

**Medicaid Analytic Extract  
Provider Characteristics  
(MAXPC) File**

**Specifications for Validation  
Tables, 2011**

June 28, 2013

Deo Bencio



**MATHEMATICA**  
Policy Research

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Submitted to:  
Centers for Medicare & Medicaid Services  
7500 Security Blvd, B2-29-04  
Baltimore, MD 21244-1850  
Project Officer: Cara Petroski

Submitted by:  
Mathematica Policy Research  
1100 1st Street, NE  
12th Floor  
Washington, DC 20002-4221  
Telephone: (202) 484-9220  
Facsimile: (202) 863-1763  
Project Director: Julie Sykes

**Medicaid Analytic Extract  
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## ACRONYMS

|       |   |
|-------|---|
| ID    | Identification/identifier                     |
| IP    | Inpatient hospital                            |
| LT    | Long-term care                                |
| MAX   | Medicaid Analytic Extract                     |
| MAXPC | MAX Provider Characteristics File             |
| MSIS  | Medicaid Statistical Information System       |
| NPI   | National Provider Identifier                  |
| NPPES | National Plan and Provider Enumeration System |
| OT    | Other services                                |
| RX    | Prescription Drug                             |
| UPIN  | Unique Physician Identification Number        |

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## SPECIFICATIONS FOR IP BILLING PROVIDER CHARACTERISTICS VALIDATION TABLE MEASURES

MAXPC 2011  
June 28, 2013

| Measure  | Measure Description  |
|--|--|
| <b>IP Providers</b>  | <b>This section includes records with IP claim billing provider equal to 1 or IP claim NPI billing provider equal to 1.</b>  |
| Number of provider IDs   | Count records  |
| % billing provider on IP claim                                       | Count records with IP claim legacy billing provider equal to 1, divide by total record count, *100   |
| % NPI billing provider on IP claim                                   | Count records with IP claim NPI billing provider equal to 1, divide by total record count, *100  |
| % also a provider on LT claim  | Count records with LT claim legacy billing provider equal to 1 or LT claim NPI billing provider equal to 1, divide by total record count, *100   |
| % also a provider on OT claim  | Count records with OT claim legacy billing provider equal to 1, OT claim legacy servicing provider ID equal to 1, or OT claim NPI servicing provider equal to 1, or divide by total record count, *100 |
| % also a provider on RX claim  | Count records with RX claim legacy billing provider equal to 1, RX claim legacy prescribing provider ID equal to 1, or RX claim NPI billing provider equal to 1, divide by total record count, *100    |
| % provider IDs with NPI  | Count records with NPI not equal to spaces, divide by total record count, *100   |
| % provider IDs linked to NPPES                                       | Count records with NPPES type of provider equal to 1, 2 or 3, divide by total record count, *100   |
| % provider IDs with or without NPI but linked to state provider file | Count records with NPPES type of provider ID equal to 4, divide by total record count, *100  |
| Average number of IP claims  | Count records from IP claim file for each provider ID, divide by total record count  |
| Average number of beneficiaries with IP claims                       | Count unique beneficiary IDs in IP claim file for each provider ID, divide by total record count   |
| <b>Provider IDs with NPI</b>   |  |
| Number of provider IDs with NPI                                      | Count records with NPI not equal to spaces   |
| % NPI source = MSIS  | Among records with NPI not equal to spaces, count records with NPI source equal to 1, divide by total record count, *100   |
| % NPI source = NPPES   | Among records with NPI not equal to spaces, count records with NPI source equal to 2, divide by total record count, *100   |
| % NPI source = state cross-reference file                            | Among records with NPI not equal to spaces, count records with NPI source equal to 3, divide by total record count, *100   |
| <b>Provider IDs Linked to NPPES</b>                                  |  |
| Number of provider IDs linked to NPPES                               | Count records with NPPES type of provider ID equal 1, 2, or 3  |
| % linked via NPI   | Count records with NPPES type of provider ID equal to 1, divide by total record count, *100  |
| % linked via Medicaid legacy provider ID                             | Count records with NPPES type of provider ID equal to 2, divide by total record count, *100  |
| % linked via Medicare UPIN   | Count records with NPPES type of provider ID equal to 3, divide by total record count, *100  |
| % with name prefix   | Count records with name prefix not equal to spaces, divide by total record count, *100   |
| % with first name  | Count records with first name not equal to spaces, divide by total record count, *100  |
| % with middle name   | Count records with middle name not equal to spaces, divide by total record count, *100   |
| % with last name   | Count records with last name not equal to spaces, divide by total record count, *100   |
| % with name suffix   | Count records with name suffix not equal to spaces, divide by total record count, *100   |
| % male   | Count records with gender = "M," divide by total record count, *100  |
| % female   | Count records with gender = "F," divide by total record count, *100  |
| % with credential  | Count records with credential not equal to spaces, divide by total record count, *100  |
| % with business name   | Count records with business name not equal to spaces, divide by total record count, *100   |

## SPECIFICATIONS FOR IP BILLING PROVIDER CHARACTERISTICS VALIDATION TABLE MEASURES

MAXPC 2011  
June 28, 2013

| Measure   | Measure Description  |
|---|--|
| % with address line 1   | Count records with address line 1 not equal to spaces, divide by total record count, *100  |
| % with city   | Count records with city not equal to spaces, divide by total record count, *100  |
| % with state  | Count records with state not equal to spaces, divide by total record count, *100   |
| % state = IP state code   | Count records with state = IP state code, divide by total record count, *100   |
| % with zip code   | Count records with zip code not equal to spaces, divide by total record count, *100  |
| % with primary taxonomy   | Count records with primary taxonomy > 0, divide by total record count, *100  |
| % with provider entity type = individual                                  | Count records with provider entity type = 1, divide by total record count, *100  |
| % with provider entity type = organization                                | Count records with provider entity type = 2, divide by total record count, *100  |
| <b>Provider IDs with or Without NPI but Linked to State Provider File</b> |  |
| Number of provider IDs with or without NPI linked to state provider file  | Count records with NPPES type of provider ID equal to 4  |
| <b>Provider IDs with NPPES Primary Taxonomy</b>                           |  |
| Number of provider IDs with NPPES primary taxonomy                        | Count records with primary taxonomy > 0  |
| % individual or group of individuals                                      | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 01 through 17, divide by total record count, *100 |
| % allopathic and osteopathic physicians                                   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 01, divide by total record count, *100            |
| % behavioral health and social service providers                          | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 02, divide by total record count, *100            |
| % chiropractic providers  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 03, divide by total record count, *100            |
| % dental providers  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 04, divide by total record count, *100            |
| % dietary and nutritional service providers                               | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 05, divide by total record count, *100            |
| % emergency medical service providers                                     | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 06, divide by total record count, *100            |
| % eye and vision service providers  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 07, divide by total record count, *100            |
| % nursing service providers   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 08, divide by total record count, *100            |
| % nursing service-related providers                                       | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 09, divide by total record count, *100            |
| % other service providers   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 10, divide by total record count, *100            |
| % pharmacy service providers  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 11, divide by total record count, *100            |

**SPECIFICATIONS FOR IP BILLING PROVIDER CHARACTERISTICS VALIDATION TABLE MEASURES**

MAXPC 2011  
June 28, 2013

| Measure   | Measure Description  |
|---|--|
| % physician assistants and advanced practice nursing providers                  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 12, divide by total record count, *100    |
| % podiatric medicine and surgery service providers                              | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 13, divide by total record count, *100    |
| % respiratory, developmental, rehabilitative, and restorative service providers | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 14, divide by total record count, *100    |
| % speech, language, and hearing service providers                               | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 15, divide by total record count, *100    |
| % student health care   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 16, divide by total record count, *100    |
| % technologists, technicians, and other technical service providers             | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 17, divide by total record count, *100    |
| % nonindividuals  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 18-28, divide by total record count, *100 |
| % agencies  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 18, divide by total record count, *100    |
| % ambulatory health care facilities   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 19, divide by total record count, *100    |
| % hospitals   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 20, divide by total record count, *100    |
| % hospitals   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 21, divide by total record count, *100    |
| % laboratories  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 22, divide by total record count, *100    |
| % managed care organizations  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 23, divide by total record count, *100    |
| % nursing and custodial care facilities   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 24, divide by total record count, *100    |
| % residential treatment facilities  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 25, divide by total record count, *100    |
| % respite care facility   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 26, divide by total record count, *100    |
| % suppliers   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 27, divide by total record count, *100    |
| % transportation services   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 28, divide by total record count, *100    |
| % nonmedical  | Among records with primary taxonomy > 0, count records with nonmedical provider = 1, divide by total record count, *100        |

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## SPECIFICATIONS FOR IP BILLING PROVIDER CHARACTERISTICS VALIDATION TABLE MEASURES

MAXPC 2011  
June 28, 2013

| Measure  | Measure Description   |
|--|---|
| <b>Provider IDs with Entity Type = Individual</b>      |   |
| Number of provider IDs with entity type = individual   | Count records with provider entity type = 1   |
| % a sole proprietorship                                | Among records with provider entity type = 1, count records with sole proprietorship = 1, divide by total record count, *100 |
| % not a sole proprietorship                            | Among records with provider entity type = 1, count records with sole proprietorship = 2, divide by total record count, *100 |
| % not answered   | Among records with provider entity type = 1, count records with sole proprietorship = 3, divide by total record count, *100 |
| <b>Provider IDs with Entity Type = Organization</b>    |   |
| Number of provider IDs with entity type = organization | Count records with provider entity type = 2, divide by total record count, *100   |
| % organization is a subpart                            | Among records with provider entity type = 2, count records with subpart code = 1, divide by total record count, *100        |
| % organization is not a subpart                        | Among records with provider entity type = 2, count records with subpart code = 2, divide by total record count, *100        |
| % not answered   | Among records with provider entity type = 2, count records with subpart code = 3, divide by total record count, *100        |

## SPECIFICATIONS FOR LT BILLING PROVIDER CHARACTERISTICS VALIDATION TABLE MEASURES

MAXPC 2011  
June 28, 2013

| Measure  | Measure Description  |
|--|--|
| <b>LT Providers</b>  | <b>This section includes records with LT claim legacy billing provider equal to 1 or LT claim NPI billing provider equal to 1.</b>   |
| Number of provider IDs   | Count records  |
| % billing provider on LT claim                                       | Count records with LT claim legacy billing provider equal to 1, divide by total record count, *100   |
| % NPI billing provider on LT claim                                   | Count records with LT claim NPI billing provider equal to 1, divide by total record count, *100  |
| % also a provider on IP claim  | Count records with IP claim legacy billing provider equal to 1 or IP claim NPI billing provider equal to 1, divide by total record count, *100   |
| % also a provider on OT claim  | Count records with OT claim legacy billing provider equal to 1, OT claim legacy servicing provider ID equal to 1, or OT claim NPI servicing provider equal to 1, or divide by total record count, *100 |
| % also a provider on RX claim  | Count records with RX claim legacy billing provider equal to 1, RX claim legacy prescribing provider ID equal to 1, or RX claim NPI billing provider equal to 1, divide by total record count, *100    |
| % provider IDs with NPI  | Count records with NPI not equal to spaces, divide by total record count, *100   |
| % provider IDs linked to NPPES                                       | Count records with NPPES type of provider equal to 1, 2 or 3, divide by total record count, *100   |
| % provider IDs with or without NPI but linked to state provider file | Count records with NPPES type of provider ID equal to 4, divide by total record count, *100  |
| Average number of LT claims  | Count records from LT claim file for each provider ID, divide by total record count  |
| Average number of beneficiaries with LT claims                       | Count unique beneficiary IDs in LT claim file for each provider ID, divide by total record count   |
| <b>Provider IDs with NPI</b>   |  |
| Number of provider IDs with NPI                                      | Count records with NPI not equal to spaces   |
| % NPI source = MSIS  | Among records with NPI not equal to spaces, count records with NPI source equal to 1, divide by total record count, *100   |
| % NPI source = NPPES   | Among records with NPI not equal to spaces, count records with NPI source equal to 2, divide by total record count, *100   |
| % NPI source = state cross-reference file                            | Among records with NPI not equal to spaces, count records with NPI source equal to 3, divide by total record count, *100   |
| <b>Provider IDs Linked to NPPES</b>                                  |  |
| Number of provider IDs linked to NPPES                               | Count records with NPPES type of provider ID equal 1, 2, or 3  |
| % linked via NPI   | Count records with NPPES type of provider ID equal to 1, divide by total record count, *100  |
| % linked via Medicaid legacy provider ID                             | Count records with NPPES type of provider ID equal to 2, divide by total record count, *100  |
| % linked via Medicare UPIN   | Count records with NPPES type of provider ID equal to 3, divide by total record count, *100  |
| % with name prefix   | Count records with name prefix not equal to spaces, divide by total record count, *100   |
| % with first name  | Count records with first name not equal to spaces, divide by total record count, *100  |
| % with middle name   | Count records with middle name not equal to spaces, divide by total record count, *100   |
| % with last name   | Count records with last name not equal to spaces, divide by total record count, *100   |
| % with name suffix   | Count records with name suffix not equal to spaces, divide by total record count, *100   |
| % male   | Count records with gender = "M," divide by total record count, *100  |
| % female   | Count records with gender = "F," divide by total record count, *100  |
| % with credential  | Count records with credential not equal to spaces, divide by total record count, *100  |
| % with business name   | Count records with business name not equal to spaces, divide by total record count, *100   |

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## SPECIFICATIONS FOR LT BILLING PROVIDER CHARACTERISTICS VALIDATION TABLE MEASURES

MAXPC 2011  
June 28, 2013

| Measure   | Measure Description  |
|---|--|
| % with address line 1   | Count records with address line 1 not equal to spaces, divide by total record count, *100  |
| % with city   | Count records with city not equal to spaces, divide by total record count, *100  |
| % with state  | Count records with state not equal to spaces, divide by total record count, *100   |
| % state = LT state code   | Count records with state = LT state code, divide by total record count, *100   |
| % with zip code   | Count records with zip code not equal to spaces, divide by total record count, *100  |
| % with primary taxonomy   | Count records with primary taxonomy > 0, divide by total record count, *100  |
| % with provider entity type = individual  | Count records with provider entity type = 1, divide by total record count, *100  |
| % with provider entity type = organization                                      | Count records with provider entity type = 2, divide by total record count, *100  |
| <b>Provider IDs with or Without NPI but Linked to State Provider File</b>       |  |
| Number of provider IDs with or without NPI linked to state provider file        | Count records with NPPES type of provider ID equal to 4  |
| <b>Provider IDs with NPPES Primary Taxonomy</b>                                 |  |
| Number of provider IDs with NPPES primary taxonomy                              | Count records with primary taxonomy > 0  |
| % individual or group of individuals  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 01 through 17, divide by total record count, *100 |
| % allopathic and osteopathic physicians   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 01, divide by total record count, *100            |
| % behavioral health and social service providers                                | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 02, divide by total record count, *100            |
| % chiropractic providers  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 03, divide by total record count, *100            |
| % dental providers  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 04, divide by total record count, *100            |
| % dietary and nutritional service providers                                     | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 05, divide by total record count, *100            |
| % emergency medical service providers   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 06, divide by total record count, *100            |
| % eye and vision service providers  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 07, divide by total record count, *100            |
| % nursing service providers   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 08, divide by total record count, *100            |
| % nursing service-related providers   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 09, divide by total record count, *100            |
| % other service providers   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 10, divide by total record count, *100            |
| % pharmacy service providers  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 11, divide by total record count, *100            |
| % physician assistants and advanced practice nursing providers                  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 12, divide by total record count, *100            |
| % podiatric medicine and surgery service providers                              | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 13, divide by total record count, *100            |
| % respiratory, developmental, rehabilitative, and restorative service providers | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 14, divide by total record count, *100            |
| % speech, language, and hearing service   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 15, divide by total record count, *100            |

**SPECIFICATIONS FOR LT BILLING PROVIDER CHARACTERISTICS VALIDATION TABLE MEASURES**

MAXPC 2011  
June 28, 2013

| Measure   | Measure Description  |
|---|--|
| providers   |  |
| % student health care   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 16, divide by total record count, *100    |
| % technologists, technicians, and other technical service providers | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 17, divide by total record count, *100    |
| % nonindividuals  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 18-28, divide by total record count, *100 |
| % agencies  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 18, divide by total record count, *100    |
| % ambulatory health care facilities                                 | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 19, divide by total record count, *100    |
| % hospital units  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 20, divide by total record count, *100    |
| % hospitals   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 21, divide by total record count, *100    |
| % laboratories  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 22, divide by total record count, *100    |
| % managed care organizations  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 23, divide by total record count, *100    |
| % nursing and custodial care facilities                             | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 24, divide by total record count, *100    |
| % residential treatment facilities                                  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 25, divide by total record count, *100    |
| % respite care facility   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 26, divide by total record count, *100    |
| % suppliers   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 27, divide by total record count, *100    |
| % transportation services   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 28, divide by total record count, *100    |
| % nonmedical  | Among records with primary taxonomy > 0, count records with nonmedical provider = 1, divide by total record count, *100        |
| <b>Provider IDs with Entity Type = Individual</b>                   |  |
| Number of provider IDs with entity type = individual                | Count records with provider entity type = 1  |
| % a sole proprietorship   | Among records with provider entity type = 1, count records with sole proprietorship = 1, divide by total record count, *100    |
| % not a sole proprietorship   | Among records with provider entity type = 1, count records with sole proprietorship = 2, divide by total record count, *100    |
| % not answered  | Among records with provider entity type = 1, count records with sole proprietorship = 3, divide by total record count, *100    |
| <b>Provider IDs with Entity Type = Organization</b>                 |  |
| Number of provider IDs with entity type = organization              | Count records with provider entity type = 2, divide by total record count, *100  |
| % organization is a subpart   | Among records with provider entity type = 2, count records with subpart code = 1, divide by total record count, *100           |
| % organization is not a subpart                                     | Among records with provider entity type = 2, count records with subpart code = 2, divide by total record count, *100           |
| % not answered  | Among records with provider entity type = 2, count records with subpart code = 3, divide by total record count, *100           |

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## SPECIFICATIONS FOR OT SERVICING PROVIDER CHARACTERISTICS VALIDATION TABLE MEASURES

MAXPC 2011  
June 28, 2013

| Measure  | Measure Description   |
|--|---|
| <b>OT Providers</b>  | <b>This section includes records with OT claim legacy servicing provider equal to 1 or OT claim NPI servicing provider equal to 1.</b>  |
| Number of provider IDs   | Count records   |
| % billing provider on OT claim                                       | Count records with OT claim legacy billing provider equal to 1, divide by total record count, *100  |
| % servicing provider on OT claim                                     | Count records with OT claim legacy servicing provider equal to 1, divide by total record count, *100  |
| % NPI servicing provider on OT claim                                 | Count records with OT claim NPI servicing provider equal to 1, divide by total record count, *100   |
| % also a provider on IP claim  | Count records with IP claim legacy billing provider equal to 1 or IP claim NPI billing provider equal to 1, divide by total record count, *100  |
| % also a provider on LT claim  | Count records with LT claim legacy billing provider equal to 1 or LT claim NPI billing provider equal to 1, divide by total record count, *100  |
| % also a provider on RX claim  | Count records with RX claim legacy billing provider equal to 1, RX claim legacy prescribing provider ID equal to 1, or RX claim NPI billing provider equal to 1, divide by total record count, *100 |
| % provider IDs with NPI  | Count records with NPI not equal to spaces, divide by total record count, *100  |
| % provider IDs linked to NPPES                                       | Count records with NPPES type of provider equal to 1, 2 or 3, divide by total record count, *100  |
| % provider IDs with or without NPI but linked to state provider file | Count records with NPPES type of provider ID equal to 4, divide by total record count, *100   |
| Average number of OT claims  | Count records from OT claim file for each provider ID, divide by total record count   |
| Average number of beneficiaries with OT claims                       | Count unique beneficiary IDs in OT claim file for each provider ID, divide by total record count  |
| <b>Provider IDs with NPI</b>   |   |
| Number of provider IDs with NPI                                      | Count records with NPI not equal to spaces  |
| % NPI source = MSIS  | Among records with NPI not equal to spaces, count records with NPI source equal to 1, divide by total record count, *100  |
| % NPI source = NPPES   | Among records with NPI not equal to spaces, count records with NPI source equal to 2, divide by total record count, *100  |
| % NPI source = state cross-reference file                            | Among records with NPI not equal to spaces, count records with NPI source equal to 3, divide by total record count, *100  |
| <b>Provider IDs Linked to NPPES</b>                                  |   |
| Number of provider IDs linked to NPPES                               | Count records with NPPES type of provider ID equal 1, 2, or 3   |
| % linked via NPI   | Count records with NPPES type of provider ID equal to 1, divide by total record count, *100   |
| % linked via Medicaid legacy provider ID                             | Count records with NPPES type of provider ID equal to 2, divide by total record count, *100   |
| % linked via Medicare UPIN   | Count records with NPPES type of provider ID equal to 3, divide by total record count, *100   |
| % with name prefix   | Count records with name prefix not equal to spaces, divide by total record count, *100  |
| % with first name  | Count records with first name not equal to spaces, divide by total record count, *100   |
| % with middle name   | Count records with middle name not equal to spaces, divide by total record count, *100  |
| % with last name   | Count records with last name not equal to spaces, divide by total record count, *100  |
| % with name suffix   | Count records with name suffix not equal to spaces, divide by total record count, *100  |
| % male   | Count records with gender = "M," divide by total record count, *100   |
| % female   | Count records with gender = "F," divide by total record count, *100   |

## SPECIFICATIONS FOR OT SERVICING PROVIDER CHARACTERISTICS VALIDATION TABLE MEASURES

MAXPC 2011  
June 28, 2013

| Measure   | Measure Description  |
|---|--|
| % with credential   | Count records with credential not equal to spaces, divide by total record count, *100  |
| % with business name  | Count records with business name not equal to spaces, divide by total record count, *100   |
| % with address line 1   | Count records with address line 1 not equal to spaces, divide by total record count, *100  |
| % with city   | Count records with city not equal to spaces, divide by total record count, *100  |
| % with state  | Count records with state not equal to spaces, divide by total record count, *100   |
| % state = OT state code   | Count records with state = OT state code, divide by total record count, *100   |
| % with zip code   | Count records with zip code not equal to spaces, divide by total record count, *100  |
| % with primary taxonomy   | Count records with primary taxonomy > 0, divide by total record count, *100  |
| % with provider entity type = individual                                  | Count records with provider entity type = 1, divide by total record count, *100  |
| % with provider entity type = organization                                | Count records with provider entity type = 2, divide by total record count, *100  |
| <b>Provider IDs with or Without NPI but Linked to State Provider File</b> |  |
| Number of provider IDs with or without NPI linked to state provider file  | Count records with NPPES type of provider ID equal to 4  |
| <b>Provider IDs with NPPES Primary Taxonomy</b>                           |  |
| Number of provider IDs with NPPES primary taxonomy                        | Count records with primary taxonomy > 0  |
| % individual or group of individuals                                      | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 01 through 17, divide by total record count, *100 |
| % allopathic and osteopathic physicians                                   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 01, divide by total record count, *100            |
| % behavioral health and social service providers                          | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 02, divide by total record count, *100            |
| % chiropractic providers  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 03, divide by total record count, *100            |
| % dental providers  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 04, divide by total record count, *100            |
| % dietary and nutritional service providers                               | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 05, divide by total record count, *100            |
| % emergency medical service providers                                     | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 06, divide by total record count, *100            |
| % eye and vision service providers  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 07, divide by total record count, *100            |
| % nursing service providers   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 08, divide by total record count, *100            |
| % nursing service-related providers                                       | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 09, divide by total record count, *100            |
| % other service providers   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 10, divide by total record count, *100            |
| % pharmacy service providers  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 11, divide by total record count, *100            |
| % physician assistants and advanced practice nursing providers            | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 12, divide by total record count, *100            |
| % podiatric medicine and surgery service providers                        | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 13, divide by total record count, *100            |
| % respiratory, developmental, rehabilitative,                             | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 14, divide by total record count, *100            |

**SPECIFICATIONS FOR OT SERVICING PROVIDER CHARACTERISTICS VALIDATION TABLE MEASURES**

MAXPC 2011  
June 28, 2013

| Measure   | Measure Description  |
|---|--|
| and restorative service providers                                   |  |
| % speech, language, and hearing service providers                   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 15, divide by total record count, *100    |
| % student health care   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 16, divide by total record count, *100    |
| % technologists, technicians, and other technical service providers | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 17, divide by total record count, *100    |
| % nonindividuals  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 18-28, divide by total record count, *100 |
| % agencies  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 18, divide by total record count, *100    |
| % ambulatory health care facilities                                 | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 19, divide by total record count, *100    |
| % hospital units  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 20, divide by total record count, *100    |
| % hospitals   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 21, divide by total record count, *100    |
| % laboratories  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 22, divide by total record count, *100    |
| % managed care organizations  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 23, divide by total record count, *100    |
| % nursing and custodial care facilities                             | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 24, divide by total record count, *100    |
| % residential treatment facilities                                  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 25, divide by total record count, *100    |
| % respite care facility   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 26, divide by total record count, *100    |
| % suppliers   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 27, divide by total record count, *100    |
| % transportation services   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 28, divide by total record count, *100    |
| % nonmedical  | Among records with primary taxonomy > 0, count records with nonmedical provider = 1, divide by total record count, *100        |
| <b>Provider IDs with Entity Type = Individual</b>                   |  |
| Number of provider IDs with entity type = individual                | Count records with provider entity type = 1  |
| % a sole proprietorship   | Among records with provider entity type = 1, count records with sole proprietorship = 1, divide by total record count, *100    |
| % not a sole proprietorship   | Among records with provider entity type = 1, count records with sole proprietorship = 2, divide by total record count, *100    |
| % not answered  | Among records with provider entity type = 1, count records with sole proprietorship = 3, divide by total record count, *100    |
| <b>Provider IDs with Entity Type = Organization</b>                 |  |
| Number of provider IDs with entity type = organization              | Count records with provider entity type = 2, divide by total record count, *100  |
| % organization is a subpart   | Among records with provider entity type = 2, count records with subpart code = 1, divide by total record count, *100           |
| % organization is not a subpart                                     | Among records with provider entity type = 2, count records with subpart code = 2, divide by total record count, *100           |
| % not answered  | Among records with provider entity type = 2, count records with subpart code = 3, divide by total record count, *100           |

## SPECIFICATIONS FOR OT BILLING PROVIDER CHARACTERISTICS VALIDATION TABLE MEASURES

MAXPC 2011  
June 28, 2013

| Measure  | Measure Description   |
|--|---|
| <b>OT Providers</b>  | <b>This section includes records with OT claim legacy billing provider equal to 1.</b>  |
| Number of provider IDs   | Count records   |
| % billing provider on OT claim                                       | Count records with OT claim legacy billing provider equal to 1, divide by total record count, *100  |
| % servicing provider on OT claim                                     | Count records with OT claim legacy servicing provider equal to 1, divide by total record count, *100  |
| % NPI servicing provider on OT claim                                 | Count records with OT claim NPI servicing provider equal to 1, divide by total record count, *100   |
| % also a provider on IP claim  | Count records with IP claim legacy billing provider equal to 1 or IP claim NPI billing provider equal to 1, divide by total record count, *100  |
| % also a provider on LT claim  | Count records with LT claim legacy billing provider equal to 1 or LT claim NPI billing provider equal to 1, divide by total record count, *100  |
| % also a provider on RX claim  | Count records with RX claim legacy billing provider equal to 1, RX claim legacy prescribing provider ID equal to 1, or RX claim NPI billing provider equal to 1, divide by total record count, *100 |
| % provider IDs with NPI  | Count records with NPI not equal to spaces, divide by total record count, *100  |
| % provider IDs linked to NPPES                                       | Count records with NPPES type of provider equal to 1, 2 or 3, divide by total record count, *100  |
| % provider IDs with or without NPI but linked to state provider file | Count records with NPPES type of provider ID equal to 4, divide by total record count, *100   |
| Average number of OT claims  | Count records from OT claim file for each provider ID, divide by total record count   |
| Average number of beneficiaries with OT claims                       | Count unique beneficiary IDs in OT claim file for each provider ID, divide by total record count  |
| <b>Provider IDs with NPI</b>   |   |
| Number of provider IDs with NPI                                      | Count records with NPI not equal to spaces  |
| % NPI source = MSIS  | Among records with NPI not equal to spaces, count records with NPI source equal to 1, divide by total record count, *100  |
| % NPI source = NPPES   | Among records with NPI not equal to spaces, count records with NPI source equal to 2, divide by total record count, *100  |
| % NPI source = state cross-reference file                            | Among records with NPI not equal to spaces, count records with NPI source equal to 3, divide by total record count, *100  |
| <b>Provider IDs Linked to NPPES</b>                                  |   |
| Number of provider IDs linked to NPPES                               | Count records with NPPES type of provider ID equal 1, 2, or 3   |
| % linked via NPI   | Count records with NPPES type of provider ID equal to 1, divide by total record count, *100   |
| % linked via Medicaid legacy provider ID                             | Count records with NPPES type of provider ID equal to 2, divide by total record count, *100   |
| % linked via Medicare UPIN   | Count records with NPPES type of provider ID equal to 3, divide by total record count, *100   |
| % with name prefix   | Count records with name prefix not equal to spaces, divide by total record count, *100  |
| % with first name  | Count records with first name not equal to spaces, divide by total record count, *100   |
| % with middle name   | Count records with middle name not equal to spaces, divide by total record count, *100  |
| % with last name   | Count records with last name not equal to spaces, divide by total record count, *100  |
| % with name suffix   | Count records with name suffix not equal to spaces, divide by total record count, *100  |
| % male   | Count records with gender = "M," divide by total record count, *100   |
| % female   | Count records with gender = "F," divide by total record count, *100   |
| % with credential  | Count records with credential not equal to spaces, divide by total record count, *100   |

## SPECIFICATIONS FOR OT BILLING PROVIDER CHARACTERISTICS VALIDATION TABLE MEASURES

MAXPC 2011  
June 28, 2013

| Measure   | Measure Description  |
|---|--|
| % with business name  | Count records with business name not equal to spaces, divide by total record count, *100   |
| % with address line 1   | Count records with address line 1 not equal to spaces, divide by total record count, *100  |
| % with city   | Count records with city not equal to spaces, divide by total record count, *100  |
| % with state  | Count records with state not equal to spaces, divide by total record count, *100   |
| % state = OT state code   | Count records with state = OT state code, divide by total record count, *100   |
| % with zip code   | Count records with zip code not equal to spaces, divide by total record count, *100  |
| % with primary taxonomy   | Count records with primary taxonomy > 0, divide by total record count, *100  |
| % with provider entity type = individual  | Count records with provider entity type = 1, divide by total record count, *100  |
| % with provider entity type = organization                                      | Count records with provider entity type = 2, divide by total record count, *100  |
| <b>Provider IDs with or Without NPI but Linked to State Provider File</b>       |  |
| Number of provider IDs with or without NPI linked to state provider file        | Count records with NPPES type of provider ID equal to 4  |
| <b>Provider IDs with NPPES Primary Taxonomy</b>                                 |  |
| Number of provider IDs with NPPES primary taxonomy                              | Count records with primary taxonomy > 0  |
| % individual or group of individuals  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 01 through 17, divide by total record count, *100 |
| % allopathic and osteopathic physicians   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 01, divide by total record count, *100            |
| % behavioral health and social service providers                                | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 02, divide by total record count, *100            |
| % chiropractic providers  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 03, divide by total record count, *100            |
| % dental providers  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 04, divide by total record count, *100            |
| % dietary and nutritional service providers                                     | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 05, divide by total record count, *100            |
| % emergency medical service providers   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 06, divide by total record count, *100            |
| % eye and vision service providers  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 07, divide by total record count, *100            |
| % nursing service providers   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 08, divide by total record count, *100            |
| % nursing service-related providers   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 09, divide by total record count, *100            |
| % other service providers   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 10, divide by total record count, *100            |
| % pharmacy service providers  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 11, divide by total record count, *100            |
| % physician assistants and advanced practice nursing providers                  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 12, divide by total record count, *100            |
| % podiatric medicine and surgery service providers                              | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 13, divide by total record count, *100            |
| % respiratory, developmental, rehabilitative, and restorative service providers | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 14, divide by total record count, *100            |

## SPECIFICATIONS FOR OT BILLING PROVIDER CHARACTERISTICS VALIDATION TABLE MEASURES

MAXPC 2011  
June 28, 2013

| Measure   | Measure Description  |
|---|--|
| % speech, language, and hearing service providers                   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 15, divide by total record count, *100    |
| % student health care   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 16, divide by total record count, *100    |
| % technologists, technicians, and other technical service providers | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 17, divide by total record count, *100    |
| % nonindividuals  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 18-28, divide by total record count, *100 |
| % agencies  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 18, divide by total record count, *100    |
| % ambulatory health care facilities                                 | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 19, divide by total record count, *100    |
| % hospital units  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 20, divide by total record count, *100    |
| % hospitals   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 21, divide by total record count, *100    |
| % laboratories  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 22, divide by total record count, *100    |
| % managed care organizations  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 23, divide by total record count, *100    |
| % nursing and custodial care facilities                             | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 24, divide by total record count, *100    |
| % residential treatment facilities                                  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 25, divide by total record count, *100    |
| % respite care facility   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 26, divide by total record count, *100    |
| % suppliers   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 27, divide by total record count, *100    |
| % transportation services   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 28, divide by total record count, *100    |
| % nonmedical  | Among records with primary taxonomy > 0, count records with nonmedical provider = 1, divide by total record count, *100        |
| <b>Provider IDs with Entity Type = Individual</b>                   |  |
| Number of provider IDs with entity type = individual                | Count records with provider entity type = 1  |
| % a sole proprietorship   | Among records with provider entity type = 1, count records with sole proprietorship = 1, divide by total record count, *100    |
| % not a sole proprietorship   | Among records with provider entity type = 1, count records with sole proprietorship = 2, divide by total record count, *100    |
| % not answered  | Among records with provider entity type = 1, count records with sole proprietorship = 3, divide by total record count, *100    |
| <b>Provider IDs with Entity Type = Organization</b>                 |  |
| Number of provider IDs with entity type = organization              | Count records with provider entity type = 2, divide by total record count, *100  |
| % organization is a subpart   | Among records with provider entity type = 2, count records with subpart code = 1, divide by total record count, *100           |
| % organization is not a subpart                                     | Among records with provider entity type = 2, count records with subpart code = 2, divide by total record count, *100           |
| % not answered  | Among records with provider entity type = 2, count records with subpart code = 3, divide by total record count, *100           |

## SPECIFICATIONS FOR RX BILLING PROVIDER CHARACTERISTICS VALIDATION TABLE MEASURES

MAXPC 2011  
June 28, 2013

| Measure  | Measure Description  |
|--|--|
| <b>RX Providers</b>  | <b>This section includes records with RX claim legacy billing provider equal to 1 or RX claim NPI billing provider equal to 1.</b>   |
| Number of provider IDs   | Count records  |
| % billing provider on RX claim                                       | Count records with RX claim legacy billing provider equal to 1, divide by total record count, *100   |
| % prescribing provider on RX claim                                   | Count records with RX claim legacy prescribing provider equal to 1, divide by total record count, *100   |
| % NPI billing provider on RX claim                                   | Count records with RX claim NPI billing provider equal to 1, divide by total record count, *100  |
| % also a provider on IP claim  | Count records with IP claim legacy billing provider equal to 1 or IP claim NPI billing provider equal to 1, divide by total record count, *100   |
| % also a provider on LT claim  | Count records with LT claim legacy billing provider equal to 1 or LT claim NPI billing provider equal to 1, divide by total record count, *100   |
| % also a provider on OT claim  | Count records with OT claim legacy billing provider equal to 1, OT claim legacy servicing provider ID equal to 1, or OT claim NPI servicing provider equal to 1, or divide by total record count, *100 |
| % provider IDs with NPI  | Count records with NPI not equal to spaces, divide by total record count, *100   |
| % provider IDs linked to NPPES                                       | Count records with NPPES type of provider equal to 1, 2 or 3, divide by total record count, *100   |
| % provider IDs with or without NPI but linked to state provider file | Count records with NPPES type of provider ID equal to 4, divide by total record count, *100  |
| Average number of RX claims  | Count records from RX claim file for each provider ID, divide by total record count  |
| Average number of beneficiaries with RX claims                       | Count unique beneficiary IDs in RX claim file for each provider ID, divide by total record count   |
| <b>Provider IDs with NPI</b>   |  |
| Number of provider IDs with NPI                                      | Count records with NPI not equal to spaces   |
| % NPI source = MSIS  | Among records with NPI not equal to spaces, count records with NPI source equal to 1, divide by total record count, *100   |
| % NPI source = NPPES   | Among records with NPI not equal to spaces, count records with NPI source equal to 2, divide by total record count, *100   |
| % NPI source = state cross-reference file                            | Among records with NPI not equal to spaces, count records with NPI source equal to 3, divide by total record count, *100   |
| <b>Provider IDs Linked to NPPES</b>                                  |  |
| Number of provider IDs linked to NPPES                               | Count records with NPPES type of provider ID equal 1, 2, or 3  |
| % linked via NPI   | Count records with NPPES type of provider ID equal to 1, divide by total record count, *100  |
| % linked via Medicaid legacy provider ID                             | Count records with NPPES type of provider ID equal to 2, divide by total record count, *100  |
| % linked via Medicare UPIN   | Count records with NPPES type of provider ID equal to 3, divide by total record count, *100  |
| % with name prefix   | Count records with name prefix not equal to spaces, divide by total record count, *100   |
| % with first name  | Count records with first name not equal to spaces, divide by total record count, *100  |
| % with middle name   | Count records with middle name not equal to spaces, divide by total record count, *100   |
| % with last name   | Count records with last name not equal to spaces, divide by total record count, *100   |
| % with name suffix   | Count records with name suffix not equal to spaces, divide by total record count, *100   |
| % male   | Count records with gender = "M," divide by total record count, *100  |

## SPECIFICATIONS FOR RX BILLING PROVIDER CHARACTERISTICS VALIDATION TABLE MEASURES

MAXPC 2011  
June 28, 2013

| Measure   | Measure Description  |
|---|--|
| % female  | Count records with gender = "F," divide by total record count, *100  |
| % with credential   | Count records with credential not equal to spaces, divide by total record count, *100  |
| % with business name  | Count records with business name not equal to spaces, divide by total record count, *100   |
| % with address line 1   | Count records with address line 1 not equal to spaces, divide by total record count, *100  |
| % with city   | Count records with city not equal to spaces, divide by total record count, *100  |
| % with state  | Count records with state not equal to spaces, divide by total record count, *100   |
| % state = RX state code   | Count records with state = RX state code, divide by total record count, *100   |
| % with zip code   | Count records with zip code not equal to spaces, divide by total record count, *100  |
| % with primary taxonomy   | Count records with primary taxonomy > 0, divide by total record count, *100  |
| % with provider entity type = individual                                  | Count records with provider entity type = 1, divide by total record count, *100  |
| % with provider entity type = organization                                | Count records with provider entity type = 2, divide by total record count, *100  |
| <b>Provider IDs with or Without NPI but Linked to State Provider File</b> |  |
| Number of provider IDs with or without NPI linked to state provider file  | Count records with NPPES type of provider ID equal to 4  |
| <b>Provider IDs with NPPES Primary Taxonomy</b>                           |  |
| Number of provider IDs with NPPES primary taxonomy                        | Count records with primary taxonomy > 0  |
| % individual or group of individuals                                      | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 01 through 17, divide by total record count, *100 |
| % allopathic and osteopathic physicians                                   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 01, divide by total record count, *100            |
| % behavioral health and social service providers                          | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 02, divide by total record count, *100            |
| % chiropractic providers  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 03, divide by total record count, *100            |
| % dental providers  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 04, divide by total record count, *100            |
| % dietary and nutritional service providers                               | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 05, divide by total record count, *100            |
| % emergency medical service providers                                     | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 06, divide by total record count, *100            |
| % eye and vision service providers  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 07, divide by total record count, *100            |
| % nursing service providers   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 08, divide by total record count, *100            |
| % nursing service-related providers                                       | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 09, divide by total record count, *100            |
| % other service providers   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 10, divide by total record count, *100            |
| % pharmacy service providers  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 11, divide by total record count, *100            |
| % physician assistants and advanced practice nursing providers            | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 12, divide by total record count, *100            |
| % podiatric medicine and surgery service providers                        | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 13, divide by total record count, *100            |

## SPECIFICATIONS FOR RX BILLING PROVIDER CHARACTERISTICS VALIDATION TABLE MEASURES

MAXPC 2011  
June 28, 2013

| Measure   | Measure Description  |
|---|--|
| % respiratory, developmental, rehabilitative, and restorative service providers | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 14, divide by total record count, *100    |
| % speech, language, and hearing service providers                               | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 15, divide by total record count, *100    |
| % student health care   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 16, divide by total record count, *100    |
| % technologists, technicians, and other technical service providers             | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 17, divide by total record count, *100    |
| % nonindividuals  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 18-28, divide by total record count, *100 |
| % agencies  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 18, divide by total record count, *100    |
| % ambulatory health care facilities   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 19, divide by total record count, *100    |
| % hospital units  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 20, divide by total record count, *100    |
| % hospitals   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 21, divide by total record count, *100    |
| % laboratories  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 22, divide by total record count, *100    |
| % managed care organizations  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 23, divide by total record count, *100    |
| % nursing and custodial care facilities   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 24, divide by total record count, *100    |
| % residential treatment facilities  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 25, divide by total record count, *100    |
| % respite care facility   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 26, divide by total record count, *100    |
| % suppliers   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 27, divide by total record count, *100    |
| % transportation services   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 28, divide by total record count, *100    |
| % nonmedical  | Among records with primary taxonomy > 0, count records with nonmedical provider = 1, divide by total record count, *100        |
| <b>Provider IDs with Entity Type = Individual</b>                               |  |
| Number of provider IDs with entity type = individual                            | Count records with provider entity type = 1  |
| % a sole proprietorship   | Among records with provider entity type = 1, count records with sole proprietorship = 1, divide by total record count, *100    |
| % not a sole proprietorship   | Among records with provider entity type = 1, count records with sole proprietorship = 2, divide by total record count, *100    |
| % not answered  | Among records with provider entity type = 1, count records with sole proprietorship = 3, divide by total record count, *100    |
| <b>Provider IDs with Entity Type = Organization</b>                             |  |
| Number of provider IDs with entity type = organization                          | Count records with provider entity type = 2, divide by total record count, *100  |
| % organization is a subpart   | Among records with provider entity type = 2, count records with subpart code = 1, divide by total record count, *100           |
| % organization is not a subpart   | Among records with provider entity type = 2, count records with subpart code = 2, divide by total record count, *100           |
| % not answered  | Among records with provider entity type = 2, count records with subpart code = 3, divide by total record count, *100           |

## SPECIFICATIONS FOR RX PRESCRIBING PROVIDER CHARACTERISTICS VALIDATION TABLE MEASURES

MAXPC 2011  
June 28, 2013

| Measure  | Measure Description  |
|--|--|
| <b>RX Providers</b>  | <b>This section includes records with RX claim legacy prescribing provider equal to 1.</b>   |
| Number of provider IDs   | Count records  |
| % billing provider on RX claim                                       | Count records with RX claim legacy billing provider equal to 1, divide by total record count, *100   |
| % prescribing provider on RX claim                                   | Count records with RX claim legacy prescribing provider equal to 1, divide by total record count, *100   |
| % NPI billing provider on RX claim                                   | Count records with RX claim NPI billing provider equal to 1, divide by total record count, *100  |
| % also a provider on IP claim  | Count records with IP claim legacy billing provider equal to 1 or IP claim NPI billing provider equal to 1, divide by total record count, *100   |
| % also a provider on LT claim  | Count records with LT claim legacy billing provider equal to 1 or LT claim NPI billing provider equal to 1, divide by total record count, *100   |
| % also a provider on OT claim  | Count records with OT claim legacy billing provider equal to 1, OT claim legacy servicing provider ID equal to 1, or OT claim NPI servicing provider equal to 1, or divide by total record count, *100 |
| % provider IDs with NPI  | Count records with NPI not equal to spaces, divide by total record count, *100   |
| % provider IDs linked to NPPES                                       | Count records with NPPES type of provider equal to 1, 2 or 3, divide by total record count, *100   |
| % provider IDs with or without NPI but linked to state provider file | Count records with NPPES type of provider ID equal to 4, divide by total record count, *100  |
| Average number of RX claims  | Count records from RX claim file for each provider ID, divide by total record count  |
| Average number of beneficiaries with RX claims                       | Count unique beneficiary IDs in RX claim file for each provider ID, divide by total record count   |
| <b>Provider IDs with NPI</b>   |  |
| Number of provider IDs with NPI                                      | Count records with NPI not equal to spaces   |
| % NPI source = MSIS  | Among records with NPI not equal to spaces, count records with NPI source equal to 1, divide by total record count, *100   |
| % NPI source = NPPES   | Among records with NPI not equal to spaces, count records with NPI source equal to 2, divide by total record count, *100   |
| % NPI source = state cross-reference file                            | Among records with NPI not equal to spaces, count records with NPI source equal to 3, divide by total record count, *100   |
| <b>Provider IDs Linked to NPPES</b>                                  |  |
| Number of provider IDs linked to NPPES                               | Count records with NPPES type of provider ID equal 1, 2, or 3  |
| % linked via NPI   | Count records with NPPES type of provider ID equal to 1, divide by total record count, *100  |
| % linked via Medicaid legacy provider ID                             | Count records with NPPES type of provider ID equal to 2, divide by total record count, *100  |
| % linked via Medicare UPIN   | Count records with NPPES type of provider ID equal to 3, divide by total record count, *100  |
| % with name prefix   | Count records with name prefix not equal to spaces, divide by total record count, *100   |
| % with first name  | Count records with first name not equal to spaces, divide by total record count, *100  |
| % with middle name   | Count records with middle name not equal to spaces, divide by total record count, *100   |
| % with last name   | Count records with last name not equal to spaces, divide by total record count, *100   |
| % with name suffix   | Count records with name suffix not equal to spaces, divide by total record count, *100   |
| % male   | Count records with gender = "M," divide by total record count, *100  |
| % female   | Count records with gender = "F," divide by total record count, *100  |

## SPECIFICATIONS FOR RX PRESCRIBING PROVIDER CHARACTERISTICS VALIDATION TABLE MEASURES

MAXPC 2011  
June 28, 2013

| Measure   | Measure Description  |
|---|--|
| % with credential   | Count records with credential not equal to spaces, divide by total record count, *100  |
| % with business name  | Count records with business name not equal to spaces, divide by total record count, *100   |
| % with address line 1   | Count records with address line 1 not equal to spaces, divide by total record count, *100  |
| % with city   | Count records with city not equal to spaces, divide by total record count, *100  |
| % with state  | Count records with state not equal to spaces, divide by total record count, *100   |
| % state = RX state code   | Count records with state = RX state code, divide by total record count, *100   |
| % with zip code   | Count records with zip code not equal to spaces, divide by total record count, *100  |
| % with primary taxonomy   | Count records with primary taxonomy > 0, divide by total record count, *100  |
| % with provider entity type = individual                                  | Count records with provider entity type = 1, divide by total record count, *100  |
| % with provider entity type = organization                                | Count records with provider entity type = 2, divide by total record count, *100  |
| <b>Provider IDs with or Without NPI but Linked to State Provider File</b> |  |
| Number of provider IDs with or without NPI linked to state provider file  | Count records with NPPES type of provider ID equal to 4  |
| <b>Provider IDs with NPPES Primary Taxonomy</b>                           |  |
| Number of provider IDs with NPPES primary taxonomy                        | Count records with primary taxonomy > 0  |
| % individual or group of individuals                                      | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 01 through 17, divide by total record count, *100 |
| % allopathic and osteopathic physicians                                   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 01, divide by total record count, *100            |
| % behavioral health and social service providers                          | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 02, divide by total record count, *100            |
| % chiropractic providers  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 03, divide by total record count, *100            |
| % dental providers  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 04, divide by total record count, *100            |
| % dietary and nutritional service providers                               | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 05, divide by total record count, *100            |
| % emergency medical service providers                                     | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 06, divide by total record count, *100            |
| % eye and vision service providers  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 07, divide by total record count, *100            |
| % nursing service providers   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 08, divide by total record count, *100            |
| % nursing service-related providers                                       | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 09, divide by total record count, *100            |
| % other service providers   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 10, divide by total record count, *100            |
| % pharmacy service providers  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 11, divide by total record count, *100            |
| % physician assistants and advanced practice nursing providers            | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 12, divide by total record count, *100            |
| % podiatric medicine and surgery service providers                        | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 13, divide by total record count, *100            |

**SPECIFICATIONS FOR RX PRESCRIBING PROVIDER CHARACTERISTICS VALIDATION TABLE MEASURES**

MAXPC 2011  
June 28, 2013

| Measure   | Measure Description  |
|---|--|
| % respiratory, developmental, rehabilitative, and restorative service providers | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 14, divide by total record count, *100    |
| % speech, language, and hearing service providers                               | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 15, divide by total record count, *100    |
| % student health care   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 16, divide by total record count, *100    |
| % technologists, technicians, and other technical service providers             | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 17, divide by total record count, *100    |
| % nonindividuals  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 18-28, divide by total record count, *100 |
| % agencies  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 18, divide by total record count, *100    |
| % ambulatory health care facilities   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 19, divide by total record count, *100    |
| % hospital units  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 20, divide by total record count, *100    |
| % hospitals   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 21, divide by total record count, *100    |
| % laboratories  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 22, divide by total record count, *100    |
| % managed care organizations  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 23, divide by total record count, *100    |
| % nursing and custodial care facilities   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 24, divide by total record count, *100    |
| % residential treatment facilities  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 25, divide by total record count, *100    |
| % respite care facility   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 26, divide by total record count, *100    |
| % suppliers   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 27, divide by total record count, *100    |
| % transportation services   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 28, divide by total record count, *100    |
| % nonmedical  | Among records with primary taxonomy > 0, count records with nonmedical provider = 1, divide by total record count, *100        |
| <b>Provider IDs with Entity Type = Individual</b>                               |  |
| Number of provider IDs with entity type = individual                            | Count records with provider entity type = 1  |
| % a sole proprietorship   | Among records with provider entity type = 1, count records with sole proprietorship = 1, divide by total record count, *100    |
| % not a sole proprietorship   | Among records with provider entity type = 1, count records with sole proprietorship = 2, divide by total record count, *100    |
| % not answered  | Among records with provider entity type = 1, count records with sole proprietorship = 3, divide by total record count, *100    |
| <b>Provider IDs with Entity Type = Organization</b>                             |  |
| Number of provider IDs with entity type = organization                          | Count records with provider entity type = 2, divide by total record count, *100  |
| % organization is a subpart   | Among records with provider entity type = 2, count records with subpart code = 1, divide by total record count, *100           |
| % organization is not a subpart   | Among records with provider entity type = 2, count records with subpart code = 2, divide by total record count, *100           |
| % not answered  | Among records with provider entity type = 2, count records with subpart code = 3, divide by total record count, *100           |

## SPECIFICATIONS FOR ALL PROVIDER CHARACTERISTICS VALIDATION TABLE MEASURES

MAXPC 2011  
June 28, 2013

| Measure  | Measure Description  |
|--|--|
| <b>All Providers</b>   |  |
| Number of provider IDs   | Count records  |
| % billing provider on IP claim                                       | Count records with IP claim legacy billing provider equal to 1, divide by total record count, *100   |
| % NPI billing provider on IP claim                                   | Count records with IP claim NPI billing provider equal to 1, divide by total record count, *100  |
| % billing provider on LT claim                                       | Count records with LT claim legacy billing provider equal to 1, divide by total record count, *100   |
| % NPI billing provider on LT claim                                   | Count records with LT claim NPI billing provider equal to 1, divide by total record count, *100  |
| % billing provider on OT claim                                       | Count records with OT claim legacy billing provider equal to 1, divide by total record count, *100   |
| % servicing provider on OT claim                                     | Count records with OT claim legacy servicing provider equal to 1, divide by total record count, *100   |
| % NPI servicing provider on OT claim                                 | Count records with OT claim NPI servicing provider equal to 1, divide by total record count, *100  |
| % billing provider on RX claim                                       | Count records with RX claim legacy billing provider equal to 1, divide by total record count, *100   |
| % prescribing provider on RX claim                                   | Count records with RX claim legacy prescribing provider equal to 1, divide by total record count, *100   |
| % NPI billing provider on RX claim                                   | Count records with RX claim NPI billing provider equal to 1, divide by total record count, *100  |
| % billing provider   | Count records with IP claim legacy billing provider equal to 1, LT claim legacy billing provider equal to 1, OT claim legacy billing provider equal to 1, or RX claim legacy billing provider equal to 1, divide by total record count, *100 |
| % NPI billing provider   | Count records with IP claim NPI billing provider equal to 1, LT claim NPI billing provider equal to 1, or RX claim NPI billing provider equal to 1, divide by total record count, *100   |
| % servicing provider   | Count records with OT claim legacy servicing provider equal to 1, divide by total record count, *100   |
| % NPI servicing provider   | Count records with OT claim NPI servicing provider equal to 1, divide by total record count, *100  |
| % prescribing provider   | Count records with RX claim legacy prescribing provider equal to 1, divide by total record count, *100   |
| % provider IDs with NPI  | Count records with NPI not equal to spaces, divide by total record count, *100   |
| % provider IDs linked to NPPES                                       | Count records with NPPES type of provider equal to 1, 2 or 3, divide by total record count, *100   |
| % provider IDs with or without NPI but linked to state provider file | Count records with NPPES type of provider ID equal to 4, divide by total record count, *100  |
| Average number of claims   | Count records from any claim file for each provider ID, divide by total record count   |
| Average number of beneficiaries with claims                          | Count unique beneficiary IDs in any claim file for each provider ID, divide by total record count  |
| <b>Provider IDs with NPI</b>   |  |
| Number of provider IDs with NPI                                      | Count records with NPI not equal to spaces   |
| % NPI source = MSIS  | Among records with NPI not equal to spaces, count records with NPI source equal to 1, divide by total record count, *100   |
| % NPI source = NPPES   | Among records with NPI not equal to spaces, count records with NPI source equal to 2, divide by total record count, *100   |
| % NPI source = state cross-reference file                            | Among records with NPI not equal to spaces, count records with NPI source equal to 3, divide by total record count, *100   |

## SPECIFICATIONS FOR ALL PROVIDER CHARACTERISTICS VALIDATION TABLE MEASURES

MAXPC 2011  
June 28, 2013

| Measure   | Measure Description  |
|---|--|
| <b>Provider IDs Linked to NPPES</b>                                       |  |
| Number of provider IDs linked to NPPES                                    | Count records with NPPES type of provider ID equal 1, 2, or 3  |
| % linked via NPI  | Count records with NPPES type of provider ID equal to 1, divide by total record count, *100  |
| % linked via Medicaid legacy provider ID                                  | Count records with NPPES type of provider ID equal to 2, divide by total record count, *100  |
| % linked via Medicare UPIN  | Count records with NPPES type of provider ID equal to 3, divide by total record count, *100  |
| % with name prefix  | Count records with name prefix not equal to spaces, divide by total record count, *100   |
| % with first name   | Count records with first name not equal to spaces, divide by total record count, *100  |
| % with middle name  | Count records with middle name not equal to spaces, divide by total record count, *100   |
| % with last name  | Count records with last name not equal to spaces, divide by total record count, *100   |
| % with name suffix  | Count records with name suffix not equal to spaces, divide by total record count, *100   |
| % male  | Count records with gender = "M," divide by total record count, *100  |
| % female  | Count records with gender = "F," divide by total record count, *100  |
| % with credential   | Count records with credential not equal to spaces, divide by total record count, *100  |
| % with business name  | Count records with business name not equal to spaces, divide by total record count, *100   |
| % with address line 1   | Count records with address line 1 not equal to spaces, divide by total record count, *100  |
| % with city   | Count records with city not equal to spaces, divide by total record count, *100  |
| % with state  | Count records with state not equal to spaces, divide by total record count, *100   |
| % state = any state code  | Count records with state = any state code, divide by total record count, *100  |
| % with zip code   | Count records with zip code not equal to spaces, divide by total record count, *100  |
| % with primary taxonomy   | Count records with primary taxonomy > 0, divide by total record count, *100  |
| % with provider entity type = individual                                  | Count records with provider entity type = 1, divide by total record count, *100  |
| % with provider entity type = organization                                | Count records with provider entity type = 2, divide by total record count, *100  |
| <b>Provider IDs with or Without NPI but Linked to State Provider File</b> |  |
| Number of provider IDs with or without NPI linked to state provider file  | Count records with NPPES type of provider ID equal to 4  |
| <b>Provider IDs with NPPES Primary Taxonomy</b>                           |  |
| Number of provider IDs with NPPES primary taxonomy                        | Count records with primary taxonomy > 0  |
| % individual or group of individuals                                      | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 01 through 17, divide by total record count, *100 |
| % allopathic and osteopathic physicians                                   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 01, divide by total record count, *100            |
| % behavioral health and social service providers                          | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 02, divide by total record count, *100            |
| % chiropractic providers  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 03, divide by total record count, *100            |

**SPECIFICATIONS FOR ALL PROVIDER CHARACTERISTICS VALIDATION TABLE MEASURES**

MAXPC 2011  
June 28, 2013

| Measure   | Measure Description  |
|---|--|
| % dental providers  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 04, divide by total record count, *100    |
| % dietary and nutritional service providers                                     | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 05, divide by total record count, *100    |
| % emergency medical service providers   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 06, divide by total record count, *100    |
| % eye and vision service providers  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 07, divide by total record count, *100    |
| % nursing service providers   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 08, divide by total record count, *100    |
| % nursing service-related providers   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 09, divide by total record count, *100    |
| % other service providers   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 10, divide by total record count, *100    |
| % pharmacy service providers  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 11, divide by total record count, *100    |
| % physician assistants and advanced practice nursing providers                  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 12, divide by total record count, *100    |
| % podiatric medicine and surgery service providers                              | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 13, divide by total record count, *100    |
| % respiratory, developmental, rehabilitative, and restorative service providers | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 14, divide by total record count, *100    |
| % speech, language, and hearing service providers                               | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 15, divide by total record count, *100    |
| % student health care   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 16, divide by total record count, *100    |
| % technologists, technicians, and other technical service providers             | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 17, divide by total record count, *100    |
| % nonindividuals  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 18-28, divide by total record count, *100 |
| % agencies  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 18, divide by total record count, *100    |
| % ambulatory health care facilities   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 19, divide by total record count, *100    |
| % hospital units  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 20, divide by total record count, *100    |
| % hospitals   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 21, divide by total record count, *100    |
| % laboratories  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 22, divide by total record count, *100    |
| % managed care organizations  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 23, divide by total record count, *100    |
| % nursing and custodial care facilities   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 24, divide by total record count, *100    |
| % residential treatment facilities  | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 25, divide by total record count, *100    |
| % respite care facility   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 26, divide by total record count, *100    |
| % suppliers   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 27, divide by total record count, *100    |
| % transportation services   | Among records with primary taxonomy > 0, count records with NPPES primary taxonomy = 28, divide by total record count, *100    |
| % nonmedical  | Among records with primary taxonomy > 0, count records with nonmedical provider = 1, divide by total record count, *100        |

## SPECIFICATIONS FOR ALL PROVIDER CHARACTERISTICS VALIDATION TABLE MEASURES

MAXPC 2011  
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| Measure  | Measure Description   |
|--|---|
| <b>Provider IDs with Entity Type = Individual</b>      |   |
| Number of provider IDs with entity type = individual   | Count records with provider entity type = 1   |
| % a sole proprietorship                                | Among records with provider entity type = 1, count records with sole proprietorship = Y, divide by total record count, *100 |
| % not a sole proprietorship                            | Among records with provider entity type = 1, count records with sole proprietorship = N, divide by total record count, *100 |
| % not answered   | Among records with provider entity type = 1, count records with sole proprietorship = X, divide by total record count, *100 |
| <b>Provider IDs with Entity Type = Organization</b>    |   |
| Number of provider IDs with entity type = organization | Count records with provider entity type = 2, divide by total record count, *100   |
| % organization is a subpart                            | Among records with provider entity type = 2, count records with subpart code = Y, divide by total record count, *100        |
| % organization is not a subpart                        | Among records with provider entity type = 2, count records with subpart code = N, divide by total record count, *100        |
| % not answered   | Among records with provider entity type = 2, count records with subpart code = X, divide by total record count, *100        |

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