

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

**State-Specific Validation Tables,  
2010**

**Vermont**

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.<sup>1</sup> 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

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<sup>1</sup> 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: VT

Produced: 02/28/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range <sup>a</sup>
<b>IP Providers</b>					
Number of provider IDs	213	197	-7.51	30% (+/-)	Yes
% billing provider on IP claim	49.8	49.7	-0.04	N/A	N/A
% NPI billing provider on IP claim	50.2	50.3	0.04	N/A	N/A
% also a provider on LT claim	10.8	11.2	3.43	N/A	N/A
% also a provider on OT claim	41.3	39.1	-5.40	N/A	N/A
% also a provider on RX claim	0.0	0.0	Div by 0	N/A	N/A
% provider IDs with NPI	98.6	98.5	-0.12	30% (+/-)	Yes
% provider IDs linked to NPPES	98.6	98.5	-0.12	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	178.8	192.8	7.80	30% (+/-)	Yes
average number of beneficiaries with IP claims	128.1	142.2	11.00	30% (+/-)	Yes
<b>Provider IDs with NPI</b>					
Number of provider IDs with NPI	210	194	-7.62	30% (+/-)	Yes
% NPI source = MSIS	100.0	100.0	0.00	30% (+/-)	Yes
% NPI source = NPPES	0.0	0.0	Div by 0	30% (+/-)	N/A
% NPI source = state cross-reference file	0.0	0.0	Div by 0	N/A	N/A
<b>Provider IDs Linked to NPPES</b>					
Number of provider IDs linked to NPPES	210	194	-7.62	30% (+/-)	Yes
% linked via NPI	100.0	100.0	0.00	30% (+/-)	Yes
% linked via Medicaid legacy provider ID	0.0	0.0	Div by 0	30% (+/-)	N/A
% 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	100.0	0.00	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 = IP state code	24.3	22.7	-6.61	30% (+/-)	Yes
% with zip code	100.0	100.0	0.00	30% (+/-)	Yes
% with primary taxonomy	100.0	100.0	0.00	30% (+/-)	Yes
% with provider entity type = individual	0.0	0.0	Div by 0	30% (+/-)	N/A
% with provider entity type = organization	100.0	100.0	0.00	30% (+/-)	Yes
<b>Provider IDs with or without NPI but linked to state provider file</b>					
Number of provider IDs with or without NPI linked to state provider file	0	0	Div by 0	N/A	N/A
<b>Provider IDs with NPPES Primary Taxonomy</b>					
Number of provider IDs with NPPES primary taxonomy	210	194	-7.62	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.

<sup>a</sup> "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: VT

Produced: 02/28/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range <sup>a</sup>
% 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	0.5	0.0	-100.00	30% (+/-)	Yes
% hospital units	7.1	3.1	-56.70	30% (+/-)	Yes
% hospitals	89.0	96.9	8.83	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	1.0	0.0	-100.00	30% (+/-)	Yes
% residential treatment facilities	1.9	0.0	-100.00	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	0.5	0.0	-100.00	30% (+/-)	Yes
% nonmedical	0.0	0.0	Div by 0	N/A	N/A
<b>Provider IDs with Entity Type = Individual</b>					
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
<b>Provider IDs with Entity Type = Organization</b>					
Number of provider IDs with entity type = organization	210	194	-7.62	30% (+/-)	Yes
% organization is a subpart	8.1	8.8	8.25	30% (+/-)	Yes
% organization is not a subpart	76.7	79.4	3.54	30% (+/-)	Yes
% not answered	15.2	11.9	-22.19	N/A	N/A

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

<sup>a</sup> "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: VT

Produced: 02/28/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range <sup>a</sup>
<b>LT Providers</b>					
Number of provider IDs	133	140	5.26	30% (+/-)	Yes
% billing provider on LT claim	50.4	50.0	-0.75	N/A	N/A
% NPI billing provider on LT claim	49.6	50.0	0.76	N/A	N/A
% also a provider on IP claim	17.3	15.7	-9.13	N/A	N/A
% also a provider on OT claim	6.8	9.3	37.22	N/A	N/A
% also a provider on RX claim	0.0	0.0	Div by 0	N/A	N/A
% provider IDs with NPI	100.0	99.3	-0.71	30% (+/-)	Yes
% provider IDs linked to NPPES	100.0	99.3	-0.71	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	790.8	734.4	-7.14	30% (+/-)	Yes
average number of beneficiaries with LT claims	61.8	58.7	-5.08	30% (+/-)	Yes
<b>Provider IDs with NPI</b>					
Number of provider IDs with NPI	133	139	4.51	30% (+/-)	Yes
% NPI source = MSIS	100.0	100.0	0.00	30% (+/-)	Yes
% NPI source = NPPES	0.0	0.0	Div by 0	30% (+/-)	N/A
% NPI source = state cross-reference file	0.0	0.0	Div by 0	N/A	N/A
<b>Provider IDs Linked to NPPES</b>					
Number of provider IDs linked to NPPES	133	139	4.51	30% (+/-)	Yes
% linked via NPI	100.0	100.0	0.00	30% (+/-)	Yes
% linked via Medicaid legacy provider ID	0.0	0.0	Div by 0	30% (+/-)	N/A
% 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	100.0	0.00	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	78.2	74.8	-4.32	30% (+/-)	Yes
% with zip code	100.0	100.0	0.00	30% (+/-)	Yes
% with primary taxonomy	100.0	97.1	-2.88	30% (+/-)	Yes
% with provider entity type = individual	0.0	0.0	Div by 0	30% (+/-)	N/A
% with provider entity type = organization	100.0	100.0	0.00	30% (+/-)	Yes
<b>Provider IDs with or without NPI but linked to state provider file</b>					
Number of provider IDs with or without NPI linked to state provider file	0	0	Div by 0	N/A	N/A
<b>Provider IDs with NPPES Primary Taxonomy</b>					
Number of provider IDs with NPPES primary taxonomy	133	135	1.50	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.

<sup>a</sup> "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: VT

Produced: 02/28/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range <sup>a</sup>
% 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	0.0	0.0	Div by 0	30% (+/-)	N/A
% hospital units	8.3	6.7	-19.39	30% (+/-)	Yes
% hospitals	9.0	14.1	55.98	30% (+/-)	No
% 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	80.5	77.8	-3.32	30% (+/-)	Yes
% residential treatment facilities	2.3	1.5	-34.35	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
<b>Provider IDs with Entity Type = Individual</b>					
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
<b>Provider IDs with Entity Type = Organization</b>					
Number of provider IDs with entity type = organization	133	139	4.51	30% (+/-)	Yes
% organization is a subpart	4.5	7.2	59.48	30% (+/-)	Yes
% organization is not a subpart	60.9	61.2	0.41	30% (+/-)	Yes
% not answered	34.6	31.7	-8.47	N/A	N/A

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

<sup>a</sup> "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: VT

Produced: 02/28/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range <sup>a</sup>
<b>OT Providers</b>					
Number of provider IDs	14,811	15,869	7.14	30% (+/-)	Yes
% billing provider on OT claim	16.8	16.3	-2.61	N/A	N/A
% servicing provider on OT claim	48.1	48.5	0.82	N/A	N/A
% NPI servicing provider on OT claim	51.9	51.5	-0.76	N/A	N/A
% also a provider on IP claim	0.0	0.0	-7.32	N/A	N/A
% also a provider on LT claim	0.0	0.0	-14.29	N/A	N/A
% also a provider on RX claim	26.0	25.2	-2.95	N/A	N/A
% provider IDs with NPI	99.0	99.1	0.12	30% (+/-)	Yes
% provider IDs linked to NPPES	98.7	99.0	0.34	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	820.6	805.7	-1.82	30% (+/-)	Yes
average number of beneficiaries with OT claims	125.8	124.0	-1.44	30% (+/-)	Yes
<b>Provider IDs with NPI</b>					
Number of provider IDs with NPI	14,664	15,730	7.27	30% (+/-)	Yes
% NPI source = MSIS	99.6	99.7	0.08	30% (+/-)	Yes
% NPI source = NPPES	0.4	0.3	-21.13	30% (+/-)	Yes
% NPI source = state cross-reference file	0.0	0.0	Div by 0	N/A	N/A
<b>Provider IDs Linked to NPPES</b>					
Number of provider IDs linked to NPPES	14,615	15,712	7.51	30% (+/-)	Yes
% linked via NPI	99.6	99.7	0.08	30% (+/-)	Yes
% linked via Medicaid legacy provider ID	0.3	0.3	-21.49	30% (+/-)	Yes
% linked via Medicare UPIN	0.0	0.0	-14.29	30% (+/-)	Yes
% with name prefix	48.3	48.3	-0.01	30% (+/-)	Yes
% with first name	95.0	94.9	-0.13	30% (+/-)	Yes
% with middle name	72.2	72.1	-0.08	30% (+/-)	Yes
% with last name	95.0	94.9	-0.13	30% (+/-)	Yes
% with name suffix	2.1	2.1	0.39	30% (+/-)	Yes
% male	51.6	50.5	-2.19	30% (+/-)	Yes
% female	43.4	44.4	2.32	30% (+/-)	Yes
% with credential	92.1	92.1	0.02	30% (+/-)	Yes
% with business name	5.0	4.8	-3.68	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	55.6	54.3	-2.35	30% (+/-)	Yes
% with zip code	100.0	99.7	-0.31	30% (+/-)	Yes
% with primary taxonomy	98.4	97.0	-1.42	30% (+/-)	Yes
% with provider entity type = individual	95.0	94.9	-0.13	30% (+/-)	Yes
% with provider entity type = organization	5.0	4.8	-3.68	30% (+/-)	Yes
<b>Provider IDs with or without NPI but linked to state provider file</b>					
Number of provider IDs with or without NPI linked to state provider file	0	0	Div by 0	N/A	N/A
<b>Provider IDs with NPPES Primary Taxonomy</b>					
Number of provider IDs with NPPES primary taxonomy	14,404	15,233	5.76	30% (+/-)	Yes
% individual or group of individuals	94.2	95.9	1.75	30% (+/-)	Yes
% allopathic and osteopathic physicians	54.0	54.0	0.10	30% (+/-)	Yes

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

<sup>a</sup> "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: VT

Produced: 02/28/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range <sup>a</sup>
% behavioral health and social service providers	14.1	14.0	-1.01	30% (+/-)	Yes
% chiropractic providers	1.4	1.6	14.48	30% (+/-)	Yes
% dental providers	4.4	4.2	-4.69	30% (+/-)	Yes
% dietary and nutritional service providers	0.3	0.5	57.06	30% (+/-)	Yes
% emergency medical service providers	0.0	0.0	-53.57	30% (+/-)	Yes
% eye and vision service providers	1.3	1.4	4.45	30% (+/-)	Yes
% nursing service providers	0.6	0.5	-11.81	30% (+/-)	Yes
% nursing service-related providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% other service providers	1.4	1.5	4.29	30% (+/-)	Yes
% pharmacy service providers	0.0	0.0	-100.00	30% (+/-)	Yes
% physician assistants and advanced practice nursing providers	11.0	12.0	8.61	30% (+/-)	Yes
% podiatric medicine and surgery service providers	0.5	0.4	-9.53	30% (+/-)	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	2.6	3.3	26.05	30% (+/-)	Yes
% speech, language, and hearing service providers	0.6	1.1	90.28	30% (+/-)	Yes
% student health care	1.8	1.4	-21.67	30% (+/-)	Yes
% technologists, technicians, and other technical service providers	0.0	0.0	-7.14	30% (+/-)	Yes
% group of individuals with multi- or single specialty	0.2	0.0	-100.00	30% (+/-)	Yes
% nonindividuals	5.8	4.1	-28.65	30% (+/-)	Yes
% agencies	0.6	0.6	-4.29	30% (+/-)	Yes
% ambulatory health care facilities	0.8	0.2	-76.74	30% (+/-)	Yes
% hospital units	0.0	0.0	-100.00	30% (+/-)	Yes
% hospitals	0.4	0.1	-69.67	30% (+/-)	Yes
% laboratories	0.5	0.5	-14.20	30% (+/-)	Yes
% 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	0.1	0.1	13.46	30% (+/-)	Yes
% respite care facility	0.0	0.0	Div by 0	30% (+/-)	N/A
% suppliers	1.6	1.2	-24.86	30% (+/-)	Yes
% transportation services	1.7	1.5	-16.42	30% (+/-)	Yes
% nonmedical	0.0	0.0	Div by 0	N/A	N/A
<b>Provider IDs with Entity Type = Individual</b>					
Number of provider IDs with entity type = individual	13,884	14,907	7.37	30% (+/-)	Yes
% a sole proprietorship	21.6	21.7	0.78	30% (+/-)	Yes
% not a sole proprietorship	67.9	70.9	4.33	30% (+/-)	Yes
% not answered	10.5	7.4	-29.64	N/A	N/A
<b>Provider IDs with Entity Type = Organization</b>					
Number of provider IDs with entity type = organization	731	757	3.56	30% (+/-)	Yes
% organization is a subpart	6.0	7.1	18.51	30% (+/-)	Yes
% organization is not a subpart	58.4	62.7	7.42	30% (+/-)	Yes
% not answered	35.6	30.1	-15.32	N/A	N/A

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

<sup>a</sup> "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: VT

Produced: 02/28/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range <sup>a</sup>
<b>OT Providers</b>					
Number of provider IDs	3,926	4,062	3.46	30% (+/-)	Yes
% billing provider on OT claim	100.0	100.0	0.00	N/A	N/A
% servicing provider on OT claim	63.3	63.8	0.85	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	2.1	1.8	-16.13	N/A	N/A
% also a provider on LT claim	0.2	0.3	44.61	N/A	N/A
% also a provider on RX claim	30.3	28.8	-5.05	N/A	N/A
% provider IDs with NPI	75.3	74.7	-0.83	30% (+/-)	Yes
% provider IDs linked to NPPES	75.2	74.7	-0.70	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	2,151.7	2,107.2	-2.07	30% (+/-)	Yes
average number of beneficiaries with OT claims	264.8	260.7	-1.57	30% (+/-)	Yes
<b>Provider IDs with NPI</b>					
Number of provider IDs with NPI	2,956	3,033	2.60	30% (+/-)	Yes
% NPI source = MSIS	82.3	83.7	1.71	30% (+/-)	Yes
% NPI source = NPPES	17.7	16.3	-7.94	30% (+/-)	Yes
% NPI source = state cross-reference file	0.0	0.0	Div by 0	N/A	N/A
<b>Provider IDs Linked to NPPES</b>					
Number of provider IDs linked to NPPES	2,952	3,033	2.74	30% (+/-)	Yes
% linked via NPI	82.3	83.7	1.74	30% (+/-)	Yes
% linked via Medicaid legacy provider ID	17.7	16.3	-8.08	30% (+/-)	Yes
% linked via Medicare UPIN	0.0	0.0	-2.94	30% (+/-)	Yes
% with name prefix	39.2	40.2	2.72	30% (+/-)	Yes
% with first name	70.5	71.4	1.35	30% (+/-)	Yes
% with middle name	54.5	54.8	0.48	30% (+/-)	Yes
% with last name	70.5	71.4	1.35	30% (+/-)	Yes
% with name suffix	1.4	1.5	1.97	30% (+/-)	Yes
% male	33.8	32.3	-4.23	30% (+/-)	Yes
% female	36.7	39.1	6.49	30% (+/-)	Yes
% with credential	69.1	69.8	0.91	30% (+/-)	Yes
% with business name	29.5	28.3	-4.23	30% (+/-)	Yes
% with address line 1	100.0	99.7	-0.30	30% (+/-)	Yes
% with city	100.0	99.7	-0.30	30% (+/-)	Yes
% with state	100.0	99.7	-0.30	30% (+/-)	Yes
% state = OT state code	79.4	79.3	-0.14	30% (+/-)	Yes
% with zip code	100.0	99.7	-0.30	30% (+/-)	Yes
% with primary taxonomy	97.9	95.6	-2.27	30% (+/-)	Yes
% with provider entity type = individual	70.5	71.4	1.35	30% (+/-)	Yes
% with provider entity type = organization	29.5	28.3	-4.23	30% (+/-)	Yes
<b>Provider IDs with or without NPI but linked to state provider file</b>					
Number of provider IDs with or without NPI linked to state provider file	0	0	Div by 0	N/A	N/A
<b>Provider IDs with NPPES Primary Taxonomy</b>					
Number of provider IDs with NPPES primary taxonomy	2,890	2,901	0.38	30% (+/-)	Yes
% individual or group of individuals	79.2	80.2	1.32	30% (+/-)	Yes
% allopathic and osteopathic physicians	35.0	33.7	-3.63	30% (+/-)	Yes

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

<sup>a</sup> "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: VT

Produced: 02/28/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range <sup>a</sup>
% behavioral health and social service providers	23.4	23.8	1.84	30% (+/-)	Yes
% chiropractic providers	2.7	3.0	10.94	30% (+/-)	Yes
% dental providers	6.1	5.7	-6.04	30% (+/-)	Yes
% dietary and nutritional service providers	0.1	0.1	49.28	30% (+/-)	Yes
% emergency medical service providers	0.0	0.0	-2.86	30% (+/-)	Yes
% eye and vision service providers	2.0	1.9	-5.53	30% (+/-)	Yes
% nursing service providers	0.8	1.0	16.27	30% (+/-)	Yes
% nursing service-related providers	0.1	0.1	0.00	30% (+/-)	Yes
% other service providers	1.6	1.7	8.48	30% (+/-)	Yes
% pharmacy service providers	0.0	0.0	-100.00	30% (+/-)	Yes
% physician assistants and advanced practice nursing providers	4.4	4.7	7.52	30% (+/-)	Yes
% podiatric medicine and surgery service providers	0.6	0.6	-0.36	30% (+/-)	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	1.9	2.4	22.70	30% (+/-)	Yes
% speech, language, and hearing service providers	0.3	1.4	365.59	30% (+/-)	Yes
% student health care	0.1	0.0	-50.72	30% (+/-)	Yes
% technologists, technicians, and other technical service providers	0.1	0.1	0.00	30% (+/-)	Yes
% group of individuals with multi- or single specialty	0.1	0.0	-100.00	30% (+/-)	Yes
% nonindividuals	20.8	19.8	-5.01	30% (+/-)	Yes
% agencies	3.6	3.6	0.59	30% (+/-)	Yes
% ambulatory health care facilities	3.7	3.1	-17.13	30% (+/-)	Yes
% hospital units	0.3	0.2	-13.00	30% (+/-)	Yes
% hospitals	3.3	3.2	-2.47	30% (+/-)	Yes
% laboratories	1.0	1.2	16.85	30% (+/-)	Yes
% managed care organizations	0.1	0.1	0.00	30% (+/-)	Yes
% nursing and custodial care facilities	1.9	1.7	-9.63	30% (+/-)	Yes
% residential treatment facilities	0.3	0.3	-0.36	30% (+/-)	Yes
% respite care facility	0.0	0.0	Div by 0	30% (+/-)	N/A
% suppliers	3.1	2.6	-16.80	30% (+/-)	Yes
% transportation services	3.6	3.8	5.36	30% (+/-)	Yes
% nonmedical	0.0	0.0	Div by 0	N/A	N/A
<b>Provider IDs with Entity Type = Individual</b>					
Number of provider IDs with entity type = individual	2,081	2,167	4.13	30% (+/-)	Yes
% a sole proprietorship	42.9	45.3	5.72	30% (+/-)	Yes
% not a sole proprietorship	48.3	48.5	0.42	30% (+/-)	Yes
% not answered	8.8	6.1	-30.20	N/A	N/A
<b>Provider IDs with Entity Type = Organization</b>					
Number of provider IDs with entity type = organization	871	857	-1.61	30% (+/-)	Yes
% organization is a subpart	5.9	6.8	15.59	30% (+/-)	Yes
% organization is not a subpart	53.7	57.5	7.06	30% (+/-)	Yes
% not answered	40.4	35.7	-11.65	N/A	N/A

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

<sup>a</sup> "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: VT

Produced: 02/28/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range <sup>a</sup>
<b>RX Providers</b>					
Number of provider IDs	477	486	1.89	30% (+/-)	Yes
% billing provider on RX claim	50.7	50.4	-0.63	N/A	N/A
% prescribing provider on RX claim	23.3	0.4	-98.23	N/A	N/A
% NPI billing provider on RX claim	49.3	49.6	0.65	N/A	N/A
% also a provider on IP claim	0.0	0.0	Div by 0	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	5.7	4.7	-16.38	N/A	N/A
% provider IDs with NPI	99.2	99.8	0.64	30% (+/-)	Yes
% provider IDs linked to NPES	99.2	99.8	0.64	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	9,422.3	9,277.9	-1.53	30% (+/-)	Yes
average number of beneficiaries with RX claims	741.0	756.2	2.05	30% (+/-)	Yes
<b>Provider IDs with NPI</b>					
Number of provider IDs with NPI	473	485	2.54	30% (+/-)	Yes
% NPI source = MSIS	99.8	99.8	0.01	30% (+/-)	Yes
% NPI source = NPES	0.2	0.2	-2.37	30% (+/-)	Yes
% NPI source = state cross-reference file	0.0	0.0	Div by 0	N/A	N/A
<b>Provider IDs Linked to NPES</b>					
Number of provider IDs linked to NPES	473	485	2.54	30% (+/-)	Yes
% linked via NPI	99.8	99.8	0.01	30% (+/-)	Yes
% linked via Medicaid legacy provider ID	0.2	0.2	-2.37	30% (+/-)	Yes
% linked via Medicare UPIN	0.0	0.0	Div by 0	30% (+/-)	N/A
% with name prefix	0.4	0.4	-2.60	30% (+/-)	Yes
% with first name	0.4	0.4	-2.60	30% (+/-)	Yes
% with middle name	0.4	0.4	-2.60	30% (+/-)	Yes
% with last name	0.4	0.4	-2.60	30% (+/-)	Yes
% with name suffix	0.0	0.0	Div by 0	30% (+/-)	N/A
% male	0.4	0.4	-2.60	30% (+/-)	Yes
% female	0.0	0.0	Div by 0	30% (+/-)	N/A
% with credential	0.4	0.4	-2.60	30% (+/-)	Yes
% with business name	99.6	99.2	-0.40	30% (+/-)	Yes
% with address line 1	100.0	99.6	-0.41	30% (+/-)	Yes
% with city	100.0	99.6	-0.41	30% (+/-)	Yes
% with state	100.0	99.6	-0.41	30% (+/-)	Yes
% state = RX state code	60.5	61.0	0.94	30% (+/-)	Yes
% with zip code	100.0	99.6	-0.41	30% (+/-)	Yes
% with primary taxonomy	96.6	97.1	0.51	30% (+/-)	Yes
% with provider entity type = individual	0.4	0.4	-2.60	30% (+/-)	Yes
% with provider entity type = organization	99.6	99.2	-0.40	30% (+/-)	Yes
<b>Provider IDs with or without NPI but linked to state provider file</b>					
Number of provider IDs with or without NPI linked to state provider file	0	0	Div by 0	N/A	N/A
<b>Provider IDs with NPES Primary Taxonomy</b>					
Number of provider IDs with NPES primary taxonomy	457	471	3.06	30% (+/-)	Yes
% individual or group of individuals	3.1	3.6	17.83	30% (+/-)	Yes
% allopathic and osteopathic physicians	0.7	0.4	-35.21	30% (+/-)	Yes

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

<sup>a</sup> "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: VT

Produced: 02/28/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range <sup>a</sup>
% behavioral health and social service providers	0.4	0.4	-2.97	30% (+/-)	Yes
% 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	2.0	2.8	40.17	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	0.0	0.0	Div by 0	30% (+/-)	N/A
% nonindividuals	96.9	96.4	-0.56	30% (+/-)	Yes
% agencies	0.0	0.0	Div by 0	30% (+/-)	N/A
% ambulatory health care facilities	0.4	0.4	-2.97	30% (+/-)	Yes
% hospital units	0.0	0.0	Div by 0	30% (+/-)	N/A
% hospitals	0.4	0.0	-100.00	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	96.1	96.0	-0.10	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
<b>Provider IDs with Entity Type = Individual</b>					
Number of provider IDs with entity type = individual	2	2	0.00	30% (+/-)	Yes
% a sole proprietorship	0.0	0.0	Div by 0	30% (+/-)	N/A
% not a sole proprietorship	100.0	100.0	0.00	30% (+/-)	Yes
% not answered	0.0	0.0	Div by 0	N/A	N/A
<b>Provider IDs with Entity Type = Organization</b>					
Number of provider IDs with entity type = organization	471	481	2.12	30% (+/-)	Yes
% organization is a subpart	14.7	15.0	2.18	30% (+/-)	Yes
% organization is not a subpart	78.6	78.4	-0.23	30% (+/-)	Yes
% not answered	6.8	6.7	-2.08	N/A	N/A

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

<sup>a</sup> "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: VT

Produced: 02/28/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range <sup>a</sup>
<b>RX Providers</b>					
Number of provider IDs	4,552	4,661	2.39	30% (+/-)	Yes
% billing provider on RX claim	2.4	0.0	-98.24	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	Div by 0	N/A	N/A
% also a provider on IP claim	0.0	0.0	Div by 0	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	84.4	85.6	1.42	N/A	N/A
% provider IDs with NPI	87.2	86.4	-0.91	30% (+/-)	Yes
% provider IDs linked to NPPES	87.1	86.4	-0.79	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	888.7	495.6	-44.23	30% (+/-)	No
average number of beneficiaries with RX claims	103.1	76.4	-25.97	30% (+/-)	Yes
<b>Provider IDs with NPI</b>					
Number of provider IDs with NPI	3,969	4,027	1.46	30% (+/-)	Yes
% NPI source = MSIS	98.8	98.6	-0.13	30% (+/-)	Yes
% NPI source = NPPES	1.2	1.4	10.61	30% (+/-)	Yes
% NPI source = state cross-reference file	0.0	0.0	Div by 0	N/A	N/A
<b>Provider IDs Linked to NPPES</b>					
Number of provider IDs linked to NPPES	3,964	4,027	1.59	30% (+/-)	Yes
% linked via NPI	98.8	98.6	-0.13	30% (+/-)	Yes
% linked via Medicaid legacy provider ID	1.2	1.3	13.07	30% (+/-)	Yes
% linked via Medicare UPIN	0.1	0.0	-50.00	30% (+/-)	Yes
% with name prefix	50.0	50.5	0.92	30% (+/-)	Yes
% with first name	96.9	99.4	2.59	30% (+/-)	Yes
% with middle name	76.1	77.7	2.02	30% (+/-)	Yes
% with last name	96.9	99.4	2.59	30% (+/-)	Yes
% with name suffix	2.8	2.8	1.12	30% (+/-)	Yes
% male	56.6	56.7	0.19	30% (+/-)	Yes
% female	40.3	42.7	5.95	30% (+/-)	Yes
% with credential	94.6	97.4	3.03	30% (+/-)	Yes
% with business name	3.1	0.3	-91.13	30% (+/-)	Yes
% with address line 1	100.0	99.7	-0.30	30% (+/-)	Yes
% with city	100.0	99.7	-0.30	30% (+/-)	Yes
% with state	100.0	99.7	-0.30	30% (+/-)	Yes
% state = RX state code	58.8	56.9	-3.17	30% (+/-)	Yes
% with zip code	100.0	99.7	-0.30	30% (+/-)	Yes
% with primary taxonomy	98.3	98.1	-0.23	30% (+/-)	Yes
% with provider entity type = individual	96.9	99.4	2.59	30% (+/-)	Yes
% with provider entity type = organization	3.1	0.3	-91.13	30% (+/-)	Yes
<b>Provider IDs with or without NPI but linked to state provider file</b>					
Number of provider IDs with or without NPI linked to state provider file	0	0	Div by 0	N/A	N/A
<b>Provider IDs with NPPES Primary Taxonomy</b>					
Number of provider IDs with NPPES primary taxonomy	3,900	3,951	1.31	30% (+/-)	Yes
% individual or group of individuals	96.6	99.8	3.37	30% (+/-)	Yes
% allopathic and osteopathic physicians	64.3	66.0	2.61	30% (+/-)	Yes

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

<sup>a</sup> "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: VT

Produced: 02/28/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range <sup>a</sup>
% behavioral health and social service providers	0.2	0.1	-57.54	30% (+/-)	Yes
% chiropractic providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% dental providers	7.4	7.4	0.43	30% (+/-)	Yes
% dietary and nutritional service providers	0.0	0.0	-3.85	30% (+/-)	Yes
% emergency medical service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% eye and vision service providers	1.8	1.9	8.76	30% (+/-)	Yes
% nursing service providers	0.5	0.3	-35.87	30% (+/-)	Yes
% nursing service-related providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% other service providers	1.6	1.7	6.67	30% (+/-)	Yes
% pharmacy service providers	0.1	0.0	-100.00	30% (+/-)	Yes
% physician assistants and advanced practice nursing providers	16.8	19.5	15.69	30% (+/-)	Yes
% podiatric medicine and surgery service providers	0.7	0.6	-12.28	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	3.2	2.4	-25.36	30% (+/-)	Yes
% 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	0.1	0.0	-100.00	30% (+/-)	Yes
% nonindividuals	3.4	0.2	-95.54	30% (+/-)	Yes
% agencies	0.1	0.0	-100.00	30% (+/-)	Yes
% ambulatory health care facilities	0.1	0.0	-75.73	30% (+/-)	Yes
% hospital units	0.0	0.0	Div by 0	30% (+/-)	N/A
% hospitals	0.4	0.0	-94.27	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	2.8	0.1	-97.31	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
<b>Provider IDs with Entity Type = Individual</b>					
Number of provider IDs with entity type = individual	3,842	4,004	4.22	30% (+/-)	Yes
% a sole proprietorship	16.9	15.8	-6.56	30% (+/-)	Yes
% not a sole proprietorship	74.7	79.0	5.82	30% (+/-)	Yes
% not answered	8.4	5.2	-38.40	N/A	N/A
<b>Provider IDs with Entity Type = Organization</b>					
Number of provider IDs with entity type = organization	122	11	-90.98	30% (+/-)	No
% organization is a subpart	9.0	9.1	0.83	30% (+/-)	Yes
% organization is not a subpart	82.8	54.5	-34.11	30% (+/-)	No
% not answered	8.2	36.4	343.63	N/A	N/A

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

<sup>a</sup> "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: VT

Produced: 02/28/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range <sup>a</sup>
<b>All Providers</b>					
Number of provider IDs	17,545	18,704	6.61	30%(+/-)	Yes
% billing provider on IP claim	0.6	0.5	-13.25	N/A	N/A
% NPI billing provider on IP claim	0.6	0.5	-13.28	N/A	N/A
% billing provider on LT claim	0.4	0.4	-2.09	N/A	N/A
% NPI billing provider on LT claim	0.4	0.4	-0.53	N/A	N/A
% billing provider on OT claim	22.4	21.7	-2.95	N/A	N/A
% servicing provider on OT claim	40.6	41.1	1.33	N/A	N/A
% NPI servicing provider on OT claim	43.8	43.7	-0.26	N/A	N/A
% billing provider on RX claim	1.4	1.3	-5.00	N/A	N/A
% prescribing provider on RX claim	25.9	24.9	-3.95	N/A	N/A
% NPI billing provider on RX claim	1.3	1.3	-3.81	N/A	N/A
% billing provider	24.1	23.4	-2.98	N/A	N/A
% NPI billing provider	2.3	2.1	-5.72	N/A	N/A
% servicing provider	40.6	41.1	1.33	N/A	N/A
% NPI servicing provider	43.8	43.7	-0.26	N/A	N/A
% prescribing provider	25.9	24.9	-3.95	N/A	N/A
% provider IDs with NPI	90.9	90.9	0.00	30%(+/-)	Yes
% provider IDs linked to NPPES	90.6	90.8	0.20	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	1,333.4	1,278.7	-4.10	30%(+/-)	Yes
average number of beneficiaries with claims	168.0	164.4	-2.10	30%(+/-)	Yes
<b>Provider IDs with NPI</b>					
Number of provider IDs with NPI	15,949	17,003	6.61	30%(+/-)	Yes
% NPI source = MSIS	96.4	96.8	0.40	30%(+/-)	Yes
% NPI source = NPPES	3.6	3.2	-10.59	30%(+/-)	Yes
% NPI source = state cross-reference file	0.0	0.0	Div by 0	N/A	N/A
<b>Provider IDs Linked to NPPES</b>					
Number of provider IDs linked to NPPES	15,900	16,985	6.82	30%(+/-)	Yes
% linked via NPI	96.4	96.8	0.41	30%(+/-)	Yes
% linked via Medicaid legacy provider ID	3.6	3.2	-10.64	30%(+/-)	Yes
% linked via Medicare UPIN	0.0	0.0	-36.84	30%(+/-)	Yes
% with name prefix	44.7	44.9	0.48	30%(+/-)	Yes
% with first name	87.7	88.2	0.53	30%(+/-)	Yes
% with middle name	66.7	67.1	0.59	30%(+/-)	Yes
% with last name	87.7	88.2	0.53	30%(+/-)	Yes
% with name suffix	1.9	1.9	1.37	30%(+/-)	Yes
% male	47.7	46.9	-1.60	30%(+/-)	Yes
% female	40.0	41.3	3.05	30%(+/-)	Yes
% with credential	85.1	85.7	0.70	30%(+/-)	Yes
% with business name	12.3	11.5	-6.15	30%(+/-)	Yes
% with address line 1	100.0	99.7	-0.29	30%(+/-)	Yes
% with city	100.0	99.7	-0.29	30%(+/-)	Yes
% with state	100.0	99.7	-0.29	30%(+/-)	Yes
% state = claim file state code	56.5	55.1	-2.33	30%(+/-)	Yes
% with zip code	100.0	99.7	-0.29	30%(+/-)	Yes

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

<sup>a</sup> "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: VT

Produced: 02/28/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range <sup>a</sup>
% with primary taxonomy	98.2	96.9	-1.35	30%(+/-)	Yes
% with provider entity type = individual	87.7	88.2	0.53	30%(+/-)	Yes
% with provider entity type = organization	12.3	11.5	-6.15	30%(+/-)	Yes
<b>Provider IDs with or without NPI but linked to state provider file</b>					
Number of provider IDs with or without NPI linked to state provider file	0	0	Div by 0	N/A	N/A
<b>Provider IDs with NPPES Primary Taxonomy</b>					
Number of provider IDs with NPPES primary taxonomy	15,643	16,454	5.18	30%(+/-)	Yes
% individual or group of individuals	88.5	90.4	2.19	30%(+/-)	Yes
% allopathic and osteopathic physicians	50.7	51.0	0.54	30%(+/-)	Yes
% behavioral health and social service providers	13.1	13.0	-0.66	30%(+/-)	Yes
% chiropractic providers	1.3	1.5	14.67	30%(+/-)	Yes
% dental providers	4.2	4.0	-4.05	30%(+/-)	Yes
% dietary and nutritional service providers	0.3	0.5	56.35	30%(+/-)	Yes
% emergency medical service providers	0.0	0.0	-53.85	30%(+/-)	Yes
% eye and vision service providers	1.3	1.3	4.66	30%(+/-)	Yes
% nursing service providers	0.6	0.5	-10.19	30%(+/-)	Yes
% nursing service-related providers	0.0	0.0	-7.69	30%(+/-)	Yes
% other service providers	1.3	1.4	5.22	30%(+/-)	Yes
% pharmacy service providers	0.1	0.1	12.86	30%(+/-)	Yes
% physician assistants and advanced practice nursing providers	10.3	11.2	9.12	30%(+/-)	Yes
% podiatric medicine and surgery service providers	0.4	0.4	-10.29	30%(+/-)	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	2.5	3.1	25.30	30%(+/-)	Yes
% speech, language, and hearing service providers	0.6	1.0	87.82	30%(+/-)	Yes
% student health care	1.6	1.3	-21.61	30%(+/-)	Yes
% technologists, technicians, and other technical service providers	0.0	0.0	-5.26	30%(+/-)	Yes
% group of individuals with multi- or single specialty	0.2	0.0	-100.00	30%(+/-)	Yes
% nonindividuals	11.5	9.6	-16.78	30%(+/-)	Yes
% agencies	0.9	0.9	-7.60	30%(+/-)	Yes
% ambulatory health care facilities	1.3	0.7	-50.67	30%(+/-)	Yes
% hospital units	0.1	0.1	-38.10	30%(+/-)	Yes
% hospitals	1.7	1.4	-19.10	30%(+/-)	Yes
% laboratories	0.5	0.4	-13.79	30%(+/-)	Yes
% managed care organizations	0.0	0.0	-7.69	30%(+/-)	Yes
% nursing and custodial care facilities	1.0	0.9	-9.09	30%(+/-)	Yes
% residential treatment facilities	0.1	0.1	-4.69	30%(+/-)	Yes
% respite care facility	0.0	0.0	Div by 0	30%(+/-)	N/A
% suppliers	4.2	3.8	-9.57	30%(+/-)	Yes
% transportation services	1.6	1.3	-15.95	30%(+/-)	Yes
% nonmedical	0.0	0.0	Div by 0	N/A	N/A
<b>Provider IDs with Entity Type = Individual</b>					
Number of provider IDs with entity type = individual	13,948	14,978	7.38	30%(+/-)	Yes
% a sole proprietorship	21.6	21.7	0.64	30%(+/-)	Yes
% not a sole proprietorship	67.9	70.9	4.37	30%(+/-)	Yes
% not answered	10.5	7.4	-29.58	N/A	N/A
<b>Provider IDs with Entity Type = Organization</b>					
Number of provider IDs with entity type = organization	1,952	1,957	0.26	30%(+/-)	Yes
% organization is a subpart	8.1	8.8	8.53	30%(+/-)	Yes
% organization is not a subpart	62.5	65.5	4.81	30%(+/-)	Yes
% not answered	29.4	25.7	-12.61	N/A	N/A

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

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