

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

**State-Specific Validation Tables,
2010**

Massachusetts

May 31, 2013

Deo Bencio
Mei-ling Mason

MATHEMATICA
Policy Research

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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

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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

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

percentage change between year two and year three, if applicable, followed by the expected 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 2010 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.

2009-2010 MAX IP Billing Provider Characteristics Validation Table

State: MA

Produced: 04/18/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range ^a
IP Providers					
Number of provider IDs	537	619	15.27	30% (+/-)	Yes
% billing provider on IP claim	57.2	50.1	-12.40	N/A	N/A
% NPI billing provider on IP claim	42.8	49.9	16.55	N/A	N/A
% also a provider on LT claim	0.2	0.2	-12.90	N/A	N/A
% also a provider on OT claim	65.7	72.2	9.85	N/A	N/A
% also a provider on RX claim	17.5	11.5	-34.48	N/A	N/A
% provider IDs with NPI	89.8	99.8	11.23	30% (+/-)	Yes
% provider IDs linked to NPPES	89.8	99.8	11.23	30% (+/-)	Yes
% provider IDs with or without NPI but linked to state provider file	0.0	0.0	Div by 0	N/A	N/A
average number of IP claims	592.6	522.0	-11.91	30% (+/-)	Yes
average number of beneficiaries with IP claims	460.8	365.8	-20.62	30% (+/-)	Yes
Provider IDs with NPI					
Number of provider IDs with NPI	482	618	28.22	30% (+/-)	Yes
% NPI source = MSIS	95.0	100.0	5.24	30% (+/-)	Yes
% NPI source = NPPES	5.0	0.0	-100.00	30% (+/-)	Yes
% NPI source = state cross-reference file	0.0	0.0	Div by 0	N/A	N/A
Provider IDs Linked to NPPES					
Number of provider IDs linked to NPPES	482	618	28.22	30% (+/-)	Yes
% linked via NPI	95.0	100.0	5.24	30% (+/-)	Yes
% linked via Medicaid legacy provider ID	5.0	0.0	-100.00	30% (+/-)	Yes
% linked via Medicare UPIN	0.0	0.0	Div by 0	30% (+/-)	N/A
% with name prefix	0.0	0.0	Div by 0	30% (+/-)	N/A
% with first name	0.0	0.0	Div by 0	30% (+/-)	N/A
% with middle name	0.0	0.0	Div by 0	30% (+/-)	N/A
% with last name	0.0	0.0	Div by 0	30% (+/-)	N/A
% with name suffix	0.0	0.0	Div by 0	30% (+/-)	N/A
% male	0.0	0.0	Div by 0	30% (+/-)	N/A
% female	0.0	0.0	Div by 0	30% (+/-)	N/A
% with credential	0.0	0.0	Div by 0	30% (+/-)	N/A
% with business name	100.0	99.7	-0.32	30% (+/-)	Yes
% with address line 1	100.0	99.7	-0.32	30% (+/-)	Yes
% with city	100.0	99.7	-0.32	30% (+/-)	Yes
% with state	100.0	99.7	-0.32	30% (+/-)	Yes
% state = IP state code	51.5	40.3	-21.69	30% (+/-)	Yes
% with zip code	100.0	99.7	-0.32	30% (+/-)	Yes
% with primary taxonomy	100.0	99.4	-0.65	30% (+/-)	Yes
% with provider entity type = individual	0.0	0.0	Div by 0	30% (+/-)	N/A
% with provider entity type = organization	100.0	99.7	-0.32	30% (+/-)	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	Div by 0	N/A	N/A
Provider IDs with NPPES Primary Taxonomy					
Number of provider IDs with NPPES primary taxonomy	482	614	27.39	30% (+/-)	Yes
% individual or group of individuals	0.0	0.0	Div by 0	30% (+/-)	N/A
% allopathic and osteopathic physicians	0.0	0.0	Div by 0	30% (+/-)	N/A
% behavioral health and social service providers	0.0	0.0	Div by 0	30% (+/-)	N/A

Source: Medicaid Analytic eExtract (MAX) Provider Characteristics Files, 2009-2010.

^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.

2009-2010 MAX IP Billing Provider Characteristics Validation Table

State: MA

Produced: 04/18/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range ^a
% chiropractic providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% dental providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% dietary and nutritional service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% emergency medical service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% eye and vision service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% nursing service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% nursing service-related providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% other service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% pharmacy service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% physician assistants and advanced practice nursing providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% podiatric medicine and surgery service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% respiratory, developmental, rehabilitative, and restorative service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% speech, language, and hearing service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% student health care	0.0	0.0	Div by 0	30% (+/-)	N/A
% technologists, technicians, and other technical service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% group of individuals with multi- or single specialty	0.0	0.0	Div by 0	30% (+/-)	N/A
% nonindividuals	100.0	100.0	0.00	30% (+/-)	Yes
% agencies	0.0	0.0	Div by 0	30% (+/-)	N/A
% ambulatory health care facilities	5.8	0.7	-88.79	30% (+/-)	Yes
% hospital units	0.6	15.3	2,361.25	30% (+/-)	No
% hospitals	93.6	83.7	-10.53	30% (+/-)	Yes
% laboratories	0.0	0.0	Div by 0	30% (+/-)	N/A
% managed care organizations	0.0	0.0	Div by 0	30% (+/-)	N/A
% nursing and custodial care facilities	0.0	0.0	Div by 0	30% (+/-)	N/A
% residential treatment facilities	0.0	0.0	Div by 0	30% (+/-)	N/A
% respite care facility	0.0	0.0	Div by 0	30% (+/-)	N/A
% suppliers	0.0	0.0	Div by 0	30% (+/-)	N/A
% transportation services	0.0	0.3	Div by 0	30% (+/-)	N/A
% nonmedical	0.0	0.0	Div by 0	N/A	N/A
Provider IDs with Entity Type = Individual					
Number of provider IDs with entity type = individual	0	0	Div by 0	30% (+/-)	N/A
% a sole proprietorship	0.0	0.0	Div by 0	30% (+/-)	N/A
% not a sole proprietorship	0.0	0.0	Div by 0	30% (+/-)	N/A
% not answered	0.0	0.0	Div by 0	N/A	N/A
Provider IDs with Entity Type = Organization					
Number of provider IDs with entity type = organization	482	616	27.80	30% (+/-)	Yes
% organization is a subpart	11.4	15.4	35.15	30% (+/-)	No
% organization is not a subpart	74.1	74.2	0.16	30% (+/-)	Yes
% not answered	14.5	10.4	-28.46	N/A	N/A

Source: Medicaid Analytic eXtract (MAX) Provider Characteristics Files, 2009-2010.

^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.

2009-2010 MAX LT Billing Provider Characteristics Validation Table
 State: MA
 Produced: 04/18/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range ^a
LT Providers					
Number of provider IDs	1,481	1,040	-29.78	30% (+/-)	Yes
% billing provider on LT claim	66.6	50.5	-24.25	N/A	N/A
% NPI billing provider on LT claim	33.4	49.5	48.46	N/A	N/A
% also a provider on IP claim	0.1	0.1	41.18	N/A	N/A
% also a provider on OT claim	59.9	88.7	48.02	N/A	N/A
% also a provider on RX claim	1.6	1.5	-5.12	N/A	N/A
% provider IDs with NPI	94.9	100.0	5.33	30% (+/-)	Yes
% provider IDs linked to NPPES	94.9	100.0	5.33	30% (+/-)	Yes
% provider IDs with or without NPI but linked to state provider file	0.0	0.0	Div by 0	N/A	N/A
average number of LT claims	589.6	832.8	41.23	30% (+/-)	No
average number of beneficiaries with LT claims	142.0	113.3	-20.19	30% (+/-)	Yes
Provider IDs with NPI					
Number of provider IDs with NPI	1,406	1,040	-26.03	30% (+/-)	Yes
% NPI source = MSIS	71.0	100.0	40.88	30% (+/-)	No
% NPI source = NPPES	29.0	0.0	-100.00	30% (+/-)	No
% NPI source = state cross-reference file	0.0	0.0	Div by 0	N/A	N/A
Provider IDs Linked to NPPES					
Number of provider IDs linked to NPPES	1,406	1,040	-26.03	30% (+/-)	Yes
% linked via NPI	71.0	100.0	40.88	30% (+/-)	No
% linked via Medicaid legacy provider ID	28.9	0.0	-100.00	30% (+/-)	No
% linked via Medicare UPIN	0.1	0.0	-100.00	30% (+/-)	Yes
% with name prefix	0.1	0.0	-100.00	30% (+/-)	Yes
% with first name	0.1	0.0	-100.00	30% (+/-)	Yes
% with middle name	0.0	0.0	Div by 0	30% (+/-)	N/A
% with last name	0.1	0.0	-100.00	30% (+/-)	Yes
% with name suffix	0.0	0.0	Div by 0	30% (+/-)	N/A
% male	0.0	0.0	Div by 0	30% (+/-)	N/A
% female	0.1	0.0	-100.00	30% (+/-)	Yes
% with credential	0.1	0.0	-100.00	30% (+/-)	Yes
% with business name	99.9	100.0	0.07	30% (+/-)	Yes
% with address line 1	100.0	100.0	0.00	30% (+/-)	Yes
% with city	100.0	100.0	0.00	30% (+/-)	Yes
% with state	100.0	100.0	0.00	30% (+/-)	Yes
% state = LT state code	98.2	93.7	-4.58	30% (+/-)	Yes
% with zip code	100.0	100.0	0.00	30% (+/-)	Yes
% with primary taxonomy	99.8	99.2	-0.56	30% (+/-)	Yes
% with provider entity type = individual	0.1	0.0	-100.00	30% (+/-)	Yes
% with provider entity type = organization	99.9	100.0	0.07	30% (+/-)	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	Div by 0	N/A	N/A
Provider IDs with NPPES Primary Taxonomy					
Number of provider IDs with NPPES primary taxonomy	1,403	1,032	-26.44	30% (+/-)	Yes
% individual or group of individuals	0.1	0.0	-100.00	30% (+/-)	Yes
% allopathic and osteopathic physicians	0.1	0.0	-100.00	30% (+/-)	Yes
% behavioral health and social service providers	0.0	0.0	Div by 0	30% (+/-)	N/A

Source: Medicaid Analytic eExtract (MAX) Provider Characteristics Files, 2009-2010.

^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.

2009-2010 MAX LT Billing Provider Characteristics Validation Table

State: MA

Produced: 04/18/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range ^a
% chiropractic providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% dental providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% dietary and nutritional service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% emergency medical service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% eye and vision service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% nursing service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% nursing service-related providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% other service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% pharmacy service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% physician assistants and advanced practice nursing providers	0.1	0.0	-100.00	30% (+/-)	Yes
% podiatric medicine and surgery service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% respiratory, developmental, rehabilitative, and restorative service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% speech, language, and hearing service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% student health care	0.0	0.0	Div by 0	30% (+/-)	N/A
% technologists, technicians, and other technical service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% group of individuals with multi- or single specialty	0.0	0.0	Div by 0	30% (+/-)	N/A
% nonindividuals	99.9	100.0	0.14	30% (+/-)	Yes
% agencies	0.1	0.2	173.24	30% (+/-)	Yes
% ambulatory health care facilities	0.3	0.2	-31.93	30% (+/-)	Yes
% hospital units	0.1	0.8	991.55	30% (+/-)	Yes
% hospitals	8.3	12.7	52.22	30% (+/-)	No
% laboratories	0.0	0.2	Div by 0	30% (+/-)	N/A
% managed care organizations	0.0	0.0	Div by 0	30% (+/-)	N/A
% nursing and custodial care facilities	89.6	84.6	-5.58	30% (+/-)	Yes
% residential treatment facilities	1.5	1.4	-9.35	30% (+/-)	Yes
% respite care facility	0.0	0.0	Div by 0	30% (+/-)	N/A
% suppliers	0.0	0.0	Div by 0	30% (+/-)	N/A
% transportation services	0.0	0.0	Div by 0	30% (+/-)	N/A
% nonmedical	0.0	0.0	Div by 0	N/A	N/A
Provider IDs with Entity Type = Individual					
Number of provider IDs with entity type = individual	1	0	-100.00	30% (+/-)	Yes
% a sole proprietorship	0.0	0.0	Div by 0	30% (+/-)	N/A
% not a sole proprietorship	100.0	0.0	-100.00	30% (+/-)	No
% not answered	0.0	0.0	Div by 0	N/A	N/A
Provider IDs with Entity Type = Organization					
Number of provider IDs with entity type = organization	1,405	1,040	-25.98	30% (+/-)	Yes
% organization is a subpart	3.7	7.3	97.46	30% (+/-)	Yes
% organization is not a subpart	55.1	64.3	16.77	30% (+/-)	Yes
% not answered	41.2	28.4	-31.17	N/A	N/A

Source: Medicaid Analytic eXtract (MAX) Provider Characteristics Files, 2009-2010.

^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.

2009-2010 MAX OT Servicing Provider Characteristics Validation Table

State: MA

Produced: 04/18/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range ^a
OT Providers					
Number of provider IDs	84,143	62,596	-25.61	30% (+/-)	Yes
% billing provider on OT claim	9.5	1.4	-85.23	N/A	N/A
% servicing provider on OT claim	64.4	49.5	-23.19	N/A	N/A
% NPI servicing provider on OT claim	35.6	50.5	41.99	N/A	N/A
% also a provider on IP claim	0.3	0.5	64.53	N/A	N/A
% also a provider on LT claim	0.5	0.8	41.76	N/A	N/A
% also a provider on RX claim	2.8	2.2	-21.69	N/A	N/A
% provider IDs with NPI	86.0	99.1	15.33	30% (+/-)	Yes
% provider IDs linked to NPPES	85.8	99.1	15.53	30% (+/-)	Yes
% provider IDs with or without NPI but linked to state provider file	0.0	0.0	Div by 0	N/A	N/A
average number of OT claims	1,330.5	1,890.1	42.06	30% (+/-)	No
average number of beneficiaries with OT claims	211.4	232.5	10.02	30% (+/-)	Yes
Provider IDs with NPI					
Number of provider IDs with NPI	72,331	62,058	-14.20	30% (+/-)	Yes
% NPI source = MSIS	81.9	100.0	22.03	30% (+/-)	Yes
% NPI source = NPPES	18.1	0.0	-99.97	30% (+/-)	No
% NPI source = state cross-reference file	0.0	0.0	Div by 0	N/A	N/A
Provider IDs Linked to NPPES					
Number of provider IDs linked to NPPES	72,178	62,034	-14.05	30% (+/-)	Yes
% linked via NPI	81.9	100.0	22.09	30% (+/-)	Yes
% linked via Medicaid legacy provider ID	18.1	0.0	-99.97	30% (+/-)	No
% linked via Medicare UPIN	0.0	0.0	-100.00	30% (+/-)	Yes
% with name prefix	38.3	39.9	4.40	30% (+/-)	Yes
% with first name	86.6	88.8	2.55	30% (+/-)	Yes
% with middle name	63.7	64.6	1.54	30% (+/-)	Yes
% with last name	86.6	88.8	2.55	30% (+/-)	Yes
% with name suffix	1.8	1.8	-3.11	30% (+/-)	Yes
% male	52.1	51.6	-0.95	30% (+/-)	Yes
% female	34.5	37.2	7.81	30% (+/-)	Yes
% with credential	85.1	87.0	2.31	30% (+/-)	Yes
% with business name	13.4	10.9	-18.79	30% (+/-)	Yes
% with address line 1	100.0	99.7	-0.31	30% (+/-)	Yes
% with city	100.0	99.7	-0.31	30% (+/-)	Yes
% with state	100.0	99.7	-0.31	30% (+/-)	Yes
% state = OT state code	91.3	88.7	-2.85	30% (+/-)	Yes
% with zip code	100.0	99.7	-0.31	30% (+/-)	Yes
% with primary taxonomy	99.6	97.0	-2.60	30% (+/-)	Yes
% with provider entity type = individual	86.6	88.8	2.55	30% (+/-)	Yes
% with provider entity type = organization	13.4	10.9	-18.79	30% (+/-)	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	Div by 0	N/A	N/A
Provider IDs with NPPES Primary Taxonomy					
Number of provider IDs with NPPES primary taxonomy	72,070	60,202	-16.47	30% (+/-)	Yes
% individual or group of individuals	91.2	91.8	0.63	30% (+/-)	Yes
% allopathic and osteopathic physicians	67.3	67.5	0.22	30% (+/-)	Yes

Source: Medicaid Analytic eExtract (MAX) Provider Characteristics Files, 2009-2010.

^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.

2009-2010 MAX OT Servicing Provider Characteristics Validation Table

State: MA

Produced: 04/18/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range ^a
% behavioral health and social service providers	3.0	2.9	-1.34	30% (+/-)	Yes
% chiropractic providers	1.3	1.6	21.18	30% (+/-)	Yes
% dental providers	4.6	5.3	16.42	30% (+/-)	Yes
% dietary and nutritional service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% emergency medical service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% eye and vision service providers	2.6	2.5	-4.16	30% (+/-)	Yes
% nursing service providers	0.8	0.9	20.34	30% (+/-)	Yes
% nursing service-related providers	0.1	0.0	-45.90	30% (+/-)	Yes
% other service providers	0.1	1.7	1,291.80	30% (+/-)	Yes
% pharmacy service providers	0.0	0.0	-100.00	30% (+/-)	Yes
% physician assistants and advanced practice nursing providers	4.6	5.2	13.90	30% (+/-)	Yes
% podiatric medicine and surgery service providers	1.0	1.1	6.72	30% (+/-)	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	1.8	2.1	20.74	30% (+/-)	Yes
% speech, language, and hearing service providers	0.4	0.5	20.58	30% (+/-)	Yes
% student health care	0.0	0.3	Div by 0	30% (+/-)	N/A
% technologists, technicians, and other technical service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% group of individuals with multi- or single specialty	3.7	0.0	-100.00	30% (+/-)	Yes
% nonindividuals	8.8	8.2	-6.54	30% (+/-)	Yes
% agencies	2.0	2.0	-1.61	30% (+/-)	Yes
% ambulatory health care facilities	2.1	1.2	-41.95	30% (+/-)	Yes
% hospital units	0.0	0.1	1,675.00	30% (+/-)	Yes
% hospitals	0.6	1.7	176.77	30% (+/-)	Yes
% laboratories	0.2	0.2	-4.55	30% (+/-)	Yes
% managed care organizations	0.0	0.0	200.00	30% (+/-)	Yes
% nursing and custodial care facilities	1.5	1.5	2.88	30% (+/-)	Yes
% residential treatment facilities	0.0	0.0	Div by 0	30% (+/-)	N/A
% respite care facility	0.0	0.0	466.67	30% (+/-)	Yes
% suppliers	1.4	0.7	-51.12	30% (+/-)	Yes
% transportation services	1.0	0.8	-21.92	30% (+/-)	Yes
% nonmedical	0.0	0.0	Div by 0	N/A	N/A
Provider IDs with Entity Type = Individual					
Number of provider IDs with entity type = individual	62,512	55,094	-11.87	30% (+/-)	Yes
% a sole proprietorship	15.3	16.7	8.87	30% (+/-)	Yes
% not a sole proprietorship	66.1	72.1	9.03	30% (+/-)	Yes
% not answered	18.6	11.3	-39.39	N/A	N/A
Provider IDs with Entity Type = Organization					
Number of provider IDs with entity type = organization	9,666	6,746	-30.21	30% (+/-)	No
% organization is a subpart	5.8	6.4	11.60	30% (+/-)	Yes
% organization is not a subpart	58.2	63.1	8.57	30% (+/-)	Yes
% not answered	36.1	30.4	-15.65	N/A	N/A

Source: Medicaid Analytic eXtract (MAX) Provider Characteristics Files, 2009-2010.

^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.

2009-2010 MAX OT Billing Provider Characteristics Validation Table

State: MA

Produced: 04/18/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range ^a
OT Providers					
Number of provider IDs	20,643	11,543	-44.08	30% (+/-)	No
% billing provider on OT claim	100.0	100.0	0.00	N/A	N/A
% servicing provider on OT claim	38.8	7.6	-80.34	N/A	N/A
% NPI servicing provider on OT claim	0.0	0.0	Div by 0	N/A	N/A
% also a provider on IP claim	0.7	1.5	97.69	N/A	N/A
% also a provider on LT claim	2.1	4.0	84.93	N/A	N/A
% also a provider on RX claim	22.1	27.4	24.02	N/A	N/A
% provider IDs with NPI	31.7	14.7	-53.67	30% (+/-)	No
% provider IDs linked to NPPES	31.7	14.7	-53.67	30% (+/-)	No
% provider IDs with or without NPI but linked to state provider file	0.0	0.0	Div by 0	N/A	N/A
average number of OT claims	3,211.8	6,036.0	87.93	30% (+/-)	No
average number of beneficiaries with OT claims	484.9	564.2	16.35	30% (+/-)	Yes
Provider IDs with NPI					
Number of provider IDs with NPI	6,542	1,695	-74.09	30% (+/-)	No
% NPI source = MSIS	23.7	87.4	268.31	30% (+/-)	No
% NPI source = NPPES	76.3	12.6	-83.52	30% (+/-)	No
% NPI source = state cross-reference file	0.0	0.0	Div by 0	N/A	N/A
Provider IDs Linked to NPPES					
Number of provider IDs linked to NPPES	6,542	1,695	-74.09	30% (+/-)	No
% linked via NPI	23.7	87.4	268.31	30% (+/-)	No
% linked via Medicaid legacy provider ID	76.1	12.6	-83.48	30% (+/-)	No
% linked via Medicare UPIN	0.2	0.0	-100.00	30% (+/-)	Yes
% with name prefix	17.0	2.2	-87.16	30% (+/-)	No
% with first name	29.4	4.0	-86.34	30% (+/-)	No
% with middle name	22.7	3.1	-86.49	30% (+/-)	No
% with last name	29.4	4.0	-86.34	30% (+/-)	No
% with name suffix	1.0	0.2	-82.71	30% (+/-)	Yes
% male	21.2	2.7	-87.45	30% (+/-)	No
% female	8.2	1.4	-83.50	30% (+/-)	Yes
% with credential	28.8	3.8	-86.90	30% (+/-)	No
% with business name	70.6	95.9	35.84	30% (+/-)	No
% with address line 1	100.0	99.9	-0.06	30% (+/-)	Yes
% with city	100.0	99.9	-0.06	30% (+/-)	Yes
% with state	100.0	99.9	-0.06	30% (+/-)	Yes
% state = OT state code	96.4	89.0	-7.67	30% (+/-)	Yes
% with zip code	100.0	99.9	-0.06	30% (+/-)	Yes
% with primary taxonomy	98.4	97.6	-0.78	30% (+/-)	Yes
% with provider entity type = individual	29.4	4.0	-86.34	30% (+/-)	No
% with provider entity type = organization	70.6	95.9	35.84	30% (+/-)	No
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	Div by 0	N/A	N/A
Provider IDs with NPPES Primary Taxonomy					
Number of provider IDs with NPPES primary taxonomy	6,438	1,655	-74.29	30% (+/-)	No
% individual or group of individuals	61.7	48.9	-20.71	30% (+/-)	Yes
% allopathic and osteopathic physicians	23.4	34.4	47.33	30% (+/-)	No

Source: Medicaid Analytic eExtract (MAX) Provider Characteristics Files, 2009-2010.

^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.

2009-2010 MAX OT Billing Provider Characteristics Validation Table

State: MA

Produced: 04/18/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range ^a
% behavioral health and social service providers	3.9	1.1	-71.87	30% (+/-)	Yes
% chiropractic providers	1.5	1.1	-27.03	30% (+/-)	Yes
% dental providers	3.9	1.1	-72.10	30% (+/-)	Yes
% dietary and nutritional service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% emergency medical service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% eye and vision service providers	4.2	1.9	-54.39	30% (+/-)	Yes
% nursing service providers	0.6	0.0	-100.00	30% (+/-)	Yes
% nursing service-related providers	0.3	0.0	-100.00	30% (+/-)	Yes
% other service providers	1.3	3.5	171.92	30% (+/-)	Yes
% pharmacy service providers	0.0	0.0	-100.00	30% (+/-)	Yes
% physician assistants and advanced practice nursing providers	0.5	0.4	-6.00	30% (+/-)	Yes
% podiatric medicine and surgery service providers	1.5	2.8	88.28	30% (+/-)	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	0.6	2.4	279.43	30% (+/-)	Yes
% speech, language, and hearing service providers	0.5	0.1	-87.93	30% (+/-)	Yes
% student health care	0.0	0.0	Div by 0	30% (+/-)	N/A
% technologists, technicians, and other technical service providers	0.0	0.1	275.00	30% (+/-)	Yes
% group of individuals with multi- or single specialty	19.5	0.0	-100.00	30% (+/-)	No
% nonindividuals	38.4	51.1	33.29	30% (+/-)	No
% agencies	5.9	2.2	-62.32	30% (+/-)	Yes
% ambulatory health care facilities	6.5	7.5	15.39	30% (+/-)	Yes
% hospital units	0.0	1.9	Div by 0	30% (+/-)	N/A
% hospitals	3.4	12.7	271.37	30% (+/-)	No
% laboratories	0.5	0.3	-42.80	30% (+/-)	Yes
% managed care organizations	0.1	0.1	95.16	30% (+/-)	Yes
% nursing and custodial care facilities	7.7	24.2	213.25	30% (+/-)	No
% residential treatment facilities	0.1	0.4	290.32	30% (+/-)	Yes
% respite care facility	0.0	0.0	-100.00	30% (+/-)	Yes
% suppliers	10.2	1.2	-88.13	30% (+/-)	No
% transportation services	3.9	0.5	-85.94	30% (+/-)	Yes
% nonmedical	0.0	0.0	Div by 0	N/A	N/A
Provider IDs with Entity Type = Individual					
Number of provider IDs with entity type = individual	1,922	68	-96.46	30% (+/-)	No
% a sole proprietorship	49.6	50.0	0.84	30% (+/-)	Yes
% not a sole proprietorship	37.5	44.1	17.61	30% (+/-)	Yes
% not answered	12.9	5.9	-54.41	N/A	N/A
Provider IDs with Entity Type = Organization					
Number of provider IDs with entity type = organization	4,620	1,626	-64.81	30% (+/-)	No
% organization is a subpart	6.3	7.6	19.28	30% (+/-)	Yes
% organization is not a subpart	60.1	71.7	19.30	30% (+/-)	Yes
% not answered	33.6	20.7	-38.22	N/A	N/A

Source: Medicaid Analytic eXtract (MAX) Provider Characteristics Files, 2009-2010.

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2009-2010 MAX RX Billing Provider Characteristics Validation Table

State: MA

Produced: 04/18/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range ^a
RX Providers					
Number of provider IDs	3,677	2,534	-31.09	30% (+/-)	No
% billing provider on RX claim	66.6	50.2	-24.66	N/A	N/A
% prescribing provider on RX claim	28.2	0.6	-97.90	N/A	N/A
% NPI billing provider on RX claim	33.4	49.8	49.12	N/A	N/A
% also a provider on IP claim	0.2	0.2	20.86	N/A	N/A
% also a provider on LT claim	0.0	0.0	Div by 0	N/A	N/A
% also a provider on OT claim	25.4	1.5	-94.09	N/A	N/A
% provider IDs with NPI	87.8	100.0	13.87	30% (+/-)	Yes
% provider IDs linked to NPPES	87.4	100.0	14.36	30% (+/-)	Yes
% provider IDs with or without NPI but linked to state provider file	0.0	0.0	Div by 0	N/A	N/A
average number of RX claims	4,744.5	8,196.1	72.75	30% (+/-)	No
average number of beneficiaries with RX claims	674.1	678.4	0.64	30% (+/-)	Yes
Provider IDs with NPI					
Number of provider IDs with NPI	3,228	2,533	-21.53	30% (+/-)	Yes
% NPI source = MSIS	76.5	100.0	30.79	30% (+/-)	No
% NPI source = NPPES	23.5	0.0	-100.00	30% (+/-)	No
% NPI source = state cross-reference file	0.0	0.0	Div by 0	N/A	N/A
Provider IDs Linked to NPPES					
Number of provider IDs linked to NPPES	3,214	2,533	-21.19	30% (+/-)	Yes
% linked via NPI	76.4	100.0	30.97	30% (+/-)	No
% linked via Medicaid legacy provider ID	23.6	0.0	-100.00	30% (+/-)	No
% linked via Medicare UPIN	0.0	0.0	-100.00	30% (+/-)	Yes
% with name prefix	0.0	0.0	Div by 0	30% (+/-)	N/A
% with first name	0.0	0.0	-100.00	30% (+/-)	Yes
% with middle name	0.0	0.0	-100.00	30% (+/-)	Yes
% with last name	0.0	0.0	-100.00	30% (+/-)	Yes
% with name suffix	0.0	0.0	Div by 0	30% (+/-)	N/A
% male	0.0	0.0	Div by 0	30% (+/-)	N/A
% female	0.0	0.0	-100.00	30% (+/-)	Yes
% with credential	0.0	0.0	-100.00	30% (+/-)	Yes
% with business name	100.0	99.0	-1.00	30% (+/-)	Yes
% with address line 1	100.0	99.0	-1.03	30% (+/-)	Yes
% with city	100.0	99.0	-1.03	30% (+/-)	Yes
% with state	100.0	99.0	-1.03	30% (+/-)	Yes
% state = RX state code	96.5	95.0	-1.51	30% (+/-)	Yes
% with zip code	100.0	99.0	-1.03	30% (+/-)	Yes
% with primary taxonomy	99.3	97.8	-1.57	30% (+/-)	Yes
% with provider entity type = individual	0.0	0.0	-100.00	30% (+/-)	Yes
% with provider entity type = organization	100.0	99.0	-1.00	30% (+/-)	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	Div by 0	N/A	N/A
Provider IDs with NPPES Primary Taxonomy					
Number of provider IDs with NPPES primary taxonomy	3,207	2,477	-22.76	30% (+/-)	Yes
% individual or group of individuals	0.3	0.6	64.72	30% (+/-)	Yes
% allopathic and osteopathic physicians	0.0	0.1	161.29	30% (+/-)	Yes

Source: Medicaid Analytic eExtract (MAX) Provider Characteristics Files, 2009-2010.

^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.

2009-2010 MAX RX Billing Provider Characteristics Validation Table

State: MA

Produced: 04/18/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range ^a
% behavioral health and social service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% chiropractic providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% dental providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% dietary and nutritional service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% emergency medical service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% eye and vision service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% nursing service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% nursing service-related providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% other service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% pharmacy service providers	0.2	0.5	210.26	30% (+/-)	Yes
% physician assistants and advanced practice nursing providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% podiatric medicine and surgery service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% respiratory, developmental, rehabilitative, and restorative service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% speech, language, and hearing service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% student health care	0.0	0.0	Div by 0	30% (+/-)	N/A
% technologists, technicians, and other technical service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% group of individuals with multi- or single specialty	0.2	0.0	-100.00	30% (+/-)	Yes
% nonindividuals	99.7	99.4	-0.22	30% (+/-)	Yes
% agencies	0.0	0.3	941.94	30% (+/-)	Yes
% ambulatory health care facilities	1.0	1.3	37.75	30% (+/-)	Yes
% hospital units	0.0	0.0	Div by 0	30% (+/-)	N/A
% hospitals	0.2	0.4	158.97	30% (+/-)	Yes
% laboratories	0.0	0.0	Div by 0	30% (+/-)	N/A
% managed care organizations	0.0	0.0	Div by 0	30% (+/-)	N/A
% nursing and custodial care facilities	0.0	0.0	Div by 0	30% (+/-)	N/A
% residential treatment facilities	0.0	0.0	Div by 0	30% (+/-)	N/A
% respite care facility	0.0	0.0	Div by 0	30% (+/-)	N/A
% suppliers	98.5	97.4	-1.14	30% (+/-)	Yes
% transportation services	0.0	0.0	Div by 0	30% (+/-)	N/A
% nonmedical	0.0	0.0	Div by 0	N/A	N/A
Provider IDs with Entity Type = Individual					
Number of provider IDs with entity type = individual	1	0	-100.00	30% (+/-)	Yes
% a sole proprietorship	0.0	0.0	Div by 0	30% (+/-)	N/A
% not a sole proprietorship	100.0	0.0	-100.00	30% (+/-)	No
% not answered	0.0	0.0	Div by 0	N/A	N/A
Provider IDs with Entity Type = Organization					
Number of provider IDs with entity type = organization	3,213	2,507	-21.97	30% (+/-)	Yes
% organization is a subpart	18.5	19.4	4.68	30% (+/-)	Yes
% organization is not a subpart	75.2	76.1	1.22	30% (+/-)	Yes
% not answered	6.3	4.5	-28.60	N/A	N/A

Source: Medicaid Analytic eXtract (MAX) Provider Characteristics Files, 2009-2010.

^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.

2009-2010 MAX RX Prescribing Provider Characteristics Validation Table

State: MA

Produced: 04/18/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range ^a
RX Providers					
Number of provider IDs	75,040	47,998	-36.04	30% (+/-)	No
% billing provider on RX claim	1.4	0.0	-97.76	N/A	N/A
% prescribing provider on RX claim	100.0	100.0	0.00	N/A	N/A
% NPI billing provider on RX claim	0.0	0.0	-100.00	N/A	N/A
% also a provider on IP claim	0.1	0.1	17.65	N/A	N/A
% also a provider on LT claim	0.0	0.0	3.13	N/A	N/A
% also a provider on OT claim	6.6	9.2	38.81	N/A	N/A
% provider IDs with NPI	4.1	5.1	23.70	30% (+/-)	Yes
% provider IDs linked to NPPES	4.1	5.1	23.94	30% (+/-)	Yes
% provider IDs with or without NPI but linked to state provider file	0.0	0.0	Div by 0	N/A	N/A
average number of RX claims	212.9	217.3	2.07	30% (+/-)	Yes
average number of beneficiaries with RX claims	41.5	33.4	-19.63	30% (+/-)	Yes
Provider IDs with NPI					
Number of provider IDs with NPI	3,081	2,438	-20.87	30% (+/-)	Yes
% NPI source = MSIS	84.3	59.6	-29.34	30% (+/-)	Yes
% NPI source = NPPES	15.7	40.4	157.45	30% (+/-)	No
% NPI source = state cross-reference file	0.0	0.0	Div by 0	N/A	N/A
Provider IDs Linked to NPPES					
Number of provider IDs linked to NPPES	3,075	2,438	-20.72	30% (+/-)	Yes
% linked via NPI	84.3	59.6	-29.32	30% (+/-)	Yes
% linked via Medicaid legacy provider ID	15.0	39.2	161.86	30% (+/-)	No
% linked via Medicare UPIN	0.8	1.3	63.08	30% (+/-)	Yes
% with name prefix	24.1	38.9	61.75	30% (+/-)	No
% with first name	57.6	90.9	57.66	30% (+/-)	No
% with middle name	40.2	64.4	60.08	30% (+/-)	No
% with last name	57.6	90.9	57.66	30% (+/-)	No
% with name suffix	0.9	1.3	49.54	30% (+/-)	Yes
% male	28.1	42.3	50.65	30% (+/-)	No
% female	29.5	48.5	64.33	30% (+/-)	No
% with credential	56.2	88.2	56.84	30% (+/-)	No
% with business name	42.4	9.0	-78.80	30% (+/-)	No
% with address line 1	100.0	99.8	-0.16	30% (+/-)	Yes
% with city	100.0	99.8	-0.16	30% (+/-)	Yes
% with state	100.0	99.8	-0.16	30% (+/-)	Yes
% state = RX state code	90.8	88.8	-2.19	30% (+/-)	Yes
% with zip code	100.0	99.8	-0.16	30% (+/-)	Yes
% with primary taxonomy	100.0	99.4	-0.57	30% (+/-)	Yes
% with provider entity type = individual	57.6	90.9	57.66	30% (+/-)	No
% with provider entity type = organization	42.4	9.0	-78.80	30% (+/-)	No
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	Div by 0	N/A	N/A
Provider IDs with NPPES Primary Taxonomy					
Number of provider IDs with NPPES primary taxonomy	3,081	2,424	-21.32	30% (+/-)	Yes
% individual or group of individuals	61.5	95.0	54.39	30% (+/-)	No
% allopathic and osteopathic physicians	47.7	74.8	56.87	30% (+/-)	No

Source: Medicaid Analytic eExtract (MAX) Provider Characteristics Files, 2009-2010.

^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.

2009-2010 MAX RX Prescribing Provider Characteristics Validation Table

State: MA

Produced: 04/18/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range ^a
% behavioral health and social service providers	0.2	0.2	27.18	30% (+/-)	Yes
% chiropractic providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% dental providers	2.3	3.1	34.15	30% (+/-)	Yes
% dietary and nutritional service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% emergency medical service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% eye and vision service providers	1.1	0.9	-15.22	30% (+/-)	Yes
% nursing service providers	0.0	0.1	287.50	30% (+/-)	Yes
% nursing service-related providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% other service providers	0.1	0.9	1,232.31	30% (+/-)	Yes
% pharmacy service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% physician assistants and advanced practice nursing providers	5.8	13.2	126.51	30% (+/-)	No
% podiatric medicine and surgery service providers	0.5	0.9	66.86	30% (+/-)	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% speech, language, and hearing service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% student health care	0.0	0.9	Div by 0	30% (+/-)	N/A
% technologists, technicians, and other technical service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% group of individuals with multi- or single specialty	3.8	0.0	-100.00	30% (+/-)	Yes
% nonindividuals	38.5	5.0	-87.02	30% (+/-)	No
% agencies	0.0	0.0	28.13	30% (+/-)	Yes
% ambulatory health care facilities	1.5	1.3	-14.33	30% (+/-)	Yes
% hospital units	0.0	0.4	Div by 0	30% (+/-)	N/A
% hospitals	3.5	3.0	-14.48	30% (+/-)	Yes
% laboratories	0.0	0.0	Div by 0	30% (+/-)	N/A
% managed care organizations	0.0	0.0	-100.00	30% (+/-)	Yes
% nursing and custodial care facilities	0.2	0.1	-57.44	30% (+/-)	Yes
% residential treatment facilities	0.0	0.0	Div by 0	30% (+/-)	N/A
% respite care facility	0.0	0.0	Div by 0	30% (+/-)	N/A
% suppliers	33.2	0.2	-99.38	30% (+/-)	No
% transportation services	0.0	0.0	Div by 0	30% (+/-)	N/A
% nonmedical	0.0	0.0	Div by 0	N/A	N/A
Provider IDs with Entity Type = Individual					
Number of provider IDs with entity type = individual	1,772	2,215	25.00	30% (+/-)	Yes
% a sole proprietorship	14.0	10.3	-26.12	30% (+/-)	Yes
% not a sole proprietorship	82.1	87.4	6.57	30% (+/-)	Yes
% not answered	4.0	2.2	-44.00	N/A	N/A
Provider IDs with Entity Type = Organization					
Number of provider IDs with entity type = organization	1,303	219	-83.19	30% (+/-)	No
% organization is a subpart	17.0	7.3	-57.12	30% (+/-)	No
% organization is not a subpart	76.4	73.5	-3.82	30% (+/-)	Yes
% not answered	6.5	19.2	194.01	N/A	N/A

Source: Medicaid Analytic eXtract (MAX) Provider Characteristics Files, 2009-2010.

^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.

2009-2010 MAX All Provider Characteristics Validation Table

State: MA

Produced: 04/18/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range ^a
All Providers					
Number of provider IDs	169,330	119,623	-29.36	30%(+/-)	Yes
% billing provider on IP claim	0.2	0.3	43.09	N/A	N/A
% NPI billing provider on IP claim	0.1	0.3	89.71	N/A	N/A
% billing provider on LT claim	0.6	0.4	-24.70	N/A	N/A
% NPI billing provider on LT claim	0.3	0.4	47.60	N/A	N/A
% billing provider on OT claim	12.2	9.6	-20.85	N/A	N/A
% servicing provider on OT claim	32.0	25.9	-19.12	N/A	N/A
% NPI servicing provider on OT claim	17.7	26.4	49.52	N/A	N/A
% billing provider on RX claim	1.4	1.1	-26.49	N/A	N/A
% prescribing provider on RX claim	44.3	40.1	-9.46	N/A	N/A
% NPI billing provider on RX claim	0.7	1.1	45.45	N/A	N/A
% billing provider	13.5	10.9	-19.52	N/A	N/A
% NPI billing provider	1.2	1.7	51.30	N/A	N/A
% servicing provider	32.0	25.9	-19.12	N/A	N/A
% NPI servicing provider	17.7	26.4	49.52	N/A	N/A
% prescribing provider	44.3	40.1	-9.46	N/A	N/A
% provider IDs with NPI	45.8	55.7	21.45	30%(+/-)	Yes
% provider IDs linked to NPPES	45.7	55.7	21.67	30%(+/-)	Yes
% provider IDs with or without NPI but linked to state provider file	0.0	0.0	Div by 0	N/A	N/A
average number of claims	1,119.9	1,783.8	59.29	30%(+/-)	No
average number of beneficiaries with claims	175.0	194.3	11.04	30%(+/-)	Yes
Provider IDs with NPI					
Number of provider IDs with NPI	77,628	66,603	-14.20	30%(+/-)	Yes
% NPI source = MSIS	80.5	98.3	22.06	30%(+/-)	Yes
% NPI source = NPPES	19.5	1.7	-91.05	30%(+/-)	No
% NPI source = state cross-reference file	0.0	0.0	Div by 0	N/A	N/A
Provider IDs Linked to NPPES					
Number of provider IDs linked to NPPES	77,461	66,579	-14.05	30%(+/-)	Yes
% linked via NPI	80.5	98.3	22.12	30%(+/-)	Yes
% linked via Medicaid legacy provider ID	19.5	1.7	-91.28	30%(+/-)	No
% linked via Medicare UPIN	0.1	0.0	-17.54	30%(+/-)	Yes
% with name prefix	35.9	37.8	5.32	30%(+/-)	Yes
% with first name	81.4	84.2	3.49	30%(+/-)	Yes
% with middle name	59.8	61.3	2.52	30%(+/-)	Yes
% with last name	81.4	84.2	3.49	30%(+/-)	Yes
% with name suffix	1.7	1.7	-2.61	30%(+/-)	Yes
% male	48.9	48.8	-0.21	30%(+/-)	Yes
% female	32.5	35.4	9.07	30%(+/-)	Yes
% with credential	79.9	82.5	3.26	30%(+/-)	Yes
% with business name	18.6	15.4	-17.05	30%(+/-)	Yes
% with address line 1	100.0	99.7	-0.33	30%(+/-)	Yes
% with city	100.0	99.7	-0.33	30%(+/-)	Yes
% with state	100.0	99.7	-0.33	30%(+/-)	Yes
% state = claim file state code	91.5	88.8	-2.89	30%(+/-)	Yes
% with zip code	100.0	99.7	-0.33	30%(+/-)	Yes

Source: Medicaid Analytic eExtract (MAX) Provider Characteristics Files, 2009-2010.

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2009-2010 MAX All Provider Characteristics Validation Table

State: MA

Produced: 04/18/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range ^a
% with primary taxonomy	99.6	97.2	-2.45	30%(+/-)	Yes
% with provider entity type = individual	81.4	84.2	3.49	30%(+/-)	Yes
% with provider entity type = organization	18.6	15.4	-17.05	30%(+/-)	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	Div by 0	N/A	N/A
Provider IDs with NPPES Primary Taxonomy					
Number of provider IDs with NPPES primary taxonomy	77,317	64,686	-16.34	30%(+/-)	Yes
% individual or group of individuals	86.7	87.0	0.38	30%(+/-)	Yes
% allopathic and osteopathic physicians	63.9	64.1	0.30	30%(+/-)	Yes
% behavioral health and social service providers	2.8	2.7	-1.54	30%(+/-)	Yes
% chiropractic providers	1.2	1.5	20.06	30%(+/-)	Yes
% dental providers	4.4	5.0	14.50	30%(+/-)	Yes
% dietary and nutritional service providers	0.0	0.0	Div by 0	30%(+/-)	N/A
% emergency medical service providers	0.0	0.0	Div by 0	30%(+/-)	N/A
% eye and vision service providers	2.5	2.4	-5.20	30%(+/-)	Yes
% nursing service providers	0.7	0.9	20.14	30%(+/-)	Yes
% nursing service-related providers	0.1	0.0	-45.61	30%(+/-)	Yes
% other service providers	0.2	1.6	771.43	30%(+/-)	Yes
% pharmacy service providers	0.0	0.0	137.50	30%(+/-)	Yes
% physician assistants and advanced practice nursing providers	4.3	5.0	16.53	30%(+/-)	Yes
% podiatric medicine and surgery service providers	1.0	1.0	6.90	30%(+/-)	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	1.7	2.0	19.01	30%(+/-)	Yes
% speech, language, and hearing service providers	0.4	0.5	16.58	30%(+/-)	Yes
% student health care	0.0	0.3	Div by 0	30%(+/-)	N/A
% technologists, technicians, and other technical service providers	0.0	0.0	1,900.00	30%(+/-)	Yes
% group of individuals with multi- or single specialty	3.6	0.0	-100.00	30%(+/-)	Yes
% nonindividuals	13.3	13.0	-2.48	30%(+/-)	Yes
% agencies	1.9	1.9	0.43	30%(+/-)	Yes
% ambulatory health care facilities	2.0	1.2	-38.94	30%(+/-)	Yes
% hospital units	0.0	0.2	3,240.00	30%(+/-)	Yes
% hospitals	1.0	2.1	108.18	30%(+/-)	Yes
% laboratories	0.2	0.2	-4.79	30%(+/-)	Yes
% managed care organizations	0.0	0.0	70.00	30%(+/-)	Yes
% nursing and custodial care facilities	2.5	2.2	-12.90	30%(+/-)	Yes
% residential treatment facilities	0.0	0.1	68.57	30%(+/-)	Yes
% respite care facility	0.0	0.0	400.00	30%(+/-)	Yes
% suppliers	4.7	4.4	-7.03	30%(+/-)	Yes
% transportation services	0.9	0.8	-20.97	30%(+/-)	Yes
% nonmedical	0.0	0.0	Div by 0	N/A	N/A
Provider IDs with Entity Type = Individual					
Number of provider IDs with entity type = individual	63,042	56,077	-11.05	30%(+/-)	Yes
% a sole proprietorship	15.3	16.5	7.82	30%(+/-)	Yes
% not a sole proprietorship	66.3	72.5	9.33	30%(+/-)	Yes
% not answered	18.5	11.1	-39.98	N/A	N/A
Provider IDs with Entity Type = Organization					
Number of provider IDs with entity type = organization	14,419	10,281	-28.70	30%(+/-)	Yes
% organization is a subpart	7.8	10.2	31.75	30%(+/-)	No
% organization is not a subpart	61.4	66.8	8.82	30%(+/-)	Yes
% not answered	30.9	23.0	-25.53	N/A	N/A

Source: Medicaid Analytic eExtract (MAX) Provider Characteristics Files, 2009-2010.

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