

**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

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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
% 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 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

# 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

# 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

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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  
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 = 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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