

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

**State-Specific Validation Tables,
2011**

June 28, 2013

Deo Bencio
Mei-ling Mason



MATHEMATICA
Policy Research

This page has been left blank for double-sided copying.

Contract Number:
HHSM-500-2005-00025I

Task Number:
HHSM-500-T0002

Mathematica Reference Number:
06759.680

Submitted to:
Centers for Medicare & Medicaid Services
7500 Security Boulevard, 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
Provider Characteristics
(MAXPC)**

**State-Specific Validation Tables,
2011**

June 28, 2013

Deo Bencio
Mei-ling Mason

MATHEMATICA
Policy Research

This page has been left blank for double-sided copying.

ACRONYMS

CMS	Centers for Medicare & Medicaid Services
CY	Calendar year
FY	Federal fiscal year
HIPAA	Health Insurance Portability and Accountability Act
ID	Identification/identifier
IP	Inpatient
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	Drug
UPIN	Unique Physician Identification Number

This page has been left blank for double-sided copying.

INTRODUCTION

The Medicaid Statistical Information System (MSIS) files and the corresponding research-friendly Medicaid Analytic Extract (MAX) files support a wide range of studies on Medicaid enrollment, service use, and expenditures. There is currently considerable interest at the Centers for Medicare & Medicaid Services (CMS) in also examining health reform proposals, program integrity, and access-to-care issues among certain types of Medicaid providers. However, it has not been possible to easily conduct provider-based research activities because the provider identification numbers collected in MSIS are largely unedited, undocumented, and state specific.

The advent of the Health Insurance Portability and Accountability Act (HIPAA) mandated covered entities such as health care providers, health plans, and health care clearinghouses to obtain and use a National Provider Identifier (NPI) in all administrative and financial HIPAA transactions.¹ The NPI is a unique 10-digit, sequentially assigned national identification number, unstructured so as not to carry any way information such as the state or medical specialty of the health care provider who “owns” the identifier. Beginning in February 2009, states were required to include NPIs on claims submitted to MSIS. The main limitation of this identifier, however, is that certain classes of nonmedical providers are not required to obtain an NPI. Nonetheless, the availability of the NPI on MSIS claims makes the development of a uniform provider characteristic file more feasible. The MAX Provider Characteristics (MAXPC) file is such a file.

Once the state’s MAXPC file is created, validation tables are produced. Validation tables are designed as a diagnostic tool to determine whether linkages are working in the expected manner and consist of a set of seven tables. The first six tables focus on provider ID types in the IP, LT, OT, and RX files. These provider types are: IP billing, LT billing, OT servicing, OT billing, RX billing, and RX prescribing provider IDs. The seventh table examines all provider IDs in all of the files. Each file-specific validation table is used to detect linkage issues that are peculiar to a given file type. The all-provider table is used to monitor the overall quality of the linkages of all provider IDs. The design of the validation tables is very similar across file types. The measures are grouped into seven sections as denoted by the shaded rows. The first section describes measures for each unique provider in the file. The second section focuses on the source of NPIs. The third section focuses on provider IDs that link to NPPES, followed by a section for provider IDs that link to state provider files. The fifth section focuses on the primary taxonomy of providers that link to NPPES. Among providers, taxonomies are classified into two groups: (1) individuals or groups of individuals, and (2) nonindividuals. The sixth section focuses on individual providers showing their sole proprietorship status. Finally, the seventh section focuses on provider organizations and their ownership status.

The columns in the state-specific tables describe the annual statistics for up to three years, followed by a column describing the percentage change between year one and year two, the percentage change between year two and year three, if applicable, followed by the expected

¹ CMS. “National Provider Identifier (NPI) Overview.” Available at <http://www.cms.gov/nationalProvIdentstand/>.

range of values across years, and finally, an indicator showing whether the percentage change between the two most recent years being compared is within the expected range.

The primary source of data used in the MAXPC 2011 files were the MSIS Valid claims files. The following measures in the MAXPC file were derived from original, unadjusted claims:

- Number of IP Claims for Provider
- Number of Beneficiaries with IP Claims for Provider
- Number of LT Claims for Provider
- Number of Beneficiaries with LT Claims for Provider
- Number of OT Claims for Provider
- Number of Beneficiaries with OT Claims for Provider
- Number of RX Claims for provider
- Number of Beneficiaries with RX Claims for Provider.

2009-2011 MAX IP Billing Provider Characteristics Validation Table

State: DC

Produced: 05/20/2013

Measure	2009 Value	2010 Value	2011 Value	% Change 2009-2010	% Change 2010-2011	Cross Year Expected Range	Cross Year 2009-2010 Within Range ^a	Cross Year 2010-2011 Within Range ^a
IP Providers								
Number of provider IDs	195	161	172	-17.44	6.83	30% (+/-)	Yes	Yes
% billing provider on IP claim	45.1	50.3	50.6	11.49	0.54	N/A	N/A	N/A
% NPI billing provider on IP claim	54.9	49.7	49.4	-9.45	-0.54	N/A	N/A	N/A
% also a provider on LT claim	7.2	0.6	1.7	-91.35	180.87	N/A	N/A	N/A
% also a provider on OT claim	76.9	85.7	91.9	11.43	7.17	N/A	N/A	N/A
% also a provider on RX claim	13.8	13.7	9.9	-1.31	-27.67	N/A	N/A	N/A
% provider IDs with NPI	88.7	97.5	98.8	9.92	1.35	30% (+/-)	Yes	Yes
% provider IDs linked to NPPES	75.9	97.5	98.8	28.48	1.35	30% (+/-)	Yes	Yes
% provider IDs with or without NPI but linked to state provider file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
average number of IP claims	324.5	448.3	425.1	38.14	-5.16	30% (+/-)	No	Yes
average number of beneficiaries with IP claims	241.5	341.3	326.3	41.34	-4.41	30% (+/-)	No	Yes
Provider IDs with NPI								
Number of provider IDs with NPI	173	157	170	-9.25	8.28	30% (+/-)	Yes	Yes
% NPI source = MSIS	99.4	100.0	98.8	0.58	-1.18	30% (+/-)	Yes	Yes
% NPI source = NPPES	0.6	0.0	1.2	-100.00	Div by 0	30% (+/-)	Yes	N/A
% NPI source = state cross-reference file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs Linked to NPPES								
Number of provider IDs linked to NPPES	148	157	170	6.08	8.28	30% (+/-)	Yes	Yes
% linked via NPI	99.3	100.0	98.8	0.68	-1.18	30% (+/-)	Yes	Yes
% linked via Medicaid legacy provider ID	0.7	0.0	1.2	-100.00	Div by 0	30% (+/-)	Yes	N/A
% linked via Medicare UPIN	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% with name prefix	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% with first name	0.0	1.3	0.6	Div by 0	-53.83	30% (+/-)	N/A	Yes
% with middle name	0.0	1.3	0.6	Div by 0	-53.83	30% (+/-)	N/A	Yes
% with last name	0.0	1.3	0.6	Div by 0	-53.83	30% (+/-)	N/A	Yes
% with name suffix	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% male	0.0	0.6	0.6	Div by 0	-7.66	30% (+/-)	N/A	Yes
% female	0.0	0.6	0.0	Div by 0	-100.00	30% (+/-)	N/A	Yes
% with credential	0.0	1.3	0.6	Div by 0	-53.83	30% (+/-)	N/A	Yes
% with business name	100.0	98.7	99.4	-1.27	0.69	30% (+/-)	Yes	Yes
% with address line 1	100.0	100.0	100.0	0.00	0.00	30% (+/-)	Yes	Yes
% with city	100.0	100.0	100.0	0.00	0.00	30% (+/-)	Yes	Yes
% with state	100.0	100.0	100.0	0.00	0.00	30% (+/-)	Yes	Yes
% state = IP state code	23.6	27.4	25.9	15.81	-5.50	30% (+/-)	Yes	Yes
% with zip code	100.0	100.0	100.0	0.00	0.00	30% (+/-)	Yes	Yes
% with primary taxonomy	100.0	100.0	100.0	0.00	0.00	30% (+/-)	Yes	Yes
% with provider entity type = individual	0.0	1.3	0.6	Div by 0	-53.83	30% (+/-)	N/A	Yes
% with provider entity type = organization	100.0	98.7	99.4	-1.27	0.69	30% (+/-)	Yes	Yes
Provider IDs with or without NPI but linked to state provider file								
Number of provider IDs with or without NPI linked to state provider file	0	0	0	Div by 0	Div by 0	N/A	N/A	N/A

Source: Medicaid Analytic eXtract (MAX) Provider Characteristics Files, 2009-2011.

a "Yes" signifies that either (1) the percent change between 2009 and 2010 is within the cross-year expected range or (2) both the 2009 and the 2010 values are less than 10. "No" signifies that both (1) the percent change between 2009 and 2010 is over or under the cross-year expected range and (2) either the 2009 or the 2010 value is greater than 10.

b "Yes" signifies that either (1) the percent change between 2010 and 2011 is within the cross-year expected range or (2) both the 2010 and the 2011 values are less than 10. "No" signifies that both (1) the percent change between 2010 and 2011 is over or under the cross-year expected range and (2) either the 2010 or the 2011 value is greater than 10.

2009-2011 MAX IP Billing Provider Characteristics Validation Table

State: DC

Produced: 05/20/2013

Measure	2009 Value	2010 Value	2011 Value	% Change 2009-2010	% Change 2010-2011	Cross Year Expected Range	Cross Year 2009-2010 Within Range ^a	Cross Year 2010-2011 Within Range ^a
Provider IDs with NPPES Primary Taxonomy								
Number of provider IDs with NPPES primary taxonomy	148	157	170	6.08	8.28	30% (+/-)	Yes	Yes
% individual or group of individuals	0.0	6.4	4.7	Div by 0	-26.11	30% (+/-)	N/A	Yes
% allopathic and osteopathic physicians	0.0	4.5	4.7	Div by 0	5.54	30% (+/-)	N/A	Yes
% behavioral health and social service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% chiropractic providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% dental providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% dietary and nutritional service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% emergency medical service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% eye and vision service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nursing service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nursing service-related providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% other service providers	0.0	1.9	0.0	Div by 0	-100.00	30% (+/-)	N/A	Yes
% pharmacy service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% physician assistants and advanced practice nursing providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% podiatric medicine and surgery service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% respiratory, developmental, rehabilitative, and restorative service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% speech, language, and hearing service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% student health care	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% technologists, technicians, and other technical service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% group of individuals with multi- or single specialty	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nonindividuals	100.0	93.6	95.3	-6.37	1.78	30% (+/-)	Yes	Yes
% agencies	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% ambulatory health care facilities	0.0	0.0	1.2	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% hospital units	3.4	6.4	5.9	88.54	-7.64	30% (+/-)	Yes	Yes
% hospitals	87.8	87.3	88.2	-0.66	1.12	30% (+/-)	Yes	Yes
% laboratories	0.7	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	N/A
% managed care organizations	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nursing and custodial care facilities	5.4	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	N/A
% residential treatment facilities	2.7	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	N/A
% respite care facility	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% suppliers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% transportation services	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nonmedical	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs with Entity Type = Individual								
Number of provider IDs with entity type = individual	0	2	1	Div by 0	-50.00	30% (+/-)	N/A	Yes
% a sole proprietorship	0.0	50.0	0.0	Div by 0	-100.00	30% (+/-)	N/A	No
% not a sole proprietorship	0.0	50.0	100.0	Div by 0	100.00	30% (+/-)	N/A	No
% not answered	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs with Entity Type = Organization								
Number of provider IDs with entity type = organization	148	155	169	4.73	9.03	30% (+/-)	Yes	Yes
% organization is a subpart	3.4	3.9	3.6	14.59	-8.28	30% (+/-)	Yes	Yes
% organization is not a subpart	92.6	93.5	92.9	1.06	-0.69	30% (+/-)	Yes	Yes
% not answered	4.1	2.6	3.6	-36.33	37.56	N/A	N/A	N/A

Source: Medicaid Analytic eXtract (MAX) Provider Characteristics Files, 2009-2011.

a "Yes" signifies that either (1) the percent change between 2009 and 2010 is within the cross-year expected range or (2) both the 2009 and the 2010 values are less than 10. "No" signifies that both (1) the percent change between 2009 and 2010 is over or under the cross-year expected range and (2) either the 2009 or the 2010 value is greater than 10.

b "Yes" signifies that either (1) the percent change between 2010 and 2011 is within the cross-year expected range or (2) both the 2010 and the 2011 values are less than 10. "No" signifies that both (1) the percent change between 2010 and 2011 is over or under the cross-year expected range and (2) either the 2010 or the 2011 value is greater than 10.

2009-2011 MAX LT Billing Provider Characteristics Validation Table

State: DC

Produced: 05/20/2013

Measure	2009 Value	2010 Value	2011 Value	% Change 2009-2010	% Change 2010-2011	Cross Year Expected Range	Cross Year 2009-2010 Within Range ^a	Cross Year 2010-2011 Within Range ^a
LT Providers								
Number of provider IDs	238	236	220	-0.84	-6.78	30% (+/-)	Yes	Yes
% billing provider on LT claim	58.8	57.6	58.2	-2.03	0.96	N/A	N/A	N/A
% NPI billing provider on LT claim	41.2	42.4	41.8	2.91	-1.31	N/A	N/A	N/A
% also a provider on IP claim	5.9	0.4	1.4	-92.79	221.61	N/A	N/A	N/A
% also a provider on OT claim	71.4	58.9	89.5	-17.54	52.03	N/A	N/A	N/A
% also a provider on RX claim	2.5	3.4	3.2	34.47	-6.14	N/A	N/A	N/A
% provider IDs with NPI	98.3	98.3	99.1	-0.01	0.80	30% (+/-)	Yes	Yes
% provider IDs linked to NPPES	98.3	98.3	99.1	-0.01	0.80	30% (+/-)	Yes	Yes
% provider IDs with or without NPI but linked to state provider file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
average number of LT claims	333.1	385.6	621.1	15.77	61.04	30% (+/-)	Yes	No
average number of beneficiaries with LT claims	38.1	46.7	61.7	22.45	32.06	30% (+/-)	Yes	No
Provider IDs with NPI								
Number of provider IDs with NPI	234	232	218	-0.85	-6.03	30% (+/-)	Yes	Yes
% NPI source = MSIS	100.0	99.6	99.1	-0.43	-0.49	30% (+/-)	Yes	Yes
% NPI source = NPPES	0.0	0.4	0.9	Div by 0	112.86	30% (+/-)	N/A	Yes
% NPI source = state cross-reference file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs Linked to NPPES								
Number of provider IDs linked to NPPES	234	232	218	-0.85	-6.03	30% (+/-)	Yes	Yes
% linked via NPI	100.0	99.6	99.1	-0.43	-0.49	30% (+/-)	Yes	Yes
% linked via Medicaid legacy provider ID	0.0	0.4	0.9	Div by 0	112.86	30% (+/-)	N/A	Yes
% linked via Medicare UPIN	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% with name prefix	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% with first name	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% with middle name	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% with last name	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% with name suffix	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% male	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% female	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% with credential	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% with business name	100.0	100.0	100.0	0.00	0.00	30% (+/-)	Yes	Yes
% with address line 1	100.0	100.0	100.0	0.00	0.00	30% (+/-)	Yes	Yes
% with city	100.0	100.0	100.0	0.00	0.00	30% (+/-)	Yes	Yes
% with state	100.0	100.0	100.0	0.00	0.00	30% (+/-)	Yes	Yes
% state = LT state code	67.9	67.7	67.9	-0.41	0.32	30% (+/-)	Yes	Yes
% with zip code	100.0	100.0	100.0	0.00	0.00	30% (+/-)	Yes	Yes
% with primary taxonomy	100.0	99.1	99.1	-0.86	-0.06	30% (+/-)	Yes	Yes
% with provider entity type = individual	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% with provider entity type = organization	100.0	100.0	100.0	0.00	0.00	30% (+/-)	Yes	Yes
Provider IDs with or without NPI but linked to state provider file								
Number of provider IDs with or without NPI linked to state provider file	0	0	0	Div by 0	Div by 0	N/A	N/A	N/A

Source: Medicaid Analytic eXtract (MAX) Provider Characteristics Files, 2009-2011.

a "Yes" signifies that either (1) the percent change between 2009 and 2010 is within the cross-year expected range or (2) both the 2009 and the 2010 values are less than 10. "No" signifies that both (1) the percent change between 2009 and 2010 is over or under the cross-year expected range and (2) either the 2009 or the 2010 value is greater than 10.

b "Yes" signifies that either (1) the percent change between 2010 and 2011 is within the cross-year expected range or (2) both the 2010 and the 2011 values are less than 10. "No" signifies that both (1) the percent change between 2010 and 2011 is over or under the cross-year expected range and (2) either the 2010 or the 2011 value is greater than 10.

2009-2011 MAX LT Billing Provider Characteristics Validation Table

State: DC

Produced: 05/20/2013

Measure	2009 Value	2010 Value	2011 Value	% Change 2009-2010	% Change 2010-2011	Cross Year Expected Range	Cross Year 2009-2010 Within Range ^a	Cross Year 2010-2011 Within Range ^a
Provider IDs with NPPES Primary Taxonomy								
Number of provider IDs with NPPES primary taxonomy	234	230	216	-1.71	-6.09	30% (+/-)	Yes	Yes
% individual or group of individuals	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% allopathic and osteopathic physicians	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% behavioral health and social service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% chiropractic providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% dental providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% dietary and nutritional service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% emergency medical service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% eye and vision service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nursing service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nursing service-related providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% other service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% pharmacy service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% physician assistants and advanced practice nursing providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% podiatric medicine and surgery service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% respiratory, developmental, rehabilitative, and restorative service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% speech, language, and hearing service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% student health care	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% technologists, technicians, and other technical service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% group of individuals with multi- or single specialty	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nonindividuals	100.0	100.0	100.0	0.00	0.00	30% (+/-)	Yes	Yes
% agencies	0.9	2.6	3.7	205.15	41.96	30% (+/-)	Yes	Yes
% ambulatory health care facilities	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% hospital units	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% hospitals	3.8	6.1	4.6	58.27	-23.94	30% (+/-)	Yes	Yes
% laboratories	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% managed care organizations	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nursing and custodial care facilities	85.5	60.4	59.7	-29.29	-1.18	30% (+/-)	Yes	Yes
% residential treatment facilities	9.4	30.9	31.9	228.33	3.48	30% (+/-)	No	Yes
% respite care facility	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% suppliers	0.4	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	N/A
% transportation services	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nonmedical	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs with Entity Type = Individual								
Number of provider IDs with entity type = individual	0	0	0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% a sole proprietorship	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% not a sole proprietorship	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% not answered	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs with Entity Type = Organization								
Number of provider IDs with entity type = organization	234	232	218	-0.85	-6.03	30% (+/-)	Yes	Yes
% organization is a subpart	3.0	3.0	2.8	0.87	-8.77	30% (+/-)	Yes	Yes
% organization is not a subpart	56.0	62.1	61.0	10.87	-1.71	30% (+/-)	Yes	Yes
% not answered	41.0	34.9	36.2	-14.90	3.79	N/A	N/A	N/A

Source: Medicaid Analytic eXtract (MAX) Provider Characteristics Files, 2009-2011.

a "Yes" signifies that either (1) the percent change between 2009 and 2010 is within the cross-year expected range or (2) both the 2009 and the 2010 values are less than 10. "No" signifies that both (1) the percent change between 2009 and 2010 is over or under the cross-year expected range and (2) either the 2009 or the 2010 value is greater than 10.

b "Yes" signifies that either (1) the percent change between 2010 and 2011 is within the cross-year expected range or (2) both the 2010 and the 2011 values are less than 10. "No" signifies that both (1) the percent change between 2010 and 2011 is over or under the cross-year expected range and (2) either the 2010 or the 2011 value is greater than 10.

2009-2011 MAX OT Servicing Provider Characteristics Validation Table

State: DC

Produced: 05/20/2013

Measure	2009 Value	2010 Value	2011 Value	% Change 2009-2010	% Change 2010-2011	Cross Year Expected Range	Cross Year 2009-2010 Within Range ^a	Cross Year 2010-2011 Within Range ^a
OT Providers								
Number of provider IDs	10,302	8,832	9,621	-14.27	8.93	30% (+/-)	Yes	Yes
% billing provider on OT claim	29.1	43.5	44.2	49.40	1.52	N/A	N/A	N/A
% servicing provider on OT claim	74.7	54.7	54.9	-26.78	0.37	N/A	N/A	N/A
% NPI servicing provider on OT claim	25.7	45.3	45.1	76.38	-0.42	N/A	N/A	N/A
% also a provider on IP claim	1.2	1.4	1.6	20.35	9.75	N/A	N/A	N/A
% also a provider on LT claim	0.7	0.6	1.6	-5.37	150.83	N/A	N/A	N/A
% also a provider on RX claim	20.9	29.8	33.0	42.54	10.85	N/A	N/A	N/A
% provider IDs with NPI	56.1	71.2	71.7	27.04	0.70	30% (+/-)	Yes	Yes
% provider IDs linked to NPPES	54.2	71.1	71.7	31.23	0.83	30% (+/-)	No	Yes
% provider IDs with or without NPI but linked to state provider file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
average number of OT claims	1,209.1	1,691.0	1,931.1	39.86	14.20	30% (+/-)	No	Yes
average number of beneficiaries with OT claims	137.0	202.5	262.9	47.89	29.81	30% (+/-)	No	Yes
Provider IDs with NPI								
Number of provider IDs with NPI	5,777	6,292	6,902	8.91	9.69	30% (+/-)	Yes	Yes
% NPI source = MSIS	94.2	94.3	94.6	0.07	0.35	30% (+/-)	Yes	Yes
% NPI source = NPPES	5.8	5.7	5.4	-1.07	-5.80	30% (+/-)	Yes	Yes
% NPI source = state cross-reference file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs Linked to NPPES								
Number of provider IDs linked to NPPES	5,582	6,280	6,898	12.50	9.84	30% (+/-)	Yes	Yes
% linked via NPI	94.0	94.3	94.6	0.27	0.36	30% (+/-)	Yes	Yes
% linked via Medicaid legacy provider ID	6.0	5.7	5.4	-3.92	-6.17	30% (+/-)	Yes	Yes
% linked via Medicare UPIN	0.0	0.0	0.0	-55.56	81.21	30% (+/-)	Yes	Yes
% with name prefix	22.8	26.6	25.8	16.81	-3.01	30% (+/-)	Yes	Yes
% with first name	50.8	59.5	57.6	17.04	-3.14	30% (+/-)	Yes	Yes
% with middle name	33.2	38.2	37.4	15.30	-2.17	30% (+/-)	Yes	Yes
% with last name	50.8	59.5	57.6	17.04	-3.14	30% (+/-)	Yes	Yes
% with name suffix	1.4	1.7	1.5	21.59	-7.21	30% (+/-)	Yes	Yes
% male	30.7	35.5	34.2	15.65	-3.69	30% (+/-)	Yes	Yes
% female	20.1	24.0	23.4	19.17	-2.31	30% (+/-)	Yes	Yes
% with credential	47.6	55.3	53.5	16.22	-3.25	30% (+/-)	Yes	Yes
% with business name	49.2	40.1	42.1	-18.47	5.15	30% (+/-)	Yes	Yes
% with address line 1	100.0	99.6	99.8	-0.41	0.20	30% (+/-)	Yes	Yes
% with city	100.0	99.6	99.8	-0.41	0.20	30% (+/-)	Yes	Yes
% with state	100.0	99.6	99.8	-0.41	0.20	30% (+/-)	Yes	Yes
% state = OT state code	51.1	55.5	55.4	8.54	-0.18	30% (+/-)	Yes	Yes
% with zip code	100.0	99.6	99.8	-0.41	0.20	30% (+/-)	Yes	Yes
% with primary taxonomy	99.4	97.6	97.6	-1.84	0.06	30% (+/-)	Yes	Yes
% with provider entity type = individual	50.8	59.5	57.6	17.04	-3.14	30% (+/-)	Yes	Yes
% with provider entity type = organization	49.2	40.1	42.1	-18.47	5.15	30% (+/-)	Yes	Yes
Provider IDs with or without NPI but linked to state provider file								
Number of provider IDs with or without NPI linked to state provider file	0	0	0	Div by 0	Div by 0	N/A	N/A	N/A

Source: Medicaid Analytic eExtract (MAX) Provider Characteristics Files, 2009-2011.

a "Yes" signifies that either (1) the percent change between 2009 and 2010 is within the cross-year expected range or (2) both the 2009 and the 2010 values are less than 10. "No" signifies that both (1) the percent change between 2009 and 2010 is over or under the cross-year expected range and (2) either the 2009 or the 2010 value is greater than 10.

b "Yes" signifies that either (1) the percent change between 2010 and 2011 is within the cross-year expected range or (2) both the 2010 and the 2011 values are less than 10. "No" signifies that both (1) the percent change between 2010 and 2011 is over or under the cross-year expected range and (2) either the 2010 or the 2011 value is greater than 10.

2009-2011 MAX OT Servicing Provider Characteristics Validation Table

State: DC

Produced: 05/20/2013

Measure	2009 Value	2010 Value	2011 Value	% Change 2009-2010	% Change 2010-2011	Cross Year Expected Range	Cross Year 2009-2010 Within Range ^a	Cross Year 2010-2011 Within Range ^a
Provider IDs with NPPES Primary Taxonomy								
Number of provider IDs with NPPES primary taxonomy	5,583	6,128	6,735	9.76	9.91	30% (+/-)	Yes	Yes
% individual or group of individuals	58.2	75.2	72.4	29.28	-3.76	30% (+/-)	Yes	Yes
% allopathic and osteopathic physicians	44.6	63.5	59.9	42.52	-5.72	30% (+/-)	No	Yes
% behavioral health and social service providers	0.5	0.4	0.4	-8.88	-2.36	30% (+/-)	Yes	Yes
% chiropractic providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% dental providers	3.9	3.2	3.8	-17.37	19.45	30% (+/-)	Yes	Yes
% dietary and nutritional service providers	0.0	0.0	0.1	-100.00	Div by 0	30% (+/-)	Yes	N/A
% emergency medical service providers	0.0	0.0	0.0	Div by 0	178.40	30% (+/-)	N/A	Yes
% eye and vision service providers	0.4	0.4	0.4	-1.56	-5.73	30% (+/-)	Yes	Yes
% nursing service providers	0.2	0.1	0.2	-31.63	11.11	30% (+/-)	Yes	Yes
% nursing service-related providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% other service providers	1.1	2.7	2.6	147.85	-4.08	30% (+/-)	Yes	Yes
% pharmacy service providers	0.0	0.0	0.0	172.22	-9.10	30% (+/-)	Yes	Yes
% physician assistants and advanced practice nursing providers	3.2	2.5	2.7	-20.22	6.85	30% (+/-)	Yes	Yes
% podiatric medicine and surgery service providers	1.2	1.6	1.3	25.40	-13.79	30% (+/-)	Yes	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	0.0	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	N/A
% speech, language, and hearing service providers	0.1	0.2	0.3	44.00	73.22	30% (+/-)	Yes	Yes
% student health care	0.1	0.5	0.5	265.60	13.71	30% (+/-)	Yes	Yes
% technologists, technicians, and other technical service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% group of individuals with multi- or single specialty	2.8	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	N/A
% nonindividuals	41.8	24.8	27.6	-40.73	11.41	30% (+/-)	No	Yes
% agencies	2.8	2.9	3.0	5.22	4.20	30% (+/-)	Yes	Yes
% ambulatory health care facilities	6.2	4.4	3.9	-28.76	-11.05	30% (+/-)	Yes	Yes
% hospital units	0.1	0.0	0.1	-31.94	51.51	30% (+/-)	Yes	Yes
% hospitals	21.4	5.5	5.5	-74.35	-0.64	30% (+/-)	No	Yes
% laboratories	2.3	1.3	1.2	-42.10	-9.00	30% (+/-)	Yes	Yes
% managed care organizations	0.0	0.2	0.1	Div by 0	-47.90	30% (+/-)	N/A	Yes
% nursing and custodial care facilities	1.1	0.6	1.4	-50.05	154.15	30% (+/-)	Yes	Yes
% residential treatment facilities	1.2	1.7	2.0	37.30	18.99	30% (+/-)	Yes	Yes
% respite care facility	0.0	0.0	0.1	-100.00	Div by 0	30% (+/-)	Yes	N/A
% suppliers	6.3	7.8	10.0	22.76	28.18	30% (+/-)	Yes	Yes
% transportation services	0.4	0.3	0.3	-8.94	-8.91	30% (+/-)	Yes	Yes
% nonmedical	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs with Entity Type = Individual								
Number of provider IDs with entity type = individual	2,838	3,737	3,976	31.68	6.40	30% (+/-)	No	Yes
% a sole proprietorship	21.9	26.4	26.3	20.39	-0.20	30% (+/-)	Yes	Yes
% not a sole proprietorship	71.5	67.2	67.2	-5.98	-0.02	30% (+/-)	Yes	Yes
% not answered	6.6	6.4	6.5	-2.93	1.06	N/A	N/A	N/A
Provider IDs with Entity Type = Organization								
Number of provider IDs with entity type = organization	2,744	2,517	2,907	-8.27	15.49	30% (+/-)	Yes	Yes
% organization is a subpart	4.0	6.2	5.7	55.04	-7.27	30% (+/-)	Yes	Yes
% organization is not a subpart	86.2	80.4	81.1	-6.70	0.92	30% (+/-)	Yes	Yes
% not answered	9.8	13.4	13.1	36.47	-2.15	N/A	N/A	N/A

Source: Medicaid Analytic eXtract (MAX) Provider Characteristics Files, 2009-2011.

a "Yes" signifies that either (1) the percent change between 2009 and 2010 is within the cross-year expected range or (2) both the 2009 and the 2010 values are less than 10. "No" signifies that both (1) the percent change between 2009 and 2010 is over or under the cross-year expected range and (2) either the 2009 or the 2010 value is greater than 10.

b "Yes" signifies that either (1) the percent change between 2010 and 2011 is within the cross-year expected range or (2) both the 2010 and the 2011 values are less than 10. "No" signifies that both (1) the percent change between 2010 and 2011 is over or under the cross-year expected range and (2) either the 2010 or the 2011 value is greater than 10.

2009-2011 MAX OT Billing Provider Characteristics Validation Table

State: DC

Produced: 05/20/2013

Measure	2009 Value	2010 Value	2011 Value	% Change 2009-2010	% Change 2010-2011	Cross Year Expected Range	Cross Year 2009-2010 Within Range ^a	Cross Year 2010-2011 Within Range ^a
OT Providers								
Number of provider IDs	3,362	4,197	4,574	24.84	8.98	30% (+/-)	Yes	Yes
% billing provider on OT claim	100.0	100.0	100.0	0.00	0.00	N/A	N/A	N/A
% servicing provider on OT claim	89.1	91.6	93.0	2.80	1.47	N/A	N/A	N/A
% NPI servicing provider on OT claim	0.5	0.0	0.0	-100.00	Div by 0	N/A	N/A	N/A
% also a provider on IP claim	2.1	1.7	1.7	-18.71	4.86	N/A	N/A	N/A
% also a provider on LT claim	3.2	2.0	2.5	-36.38	25.24	N/A	N/A	N/A
% also a provider on RX claim	49.0	52.1	56.1	6.27	7.67	N/A	N/A	N/A
% provider IDs with NPI	44.9	38.9	40.6	-13.31	4.46	30% (+/-)	Yes	Yes
% provider IDs linked to NPPES	43.1	38.8	40.6	-9.95	4.54	30% (+/-)	Yes	Yes
% provider IDs with or without NPI but linked to state provider file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
average number of OT claims	2,118.4	2,583.9	2,671.0	21.97	3.37	30% (+/-)	Yes	Yes
average number of beneficiaries with OT claims	248.2	331.4	375.4	33.50	13.30	30% (+/-)	No	Yes
Provider IDs with NPI								
Number of provider IDs with NPI	1,508	1,632	1,858	8.22	13.85	30% (+/-)	Yes	Yes
% NPI source = MSIS	80.8	77.3	79.4	-4.34	2.73	30% (+/-)	Yes	Yes
% NPI source = NPPES	19.2	22.7	20.6	18.31	-9.32	30% (+/-)	Yes	Yes
% NPI source = state cross-reference file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs Linked to NPPES								
Number of provider IDs linked to NPPES	1,450	1,630	1,857	12.41	13.93	30% (+/-)	Yes	Yes
% linked via NPI	80.1	77.3	79.4	-3.46	2.75	30% (+/-)	Yes	Yes
% linked via Medicaid legacy provider ID	19.9	22.7	20.5	13.89	-9.61	30% (+/-)	Yes	Yes
% linked via Medicare UPIN	0.0	0.0	0.1	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% with name prefix	25.2	23.7	21.8	-5.68	-8.37	30% (+/-)	Yes	Yes
% with first name	48.0	44.4	41.7	-7.46	-6.16	30% (+/-)	Yes	Yes
% with middle name	31.8	29.1	28.2	-8.34	-3.17	30% (+/-)	Yes	Yes
% with last name	48.0	44.4	41.7	-7.46	-6.16	30% (+/-)	Yes	Yes
% with name suffix	1.7	1.5	1.4	-7.31	-8.73	30% (+/-)	Yes	Yes
% male	31.7	28.4	26.7	-10.27	-5.97	30% (+/-)	Yes	Yes
% female	16.3	16.0	15.0	-2.04	-6.51	30% (+/-)	Yes	Yes
% with credential	46.0	42.3	39.6	-7.98	-6.37	30% (+/-)	Yes	Yes
% with business name	52.0	55.1	58.1	5.95	5.47	30% (+/-)	Yes	Yes
% with address line 1	100.0	99.5	99.8	-0.49	0.28	30% (+/-)	Yes	Yes
% with city	100.0	99.5	99.8	-0.49	0.28	30% (+/-)	Yes	Yes
% with state	100.0	99.5	99.8	-0.49	0.28	30% (+/-)	Yes	Yes
% state = OT state code	54.1	51.8	52.6	-4.36	1.50	30% (+/-)	Yes	Yes
% with zip code	100.0	99.5	99.8	-0.49	0.28	30% (+/-)	Yes	Yes
% with primary taxonomy	99.7	98.4	98.5	-1.25	0.09	30% (+/-)	Yes	Yes
% with provider entity type = individual	48.0	44.4	41.7	-7.46	-6.16	30% (+/-)	Yes	Yes
% with provider entity type = organization	52.0	55.1	58.1	5.95	5.47	30% (+/-)	Yes	Yes
Provider IDs with or without NPI but linked to state provider file								
Number of provider IDs with or without NPI linked to state provider file	0	0	0	Div by 0	Div by 0	N/A	N/A	N/A

Source: Medicaid Analytic eExtract (MAX) Provider Characteristics Files, 2009-2011.

a "Yes" signifies that either (1) the percent change between 2009 and 2010 is within the cross-year expected range or (2) both the 2009 and the 2010 values are less than 10. "No" signifies that both (1) the percent change between 2009 and 2010 is over or under the cross-year expected range and (2) either the 2009 or the 2010 value is greater than 10.

b "Yes" signifies that either (1) the percent change between 2010 and 2011 is within the cross-year expected range or (2) both the 2010 and the 2011 values are less than 10. "No" signifies that both (1) the percent change between 2010 and 2011 is over or under the cross-year expected range and (2) either the 2010 or the 2011 value is greater than 10.

2009-2011 MAX OT Billing Provider Characteristics Validation Table

State: DC

Produced: 05/20/2013

Measure	2009 Value	2010 Value	2011 Value	% Change 2009-2010	% Change 2010-2011	Cross Year Expected Range	Cross Year 2009-2010 Within Range ^a	Cross Year 2010-2011 Within Range ^a
Provider IDs with NPPES Primary Taxonomy								
Number of provider IDs with NPPES primary taxonomy	1,457	1,604	1,829	10.09	14.03	30% (+/-)	Yes	Yes
% individual or group of individuals	55.5	53.1	49.5	-4.45	-6.63	30% (+/-)	Yes	Yes
% allopathic and osteopathic physicians	43.7	39.7	36.0	-9.16	-9.13	30% (+/-)	Yes	Yes
% behavioral health and social service providers	0.5	0.9	0.9	81.88	0.21	30% (+/-)	Yes	Yes
% chiropractic providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% dental providers	3.8	4.6	4.9	18.39	8.12	30% (+/-)	Yes	Yes
% dietary and nutritional service providers	0.0	0.0	0.2	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% emergency medical service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% eye and vision service providers	0.9	0.8	0.7	-9.19	-12.25	30% (+/-)	Yes	Yes
% nursing service providers	0.0	0.1	0.1	Div by 0	-12.52	30% (+/-)	N/A	Yes
% nursing service-related providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% other service providers	1.4	2.4	2.1	72.54	-12.30	30% (+/-)	Yes	Yes
% pharmacy service providers	0.1	0.1	0.1	81.16	-12.52	30% (+/-)	Yes	Yes
% physician assistants and advanced practice nursing providers	2.0	2.0	2.1	0.25	4.14	30% (+/-)	Yes	Yes
% podiatric medicine and surgery service providers	2.4	2.3	1.9	-3.96	-17.05	30% (+/-)	Yes	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	0.1	0.0	0.1	-100.00	Div by 0	30% (+/-)	Yes	N/A
% speech, language, and hearing service providers	0.1	0.1	0.3	81.16	162.44	30% (+/-)	Yes	Yes
% student health care	0.1	0.1	0.1	81.16	-12.52	30% (+/-)	Yes	Yes
% technologists, technicians, and other technical service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% group of individuals with multi- or single specialty	0.6	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	N/A
% nonindividuals	44.5	46.9	50.5	5.55	7.50	30% (+/-)	Yes	Yes
% agencies	5.2	6.2	6.2	18.33	0.99	30% (+/-)	Yes	Yes
% ambulatory health care facilities	9.7	6.9	6.3	-29.63	-7.52	30% (+/-)	Yes	Yes
% hospital units	0.1	0.1	0.1	-8.76	-12.52	30% (+/-)	Yes	Yes
% hospitals	4.9	7.5	7.2	52.65	-5.06	30% (+/-)	Yes	Yes
% laboratories	2.2	2.4	2.1	7.88	-12.30	30% (+/-)	Yes	Yes
% managed care organizations	0.0	0.1	0.1	Div by 0	-11.82	30% (+/-)	N/A	Yes
% nursing and custodial care facilities	6.5	2.9	3.9	-55.06	34.35	30% (+/-)	Yes	Yes
% residential treatment facilities	3.0	5.1	4.6	73.23	-9.09	30% (+/-)	Yes	Yes
% respite care facility	0.1	0.0	0.2	-100.00	Div by 0	30% (+/-)	Yes	N/A
% suppliers	12.1	15.2	19.2	25.41	26.67	30% (+/-)	Yes	Yes
% transportation services	0.6	0.6	0.5	0.81	-12.24	30% (+/-)	Yes	Yes
% nonmedical	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs with Entity Type = Individual								
Number of provider IDs with entity type = individual	696	724	774	4.02	6.91	30% (+/-)	Yes	Yes
% a sole proprietorship	32.9	30.5	32.3	-7.22	5.81	30% (+/-)	Yes	Yes
% not a sole proprietorship	62.1	65.2	63.4	5.03	-2.69	30% (+/-)	Yes	Yes
% not answered	5.0	4.3	4.3	-14.85	-0.43	N/A	N/A	N/A
Provider IDs with Entity Type = Organization								
Number of provider IDs with entity type = organization	754	898	1,079	19.10	20.16	30% (+/-)	Yes	Yes
% organization is a subpart	5.2	4.9	5.0	-5.26	2.14	30% (+/-)	Yes	Yes
% organization is not a subpart	75.1	79.3	80.7	5.62	1.81	30% (+/-)	Yes	Yes
% not answered	19.8	15.8	14.3	-19.98	-9.74	N/A	N/A	N/A

Source: Medicaid Analytic eXtract (MAX) Provider Characteristics Files, 2009-2011.

a "Yes" signifies that either (1) the percent change between 2009 and 2010 is within the cross-year expected range or (2) both the 2009 and the 2010 values are less than 10. "No" signifies that both (1) the percent change between 2009 and 2010 is over or under the cross-year expected range and (2) either the 2009 or the 2010 value is greater than 10.

b "Yes" signifies that either (1) the percent change between 2010 and 2011 is within the cross-year expected range or (2) both the 2010 and the 2011 values are less than 10. "No" signifies that both (1) the percent change between 2010 and 2011 is over or under the cross-year expected range and (2) either the 2010 or the 2011 value is greater than 10.

2009-2011 MAX RX Billing Provider Characteristics Validation Table

State: DC

Produced: 05/20/2013

Measure	2009 Value	2010 Value	2011 Value	% Change 2009-2010	% Change 2010-2011	Cross Year Expected Range	Cross Year 2009-2010 Within Range ^a	Cross Year 2010-2011 Within Range ^a
RX Providers								
Number of provider IDs	399	463	1,447	16.04	212.53	30% (+/-)	Yes	No
% billing provider on RX claim	53.1	50.1	19.4	-5.69	-61.38	N/A	N/A	N/A
% prescribing provider on RX claim	7.3	2.4	0.9	-67.31	-62.19	N/A	N/A	N/A
% NPI billing provider on RX claim	46.9	49.9	80.6	6.45	61.65	N/A	N/A	N/A
% also a provider on IP claim	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
% also a provider on LT claim	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
% also a provider on OT claim	26.6	44.3	30.6	66.66	-30.85	N/A	N/A	N/A
% provider IDs with NPI	95.7	99.6	99.9	4.00	0.30	30% (+/-)	Yes	Yes
% provider IDs linked to NPPES	93.7	99.6	99.9	6.22	0.30	30% (+/-)	Yes	Yes
% provider IDs with or without NPI but linked to state provider file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
average number of RX claims	2,651.0	4,727.3	3,241.9	78.32	-31.42	30% (+/-)	No	No
average number of beneficiaries with RX claims	190.9	306.3	307.6	60.48	0.42	30% (+/-)	No	Yes
Provider IDs with NPI								
Number of provider IDs with NPI	382	461	1,445	20.68	213.45	30% (+/-)	Yes	No
% NPI source = MSIS	98.4	100.0	100.0	1.60	0.00	30% (+/-)	Yes	Yes
% NPI source = NPPES	1.6	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	N/A
% NPI source = state cross-reference file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs Linked to NPPES								
Number of provider IDs linked to NPPES	374	461	1,445	23.26	213.45	30% (+/-)	Yes	No
% linked via NPI	98.4	100.0	100.0	1.63	0.00	30% (+/-)	Yes	Yes
% linked via Medicaid legacy provider ID	1.6	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	N/A
% linked via Medicare UPIN	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% with name prefix	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% with first name	0.0	0.2	0.1	Div by 0	-68.11	30% (+/-)	N/A	Yes
% with middle name	0.0	0.2	0.1	Div by 0	-68.11	30% (+/-)	N/A	Yes
% with last name	0.0	0.2	0.1	Div by 0	-68.11	30% (+/-)	N/A	Yes
% with name suffix	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% male	0.0	0.2	0.1	Div by 0	-68.11	30% (+/-)	N/A	Yes
% female	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% with credential	0.0	0.2	0.1	Div by 0	-68.11	30% (+/-)	N/A	Yes
% with business name	100.0	98.0	99.2	-1.95	1.21	30% (+/-)	Yes	Yes
% with address line 1	100.0	98.3	99.3	-1.74	1.06	30% (+/-)	Yes	Yes
% with city	100.0	98.3	99.3	-1.74	1.06	30% (+/-)	Yes	Yes
% with state	100.0	98.3	99.3	-1.74	1.06	30% (+/-)	Yes	Yes
% state = RX state code	54.5	49.0	17.5	-10.12	-64.29	30% (+/-)	Yes	No
% with zip code	100.0	98.3	99.3	-1.74	1.06	30% (+/-)	Yes	Yes
% with primary taxonomy	96.8	96.5	98.2	-0.27	1.73	30% (+/-)	Yes	Yes
% with provider entity type = individual	0.0	0.2	0.1	Div by 0	-68.11	30% (+/-)	N/A	Yes
% with provider entity type = organization	100.0	98.0	99.2	-1.95	1.21	30% (+/-)	Yes	Yes
Provider IDs with or without NPI but linked to state provider file								
Number of provider IDs with or without NPI linked to state provider file	0	0	0	Div by 0	Div by 0	N/A	N/A	N/A

Source: Medicaid Analytic eXtract (MAX) Provider Characteristics Files, 2009-2011.

a "Yes" signifies that either (1) the percent change between 2009 and 2010 is within the cross-year expected range or (2) both the 2009 and the 2010 values are less than 10. "No" signifies that both (1) the percent change between 2009 and 2010 is over or under the cross-year expected range and (2) either the 2009 or the 2010 value is greater than 10.

b "Yes" signifies that either (1) the percent change between 2010 and 2011 is within the cross-year expected range or (2) both the 2010 and the 2011 values are less than 10. "No" signifies that both (1) the percent change between 2010 and 2011 is over or under the cross-year expected range and (2) either the 2010 or the 2011 value is greater than 10.

2009-2011 MAX RX Billing Provider Characteristics Validation Table

State: DC

Produced: 05/20/2013

Measure	2009 Value	2010 Value	2011 Value	% Change 2009-2010	% Change 2010-2011	Cross Year Expected Range	Cross Year 2009-2010 Within Range ^a	Cross Year 2010-2011 Within Range ^a
Provider IDs with NPPES Primary Taxonomy								
Number of provider IDs with NPPES primary taxonomy	362	445	1,419	22.93	218.88	30% (+/-)	Yes	No
% individual or group of individuals	0.8	1.1	0.5	35.59	-56.11	30% (+/-)	Yes	Yes
% allopathic and osteopathic physicians	0.0	0.2	0.1	Div by 0	-68.68	30% (+/-)	N/A	Yes
% behavioral health and social service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% chiropractic providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% dental providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% dietary and nutritional service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% emergency medical service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% eye and vision service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nursing service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nursing service-related providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% other service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% pharmacy service providers	0.8	0.9	0.4	8.44	-52.97	30% (+/-)	Yes	Yes
% physician assistants and advanced practice nursing providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% podiatric medicine and surgery service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% respiratory, developmental, rehabilitative, and restorative service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% speech, language, and hearing service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% student health care	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% technologists, technicians, and other technical service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% group of individuals with multi- or single specialty	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nonindividuals	99.2	98.9	99.5	-0.30	0.64	30% (+/-)	Yes	Yes
% agencies	0.6	0.4	0.1	-18.66	-68.61	30% (+/-)	Yes	Yes
% ambulatory health care facilities	0.0	0.0	0.1	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% hospital units	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% hospitals	0.0	0.0	0.1	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% laboratories	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% managed care organizations	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nursing and custodial care facilities	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% residential treatment facilities	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% respite care facility	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% suppliers	98.6	98.4	99.2	-0.19	0.81	30% (+/-)	Yes	Yes
% transportation services	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nonmedical	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs with Entity Type = Individual								
Number of provider IDs with entity type = individual	0	1	1	Div by 0	0.00	30% (+/-)	N/A	Yes
% a sole proprietorship	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% not a sole proprietorship	0.0	100.0	100.0	Div by 0	0.00	30% (+/-)	N/A	Yes
% not answered	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs with Entity Type = Organization								
Number of provider IDs with entity type = organization	374	452	1,434	20.86	217.26	30% (+/-)	Yes	No
% organization is a subpart	5.6	7.1	13.5	26.09	90.10	30% (+/-)	Yes	No
% organization is not a subpart	88.5	88.5	83.6	-0.01	-5.52	30% (+/-)	Yes	Yes
% not answered	5.9	4.4	2.9	-24.77	-33.81	N/A	N/A	N/A

Source: Medicaid Analytic eXtract (MAX) Provider Characteristics Files, 2009-2011.

a "Yes" signifies that either (1) the percent change between 2009 and 2010 is within the cross-year expected range or (2) both the 2009 and the 2010 values are less than 10. "No" signifies that both (1) the percent change between 2009 and 2010 is over or under the cross-year expected range and (2) either the 2009 or the 2010 value is greater than 10.

b "Yes" signifies that either (1) the percent change between 2010 and 2011 is within the cross-year expected range or (2) both the 2010 and the 2011 values are less than 10. "No" signifies that both (1) the percent change between 2010 and 2011 is over or under the cross-year expected range and (2) either the 2010 or the 2011 value is greater than 10.

2009-2011 MAX RX Prescribing Provider Characteristics Validation Table

State: DC

Produced: 05/20/2013

Measure	2009 Value	2010 Value	2011 Value	% Change 2009-2010	% Change 2010-2011	Cross Year Expected Range	Cross Year 2009-2010 Within Range ^a	Cross Year 2010-2011 Within Range ^a
RX Providers								
Number of provider IDs	2,494	2,741	3,331	9.90	21.52	30% (+/-)	Yes	Yes
% billing provider on RX claim	1.2	0.4	0.4	-65.52	-2.68	N/A	N/A	N/A
% prescribing provider on RX claim	100.0	100.0	100.0	0.00	0.00	N/A	N/A	N/A
% NPI billing provider on RX claim	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
% also a provider on IP claim	1.1	0.8	0.5	-25.85	-36.44	N/A	N/A	N/A
% also a provider on LT claim	0.2	0.3	0.2	21.16	-28.03	N/A	N/A	N/A
% also a provider on OT claim	84.4	90.3	83.2	7.03	-7.81	N/A	N/A	N/A
% provider IDs with NPI	33.4	32.1	29.3	-3.88	-8.74	30% (+/-)	Yes	Yes
% provider IDs linked to NPPES	33.2	32.1	29.3	-3.41	-8.74	30% (+/-)	Yes	Yes
% provider IDs with or without NPI but linked to state provider file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
average number of RX claims	513.6	419.9	763.1	-18.25	81.75	30% (+/-)	Yes	No
average number of beneficiaries with RX claims	41.2	36.4	85.5	-11.69	134.86	30% (+/-)	Yes	No
Provider IDs with NPI								
Number of provider IDs with NPI	833	880	976	5.64	10.91	30% (+/-)	Yes	Yes
% NPI source = MSIS	63.0	64.7	64.0	2.59	-0.96	30% (+/-)	Yes	Yes
% NPI source = NPPES	37.0	35.3	36.0	-4.42	1.76	30% (+/-)	Yes	Yes
% NPI source = state cross-reference file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs Linked to NPPES								
Number of provider IDs linked to NPPES	829	880	976	6.15	10.91	30% (+/-)	Yes	Yes
% linked via NPI	62.8	64.7	64.0	2.88	-0.96	30% (+/-)	Yes	Yes
% linked via Medicaid legacy provider ID	37.0	35.3	35.9	-4.57	1.47	30% (+/-)	Yes	Yes
% linked via Medicare UPIN	0.1	0.0	0.1	-100.00	Div by 0	30% (+/-)	Yes	N/A
% with name prefix	38.6	31.6	32.7	-18.16	3.46	30% (+/-)	Yes	Yes
% with first name	76.7	59.1	63.7	-22.98	7.85	30% (+/-)	Yes	Yes
% with middle name	50.4	38.5	42.6	-23.60	10.64	30% (+/-)	Yes	Yes
% with last name	76.7	59.1	63.7	-22.98	7.85	30% (+/-)	Yes	Yes
% with name suffix	2.7	2.2	2.3	-18.65	4.40	30% (+/-)	Yes	Yes
% male	49.0	36.3	39.1	-25.98	7.97	30% (+/-)	Yes	Yes
% female	27.7	22.8	24.6	-17.67	7.66	30% (+/-)	Yes	Yes
% with credential	73.6	57.0	60.7	-22.48	6.33	30% (+/-)	Yes	Yes
% with business name	23.3	40.5	36.0	73.77	-11.10	30% (+/-)	No	Yes
% with address line 1	100.0	99.5	99.7	-0.45	0.15	30% (+/-)	Yes	Yes
% with city	100.0	99.5	99.7	-0.45	0.15	30% (+/-)	Yes	Yes
% with state	100.0	99.5	99.7	-0.45	0.15	30% (+/-)	Yes	Yes
% state = RX state code	68.5	64.1	62.9	-6.46	-1.84	30% (+/-)	Yes	Yes
% with zip code	100.0	99.5	99.7	-0.45	0.15	30% (+/-)	Yes	Yes
% with primary taxonomy	99.6	97.6	98.1	-2.03	0.45	30% (+/-)	Yes	Yes
% with provider entity type = individual	76.7	59.1	63.7	-22.98	7.85	30% (+/-)	Yes	Yes
% with provider entity type = organization	23.3	40.5	36.0	73.77	-11.10	30% (+/-)	No	Yes
Provider IDs with or without NPI but linked to state provider file								
Number of provider IDs with or without NPI linked to state provider file	0	0	0	Div by 0	Div by 0	N/A	N/A	N/A

Source: Medicaid Analytic eXtract (MAX) Provider Characteristics Files, 2009-2011.

a "Yes" signifies that either (1) the percent change between 2009 and 2010 is within the cross-year expected range or (2) both the 2009 and the 2010 values are less than 10. "No" signifies that both (1) the percent change between 2009 and 2010 is over or under the cross-year expected range and (2) either the 2009 or the 2010 value is greater than 10.

b "Yes" signifies that either (1) the percent change between 2010 and 2011 is within the cross-year expected range or (2) both the 2010 and the 2011 values are less than 10. "No" signifies that both (1) the percent change between 2010 and 2011 is over or under the cross-year expected range and (2) either the 2010 or the 2011 value is greater than 10.

2009-2011 MAX RX Prescribing Provider Characteristics Validation Table

State: DC

Produced: 05/20/2013

Measure	2009 Value	2010 Value	2011 Value	% Change 2009-2010	% Change 2010-2011	Cross Year Expected Range	Cross Year 2009-2010 Within Range ^a	Cross Year 2010-2011 Within Range ^a
Provider IDs with NPPES Primary Taxonomy								
Number of provider IDs with NPPES primary taxonomy	828	859	957	3.74	11.41	30% (+/-)	Yes	Yes
% individual or group of individuals	87.1	87.0	88.3	-0.13	1.53	30% (+/-)	Yes	Yes
% allopathic and osteopathic physicians	69.0	69.8	68.7	1.29	-1.71	30% (+/-)	Yes	Yes
% behavioral health and social service providers	0.2	0.1	0.2	-52.07	80.16	30% (+/-)	Yes	Yes
% chiropractic providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% dental providers	4.8	5.4	7.2	10.85	34.64	30% (+/-)	Yes	Yes
% dietary and nutritional service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% emergency medical service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% eye and vision service providers	0.2	0.6	0.5	140.50	-10.23	30% (+/-)	Yes	Yes
% nursing service providers	0.1	0.1	0.0	-4.13	-100.00	30% (+/-)	Yes	Yes
% nursing service-related providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% other service providers	1.7	3.5	4.2	106.51	19.69	30% (+/-)	Yes	Yes
% pharmacy service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% physician assistants and advanced practice nursing providers	4.8	4.3	4.4	-10.85	1.90	30% (+/-)	Yes	Yes
% podiatric medicine and surgery service providers	3.1	3.0	3.0	-3.60	0.11	30% (+/-)	Yes	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% speech, language, and hearing service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% student health care	0.0	0.1	0.1	Div by 0	-9.92	30% (+/-)	N/A	Yes
% technologists, technicians, and other technical service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% group of individuals with multi- or single specialty	3.0	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	N/A
% nonindividuals	12.9	13.0	11.7	0.89	-10.24	30% (+/-)	Yes	Yes
% agencies	0.7	0.7	0.6	-3.72	-10.18	30% (+/-)	Yes	Yes
% ambulatory health care facilities	3.5	3.6	3.7	3.06	1.34	30% (+/-)	Yes	Yes
% hospital units	0.4	0.3	0.3	-3.59	-10.18	30% (+/-)	Yes	Yes
% hospitals	3.3	5.7	5.2	74.92	-8.40	30% (+/-)	Yes	Yes
% laboratories	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% managed care organizations	0.0	0.6	0.2	Div by 0	-64.09	30% (+/-)	N/A	Yes
% nursing and custodial care facilities	0.2	0.6	0.3	140.50	-46.14	30% (+/-)	Yes	Yes
% residential treatment facilities	0.1	0.2	0.1	92.56	-55.15	30% (+/-)	Yes	Yes
% respite care facility	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% suppliers	4.6	1.2	1.1	-74.63	-1.25	30% (+/-)	Yes	Yes
% transportation services	0.1	0.1	0.1	-4.13	-9.92	30% (+/-)	Yes	Yes
% nonmedical	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs with Entity Type = Individual								
Number of provider IDs with entity type = individual	636	520	622	-18.24	19.62	30% (+/-)	Yes	Yes
% a sole proprietorship	30.3	32.9	33.6	8.37	2.18	30% (+/-)	Yes	Yes
% not a sole proprietorship	64.8	62.3	62.5	-3.82	0.37	30% (+/-)	Yes	Yes
% not answered	4.9	4.8	3.9	-1.35	-19.75	N/A	N/A	N/A
Provider IDs with Entity Type = Organization								
Number of provider IDs with entity type = organization	193	356	351	84.46	-1.40	30% (+/-)	No	Yes
% organization is a subpart	3.6	2.2	3.7	-38.05	64.83	30% (+/-)	Yes	Yes
% organization is not a subpart	86.0	87.9	87.2	2.22	-0.84	30% (+/-)	Yes	Yes
% not answered	10.4	9.8	9.1	-5.13	-7.26	N/A	N/A	N/A

Source: Medicaid Analytic eXtract (MAX) Provider Characteristics Files, 2009-2011.

a "Yes" signifies that either (1) the percent change between 2009 and 2010 is within the cross-year expected range or (2) both the 2009 and the 2010 values are less than 10. "No" signifies that both (1) the percent change between 2009 and 2010 is over or under the cross-year expected range and (2) either the 2009 or the 2010 value is greater than 10.

b "Yes" signifies that either (1) the percent change between 2010 and 2011 is within the cross-year expected range or (2) both the 2010 and the 2011 values are less than 10. "No" signifies that both (1) the percent change between 2010 and 2011 is over or under the cross-year expected range and (2) either the 2010 or the 2011 value is greater than 10.

2009-2011 MAX All Provider Characteristics Validation Table

State: DC

Produced: 05/20/2013

Measure	2009 Value	2010 Value	2011 Value	% Change 2009-2010	% Change 2010-2011	Cross Year Expected Range	Cross Year 2009-2010 Within Range ^a	Cross Year 2010-2011 Within Range ^a
All Providers								
Number of provider IDs	11,429	9,815	11,538	-14.12	17.55	30%(+/-)	Yes	Yes
% billing provider on IP claim	0.8	0.8	0.8	7.14	-8.60	N/A	N/A	N/A
% NPI billing provider on IP claim	0.9	0.8	0.7	-12.93	-9.61	N/A	N/A	N/A
% billing provider on LT claim	1.2	1.4	1.1	13.14	-19.96	N/A	N/A	N/A
% NPI billing provider on LT claim	0.9	1.0	0.8	18.90	-21.75	N/A	N/A	N/A
% billing provider on OT claim	29.4	42.8	39.6	45.37	-7.29	N/A	N/A	N/A
% servicing provider on OT claim	67.3	49.2	45.8	-26.90	-6.99	N/A	N/A	N/A
% NPI servicing provider on OT claim	23.2	40.8	37.6	76.07	-7.73	N/A	N/A	N/A
% billing provider on RX claim	1.9	2.4	2.4	27.44	2.65	N/A	N/A	N/A
% prescribing provider on RX claim	21.8	27.9	28.9	27.98	3.38	N/A	N/A	N/A
% NPI billing provider on RX claim	1.6	2.4	10.1	43.89	329.67	N/A	N/A	N/A
% billing provider	31.4	44.9	40.3	43.06	-10.24	N/A	N/A	N/A
% NPI billing provider	3.4	4.2	11.6	23.98	178.46	N/A	N/A	N/A
% servicing provider	67.3	49.2	45.8	-26.90	-6.99	N/A	N/A	N/A
% NPI servicing provider	23.2	40.8	37.6	76.07	-7.73	N/A	N/A	N/A
% prescribing provider	21.8	27.9	28.9	27.98	3.38	N/A	N/A	N/A
% provider IDs with NPI	55.6	69.5	70.1	24.92	0.88	30%(+/-)	Yes	Yes
% provider IDs linked to NPPES	53.8	69.4	70.1	29.06	1.00	30%(+/-)	Yes	Yes
% provider IDs with or without NPI but linked to state provider file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
average number of claims	1,310.5	2,110.0	2,266.5	61.01	7.42	30%(+/-)	No	Yes
average number of beneficiaries with claims	144.5	239.2	280.1	65.56	17.09	30%(+/-)	No	Yes
Provider IDs with NPI								
Number of provider IDs with NPI	6,360	6,823	8,091	7.28	18.58	30%(+/-)	Yes	Yes
% NPI source = MSIS	93.3	93.8	94.1	0.45	0.40	30%(+/-)	Yes	Yes
% NPI source = NPPES	6.7	6.2	5.9	-6.34	-5.98	30%(+/-)	Yes	Yes
% NPI source = state cross-reference file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs Linked to NPPES								
Number of provider IDs linked to NPPES	6,145	6,811	8,087	10.84	18.73	30%(+/-)	Yes	Yes
% linked via NPI	93.1	93.7	94.1	0.69	0.41	30%(+/-)	Yes	Yes
% linked via Medicaid legacy provider ID	6.9	6.2	5.8	-9.13	-6.27	30%(+/-)	Yes	Yes
% linked via Medicare UPIN	0.0	0.0	0.0	-54.55	64.87	30%(+/-)	Yes	Yes
% with name prefix	20.9	24.6	22.3	18.02	-9.55	30%(+/-)	Yes	Yes
% with first name	46.8	55.2	49.8	17.84	-9.68	30%(+/-)	Yes	Yes
% with middle name	30.5	35.5	32.3	16.23	-8.88	30%(+/-)	Yes	Yes
% with last name	46.8	55.2	49.8	17.84	-9.68	30%(+/-)	Yes	Yes
% with name suffix	1.2	1.5	1.3	23.44	-13.35	30%(+/-)	Yes	Yes
% male	28.3	32.9	29.5	16.45	-10.37	30%(+/-)	Yes	Yes
% female	18.6	22.3	20.3	19.95	-8.67	30%(+/-)	Yes	Yes
% with credential	43.9	51.3	46.3	16.96	-9.80	30%(+/-)	Yes	Yes
% with business name	53.2	44.3	49.8	-16.65	12.49	30%(+/-)	Yes	Yes
% with address line 1	100.0	99.5	99.7	-0.50	0.19	30%(+/-)	Yes	Yes
% with city	100.0	99.5	99.7	-0.50	0.19	30%(+/-)	Yes	Yes
% with state	100.0	99.5	99.7	-0.50	0.19	30%(+/-)	Yes	Yes
% state = claim file state code	51.0	55.0	48.5	7.69	-11.75	30%(+/-)	Yes	Yes
% with zip code	100.0	99.5	99.7	-0.50	0.19	30%(+/-)	Yes	Yes
% with primary taxonomy	99.3	97.5	97.8	-1.78	0.29	30%(+/-)	Yes	Yes

Source: Medicaid Analytic eXtract (MAX) Provider Characteristics Files, 2009-2011.

a "Yes" signifies that either (1) the percent change between 2009 and 2010 is within the cross-year expected range or (2) both the 2009 and the 2010 values are less than 10. "No" signifies that both (1) the percent change between 2009 and 2010 is over or under the cross-year expected range and (2) either the 2009 or the 2010 value is greater than 10.

b "Yes" signifies that either (1) the percent change between 2010 and 2011 is within the cross-year expected range or (2) both the 2010 and the 2011 values are less than 10. "No" signifies that both (1) the percent change between 2010 and 2011 is over or under the cross-year expected range and (2) either the 2010 or the 2011 value is greater than 10.

2009-2011 MAX All Provider Characteristics Validation Table

State: DC

Produced: 05/20/2013

Measure	2009 Value	2010 Value	2011 Value	% Change 2009-2010	% Change 2010-2011	Cross Year Expected Range	Cross Year 2009-2010 Within Range ^a	Cross Year 2010-2011 Within Range ^a
% with provider entity type = individual	46.8	55.2	49.8	17.84	-9.68	30%(+/-)	Yes	Yes
% with provider entity type = organization	53.2	44.3	49.8	-16.65	12.49	30%(+/-)	Yes	Yes
Provider IDs with or without NPI but linked to state provider file								
Number of provider IDs with or without NPI linked to state provider file	0	0	0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs with NPPES Primary Taxonomy								
Number of provider IDs with NPPES primary taxonomy	6,134	6,641	7,908	8.27	19.08	30%(+/-)	Yes	Yes
% individual or group of individuals	54.2	70.4	62.9	29.71	-10.54	30%(+/-)	Yes	Yes
% allopathic and osteopathic physicians	41.6	59.3	51.9	42.47	-12.40	30%(+/-)	No	Yes
% behavioral health and social service providers	0.4	0.4	0.4	-7.50	-6.79	30%(+/-)	Yes	Yes
% chiropractic providers	0.0	0.0	0.0	Div by 0	Div by 0	30%(+/-)	N/A	N/A
% dental providers	3.5	3.0	3.3	-14.95	10.29	30%(+/-)	Yes	Yes
% dietary and nutritional service providers	0.0	0.0	0.1	-100.00	Div by 0	30%(+/-)	Yes	N/A
% emergency medical service providers	0.0	0.0	0.0	Div by 0	152.91	30%(+/-)	N/A	Yes
% eye and vision service providers	0.4	0.4	0.4	-0.25	-13.00	30%(+/-)	Yes	Yes
% nursing service providers	0.2	0.1	0.1	-30.61	2.28	30%(+/-)	Yes	Yes
% nursing service-related providers	0.0	0.0	0.0	Div by 0	Div by 0	30%(+/-)	N/A	N/A
% other service providers	1.0	2.5	2.3	144.01	-11.06	30%(+/-)	Yes	Yes
% pharmacy service providers	0.0	0.1	0.1	53.06	18.02	30%(+/-)	Yes	Yes
% physician assistants and advanced practice nursing providers	3.0	2.5	2.4	-17.67	-1.70	30%(+/-)	Yes	Yes
% podiatric medicine and surgery service providers	1.2	1.4	1.2	23.68	-17.82	30%(+/-)	Yes	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	0.0	0.0	0.0	-100.00	Div by 0	30%(+/-)	Yes	N/A
% speech, language, and hearing service providers	0.1	0.2	0.3	45.61	67.59	30%(+/-)	Yes	Yes
% student health care	0.1	0.4	0.4	270.18	4.88	30%(+/-)	Yes	Yes
% technologists, technicians, and other technical service providers	0.0	0.0	0.0	Div by 0	Div by 0	30%(+/-)	N/A	N/A
% group of individuals with multi- or single specialty	2.5	0.0	0.0	-100.00	Div by 0	30%(+/-)	Yes	N/A
% nonindividuals	45.8	29.6	37.1	-35.21	25.01	30%(+/-)	No	Yes
% agencies	2.6	2.8	2.6	7.57	-5.08	30%(+/-)	Yes	Yes
% ambulatory health care facilities	5.7	4.1	3.4	-27.27	-18.17	30%(+/-)	Yes	Yes
% hospital units	0.1	0.2	0.1	32.46	-7.88	30%(+/-)	Yes	Yes
% hospitals	20.3	5.6	4.8	-72.62	-13.06	30%(+/-)	No	Yes
% laboratories	2.1	1.2	1.0	-41.27	-16.04	30%(+/-)	Yes	Yes
% managed care organizations	0.0	0.2	0.1	Div by 0	-52.06	30%(+/-)	N/A	Yes
% nursing and custodial care facilities	3.3	2.3	1.8	-31.63	-21.04	30%(+/-)	Yes	Yes
% residential treatment facilities	1.4	2.2	1.9	61.90	-15.47	30%(+/-)	Yes	Yes
% respite care facility	0.0	0.0	0.1	-100.00	Div by 0	30%(+/-)	Yes	N/A
% suppliers	9.9	10.8	20.9	8.79	94.27	30%(+/-)	Yes	No
% transportation services	0.3	0.3	0.3	-7.67	-15.98	30%(+/-)	Yes	Yes
% nonmedical	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs with Entity Type = Individual								
Number of provider IDs with entity type = individual	2,878	3,759	4,031	30.61	7.24	30%(+/-)	No	Yes
% a sole proprietorship	21.6	26.3	26.2	21.67	-0.63	30%(+/-)	Yes	Yes
% not a sole proprietorship	71.9	67.3	67.5	-6.33	0.22	30%(+/-)	Yes	Yes
% not answered	6.5	6.4	6.4	-2.15	0.28	N/A	N/A	N/A
Provider IDs with Entity Type = Organization								
Number of provider IDs with entity type = organization	3,267	3,018	4,031	-7.62	33.57	30%(+/-)	Yes	No
% organization is a subpart	4.1	6.3	8.5	53.17	34.84	30%(+/-)	Yes	Yes
% organization is not a subpart	84.8	80.0	81.0	-5.67	1.30	30%(+/-)	Yes	Yes
% not answered	11.1	13.7	10.5	23.46	-23.69	N/A	N/A	N/A

Source: Medicaid Analytic eXtract (MAX) Provider Characteristics Files, 2009-2011.

^a "Yes" signifies that either (1) the percent change between 2009 and 2010 is within the cross-year expected range or (2) both the 2009 and the 2010 values are less than 10. "No" signifies that both (1) the percent change between 2009 and 2010 is over or under the cross-year expected range and (2) either the 2009 or the 2010 value is greater than 10.

^b "Yes" signifies that either (1) the percent change between 2010 and 2011 is within the cross-year expected range or (2) both the 2010 and the 2011 values are less than 10. "No" signifies that both (1) the percent change between 2010 and 2011 is over or under the cross-year expected range and (2) either the 2010 or the 2011 value is greater than 10.

This page has been left blank for double-sided copying.

MATHEMATICA Policy Research

www.mathematica-mpr.com

Improving public well-being by conducting high quality, objective research and surveys

Princeton, NJ ■ Ann Arbor, MI ■ Cambridge, MA ■ Chicago, IL ■ Oakland, CA ■ Washington, DC

Mathematica® is a registered trademark of Mathematica Policy Research