatient visit est (99214)	773	776	\$4,968	\$75,217	\$452,114,461	6.1%
Subsequent hospital care (99232)	774	1,383	\$12,916	\$90,603	\$330,743,852	12.4%
Critical care first hour (99291)	414	530	\$25,141	\$102,005	\$253,628,994	27.7%
Therapeutic exercises (97110)	367	410	\$4,757	\$17,065	\$238,427,505	27.5%
BLS (A0428)	140	154	\$5,427	\$29,829	\$232,305,095	18.5%
Emergency dept visit (99285)	274	274	\$6,932	\$42,484	\$231,381,780	16.4%
Office/outpatient visit new (99204)	358	358	\$10,034	\$51,013	\$230,536,586	20.1%
Als1-emergency (A0427)	104	104	\$5,209	\$37,385	\$226,044,710	14.5%
Chiropract manj 3-4 regions (98941)	291	381	\$6,139	\$11,729	\$210,176,315	51.6%
Office/outpatient visit est (99213)	490	500	\$1,400	\$32,424	\$204,781,859	3.6%
Initial hospital care (99222)	355	355	\$11,704	\$44,478	\$201,467,368	24.3%
Office/outpatient visit est (99215)	347	349	\$7,786	\$46,090	\$171,415,090	16.2%
Ground mileage (A0425)	346	358	\$3,952	\$24,269	\$154,920,737	16.7%
Office/outpatient visit new (99205)	202	202	\$9,824	\$35,724	\$129,546,240	27.6%
Psytx pt&/family 45 minutes (90834)	104	135	\$3,284	\$8,307	\$119,881,097	38.3%
Cataract surg w/IOL 1 stage (66984)	98	100	\$3,751	\$65,045	\$111,385,618	6.1%
BLS-emergency (A0429)	131	132	\$4,854	\$39,157	\$111,330,662	14.7%
All Other Codes	11,509	29,483	\$389,680	\$1,756,866	\$3,659,611,176	15.1%
Combined	18,317	47,560	\$714,043	\$3,819,915	\$11,173,189,278	12.4%

Table L2: Service-Specific Overpayment Rates: DMEPOS

DMEPOS (HCPCS)	Sampled Claims	Number of Lines in Sample	Dollars Overpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Overpaid	Overpayment Rate
All Codes With Less Than 30 Claims	2,783	3,955	\$573,013	\$1,435,533	\$775,923,068	32.4%
Oxygen concentrator (E1390)	1,005	1,024	\$57,023	\$120,491	\$438,233,633	46.9%
Blood glucose/reagent strips (A4253)	930	947	\$12,174	\$29,738	\$116,663,821	43.7%
Hosp bed semi-electr w/ matt (E0260)	165	165	\$9,813	\$11,012	\$71,563,668	88.2%
NDC 00004-1101-51 capecitabi (WW093)	50	51	\$36,310	\$108,645	\$64,271,947	33.8%
Cont airway pressure device (E0601)	97	99	\$2,396	\$5,685	\$62,201,465	42.2%
Rad w/o backup non-inv intfc (E0470)	53	54	\$5,911	\$8,337	\$48,920,500	69.4%
Tacrolimus imme rel oral 1mg (J7507)	119	124	\$12,016	\$22,422	\$48,639,047	53.2%
Diab shoe for density insert (A5500)	74	78	\$5,655	\$8,670	\$46,777,443	65.3%
Nasal application device (A7034)	87	88	\$3,253	\$7,239	\$38,365,522	44.3%
Portable gaseous O2 (E0431)	388	397	\$4,759	\$8,195	\$38,162,270	57.5%
Multi den insert custom mold (A5513)	88	99	\$10,933	\$14,664	\$37,986,151	66.2%
Standard wheelchair (K0001)	59	59	\$1,780	\$2,127	\$36,182,847	79.7%
Mycophenolic acid (J7518)	62	62	\$16,941	\$40,691	\$35,557,785	44.4%
Enteral feed supp pump per d (B4035)	82	84	\$6,416	\$13,190	\$32,930,526	48.4%
LSO sag r an/pos pnl pre cst (L0631)	46	46	\$18,241	\$39,265	\$32,124,459	46.5%
Budesonide non-comp unit (J7626)	86	86	\$4,758	\$25,368	\$31,817,930	17.6%
Lightweight wheelchair (K0003)	52	52	\$2,735	\$2,770	\$31,541,243	98.8%
Multi den insert direct form (A5512)	90	97	\$8,680	\$12,138	\$31,498,293	65.9%
LSO sc r ant/pos pnl pre cst (L0637)	47	47	\$20,127	\$39,731	\$31,337,660	51.6%
All Other Codes	7,479	19,978	\$4,168,751	\$13,047,983	\$1,128,704,279	38.6%
Combined	11,007	27,592	\$4,981,686	\$15,003,894	\$3,179,403,557	39.9%

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

Part A Services Excluding Hospital IPPS (TOB)	Sampled Claims	Dollars Overpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Overpaid	Overpayment Rate
Home Health	1,154	\$1,734,188	\$2,987,179	\$10,047,010,726	58.8%
SNF Inpatient	1,836	\$1,158,373	\$11,237,142	\$3,494,852,050	10.3%
Hospital Outpatient	1,607	\$41,250	\$839,598	\$2,517,284,996	4.9%
Hospital Inpatient (Part A)	883	\$3,341,222	\$11,618,954	\$1,838,847,595	29.7%
Nonhospital based hospice	349	\$130,989	\$1,226,215	\$1,428,981,208	10.7%
Clinic ESRD	634	\$140,277	\$1,726,217	\$880,072,366	7.9%
SNF Inpatient Part B	89	\$10,547	\$58,273	\$360,947,440	19.4%
CAH	274	\$8,864	\$128,126	\$349,468,164	6.4%
Hospital based hospice	50	\$33,535	\$165,263	\$250,308,820	18.9%
Hospital Other Part B	134	\$1,148	\$4,697	\$192,238,866	20.5%
SNF Outpatient	48	\$9,263	\$20,007	\$97,063,533	46.5%
Clinic OPT	42	\$940	\$14,563	\$47,934,811	6.5%
Hospital Inpatient Part B	48	\$2,118	\$31,324	\$42,896,457	5.8%
FQHC	50	\$248	\$5,699	\$33,054,272	4.2%
Clinical Rural Health	156	\$479	\$17,896	\$29,055,535	2.9%
Clinic CORF	52	\$4,311	\$12,009	\$11,326,804	33.8%
Community Mental Health Centers	1	\$130	\$130	\$8,764,118	100.0%
All Other Codes	8	\$0	\$16,655	\$0	0.0%
Combined	7,415	\$6,617,881	\$30,109,945	\$21,630,107,762	14.7%

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

Part A Inpatient Hospital PPS (MS-DRGs)	Sampled Claims	Dollars Overpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Overpaid	Overpayment Rate
All Codes With Less Than 30 Claims	1,571	\$1,341,430	\$21,404,854	\$2,407,599,027	5.5%
Psychoses (885)	445	\$309,967	\$3,975,641	\$350,758,368	8.4%
Major Joint Replacement Or Reattachment Of Lower Extremity W/O Mcc (470)	384	\$298,036	\$5,092,876	\$331,795,610	5.6%
Esophagitis, Gastroent & Misc Digest Disorders W/O Mcc (392)	254	\$287,654	\$1,259,670	\$218,562,239	21.6%
Kidney & Urinary Tract Infections W/O Mcc (690)	47	\$46,640	\$230,853	\$168,051,884	21.6%
Transient Ischemia (069)	45	\$94,561	\$212,863	\$142,242,785	44.6%
Chest Pain (313)	167	\$284,382	\$660,253	\$135,825,892	45.5%
Cardiac Defibrillator Implant W/O Cardiac Cath W/O Mcc (227)	741	\$7,848,627	\$25,860,105	\$124,231,565	30.5%
Syncope & Collapse (312)	44	\$56,591	\$217,526	\$123,964,595	26.3%
Perc Cardiovasc Proc W Drug-Eluting Stent W/O Mcc (247)	101	\$221,459	\$1,447,983	\$120,952,387	9.8%
Misc Disorders Of Nutrition,metabolism,fluids/Electrolytes W Mcc (640)	32	\$53,561	\$277,264	\$115,214,869	18.6%
Heart Failure & Shock W Cc (292)	160	\$88,702	\$1,058,101	\$111,085,736	8.6%
Circulatory Disorders Except Ami, W Card Cath W/O Mcc (287)	124	\$135,917	\$856,720	\$97,872,267	14.9%
Back & Neck Proc Exc Spinal Fusion W/O Cc/Mcc (491)	202	\$686,510	\$1,402,807	\$95,959,451	49.2%
Degenerative Nervous System Disorders W/O Mcc (057)	42	\$65,698	\$370,272	\$93,957,777	20.0%
Misc Disorders Of Nutrition,metabolism,fluids/Electrolytes W/O Mcc (641)	42	\$30,549	\$195,712	\$88,896,433	15.3%
Perc Cardiovasc Proc W Drug-Eluting Stent W Mcc Or 4+ Vessels/Stents (246)	49	\$114,990	\$1,080,431	\$88,361,673	13.2%
Medical Back Problems W/O Mcc (552)	140	\$217,861	\$749,258	\$88,265,670	28.2%
Red Blood Cell Disorders W/O Mcc (812)	52	\$52,362	\$277,156	\$82,400,436	19.3%
Kidney & Urinary Tract Infections W Mcc (689)	30	\$34,695	\$226,948	\$72,197,251	14.9%
All Other Codes	8,192	\$15,126,612	\$155,204,740	\$2,396,794,026	5.0%
Combined	12,864	\$27,396,803	\$222,062,035	\$7,454,989,941	6.6%

Table L5: Overpayment Rate: All CERT

All Services	Sampled Claims	Dollars Overpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Overpaid	Overpayment Rate
All	49,603	\$39,710,413	\$270,995,789	\$43,437,690,539	12.1%

Appendix M: Underpayments

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

Table M1: Service-Specific Underpayment Rates: Part B

Part B Services (BETOS Codes)	Sampled Claims	Number of Lines in Sample	Dollars Underpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Underpaid	Underpayment Rate
Office/outpatient visit est (99213)	490	500	\$798	\$32,424	\$130,177,362	2.3%
Office/outpatient visit est (99212)	113	115	\$585	\$4,284	\$67,362,536	13.0%
Subsequent hospital care (99231)	204	301	\$561	\$10,473	\$17,714,853	6.2%
Subsequent hospital care (99233)	866	1,344	\$699	\$125,170	\$11,096,818	0.6%
All Codes With Less Than 30 Claims	5,420	9,409	\$313	\$1,035,293	\$11,047,573	0.0%
Therapeutic exercises (97110)	367	410	\$197	\$17,065	\$9,942,118	1.1%
Nursing fac care subseq (99307)	58	60	\$122	\$2,360	\$9,801,659	8.5%
Nursing fac care subseq (99308)	69	87	\$57	\$5,562	\$9,692,314	1.7%
Office/outpatient visit est (99211)	71	71	\$88	\$1,057	\$7,847,503	8.4%
Emergency dept visit (99283)	71	71	\$97	\$3,868	\$4,674,338	2.7%
Initial hospital care (99222)	355	355	\$222	\$44,478	\$4,556,523	0.6%
Subsequent hospital care (99232)	774	1,383	\$90	\$90,603	\$3,945,025	0.1%
Office/outpatient visit est (99214)	773	776	\$37	\$75,217	\$3,927,619	0.1%
Initial hospital care (99221)	69	69	\$133	\$6,305	\$3,510,620	2.3%
Critical care first hour (99291)	414	530	\$409	\$102,005	\$3,066,842	0.3%
Ground mileage (A0425)	346	358	\$46	\$24,269	\$1,762,802	0.2%
Initial hospital care (99223)	821	823	\$125	\$149,764	\$1,758,502	0.1%
Manual therapy 1/> regions (97140)	306	342	\$34	\$9,236	\$1,697,882	0.5%
Nursing fac care subseq (99310)	51	52	\$85	\$5,765	\$1,503,024	1.5%
Tissue exam by pathologist (88305)	280	304	\$39	\$23,155	\$1,219,884	0.1%
All Other Codes	12,217	30,200	\$3,078	\$2,051,563	\$6,911,313	0.0%
Combined	18,317	47,560	\$7,813	\$3,819,915	\$313,217,111	0.3%

Table M2: Service-Specific Underpayment Rates: DMEPOS

DMEPOS (HCPCS)	Sampled Claims	Number of Lines in Sample	Dollars Underpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Underpaid	Underpayment Rate
Oxygen concentrator (E1390)	1,005	1,024	\$94	\$120,491	\$749,474	0.1%
PWC gp 2 std cap chair (K0823)	187	192	\$284	\$41,419	\$371,681	0.7%
Arformoterol non-comp unit (J7605)	77	79	\$322	\$23,051	\$190,275	0.2%
Stationary o2 contents, li (E0442)	52	52	\$60	\$2,910	\$181,916	2.0%
Formoterol fumarate, inh (J7606)	63	64	\$415	\$24,348	\$125,886	0.2%
Blood glucose/reagent strips (A4253)	930	947	\$10	\$29,738	\$72,610	0.0%
PWC gp3 std mult pow opt s/b (K0861)	297	299	\$5,302	\$981,858	\$48,497	0.1%
Pwr seat tilt (E1002)	208	208	\$3,782	\$540,916	\$34,599	0.3%
Calibrator solution/chips (A4256)	341	341	\$4	\$1,415	\$24,841	0.3%
Electro connect btw 2 sys (E2311)	322	322	\$2,211	\$534,499	\$20,224	0.1%
Prosthetic sock multi ply BK (L8420)	257	259	\$121	\$35,391	\$17,505	0.3%
Adj skin pro w/c cus wd<22in (E2622)	99	99	\$622	\$24,471	\$11,356	0.2%
WC component-accessory nos (K0108)	333	503	\$1,102	\$168,699	\$10,698	0.1%
Alkaline batt for glucose mon (A4233)	68	68	\$1	\$67	\$7,204	1.2%
WC manual swingaway (E1028)	452	824	\$392	\$113,825	\$3,581	0.0%
All Codes With Less Than 30 Claims	2,783	3,955	\$361	\$1,435,533	\$3,299	0.0%
Gr24 sealed leadacid battery (E2363)	100	101	\$263	\$22,558	\$2,401	0.1%
WC lateral trunk/hip suppor (E0956)	151	179	\$151	\$17,525	\$1,381	0.1%
Cushioned headrest (E0955)	384	384	\$139	\$44,268	\$1,270	0.0%
All Other Codes	7,953	17,692	\$0	\$10,840,911	\$0	0.0%
Combined	11,007	27,592	\$15,635	\$15,003,894	\$1,878,700	0.0%

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

Part A Excluding Hospital IPPS (TOB)	Sampled Claims	Number of Lines in Sample	Dollars Underpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Underpaid	Underpayment Rate
Home Health	1,154	1,154	\$3,763	\$2,987,179	\$34,900,674	0.2%
SNF Inpatient	1,836	1,836	\$4,867	\$11,237,142	\$16,074,649	0.0%
Hospital Outpatient	1,607	1,607	\$147	\$839,598	\$8,760,547	0.0%
Clinic OPT	42	42	\$117	\$14,563	\$6,186,002	0.8%
Clinic CORF	52	52	\$47	\$12,009	\$133,090	0.4%
Clinic ESRD	634	634	\$1	\$1,726,217	\$7,091	0.0%
All Other Codes	2,090	2,090	\$0	\$13,293,239	\$0	0.0%
Combined	7,415	7,415	\$8,943	\$30,109,945	\$66,062,054	0.0%

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

Service Billed to Part A Hospital IPPS (MS-DRGs)	Sampled Claims	Number of Lines in Sample	Dollars Underpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Underpaid	Underpayment Rate
All Codes With Less Than 30 Claims	1,571	1,571	\$190,729	\$21,404,854	\$387,262,458	0.9%
Septicemia Or Severe Sepsis W/O Mv 96+ Hours W Mcc (871)	184	184	\$24,137	\$2,605,585	\$41,181,699	0.8%
Septicemia Or Severe Sepsis W/O Mv 96+ Hours W/O Mcc (872)	51	51	\$13,390	\$374,887	\$28,893,376	3.4%
Other Respiratory System Diagnoses W/O Mcc (206)	61	61	\$15,674	\$325,396	\$26,837,045	14.3%
Chronic Obstructive Pulmonary Disease W Cc (191)	48	48	\$6,343	\$315,813	\$21,525,639	2.6%
Renal Failure W Cc (683)	49	49	\$6,883	\$340,805	\$20,756,477	2.2%
Heart Failure & Shock W Cc (292)	160	160	\$15,140	\$1,058,101	\$20,239,984	1.6%
Major Joint Replacement Or Reattachment Of Lower Extremity W/O Mcc (470)	384	384	\$17,408	\$5,092,876	\$20,132,777	0.3%
Cardiac Arrhythmia & Conduction Disorders W/O Cc/Mcc (310)	62	62	\$13,350	\$225,506	\$19,313,386	5.6%
Simple Pneumonia & Pleurisy W Cc (194)	58	58	\$7,302	\$377,645	\$16,491,295	1.8%
Intracranial Hemorrhage Or Cerebral Infarction W Cc Or TPA In 24 Hrs (065)	39	39	\$4,872	\$276,789	\$11,353,322	1.8%
Laparoscopic Cholecystectomy W/O C.D.E. W/O Cc/Mcc (419)	42	42	\$23,991	\$303,061	\$10,591,792	6.5%
Simple Pneumonia & Pleurisy W/O Cc/Mcc (195)	48	48	\$8,114	\$214,102	\$10,524,943	3.9%
Other Vascular Procedures W/O Cc/Mcc (254)	191	191	\$117,050	\$2,155,520	\$10,413,042	5.1%
Chronic Obstructive Pulmonary Disease W/O Cc/Mcc (192)	54	54	\$7,231	\$263,531	\$8,926,444	2.3%
Other Circulatory System Diagnoses W Mcc (314)	49	49	\$7,715	\$615,174	\$8,205,083	1.4%
Syncope & Collapse (312)	44	44	\$3,294	\$217,526	\$8,137,450	1.7%
Cardiac Valve & Oth Maj Cardiothoracic Proc W Card Cath W Cc (217)	45	45	\$73,126	\$1,776,641	\$8,081,142	3.8%
Circulatory Disorders Except Ami, W Card Cath W/O Mcc (287)	124	124	\$5,470	\$856,720	\$7,947,812	1.2%
Major Chest Procedures W Cc (164)	45	45	\$22,379	\$770,378	\$7,933,455	2.9%
All Other Codes	9,555	9,555	\$1,506,378	\$182,491,124	\$183,369,026	0.4%
Combined	12,864	12,864	\$2,089,974	\$222,062,035	\$878,117,649	0.8%

Table M5: Underpayment Rate: All Services

All Services	Sampled Claims	Number of Lines in Sample	Dollars Underpaid in Sample	Total Dollars Paid in Sample	Projected Dollars Underpaid	Underpayment Rate
All	49,603	95,431	\$2,122,365	\$270,995,789	\$1,259,275,514	0.4%

Appendix N: Statistics and Other Information for the CERT Sample

Summary of Sampling and Estimation Methodology for the Comprehensive Error Rate Testing (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.

Payment Error Rate Formula

Sampled claims are subject to reviews, and a payment error rate is calculated based on those reviews. The payment error 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, error 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.¹⁰ 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.

¹⁰ An A/B MAC consists of two contractor clusters. Each cluster represents their respective Part A and Part B claims. Expenditures (payments) are reported to CERT by contractor cluster. DMEPOS MACs are composed of a single cluster.

The estimator for a domain, d, is expressed as

$$\hat{R}_{HybridEstimator}^d = \frac{\hat{t}_e^{*d}}{\hat{t}_p^{*d}} = \frac{\sum_i \hat{t}_e^{*di}}{\sum_i \hat{t}_p^{*di}} = \frac{\sum_i \frac{\hat{t}_e^{di}}{\hat{t}_p^i} t_p^{*i}}{\sum_i \frac{\hat{t}_p^{di}}{\hat{t}_p^i} t_p^{*i}} \quad (1)$$

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:

$$\hat{t}_e^{di} = \sum_{k=1}^a \frac{N_k}{n_k} \sum_{j=1}^{n_k^{di}} e_{kj} = \sum_{k=1}^a W_k \sum_{j=1}^{n_k^{di}} e_{kj} \quad (2)$$

$$\hat{t}_p^{di} = \sum_{k=1}^a \frac{N_k}{n_k} \sum_{j=1}^{n_k^{di}} p_{kj} = \sum_{k=1}^a W_k \sum_{j=1}^{n_k^{di}} p_{kj} \quad (3)$$

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: Claims in Error: Part B

Variable	Number of Claims Reviewed	Number of Claims Containing Errors	Percent of Claims Containing Errors
HCPCS			
All Codes With Less Than 30 Claims	9,409	1,613	17.1%
Assay of amphetamines (82145)	722	445	61.6%
Column chromatography quant (82542)	667	346	51.9%
Complete CBC w/auto diff WBC (85025)	759	237	31.2%
Comprehen metabolic panel (80053)	864	185	21.4%
Initial hospital care (99223)	823	448	54.4%
Office/outpatient visit est (99214)	776	111	14.3%
Routine venipuncture (36415)	971	215	22.1%
Subsequent hospital care (99232)	1,315	217	16.5%
Subsequent hospital care (99233)	1,300	655	50.4%
Other	29,827	9,104	30.5%
TOS Code			
All Codes With Less Than 30 Claims	9,409	1,613	17.1%
Assay of amphetamines (82145)	722	445	61.6%
Column chromatography quant (82542)	667	346	51.9%
Complete CBC w/auto diff WBC (85025)	759	237	31.2%
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Routine venipuncture (36415)	971	215	22.1%
Subsequent hospital care (99232)	1,315	217	16.5%
Subsequent hospital care (99233)	1,300	655	50.4%
Other	29,827	9,104	30.5%
Resolution Type			
All Codes With Less Than 30 Claims	9,409	1,613	17.1%
Assay of amphetamines (82145)	722	445	61.6%
Column chromatography quant (82542)	667	346	51.9%
Complete CBC w/auto diff WBC (85025)	759	237	31.2%
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Subsequent hospital care (99232)	1,315	217	16.5%
Subsequent hospital care (99233)	1,300	655	50.4%
Other	29,827	9,104	30.5%
Diagnosis Code			
All Codes With Less Than 30 Claims	9,409	1,613	17.1%
Assay of amphetamines (82145)	722	445	61.6%
Column chromatography quant (82542)	667	346	51.9%
Complete CBC w/auto diff WBC (85025)	759	237	31.2%
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Routine venipuncture (36415)	971	215	22.1%
Subsequent hospital care (99232)	1,315	217	16.5%
Subsequent hospital care (99233)	1,300	655	50.4%
Other	29,827	9,104	30.5%

Table N2: Claims in Error: DMEPOS

Variable	Number of Claims Reviewed	Number of Claims Containing Errors	Percent of Claims Containing Errors
Service			
All Codes With Less Than 30 Claims	3,955	1,515	38.3%
Blood glucose/reagent strips (A4253)	947	441	46.6%
Calibrator solution/chips (A4256)	341	78	22.9%
Cushioned headrest (E0955)	384	74	19.3%
Lancets per box (A4259)	428	166	38.8%
Oxygen concentrator (E1390)	1,024	406	39.6%
Portable gaseous O2 (E0431)	397	184	46.3%
Socket insert w lock mech (L5673)	379	115	30.3%
WC component-accessory nos (K0108)	503	113	22.5%
WC manual swingaway (E1028)	824	166	20.1%
Other	18,410	6,201	33.7%
TOS Code			
All Codes With Less Than 30 Claims	3,955	1,515	38.3%
Blood glucose/reagent strips (A4253)	947	441	46.6%
Calibrator solution/chips (A4256)	341	78	22.9%
Cushioned headrest (E0955)	384	74	19.3%
Lancets per box (A4259)	428	166	38.8%
Oxygen concentrator (E1390)	1,024	406	39.6%
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Socket insert w lock mech (L5673)	379	115	30.3%
WC component-accessory NOS (K0108)	503	113	22.5%
WC manual swingaway (E1028)	824	166	20.1%
Other	18,410	6,201	33.7%
Resolution Type			
All Codes With Less Than 30 Claims	3,955	1,515	38.3%
Blood glucose/reagent strips (A4253)	947	441	46.6%
Calibrator solution/chips (A4256)	341	78	22.9%
Cushioned headrest (E0955)	384	74	19.3%
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Oxygen concentrator (E1390)	1,024	406	39.6%
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Other	18,410	6,201	33.7%

Variable	Number of Claims Reviewed	Number of Claims Containing Errors	Percent of Claims Containing Errors
Diagnosis Code			
All Codes With Less Than 30 Claims	3,955	1,515	38.3%
Blood glucose/reagent strips (A4253)	947	441	46.6%
Calibrator solution/chips (A4256)	341	78	22.9%
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Lancets per box (A4259)	428	166	38.8%
Oxygen concentrator (E1390)	1,024	406	39.6%
Portable gaseous O2 (E0431)	397	184	46.3%
Socket insert w lock mech (L5673)	379	115	30.3%
WC component-accessory NOS (K0108)	503	113	22.5%
WC manual swingaway (E1028)	824	166	20.1%
Other	18,410	6,201	33.7%

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

Variable	Number of Claims Reviewed	Number of Claims Containing Errors	Percent of Claims Containing Errors
Type Of Bill			
Clinic ESRD	634	91	14.4%
Clinical Rural Health	156	6	3.8%
CAH	274	78	28.5%
Home Health	1,154	723	62.7%
Hospital Inpatient (Part A)	883	218	24.7%
Hospital Other Part B	134	50	37.3%
Hospital Outpatient	1,607	284	17.7%
Nonhospital based hospice	349	40	11.5%
SNF Inpatient	1,836	242	13.2%
SNF Inpatient Part B	89	18	20.2%
Other	299	66	22.1%
TOS Code			
Clinic ESRD	634	91	14.4%
Clinical Rural Health	156	6	3.8%
CAH	274	78	28.5%
Home Health	1,154	723	62.7%
Hospital Inpatient (Part A)	883	218	24.7%
Hospital Other Part B	134	50	37.3%
Hospital Outpatient	1,607	284	17.7%
Nonhospital based hospice	349	40	11.5%
SNF Inpatient	1,836	242	13.2%
SNF Inpatient Part B	89	18	20.2%
Other	299	66	22.1%
Diagnosis Code			
Clinic ESRD	634	91	14.4%
Clinical Rural Health	156	6	3.8%
Critical Access Hospital	274	78	28.5%
Home Health	1,154	723	62.7%
Hospital Inpatient (Part A)	883	218	24.7%
Hospital Other Part B	134	50	37.3%
Hospital Outpatient	1,607	284	17.7%
Nonhospital based hospice	349	40	11.5%
SNF Inpatient	1,836	242	13.2%
SNF Inpatient Part B	89	18	20.2%
Other	299	66	22.1%

Table N4: Claims in Error: Part A Hospital IPPS

Variable	Number of Claims Reviewed	Number of Claims Containing Errors	Percent of Claims Containing Errors
DRG Label			
AICD Generator Procedures (245)	493	113	22.9%
All Codes With Less Than 30 Claims	1,571	271	17.3%
Cardiac Defibrillator Implant W/O Cardiac Cath W/O Mcc (227)	741	253	34.1%
Combined Anterior/Posterior Spinal Fusion W/O Cc/Mcc (455)	496	80	16.1%
Esophagitis, Gastroent & Misc Digest Disorders W/O Mcc (392)	254	71	28.0%
Major Joint Replacement Or Reattachment Of Lower Extremity W/O Mcc (470)	384	34	8.9%
Permanent Cardiac Pacemaker Implant W Cc (243)	227	41	18.1%
Permanent Cardiac Pacemaker Implant W/O Cc/Mcc (244)	249	74	29.7%
Psychoses (885)	445	48	10.8%
Spinal Fus Exc Cerv W Spinal Curv/Malig/Infec Or 9+ Fus W/O Cc/Mcc (458)	480	124	25.8%
Other	7,524	1,740	23.1%
TOS Code			
AICD Generator Procedures (245)	493	113	22.9%
All Codes With Less Than 30 Claims	1,571	271	17.3%
Cardiac Defibrillator Implant W/O Cardiac Cath W/O Mcc (227)	741	253	34.1%
Combined Anterior/Posterior Spinal Fusion W/O Cc/Mcc (455)	496	80	16.1%
Esophagitis, Gastroent & Misc Digest Disorders W/O Mcc (392)	254	71	28.0%
Major Joint Replacement Or Reattachment Of Lower Extremity W/O Mcc (470)	384	34	8.9%
Permanent Cardiac Pacemaker Implant W Cc (243)	227	41	18.1%
Permanent Cardiac Pacemaker Implant W/O Cc/Mcc (244)	249	74	29.7%
Psychoses (885)	445	48	10.8%
Spinal Fus Exc Cerv W Spinal Curv/Malig/Infec Or 9+ Fus W/O Cc/Mcc (458)	480	124	25.8%
Other	7,524	1,740	23.1%
Diagnosis Code			
AICD Generator Procedures (245)	493	113	22.9%
All Codes With Less Than 30 Claims	1,571	271	17.3%
Cardiac Defibrillator Implant W/O Cardiac Cath W/O Mcc (227)	741	253	34.1%
Combined Anterior/Posterior Spinal Fusion W/O Cc/Mcc (455)	496	80	16.1%
Esophagitis, Gastroent & Misc Digest Disorders W/O Mcc (392)	254	71	28.0%
Major Joint Replacement Or Reattachment Of Lower Extremity W/O Mcc (470)	384	34	8.9%
Permanent Cardiac Pacemaker Implant W Cc (243)	227	41	18.1%

Variable	Number of Claims Reviewed	Number of Claims Containing Errors	Percent of Claims Containing Errors
Permanent Cardiac Pacemaker Implant W/O Cc/Mcc (244)	249	74	29.7%
Psychoses (885)	445	48	10.8%
Spinal Fus Exc Cerv W Spinal Curv/Malig/Infec Or 9+ Fus W/O Cc/Mcc (458)	480	124	25.8%
Other	7,524	1,740	23.1%

Table N5: “Included In” and “Excluded From” the Sample

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

The dollars in error for the improper payment rate is based on the final allowed charges, and the dollars in error for the provider compliance improper payment rate is based on the fee schedule amount for the billed service. 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.

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

Error Type	Included	Excluded	Total	Percent Included
Paid	18,317	754	19,071	96.0%
No Resolution	18,317	754	19,071	96.0%
Provider Compliance	18,317	754	19,071	96.0%

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

Error Type	Included	Excluded	Total	Percent Included
Paid	11,007	545	11,552	95.3%
No Resolution	11,014	538	11,552	95.3%
Provider Compliance	11,007	545	11,552	95.3%

**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	20,279	5,938	26,217	77.4%
No Resolution	20,281	5,936	26,217	77.4%
Provider Compliance	20,279	5,938	26,217	77.4%

Appendix O: List of Acronyms

Acronym	Definition
AICD	Automated Implantable Cardioverter-Defibrillator
AK	Above the Knee
ALS	Advance Life Support
AMI	Acute Myocardial Infarction
ASC	Ambulatory Surgery Center
BETOS	Berenson-Eggers Type of Service
BK	Below the Knee
BLS	Basic Life Support
CAH	Critical Access Hospital
CAT/CT	Computer Tomography
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
CPM	Continuous Passive Motion
CPT	Current Procedural Terminology
CRNA	Certified Registered Nurse Anesthetist
CVA	Cerebrovascular Accident
DRG	Diagnosis Related Group
DMEPOS	Durable Medical Equipment, Prosthetics, Orthotics & Supplies
E&M	Evaluation and Management
EKG	Electrocardiogram
ESRD	End-Stage Renal Disease
FFS	Fee-for-Service
FQHC	Federally Qualified Health Center
FY	Fiscal Year
GI	Gastrointestinal
HCPCS	Healthcare Common Procedure Coding System
HHA	Home Health Agency
IDTF	Independent Diagnostic Testing Facility
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

Acronym	Definition
NDC	National Drug Code
NOS	Not Otherwise Specified
OPPS	Outpatient Prospective Payment System
OPT	Outpatient Physical Therapy
OR	Operating Room
POV	Power Operated Vehicle
PPS	Prospective Payment System
RAD	Respiratory Assist Device
PTCA	Percutaneous Transluminal Coronary Angioplasty
PWC	Power Wheelchair
RHC	Rural Health Clinic
RTP	Return to Provider
SNF	Skilled Nursing Facility
TENS	Transcutaneous Electrical Nerve Stimulation
TOB	Type of Bill
TOS	Type of Service
WC	Wheelchair
W	With
W/O	Without