

# 2008 National Health Insurer Report Card: Step-by-step methodology

## Introduction

The American Medical Association's (AMA) National Health Insurer Report Card (NHIRC) reported 13 metrics concerning the timeliness, transparency and accuracy of claims processing by the health insurance companies that are responsible for paying these claims. These metrics can be divided into five groups.<sup>1</sup> This document details the steps taken to perform the analysis that produced the results for metrics 1, 2, 4, 5, 10, 11, 12, 13 and 14. Metrics 6-9 (transparency of contracted fees group) are not covered here because their results were taken directly from the payers' Web sites.

For each metric that required calculation, data were extracted from fields in the claims transactions based on the federally mandated Health Insurance Portability and Accountability Act of 1996 (HIPAA) electronic standard transactions. The technical references for these transactions are the electronic remittance advice (ERA) (ASC X12 835 Health Care Claim Payment/Advice Transaction), which is submitted to a physician in response to the receipt of an electronic claim submission (ASC X12 837 Health Care Claim: Professional Transaction.) For certain metrics, proprietary data were used and will be noted at the appropriate point in this document. For each metric, the form(s) and field(s) from which the data were extracted will be referenced.

The data on all metrics are reported separately for each payer. In most cases, each claim line contained the Payer Name (ASCX12 835: N102) and a line identification (ID) code that was provided by National Healthcare Exchange Services (NHXS) for referencing and validation. For more information on this data source as well as a more general description of the methodology, including selection of the samples used in the analyses, see "[National Health Insurer Report Card: Statement of methodology.](#)"<sup>2</sup>

## Payment Timeliness

### Metric 1 – Payer Claim Received Date disclosed

This metric reported the percentage of claim lines with a date value in the Claim Received Date (X12 835: DTM02) field of all ERAs for that payer.

*Data for the Claim Received Date satisfying the following restrictions were extracted from the ASC X12 835 Health Care Claim Payment/Advice (ERA).*

1. Data were extracted into separate data files for each payer where Payer Name (N102) = Payer.

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<sup>1</sup> Initially, 14 metrics were to be reported—hence metrics # 1-14; however, metric 3 was not reported. The five groups the metrics can be divided into (and the corresponding metric numbers on the report card) are: a) payment timeliness (1-3), b) accuracy (4-5); c) transparency of contracted fees (6-9); d) compliance with generally accepted pricing rules (10-11); and e) denials (12-14).

<sup>2</sup> Available at <http://www.ama-assn.org/ama1/pub/upload/mm/368/nhirc-methodology.pdf>

2. The total number of claim lines with a valid date were then extracted where Date Time Qualifier (DTM01) = 050 *and* where the Claim Date (DTM02) is not NULL was divided by the total number of records in step one for that payer.

## **Metric 2 – First remittance response time (median days)**

This metric reported the number of days between the Payer Claim Received Date (X12 835: DTM02) and the Claim Payment Date (X12 835: BPR16) in the first ERA for the claim.

*The following fields containing non-missing data were extracted from both the ASC X12N 835 – Health Care Claim Payment/Advice (ERA) and ASC X12N 837 Health Care Claim: Professional*

1. Data were extracted into separate data files for each payer where Payer Name (N102) = Payer and the claim lines capturing the following fields:
  - a. Payer State Code (X12 835: N402)
  - b. Payer Claim Received Date (X12 835: DTM02) *and* where Date Time Qualifier (DTM01) = 050
  - c. Claim Payment Date (X12 835: BPR16)

In cases where the Payer Claim Received Date was not available, date of service was used instead:

- d. Date of Service [DOS] (X12 837: DTP03) is not NULL *and* where Date Time Qualifier (X12 837: DTP01) = 472 *and* where Date Time Period Format Qualifier (X12 837: DTP02) = D8 or RD8<sup>3</sup>
2. Initial statistical analysis was performed on each payer's data to obtain variability measurements (standard deviation), which were used to calculate sample size.
  3. Sample sizes were determined for a 1-sample test using the following parameters:
    - a. Alpha = 0.05
    - b. Beta = 0.2
    - c. Standard deviation = calculated value for each payer
    - d. Differences (or acceptable error) = 1 day
  4. Based on these sample size calculations that ranged from 108 to 3,444 claim lines, a standard sample size of 10,000 claim lines for each payer was selected. This significantly exceeded the maximum sample size needed for any one payer.<sup>4</sup>
  5. Claim lines for each sample were selected using MiniTab.

## **Metric 3 – Not reported**

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<sup>3</sup> The date has been converted to reflect a single service date.

<sup>4</sup> 5,505 claim lines were used for the Health Net analysis because that represented the universe of claims available, which still exceeded the maximum sample size required.

## Accuracy

### Metric 4 – Allowed Amount disclosed

This metric reported the percentage of claim lines with a non-NULL value in the Actual Allowed Amount (X12 835: AMT02) of all ERAs for that payer.

*Data were extracted from the ASC X12N 835 – Health Care Claim Payment/Advice (ERA)*

1. Data were extracted into separate data files for each payer where Payer Name (N102) = Payer.
2. The claim lines where the Amount Qualifier Code (AMT01) = B6 *and* the Monetary Amount (AMT02) was not NULL were identified.
3. The total claim lines identified in step two were divided by the total number of claim lines for that payer.

### Metric 5 – Contracted payment rate adherence

For this metric, it was necessary to obtain the actual contracted fee amounts for the pertinent physician within the database. The contracted fee schedule was obtained using the following hierarchy: (1) an electronic copy of the fee schedule was obtained from the payer, (2) the fee schedule was obtained from the payer's Web site, (3) the fees schedule was created based on language contained in the physician contract. The fields reported in Table 1 were utilized for this metric.

*Data were extracted from the ASC X12N 835 – Health Care Claim Payment/Advice (ERA), ASC X12N 837 Health Care Claim: Professional, and the Physician Fee Schedule Database (PFSDB)*

Table 1	
Payer Name	X12 835: N102
Fee Schedule ID	NHXS ID
Procedure Code	X12 837: SV101-2
Procedure Modifier(s)	X12 837: SV101-3,SV101-4,SV101-5
Unit(s)	X12 837: SV103
Place of Service	X12 837: SV105
DOS	X12 837: DTP03 <i>and</i> where X12 837: DTP01 = 472 <i>and</i> where DTP02 = D8 or RD8 <sup>5</sup>
Actual Allowed Amount	X12 835: AMT02 <i>and</i> where X12 835: AMT01 = B6 <sup>6</sup>
Expected Allowed Amount	Contracted Physician Fee Schedule Amount
Line Item Provider Payment Amount	X12 835: SVC03

<sup>5</sup> The date has been converted to reflect a single service date.

<sup>6</sup> If the Actual Allowed Amount was not available, the Actual Allowed Amount was calculated as follows: [Line Item Charge Amount (X12 835: SVC02) less the sum of the Adjustment Amount (X12 835: CAS03) *and* where Claim Adjustment Group Code (X12 835: CAS01) = CO].

1. Data on the fields reported in **Table 1** were extracted.
2. Data included claim lines where fields met the following criteria:
  - a. Modifiers that were listed in the Physician Fee Schedule Database (PFSDB) where Procedure Modifier(s) (X12 837: SV101-3,SV101-4,SV101-5) = 26, TC, 53, or is NULL
  - b. Only first-position modifiers that met the criteria in (a.) above
  - c. Place of Service (X12 837: SV105) = 11, 21, 22, 23, 31, 32
  - d. CPT codes where Procedure Code (X12 837: SV101-2) = 10000  $\geq$  99999
  - e. Line Item Provider Payment Amount (X12 835: SVC03) > \$0.99
  - f. Expected Allowed Amount field (Contracted Fee Schedule) > \$0.99
3. DOS = valid date within our date range (2/1/08 – 3/31/08) where Date/Time Qualifier (DTP01) = 472 *and* where Date Time Period Format Qualifier (DTP02) = D8 or RD8<sup>7</sup> was used to verify the data period of 2/1/08 – 3/31/08
4. Data were then organized into separate data sets by payer.
5. Expected Allowed Amount and Actual Allowed Amount (X12 835: AMT02) *and* where the Amount Qualifier Code (X12 835: AMT01) = B6<sup>8</sup> were compared, and if the values were the same, a count was recorded.
6. The accumulated record counts of claim lines that met the above criteria were divided by the total claim lines to obtain the value for this metric.

## **Transparency of contracted fees and payment policies on payers' Web sites**

### **Metric 6-9 – Contracted fee schedule, contract fee schedule codes allowed per request, payer-proprietary claim edits, medical payment policies**

These measures were obtained by determining whether the contracted fee schedule, payer-proprietary claim edits and medical payment policies were accessible on each payer's Web site.

## **Compliance with generally accepted pricing rules**

### **Metric 10 – Percentage of claim lines reduced to \$0 by edits**

This metric reported the percentage of services where the Actual Allowed Amount and the Line Item Provider Payment Amount were both equal to \$0 *AND* the reduction to \$0 matched a disclosed payment rule (disclosed edit). These disclosed edits are adjustments that the payer has made available to the physician.<sup>9</sup> The effect of these edits is to eliminate both the payer and patient's obligation to pay for the service. The data for this metric were obtained from the fields reported in **Table 2**.

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<sup>7</sup> The date has been converted to reflect a single service date.

<sup>8</sup> If the Actual Allowed Amount was not available, the Actual Allowed Amount was calculated as follows: [Line Item Charge Amount (X12 835: SVC02) less the sum of the Adjustment Amount (X12 835: CAS03) *and* where Claim Adjustment Group Code (X12 835: CAS01) = CO].

<sup>9</sup> Claim lines where the Allowed Amount and the Line Item Provider Payment Amount = \$0 and the edit was not made available to physicians were excluded from this analysis. These claims would be considered underpayments; the NHIRC did not report an underpayment metric.

Data were extracted from the ASC X12 835 Health Care Claim Payment/Advice (ERA)

Table 2	
Payer Name	X12 835: N102
Line Item Provider Payment Amount	X12 835: SVC03
Actual Allowed Amount	X12 835: AMT02 and where X12 835: AMT01 = B6 <sup>10</sup>
Line Item Charge Amount	X12 835: SVC02

1. Data on the fields reported in Table 2 were extracted into separate data files by payer.
2. Total claim lines were counted by payer.
3. Claim lines that met the above definition were counted and divided by total claim lines for each payer.

### **Metric 11 – Source of payer claim edits**

This metric reported the percentage of edits that were based on one of five sources. The specific edit used by the payer was matched to one of the non-proprietary sources and if found to be consistent with that source was assigned to that source. If the edit was found in more than one source, the hierarchy of assignment was as follows: AMA Current Procedural Terminology (CPT®), American Society of Anesthesia, National Correct Coding Initiative, Medicare Reimbursement Policies.<sup>11</sup> If the edit was not consistent with any of these sources, it was assigned to the payer as a proprietary edit.

## **Denials**

### **Metric 12 – Percentage of claim lines denied**

For the purpose of metrics 12-14, a denial is defined as any claim line where the payer's Actual Allowed Amount [(X12 835: AMT02) and where Amount Qualifier Code (X12 835: AMT01) = B6<sup>10</sup>]= Line Item Charge Amount (X12 835: SVC02) and Line Item Provider Payment Amount (X12 835: SVC03) = 0. These denials all reflect circumstances where further action by the physician is required for payment. The data for this study were obtained from the fields reported in [Table 3](#).

Data were extracted from the ASC X12 835 Health Care Claim Payment/Advice (ERA)

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<sup>10</sup> If the Actual Allowed Amount was not available, the Actual Allowed Amount was calculated as follows: [Line Item Charge Amount (X12 835: SVC02) less the sum of the Adjustment Amount (X12 835: CAS03) and where Claim Adjustment Group Code (X12 835: CAS01) = CO].

<sup>11</sup> CPT is a registered trademark of the American Medical Association.

Table 3	
Payer Name	X12 835: N102
Adjustment Reason Code	X12 835: CAS02
Remark Code	X12 835: LQ02 and where X12 835: LQ01 = HE
Line Item Provider Payment Amount	X12 835: SVC03
Actual Allowed Amount	X12 835: AMT02 and where X12 835: AMT01 = B6 <sup>12</sup>
Line Item Charge Amount	X12 835: SVC02

1. Data for the fields reported in Table 3 were extracted into separate data files by payer.
2. The number of claim lines that were denied were divided by the total number of claim lines for that payer.

### Metric 13 – Distribution of reason codes

This metric identified and ranked the Claim Adjustment Reason Codes (CARC) reported for each denial. The data for this study were obtained from the fields reported in Table 3 above.

1. Data on the six fields reported in Table 3 were extracted.
2. Data were examined to ensure that there was a valid value in each field and the value met the following criteria:
  - a. Claim Adjustment Reason Code = one of the valid reason codes in the published code set<sup>13</sup>
  - b. Actual Allowed Amount = Line Item Charge Amount
  - c. Line Item Charge Amount  $\geq$  \$0
  - d. Line Item Provider Payment Amount = \$0
3. Data were extracted into separate data files by payer.
4. Data were organized to show the total number of claim lines reporting each CARC.
5. Using MiniTab (Stat  $\rightarrow$  Quality Tools  $\rightarrow$  Pareto Chart), frequency charts were created to represent the CARC in descending order of use.

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<sup>12</sup> If the Actual Allowed Amount was not available, the Actual Allowed Amount was calculated as follows: [Line Item Charge Amount (X12 835: SVC02) less the sum of the Adjustment Amount (X12 835: CAS03) and where Claim Adjustment Group Code (X12 835: CAS01) = CO].

<sup>13</sup> Available at <http://www.wpc-edi.com>.

## **Metric 14 – Distribution of remark codes**

This metric identified and ranked the Remittance Advice Remark Codes (RARC) reported for each denial. The data for this study were obtained from the fields reported in **Table 3** above.

1. Data on the six fields reported in **Table 3** were extracted
2. Data were examined to ensure that there was a valid value in each field and the value met the following criteria:
  - a. Claim Adjustment Reason Code = one of the valid CARC in the published code set<sup>14</sup>
  - b. Remittance Advice Remark Code (RARC) = one of the valid RARC in the published code set<sup>14</sup>
  - c. Line Item Charge Amount  $\geq$  \$0
  - d. Actual Allowed Amount = Line Item Charge Amount
  - e. Line Item Provider Payment Amount = \$0
3. Data were extracted into separate data files by payer.
4. Data were organized to show the total number of claim lines reporting each RARC.
5. Using MiniTab (Stat → Quality Tools → Pareto Chart), frequency charts were created to represent the RARC in descending order of use.

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<sup>14</sup> Available at <http://www.wpc-edi.com>.