

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

**State-Specific Validation Tables,
2011**

June 28, 2013

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Mei-ling Mason



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

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

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

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

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

2009-2011 MAX IP Billing Provider Characteristics Validation Table
 State: TN
 Produced: 05/20/2013

Measure	2009 Value	2010 Value	2011 Value	% Change 2009-2010	% Change 2010-2011	Cross Year Expected Range	Cross Year 2009-2010 Within Range ^a	Cross Year 2010-2011 Within Range ^a
IP Providers								
Number of provider IDs	1,772	1,745	1,828	-1.52	4.76	30% (+/-)	Yes	Yes
% billing provider on IP claim	47.3	48.1	49.1	1.79	2.05	N/A	N/A	N/A
% NPI billing provider on IP claim	52.7	51.9	50.9	-1.61	-1.90	N/A	N/A	N/A
% also a provider on LT claim	37.9	40.6	39.1	7.15	-3.73	N/A	N/A	N/A
% also a provider on OT claim	90.0	89.5	85.6	-0.55	-4.36	N/A	N/A	N/A
% also a provider on RX claim	0.2	0.3	0.7	26.99	147.79	N/A	N/A	N/A
% provider IDs with NPI	92.8	92.6	92.6	-0.24	0.07	30% (+/-)	Yes	Yes
% provider IDs linked to NPPES	92.7	92.6	92.6	-0.12	0.07	30% (+/-)	Yes	Yes
% provider IDs with or without NPI but linked to state provider file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
average number of IP claims	316.6	318.2	363.1	0.51	14.10	30% (+/-)	Yes	Yes
average number of beneficiaries with IP claims	214.3	198.3	191.6	-7.47	-3.39	30% (+/-)	Yes	Yes
Provider IDs with NPI								
Number of provider IDs with NPI	1,644	1,615	1,693	-1.76	4.83	30% (+/-)	Yes	Yes
% NPI source = MSIS	100.0	100.0	100.0	0.00	0.00	30% (+/-)	Yes	Yes
% NPI source = NPPES	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% NPI source = state cross-reference file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs Linked to NPPES								
Number of provider IDs linked to NPPES	1,642	1,615	1,693	-1.64	4.83	30% (+/-)	Yes	Yes
% linked via NPI	100.0	100.0	100.0	0.00	0.00	30% (+/-)	Yes	Yes
% linked via Medicaid legacy provider ID	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% linked via Medicare UPIN	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% with name prefix	0.2	0.2	0.1	-23.77	-36.49	30% (+/-)	Yes	Yes
% with first name	0.7	0.4	0.6	-49.11	58.78	30% (+/-)	Yes	Yes
% with middle name	0.5	0.4	0.4	-23.61	11.15	30% (+/-)	Yes	Yes
% with last name	0.7	0.4	0.6	-49.11	58.78	30% (+/-)	Yes	Yes
% with name suffix	0.0	0.1	0.0	Div by 0	-100.00	30% (+/-)	N/A	Yes
% male	0.4	0.2	0.5	-49.04	185.81	30% (+/-)	Yes	Yes
% female	0.4	0.2	0.1	-49.04	-68.24	30% (+/-)	Yes	Yes
% with credential	0.7	0.3	0.5	-53.73	71.48	30% (+/-)	Yes	Yes
% with business name	99.3	99.4	99.2	0.11	-0.15	30% (+/-)	Yes	Yes
% with address line 1	100.0	99.8	99.8	-0.25	0.07	30% (+/-)	Yes	Yes
% with city	100.0	99.8	99.8	-0.25	0.07	30% (+/-)	Yes	Yes
% with state	100.0	99.8	99.8	-0.25	0.07	30% (+/-)	Yes	Yes
% state = IP state code	59.9	62.4	56.3	4.05	-9.63	30% (+/-)	Yes	Yes
% with zip code	100.0	99.8	99.8	-0.25	0.07	30% (+/-)	Yes	Yes
% with primary taxonomy	98.5	98.1	98.8	-0.46	0.69	30% (+/-)	Yes	Yes
% with provider entity type = individual	0.7	0.4	0.6	-49.11	58.78	30% (+/-)	Yes	Yes
% with provider entity type = organization	99.3	99.4	99.2	0.11	-0.15	30% (+/-)	Yes	Yes
Provider IDs with or without NPI but linked to state provider file								
Number of provider IDs with or without NPI linked to state provider file	0	0	0	Div by 0	Div by 0	N/A	N/A	N/A

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

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

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

2009-2011 MAX IP Billing Provider Characteristics Validation Table
 State: TN
 Produced: 05/20/2013

Measure	2009 Value	2010 Value	2011 Value	% Change 2009-2010	% Change 2010-2011	Cross Year Expected Range	Cross Year 2009-2010 Within Range ^a	Cross Year 2010-2011 Within Range ^a
Provider IDs with NPPES Primary Taxonomy								
Number of provider IDs with NPPES primary taxonomy	1,620	1,584	1,672	-2.22	5.56	30% (+/-)	Yes	Yes
% individual or group of individuals	2.5	1.0	1.4	-59.09	42.12	30% (+/-)	Yes	Yes
% allopathic and osteopathic physicians	1.4	0.4	1.0	-73.31	168.27	30% (+/-)	Yes	Yes
% behavioral health and social service providers	0.8	0.3	0.3	-60.60	-5.37	30% (+/-)	Yes	Yes
% chiropractic providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% dental providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% dietary and nutritional service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% emergency medical service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% eye and vision service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nursing service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nursing service-related providers	0.0	0.1	0.1	Div by 0	-5.07	30% (+/-)	N/A	Yes
% other service providers	0.0	0.1	0.0	Div by 0	-100.00	30% (+/-)	N/A	Yes
% pharmacy service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% physician assistants and advanced practice nursing providers	0.1	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	N/A
% podiatric medicine and surgery service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% respiratory, developmental, rehabilitative, and restorative service providers	0.0	0.1	0.0	Div by 0	-100.00	30% (+/-)	N/A	Yes
% speech, language, and hearing service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% student health care	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% technologists, technicians, and other technical service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% group of individuals with multi- or single specialty	0.1	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	N/A
% nonindividuals	97.5	99.0	98.6	1.50	-0.43	30% (+/-)	Yes	Yes
% agencies	0.6	0.8	0.5	36.33	-28.99	30% (+/-)	Yes	Yes
% ambulatory health care facilities	2.0	0.5	0.4	-75.21	-17.10	30% (+/-)	Yes	Yes
% hospital units	5.1	5.5	5.0	7.20	-8.52	30% (+/-)	Yes	Yes
% hospitals	52.4	52.6	56.5	0.35	7.48	30% (+/-)	Yes	Yes
% laboratories	0.1	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	N/A
% managed care organizations	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nursing and custodial care facilities	33.0	35.4	33.0	7.05	-6.79	30% (+/-)	Yes	Yes
% residential treatment facilities	4.0	3.4	2.2	-13.72	-36.84	30% (+/-)	Yes	Yes
% respite care facility	0.0	0.1	0.0	Div by 0	-100.00	30% (+/-)	N/A	Yes
% suppliers	0.3	0.8	0.8	145.31	10.46	30% (+/-)	Yes	Yes
% transportation services	0.0	0.0	0.1	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nonmedical	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs with Entity Type = Individual								
Number of provider IDs with entity type = individual	12	6	10	-50.00	66.67	30% (+/-)	No	No
% a sole proprietorship	8.3	66.7	20.0	700.04	-70.00	30% (+/-)	No	No
% not a sole proprietorship	91.7	33.3	80.0	-63.64	140.00	30% (+/-)	No	No
% not answered	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs with Entity Type = Organization								
Number of provider IDs with entity type = organization	1,630	1,605	1,680	-1.53	4.67	30% (+/-)	Yes	Yes
% organization is a subpart	15.2	20.2	19.0	33.09	-5.93	30% (+/-)	No	Yes
% organization is not a subpart	67.0	68.4	69.8	2.12	2.06	30% (+/-)	Yes	Yes
% not answered	17.8	11.3	11.1	-36.26	-1.84	N/A	N/A	N/A

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

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

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2009-2011 MAX LT Billing Provider Characteristics Validation Table
 State: TN
 Produced: 05/20/2013

Measure	2009 Value	2010 Value	2011 Value	% Change 2009-2010	% Change 2010-2011	Cross Year Expected Range	Cross Year 2009-2010 Within Range ^a	Cross Year 2010-2011 Within Range ^a
LT Providers								
Number of provider IDs	899	962	1,000	7.01	3.95	30% (+/-)	Yes	Yes
% billing provider on LT claim	49.4	50.2	50.9	1.66	1.38	N/A	N/A	N/A
% NPI billing provider on LT claim	50.6	49.8	49.1	-1.62	-1.39	N/A	N/A	N/A
% also a provider on IP claim	74.6	73.6	71.4	-1.39	-2.99	N/A	N/A	N/A
% also a provider on OT claim	71.5	69.5	66.9	-2.77	-3.80	N/A	N/A	N/A
% also a provider on RX claim	0.3	0.3	0.5	-6.59	60.26	N/A	N/A	N/A
% provider IDs with NPI	94.7	94.4	93.4	-0.29	-1.05	30% (+/-)	Yes	Yes
% provider IDs linked to NPPES	94.7	94.4	93.4	-0.29	-1.05	30% (+/-)	Yes	Yes
% provider IDs with or without NPI but linked to state provider file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
average number of LT claims	656.5	806.2	1,204.6	22.80	49.43	30% (+/-)	Yes	No
average number of beneficiaries with LT claims	83.2	77.5	76.0	-6.83	-1.92	30% (+/-)	Yes	Yes
Provider IDs with NPI								
Number of provider IDs with NPI	851	908	934	6.70	2.86	30% (+/-)	Yes	Yes
% NPI source = MSIS	100.0	100.0	100.0	0.00	0.00	30% (+/-)	Yes	Yes
% NPI source = NPPES	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% NPI source = state cross-reference file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs Linked to NPPES								
Number of provider IDs linked to NPPES	851	908	934	6.70	2.86	30% (+/-)	Yes	Yes
% linked via NPI	100.0	100.0	100.0	0.00	0.00	30% (+/-)	Yes	Yes
% linked via Medicaid legacy provider ID	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% linked via Medicare UPIN	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% with name prefix	0.2	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	N/A
% with first name	0.4	0.1	0.1	-68.84	-2.67	30% (+/-)	Yes	Yes
% with middle name	0.4	0.1	0.1	-68.84	-2.67	30% (+/-)	Yes	Yes
% with last name	0.4	0.1	0.1	-68.84	-2.67	30% (+/-)	Yes	Yes
% with name suffix	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% male	0.2	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	N/A
% female	0.1	0.1	0.1	-6.78	-2.67	30% (+/-)	Yes	Yes
% with credential	0.2	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	N/A
% with business name	99.6	99.9	99.9	0.24	0.00	30% (+/-)	Yes	Yes
% with address line 1	100.0	100.0	100.0	0.00	0.00	30% (+/-)	Yes	Yes
% with city	100.0	100.0	100.0	0.00	0.00	30% (+/-)	Yes	Yes
% with state	100.0	100.0	100.0	0.00	0.00	30% (+/-)	Yes	Yes
% state = LT state code	98.5	97.9	98.1	-0.57	0.17	30% (+/-)	Yes	Yes
% with zip code	100.0	100.0	100.0	0.00	0.00	30% (+/-)	Yes	Yes
% with primary taxonomy	97.7	97.7	98.1	0.04	0.39	30% (+/-)	Yes	Yes
% with provider entity type = individual	0.4	0.1	0.1	-68.84	-2.67	30% (+/-)	Yes	Yes
% with provider entity type = organization	99.6	99.9	99.9	0.24	0.00	30% (+/-)	Yes	Yes
Provider IDs with or without NPI but linked to state provider file								
Number of provider IDs with or without NPI linked to state provider file	0	0	0	Div by 0	Div by 0	N/A	N/A	N/A

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

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

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

2009-2011 MAX LT Billing Provider Characteristics Validation Table
 State: TN
 Produced: 05/20/2013

Measure	2009 Value	2010 Value	2011 Value	% Change 2009-2010	% Change 2010-2011	Cross Year Expected Range	Cross Year 2009-2010 Within Range ^a	Cross Year 2010-2011 Within Range ^a
Provider IDs with NPPES Primary Taxonomy								
Number of provider IDs with NPPES primary taxonomy	831	887	916	6.74	3.27	30% (+/-)	Yes	Yes
% individual or group of individuals	1.1	0.7	0.7	-37.58	-3.10	30% (+/-)	Yes	Yes
% allopathic and osteopathic physicians	0.5	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	N/A
% behavioral health and social service providers	0.6	0.7	0.7	12.29	-3.10	30% (+/-)	Yes	Yes
% chiropractic providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% dental providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% dietary and nutritional service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% emergency medical service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% eye and vision service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nursing service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nursing service-related providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% other service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% pharmacy service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% physician assistants and advanced practice nursing providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% podiatric medicine and surgery service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% respiratory, developmental, rehabilitative, and restorative service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% speech, language, and hearing service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% student health care	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% technologists, technicians, and other technical service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% group of individuals with multi- or single specialty	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nonindividuals	98.9	99.3	99.3	0.41	0.02	30% (+/-)	Yes	Yes
% agencies	0.1	0.5	0.5	275.83	21.03	30% (+/-)	Yes	Yes
% ambulatory health care facilities	0.7	0.3	0.7	-53.19	93.79	30% (+/-)	Yes	Yes
% hospital units	2.6	3.5	4.1	32.04	18.70	30% (+/-)	Yes	Yes
% hospitals	6.6	7.2	6.9	9.00	-4.67	30% (+/-)	Yes	Yes
% laboratories	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% managed care organizations	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nursing and custodial care facilities	87.0	82.4	81.8	-5.28	-0.78	30% (+/-)	Yes	Yes
% residential treatment facilities	1.8	4.8	5.1	168.59	5.84	30% (+/-)	Yes	Yes
% respite care facility	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% suppliers	0.0	0.6	0.2	Div by 0	-61.29	30% (+/-)	N/A	Yes
% transportation services	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nonmedical	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs with Entity Type = Individual								
Number of provider IDs with entity type = individual	3	1	1	-66.67	0.00	30% (+/-)	Yes	Yes
% a sole proprietorship	33.3	100.0	100.0	200.00	0.00	30% (+/-)	No	Yes
% not a sole proprietorship	66.7	0.0	0.0	-100.00	Div by 0	30% (+/-)	No	N/A
% not answered	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs with Entity Type = Organization								
Number of provider IDs with entity type = organization	848	907	933	6.96	2.87	30% (+/-)	Yes	Yes
% organization is a subpart	18.5	31.1	31.9	67.94	2.73	30% (+/-)	No	Yes
% organization is not a subpart	50.5	46.6	46.9	-7.60	0.66	30% (+/-)	Yes	Yes
% not answered	31.0	22.3	21.1	-28.19	-5.19	N/A	N/A	N/A

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

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

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

2009-2011 MAX OT Servicing Provider Characteristics Validation Table
 State: TN
 Produced: 05/20/2013

Measure	2009 Value	2010 Value	2011 Value	% Change 2009-2010	% Change 2010-2011	Cross Year Expected Range	Cross Year 2009-2010 Within Range ^a	Cross Year 2010-2011 Within Range ^a
OT Providers								
Number of provider IDs	73,493	73,001	75,677	-0.67	3.67	30% (+/-)	Yes	Yes
% billing provider on OT claim	32.5	33.2	33.7	2.17	1.48	N/A	N/A	N/A
% servicing provider on OT claim	73.6	73.5	74.5	-0.17	1.41	N/A	N/A	N/A
% NPI servicing provider on OT claim	26.6	27.0	26.4	1.44	-2.15	N/A	N/A	N/A
% also a provider on IP claim	2.0	1.6	1.7	-17.22	4.42	N/A	N/A	N/A
% also a provider on LT claim	0.8	0.6	0.7	-25.96	22.97	N/A	N/A	N/A
% also a provider on RX claim	22.4	24.5	27.9	9.56	13.53	N/A	N/A	N/A
% provider IDs with NPI	76.0	75.6	75.5	-0.50	-0.12	30% (+/-)	Yes	Yes
% provider IDs linked to NPPES	75.8	75.6	75.5	-0.21	-0.11	30% (+/-)	Yes	Yes
% provider IDs with or without NPI but linked to state provider file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
average number of OT claims	1,045.8	1,246.7	1,184.5	19.21	-4.99	30% (+/-)	Yes	Yes
average number of beneficiaries with OT claims	235.4	250.8	244.5	6.55	-2.50	30% (+/-)	Yes	Yes
Provider IDs with NPI								
Number of provider IDs with NPI	55,856	55,206	57,162	-1.16	3.54	30% (+/-)	Yes	Yes
% NPI source = MSIS	98.5	99.1	99.4	0.65	0.30	30% (+/-)	Yes	Yes
% NPI source = NPPES	1.5	0.9	0.6	-43.00	-35.04	30% (+/-)	Yes	Yes
% NPI source = state cross-reference file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs Linked to NPPES								
Number of provider IDs linked to NPPES	55,682	55,194	57,155	-0.88	3.55	30% (+/-)	Yes	Yes
% linked via NPI	98.5	99.1	99.4	0.66	0.30	30% (+/-)	Yes	Yes
% linked via Medicaid legacy provider ID	0.0	0.0	0.0	50.00	42.56	30% (+/-)	Yes	Yes
% linked via Medicare UPIN	1.5	0.8	0.5	-44.32	-37.57	30% (+/-)	Yes	Yes
% with name prefix	28.4	29.7	29.7	4.77	-0.14	30% (+/-)	Yes	Yes
% with first name	62.8	65.0	65.3	3.61	0.44	30% (+/-)	Yes	Yes
% with middle name	49.9	52.3	52.4	4.76	0.24	30% (+/-)	Yes	Yes
% with last name	62.8	65.0	65.3	3.61	0.44	30% (+/-)	Yes	Yes
% with name suffix	3.3	3.5	3.4	5.28	-1.33	30% (+/-)	Yes	Yes
% male	39.6	40.1	39.2	1.10	-2.02	30% (+/-)	Yes	Yes
% female	23.1	25.0	26.1	7.91	4.38	30% (+/-)	Yes	Yes
% with credential	60.8	62.9	63.0	3.45	0.13	30% (+/-)	Yes	Yes
% with business name	37.2	34.6	34.5	-7.08	-0.38	30% (+/-)	Yes	Yes
% with address line 1	100.0	99.6	99.8	-0.37	0.15	30% (+/-)	Yes	Yes
% with city	100.0	99.6	99.8	-0.37	0.15	30% (+/-)	Yes	Yes
% with state	100.0	99.6	99.8	-0.37	0.15	30% (+/-)	Yes	Yes
% state = OT state code	72.7	73.8	75.5	1.62	2.28	30% (+/-)	Yes	Yes
% with zip code	100.0	99.6	99.8	-0.37	0.15	30% (+/-)	Yes	Yes
% with primary taxonomy	99.4	98.4	98.5	-1.01	0.15	30% (+/-)	Yes	Yes
% with provider entity type = individual	62.8	65.0	65.3	3.61	0.44	30% (+/-)	Yes	Yes
% with provider entity type = organization	37.2	34.6	34.5	-7.08	-0.38	30% (+/-)	Yes	Yes
Provider IDs with or without NPI but linked to state provider file								
Number of provider IDs with or without NPI linked to state provider file	0	0	0	Div by 0	Div by 0	N/A	N/A	N/A

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

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

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

2009-2011 MAX OT Servicing Provider Characteristics Validation Table
 State: TN
 Produced: 05/20/2013

Measure	2009 Value	2010 Value	2011 Value	% Change 2009-2010	% Change 2010-2011	Cross Year Expected Range	Cross Year 2009-2010 Within Range ^a	Cross Year 2010-2011 Within Range ^a
Provider IDs with NPPES Primary Taxonomy								
Number of provider IDs with NPPES primary taxonomy	55,483	54,313	56,326	-2.11	3.71	30% (+/-)	Yes	Yes
% individual or group of individuals	66.4	69.5	70.7	4.57	1.72	30% (+/-)	Yes	Yes
% allopathic and osteopathic physicians	37.7	37.1	36.2	-1.64	-2.47	30% (+/-)	Yes	Yes
% behavioral health and social service providers	5.0	5.7	5.7	13.80	-0.59	30% (+/-)	Yes	Yes
% chiropractic providers	0.4	0.5	0.4	18.57	-20.95	30% (+/-)	Yes	Yes
% dental providers	2.3	3.7	4.6	62.64	24.12	30% (+/-)	Yes	Yes
% dietary and nutritional service providers	0.0	0.0	0.0	16.00	22.44	30% (+/-)	Yes	Yes
% emergency medical service providers	0.0	0.1	0.1	227.78	2.31	30% (+/-)	Yes	Yes
% eye and vision service providers	2.3	2.4	2.5	2.49	3.02	30% (+/-)	Yes	Yes
% nursing service providers	0.4	0.4	0.5	11.34	7.25	30% (+/-)	Yes	Yes
% nursing service-related providers	0.0	0.0	0.0	51.85	12.59	30% (+/-)	Yes	Yes
% other service providers	1.8	2.8	2.8	56.98	0.14	30% (+/-)	Yes	Yes
% pharmacy service providers	0.0	0.0	0.0	266.67	-40.82	30% (+/-)	Yes	Yes
% physician assistants and advanced practice nursing providers	10.7	12.2	13.3	13.71	9.01	30% (+/-)	Yes	Yes
% podiatric medicine and surgery service providers	0.5	0.4	0.4	-7.76	-2.27	30% (+/-)	Yes	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	2.5	2.8	2.8	13.50	-0.61	30% (+/-)	Yes	Yes
% speech, language, and hearing service providers	0.8	1.0	1.1	33.33	8.57	30% (+/-)	Yes	Yes
% student health care	0.2	0.2	0.3	8.33	61.93	30% (+/-)	Yes	Yes
% technologists, technicians, and other technical service providers	0.0	0.0	0.0	242.86	-18.63	30% (+/-)	Yes	Yes
% group of individuals with multi- or single specialty	1.8	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	N/A
% nonindividuals	33.6	30.5	29.3	-9.05	-3.92	30% (+/-)	Yes	Yes
% agencies	2.1	1.7	2.8	-22.28	70.65	30% (+/-)	Yes	Yes
% ambulatory health care facilities	2.7	2.4	2.3	-11.57	-2.14	30% (+/-)	Yes	Yes
% hospital units	1.4	0.1	0.1	-93.63	-9.26	30% (+/-)	Yes	Yes
% hospitals	21.6	20.8	18.5	-3.32	-10.99	30% (+/-)	Yes	Yes
% laboratories	0.5	0.6	0.7	31.71	3.56	30% (+/-)	Yes	Yes
% managed care organizations	0.0	0.0	0.0	222.22	-26.54	30% (+/-)	Yes	Yes
% nursing and custodial care facilities	1.3	0.9	1.1	-32.25	20.41	30% (+/-)	Yes	Yes
% residential treatment facilities	0.1	0.1	0.1	56.79	-6.34	30% (+/-)	Yes	Yes
% respite care facility	0.0	0.0	0.0	175.00	45.26	30% (+/-)	Yes	Yes
% suppliers	2.7	2.7	2.5	-1.34	-6.66	30% (+/-)	Yes	Yes
% transportation services	1.2	1.2	1.2	1.26	-2.56	30% (+/-)	Yes	Yes
% nonmedical	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs with Entity Type = Individual								
Number of provider IDs with entity type = individual	34,941	35,886	37,323	2.70	4.00	30% (+/-)	Yes	Yes
% a sole proprietorship	17.7	18.8	19.4	6.44	3.17	30% (+/-)	Yes	Yes
% not a sole proprietorship	71.7	73.8	73.4	2.88	-0.44	30% (+/-)	Yes	Yes
% not answered	10.6	7.4	7.1	-30.19	-3.70	N/A	N/A	N/A
Provider IDs with Entity Type = Organization								
Number of provider IDs with entity type = organization	20,741	19,103	19,707	-7.90	3.16	30% (+/-)	Yes	Yes
% organization is a subpart	10.3	7.9	8.1	-23.25	2.46	30% (+/-)	Yes	Yes
% organization is not a subpart	76.2	82.5	82.8	8.22	0.35	30% (+/-)	Yes	Yes
% not answered	13.5	9.6	9.2	-28.66	-5.01	N/A	N/A	N/A

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

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2009-2011 MAX OT Billing Provider Characteristics Validation Table
 State: TN
 Produced: 05/20/2013

Measure	2009 Value	2010 Value	2011 Value	% Change 2009-2010	% Change 2010-2011	Cross Year Expected Range	Cross Year 2009-2010 Within Range ^a	Cross Year 2010-2011 Within Range ^a
OT Providers								
Number of provider IDs	25,788	27,080	28,963	5.01	6.95	30% (+/-)	Yes	Yes
% billing provider on OT claim	100.0	100.0	100.0	0.00	0.00	N/A	N/A	N/A
% servicing provider on OT claim	92.6	89.5	88.0	-3.36	-1.64	N/A	N/A	N/A
% NPI servicing provider on OT claim	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
% also a provider on IP claim	3.0	2.9	2.7	-4.77	-4.82	N/A	N/A	N/A
% also a provider on LT claim	1.3	1.2	1.2	-0.64	-4.83	N/A	N/A	N/A
% also a provider on RX claim	0.2	0.2	0.3	0.47	30.69	N/A	N/A	N/A
% provider IDs with NPI	84.7	83.0	81.3	-2.02	-2.04	30% (+/-)	Yes	Yes
% provider IDs linked to NPPES	84.4	83.0	81.3	-1.65	-2.04	30% (+/-)	Yes	Yes
% provider IDs with or without NPI but linked to state provider file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
average number of OT claims	2,680.7	2,900.0	2,291.6	8.18	-20.98	30% (+/-)	Yes	Yes
average number of beneficiaries with OT claims	468.8	488.0	441.8	4.11	-9.48	30% (+/-)	Yes	Yes
Provider IDs with NPI								
Number of provider IDs with NPI	21,836	22,466	23,539	2.89	4.78	30% (+/-)	Yes	Yes
% NPI source = MSIS	100.0	100.0	100.0	0.00	-0.01	30% (+/-)	Yes	Yes
% NPI source = NPPES	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% NPI source = state cross-reference file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs Linked to NPPES								
Number of provider IDs linked to NPPES	21,753	22,466	23,539	3.28	4.78	30% (+/-)	Yes	Yes
% linked via NPI	100.0	100.0	100.0	0.00	-0.01	30% (+/-)	Yes	Yes
% linked via Medicaid legacy provider ID	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% linked via Medicare UPIN	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% with name prefix	39.6	41.4	40.8	4.45	-1.45	30% (+/-)	Yes	Yes
% with first name	84.8	86.6	85.5	2.10	-1.23	30% (+/-)	Yes	Yes
% with middle name	68.3	70.6	69.7	3.39	-1.20	30% (+/-)	Yes	Yes
% with last name	84.8	86.6	85.5	2.10	-1.23	30% (+/-)	Yes	Yes
% with name suffix	5.0	5.2	5.0	3.90	-4.80	30% (+/-)	Yes	Yes
% male	56.6	56.7	55.0	0.24	-3.04	30% (+/-)	Yes	Yes
% female	28.2	29.8	30.5	5.82	2.20	30% (+/-)	Yes	Yes
% with credential	83.2	85.0	83.9	2.22	-1.31	30% (+/-)	Yes	Yes
% with business name	15.2	13.0	14.2	-14.48	9.59	30% (+/-)	Yes	Yes
% with address line 1	100.0	99.6	99.8	-0.42	0.18	30% (+/-)	Yes	Yes
% with city	100.0	99.6	99.8	-0.42	0.18	30% (+/-)	Yes	Yes
% with state	100.0	99.6	99.8	-0.42	0.18	30% (+/-)	Yes	Yes
% state = OT state code	86.0	86.1	86.5	0.03	0.56	30% (+/-)	Yes	Yes
% with zip code	100.0	99.6	99.8	-0.42	0.18	30% (+/-)	Yes	Yes
% with primary taxonomy	99.2	98.2	98.4	-1.01	0.18	30% (+/-)	Yes	Yes
% with provider entity type = individual	84.8	86.6	85.5	2.10	-1.23	30% (+/-)	Yes	Yes
% with provider entity type = organization	15.2	13.0	14.2	-14.48	9.59	30% (+/-)	Yes	Yes
Provider IDs with or without NPI but linked to state provider file								
Number of provider IDs with or without NPI linked to state provider file	0	0	0	Div by 0	Div by 0	N/A	N/A	N/A

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

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

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2009-2011 MAX OT Billing Provider Characteristics Validation Table
 State: TN
 Produced: 05/20/2013

Measure	2009 Value	2010 Value	2011 Value	% Change 2009-2010	% Change 2010-2011	Cross Year Expected Range	Cross Year 2009-2010 Within Range ^a	Cross Year 2010-2011 Within Range ^a
Provider IDs with NPPES Primary Taxonomy								
Number of provider IDs with NPPES primary taxonomy	21,647	22,064	23,160	1.93	4.97	30% (+/-)	Yes	Yes
% individual or group of individuals	86.9	89.2	89.4	2.64	0.24	30% (+/-)	Yes	Yes
% allopathic and osteopathic physicians	56.4	54.4	54.0	-3.51	-0.68	30% (+/-)	Yes	Yes
% behavioral health and social service providers	3.6	3.5	3.6	-4.13	3.45	30% (+/-)	Yes	Yes
% chiropractic providers	0.5	0.5	0.5	5.07	-12.68	30% (+/-)	Yes	Yes
% dental providers	2.1	4.7	4.7	122.87	-1.17	30% (+/-)	Yes	Yes
% dietary and nutritional service providers	0.0	0.0	0.0	260.00	-4.05	30% (+/-)	Yes	Yes
% emergency medical service providers	0.0	0.1	0.1	177.78	38.17	30% (+/-)	Yes	Yes
% eye and vision service providers	2.9	2.9	2.9	0.00	-1.15	30% (+/-)	Yes	Yes
% nursing service providers	0.2	0.2	0.2	29.63	0.45	30% (+/-)	Yes	Yes
% nursing service-related providers	0.0	0.0	0.0	360.00	-24.91	30% (+/-)	Yes	Yes
% other service providers	2.4	3.5	3.4	43.12	-3.73	30% (+/-)	Yes	Yes
% pharmacy service providers	0.0	0.0	0.0	100.00	-4.05	30% (+/-)	Yes	Yes
% physician assistants and advanced practice nursing providers	13.6	14.8	15.4	8.94	3.95	30% (+/-)	Yes	Yes
% podiatric medicine and surgery service providers	0.8	0.8	0.8	-4.09	1.18	30% (+/-)	Yes	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	2.2	2.3	2.2	3.53	-3.58	30% (+/-)	Yes	Yes
% speech, language, and hearing service providers	0.8	1.1	1.2	31.70	10.20	30% (+/-)	Yes	Yes
% student health care	0.2	0.3	0.4	59.66	39.83	30% (+/-)	Yes	Yes
% technologists, technicians, and other technical service providers	0.0	0.0	0.0	540.00	-5.55	30% (+/-)	Yes	Yes
% group of individuals with multi- or single specialty	1.0	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	N/A
% nonindividuals	13.1	10.8	10.6	-17.49	-1.98	30% (+/-)	Yes	Yes
% agencies	1.4	1.3	1.2	-7.61	-8.29	30% (+/-)	Yes	Yes
% ambulatory health care facilities	1.6	0.8	1.2	-51.37	51.07	30% (+/-)	Yes	Yes
% hospital units	0.1	0.0	0.1	-59.46	24.74	30% (+/-)	Yes	Yes
% hospitals	4.5	3.3	2.9	-26.78	-11.96	30% (+/-)	Yes	Yes
% laboratories	0.4	0.5	0.5	26.76	2.77	30% (+/-)	Yes	Yes
% managed care organizations	0.0	0.0	0.0	360.00	-43.68	30% (+/-)	Yes	Yes
% nursing and custodial care facilities	1.3	1.3	1.2	3.75	-8.96	30% (+/-)	Yes	Yes
% residential treatment facilities	0.1	0.1	0.1	22.83	-4.47	30% (+/-)	Yes	Yes
% respite care facility	0.0	0.0	0.0	180.00	-7.48	30% (+/-)	Yes	Yes
% suppliers	2.8	2.5	2.4	-10.70	-3.88	30% (+/-)	Yes	Yes
% transportation services	0.9	0.9	1.0	-1.89	11.85	30% (+/-)	Yes	Yes
% nonmedical	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs with Entity Type = Individual								
Number of provider IDs with entity type = individual	18,446	19,450	20,128	5.44	3.49	30% (+/-)	Yes	Yes
% a sole proprietorship	18.3	19.1	19.0	4.55	-0.27	30% (+/-)	Yes	Yes
% not a sole proprietorship	70.7	73.4	73.7	3.71	0.53	30% (+/-)	Yes	Yes
% not answered	11.0	7.5	7.2	-31.44	-4.42	N/A	N/A	N/A
Provider IDs with Entity Type = Organization								
Number of provider IDs with entity type = organization	3,307	2,921	3,354	-11.67	14.82	30% (+/-)	Yes	Yes
% organization is a subpart	9.7	11.4	10.8	17.44	-5.32	30% (+/-)	Yes	Yes
% organization is not a subpart	69.7	72.9	74.0	4.57	1.57	30% (+/-)	Yes	Yes
% not answered	20.6	15.7	15.2	-23.69	-3.42	N/A	N/A	N/A

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

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

2009-2011 MAX RX Billing Provider Characteristics Validation Table
 State: TN
 Produced: 05/20/2013

Measure	2009 Value	2010 Value	2011 Value	% Change 2009-2010	% Change 2010-2011	Cross Year Expected Range	Cross Year 2009-2010 Within Range ^a	Cross Year 2010-2011 Within Range ^a
RX Providers								
Number of provider IDs	14,399	15,542	16,224	7.94	4.39	30% (+/-)	Yes	Yes
% billing provider on RX claim	51.1	50.6	50.5	-0.98	-0.25	N/A	N/A	N/A
% prescribing provider on RX claim	0.0	0.0	0.0	-9.52	-35.12	N/A	N/A	N/A
% NPI billing provider on RX claim	48.9	49.4	49.5	1.02	0.25	N/A	N/A	N/A
% also a provider on IP claim	0.0	0.0	0.1	-9.52	191.97	N/A	N/A	N/A
% also a provider on LT claim	0.0	0.0	0.0	-9.52	29.76	N/A	N/A	N/A
% also a provider on OT claim	1.2	1.0	1.1	-11.70	4.00	N/A	N/A	N/A
% provider IDs with NPI	100.0	99.9	99.9	-0.03	-0.05	30% (+/-)	Yes	Yes
% provider IDs linked to NPPES	99.5	99.9	99.9	0.41	-0.05	30% (+/-)	Yes	Yes
% provider IDs with or without NPI but linked to state provider file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
average number of RX claims	2,383.5	1,686.4	1,659.6	-29.25	-1.59	30% (+/-)	Yes	Yes
average number of beneficiaries with RX claims	228.5	213.0	209.0	-6.77	-1.90	30% (+/-)	Yes	Yes
Provider IDs with NPI								
Number of provider IDs with NPI	14,392	15,530	16,203	7.91	4.33	30% (+/-)	Yes	Yes
% NPI source = MSIS	100.0	100.0	100.0	0.00	0.00	30% (+/-)	Yes	Yes
% NPI source = NPPES	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% NPI source = state cross-reference file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs Linked to NPPES								
Number of provider IDs linked to NPPES	14,329	15,530	16,203	8.38	4.33	30% (+/-)	Yes	Yes
% linked via NPI	100.0	100.0	100.0	0.00	0.00	30% (+/-)	Yes	Yes
% linked via Medicaid legacy provider ID	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% linked via Medicare UPIN	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% with name prefix	0.0	0.1	0.0	107.14	-78.72	30% (+/-)	Yes	Yes
% with first name	0.1	0.1	0.0	50.00	-41.22	30% (+/-)	Yes	Yes
% with middle name	0.0	0.1	0.0	38.10	-68.08	30% (+/-)	Yes	Yes
% with last name	0.1	0.1	0.0	50.00	-41.22	30% (+/-)	Yes	Yes
% with name suffix	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% male	0.0	0.0	0.0	114.29	26.60	30% (+/-)	Yes	Yes
% female	0.0	0.0	0.0	114.29	-100.00	30% (+/-)	Yes	Yes
% with credential	0.1	0.1	0.0	26.79	-47.84	30% (+/-)	Yes	Yes
% with business name	99.9	99.5	99.9	-0.43	0.40	30% (+/-)	Yes	Yes
% with address line 1	100.0	99.6	100.0	-0.40	0.36	30% (+/-)	Yes	Yes
% with city	100.0	99.6	100.0	-0.40	0.36	30% (+/-)	Yes	Yes
% with state	100.0	99.6	100.0	-0.40	0.36	30% (+/-)	Yes	Yes
% state = RX state code	21.7	20.5	20.0	-5.38	-2.53	30% (+/-)	Yes	Yes
% with zip code	100.0	99.6	100.0	-0.40	0.36	30% (+/-)	Yes	Yes
% with primary taxonomy	100.0	99.2	99.6	-0.80	0.42	30% (+/-)	Yes	Yes
% with provider entity type = individual	0.1	0.1	0.0	50.00	-41.22	30% (+/-)	Yes	Yes
% with provider entity type = organization	99.9	99.5	99.9	-0.43	0.40	30% (+/-)	Yes	Yes
Provider IDs with or without NPI but linked to state provider file								
Number of provider IDs with or without NPI linked to state provider file	0	0	0	Div by 0	Div by 0	N/A	N/A	N/A

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

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

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

2009-2011 MAX RX Billing Provider Characteristics Validation Table
 State: TN
 Produced: 05/20/2013

Measure	2009 Value	2010 Value	2011 Value	% Change 2009-2010	% Change 2010-2011	Cross Year Expected Range	Cross Year 2009-2010 Within Range ^a	Cross Year 2010-2011 Within Range ^a
Provider IDs with NPPES Primary Taxonomy								
Number of provider IDs with NPPES primary taxonomy	14,384	15,400	16,135	7.06	4.77	30% (+/-)	Yes	Yes
% individual or group of individuals	0.1	1.1	1.0	1,485.71	-9.55	30% (+/-)	Yes	Yes
% allopathic and osteopathic physicians	0.1	0.2	0.2	341.07	-27.23	30% (+/-)	Yes	Yes
% behavioral health and social service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% chiropractic providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% dental providers	0.0	0.0	0.0	85.71	-100.00	30% (+/-)	Yes	Yes
% dietary and nutritional service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% emergency medical service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% eye and vision service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nursing service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nursing service-related providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% other service providers	0.0	0.0	0.0	Div by 0	106.59	30% (+/-)	N/A	Yes
% pharmacy service providers	0.0	0.8	0.8	11,957.14	-3.80	30% (+/-)	Yes	Yes
% physician assistants and advanced practice nursing providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% podiatric medicine and surgery service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% respiratory, developmental, rehabilitative, and restorative service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% speech, language, and hearing service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% student health care	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% technologists, technicians, and other technical service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% group of individuals with multi- or single specialty	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nonindividuals	99.9	98.9	99.0	-1.04	0.11	30% (+/-)	Yes	Yes
% agencies	0.0	0.1	0.0	364.29	-33.26	30% (+/-)	Yes	Yes
% ambulatory health care facilities	0.0	0.1	0.1	85.71	90.70	30% (+/-)	Yes	Yes
% hospital units	0.0	0.0	0.0	Div by 0	-4.65	30% (+/-)	N/A	Yes
% hospitals	0.0	0.1	0.1	642.86	19.19	30% (+/-)	Yes	Yes
% laboratories	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% managed care organizations	0.0	0.0	0.0	Div by 0	-4.65	30% (+/-)	N/A	Yes
% nursing and custodial care facilities	0.0	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	N/A
% residential treatment facilities	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% respite care facility	0.0	0.0	0.0	Div by 0	-4.65	30% (+/-)	N/A	Yes
% suppliers	99.9	98.7	98.8	-1.19	0.07	30% (+/-)	Yes	Yes
% transportation services	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nonmedical	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs with Entity Type = Individual								
Number of provider IDs with entity type = individual	8	13	8	62.50	-38.46	30% (+/-)	No	No
% a sole proprietorship	12.5	30.8	50.0	146.15	62.50	30% (+/-)	No	No
% not a sole proprietorship	62.5	53.8	25.0	-13.85	-53.57	30% (+/-)	Yes	No
% not answered	25.0	15.4	25.0	-38.46	62.50	N/A	N/A	N/A
Provider IDs with Entity Type = Organization								
Number of provider IDs with entity type = organization	14,321	15,455	16,189	7.92	4.75	30% (+/-)	Yes	Yes
% organization is a subpart	58.9	61.1	63.1	3.68	3.22	30% (+/-)	Yes	Yes
% organization is not a subpart	38.5	37.3	35.6	-3.10	-4.60	30% (+/-)	Yes	Yes
% not answered	2.6	1.6	1.4	-37.33	-15.48	N/A	N/A	N/A

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

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

2009-2011 MAX RX Prescribing Provider Characteristics Validation Table

State: TN

Produced: 05/20/2013

Measure	2009 Value	2010 Value	2011 Value	% Change 2009-2010	% Change 2010-2011	Cross Year Expected Range	Cross Year 2009-2010 Within Range ^a	Cross Year 2010-2011 Within Range ^a
RX Providers								
Number of provider IDs	61,665	64,729	64,376	4.97	-0.55	30% (+/-)	Yes	Yes
% billing provider on RX claim	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
% prescribing provider on RX claim	100.0	100.0	100.0	0.00	0.00	N/A	N/A	N/A
% NPI billing provider on RX claim	0.0	0.0	0.0	0.00	-37.87	N/A	N/A	N/A
% also a provider on IP claim	0.0	0.0	0.0	50.00	107.12	N/A	N/A	N/A
% also a provider on LT claim	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
% also a provider on OT claim	26.4	27.4	32.5	3.83	18.43	N/A	N/A	N/A
% provider IDs with NPI	6.6	7.5	10.3	13.07	37.75	30% (+/-)	Yes	No
% provider IDs linked to NPPES	6.6	7.5	10.3	13.33	37.75	30% (+/-)	Yes	No
% provider IDs with or without NPI but linked to state provider file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
average number of RX claims	278.6	202.8	209.6	-27.19	3.33	30% (+/-)	Yes	Yes
average number of beneficiaries with RX claims	47.3	46.4	49.9	-1.79	7.54	30% (+/-)	Yes	Yes
Provider IDs with NPI								
Number of provider IDs with NPI	4,066	4,826	6,612	18.69	37.01	30% (+/-)	Yes	No
% NPI source = MSIS	99.2	99.3	99.5	0.10	0.12	30% (+/-)	Yes	Yes
% NPI source = NPPES	0.8	0.7	0.5	-12.99	-17.88	30% (+/-)	Yes	Yes
% NPI source = state cross-reference file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs Linked to NPPES								
Number of provider IDs linked to NPPES	4,057	4,826	6,612	18.95	37.01	30% (+/-)	Yes	No
% linked via NPI	99.2	99.3	99.5	0.10	0.12	30% (+/-)	Yes	Yes
% linked via Medicaid legacy provider ID	0.2	0.2	0.2	-6.76	-19.63	30% (+/-)	Yes	Yes
% linked via Medicare UPIN	0.5	0.5	0.4	-15.87	-17.08	30% (+/-)	Yes	Yes
% with name prefix	32.3	32.3	34.0	-0.08	5.24	30% (+/-)	Yes	Yes
% with first name	57.6	58.1	60.9	0.83	4.94	30% (+/-)	Yes	Yes
% with middle name	48.6	48.9	51.0	0.70	4.33	30% (+/-)	Yes	Yes
% with last name	57.6	58.1	60.9	0.83	4.94	30% (+/-)	Yes	Yes
% with name suffix	3.8	3.7	3.6	-2.38	-3.50	30% (+/-)	Yes	Yes
% male	35.0	34.8	37.6	-0.52	8.00	30% (+/-)	Yes	Yes
% female	22.7	23.3	23.4	2.91	0.37	30% (+/-)	Yes	Yes
% with credential	56.1	56.5	59.2	0.81	4.76	30% (+/-)	Yes	Yes
% with business name	42.4	41.5	38.8	-2.00	-6.55	30% (+/-)	Yes	Yes
% with address line 1	100.0	99.6	99.8	-0.37	0.15	30% (+/-)	Yes	Yes
% with city	100.0	99.6	99.8	-0.37	0.15	30% (+/-)	Yes	Yes
% with state	100.0	99.6	99.8	-0.37	0.15	30% (+/-)	Yes	Yes
% state = RX state code	80.1	80.5	77.7	0.47	-3.41	30% (+/-)	Yes	Yes
% with zip code	100.0	99.6	99.8	-0.37	0.15	30% (+/-)	Yes	Yes
% with primary taxonomy	99.9	99.1	99.3	-0.74	0.23	30% (+/-)	Yes	Yes
% with provider entity type = individual	57.6	58.1	60.9	0.83	4.94	30% (+/-)	Yes	Yes
% with provider entity type = organization	42.4	41.5	38.8	-2.00	-6.55	30% (+/-)	Yes	Yes
Provider IDs with or without NPI but linked to state provider file								
Number of provider IDs with or without NPI linked to state provider file	0	0	0	Div by 0	Div by 0	N/A	N/A	N/A

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

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

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

2009-2011 MAX RX Prescribing Provider Characteristics Validation Table

State: TN

Produced: 05/20/2013

Measure	2009 Value	2010 Value	2011 Value	% Change 2009-2010	% Change 2010-2011	Cross Year Expected Range	Cross Year 2009-2010 Within Range ^a	Cross Year 2010-2011 Within Range ^a
Provider IDs with NPPES Primary Taxonomy								
Number of provider IDs with NPPES primary taxonomy	4,059	4,783	6,568	17.84	37.32	30% (+/-)	Yes	No
% individual or group of individuals	58.8	58.8	61.4	-0.10	4.40	30% (+/-)	Yes	Yes
% allopathic and osteopathic physicians	17.1	15.8	16.6	-7.43	4.95	30% (+/-)	Yes	Yes
% behavioral health and social service providers	0.2	0.3	0.7	48.73	133.84	30% (+/-)	Yes	Yes
% chiropractic providers	0.1	0.1	0.1	-14.63	-13.00	30% (+/-)	Yes	Yes
% dental providers	15.0	16.0	18.7	6.78	16.61	30% (+/-)	Yes	Yes
% dietary and nutritional service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% emergency medical service providers	0.0	0.0	0.0	68.00	-100.00	30% (+/-)	Yes	Yes
% eye and vision service providers	8.9	8.6	7.9	-3.38	-7.86	30% (+/-)	Yes	Yes
% nursing service providers	0.3	0.3	0.3	-21.56	9.19	30% (+/-)	Yes	Yes
% nursing service-related providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% other service providers	0.7	0.9	0.8	27.25	-13.30	30% (+/-)	Yes	Yes
% pharmacy service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% physician assistants and advanced practice nursing providers	14.4	15.9	15.2	10.21	-4.69	30% (+/-)	Yes	Yes
% podiatric medicine and surgery service providers	0.3	0.1	0.2	-54.38	4.28	30% (+/-)	Yes	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	0.1	0.5	0.7	428.28	33.91	30% (+/-)	Yes	Yes
% speech, language, and hearing service providers	0.0	0.0	0.0	-14.29	8.75	30% (+/-)	Yes	Yes
% student health care	0.2	0.2	0.3	-32.11	82.34	30% (+/-)	Yes	Yes
% technologists, technicians, and other technical service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% group of individuals with multi- or single specialty	1.4	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	N/A
% nonindividuals	41.2	41.2	38.6	0.15	-6.27	30% (+/-)	Yes	Yes
% agencies	0.8	0.4	0.6	-45.29	42.05	30% (+/-)	Yes	Yes
% ambulatory health care facilities	1.2	0.4	0.5	-69.99	54.40	30% (+/-)	Yes	Yes
% hospital units	2.3	0.1	0.1	-97.28	93.34	30% (+/-)	Yes	Yes
% hospitals	35.6	40.0	37.1	12.25	-7.28	30% (+/-)	Yes	Yes
% laboratories	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% managed care organizations	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nursing and custodial care facilities	1.1	0.1	0.1	-88.20	-26.92	30% (+/-)	Yes	Yes
% residential treatment facilities	0.0	0.1	0.1	236.00	-27.50	30% (+/-)	Yes	Yes
% respite care facility	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% suppliers	0.2	0.2	0.1	-2.91	-27.06	30% (+/-)	Yes	Yes
% transportation services	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nonmedical	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs with Entity Type = Individual								
Number of provider IDs with entity type = individual	2,337	2,803	4,030	19.94	43.77	30% (+/-)	Yes	No
% a sole proprietorship	21.8	23.2	25.8	6.47	11.39	30% (+/-)	Yes	Yes
% not a sole proprietorship	65.7	67.8	65.9	3.26	-2.79	30% (+/-)	Yes	Yes
% not answered	12.5	9.0	8.2	-28.29	-8.36	N/A	N/A	N/A
Provider IDs with Entity Type = Organization								
Number of provider IDs with entity type = organization	1,720	2,005	2,567	16.57	28.03	30% (+/-)	Yes	Yes
% organization is a subpart	8.7	5.9	6.2	-31.49	4.36	30% (+/-)	Yes	Yes
% organization is not a subpart	81.3	88.3	87.6	8.67	-0.86	30% (+/-)	Yes	Yes
% not answered	10.1	5.7	6.2	-42.97	8.66	N/A	N/A	N/A

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

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

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

2009-2011 MAX All Provider Characteristics Validation Table
 State: TN
 Produced: 05/20/2013

Measure	2009 Value	2010 Value	2011 Value	% Change 2009-2010	% Change 2010-2011	Cross Year Expected Range	Cross Year 2009-2010 Within Range ^a	Cross Year 2010-2011 Within Range ^a
All Providers								
Number of provider IDs	135,392	138,621	139,182	2.38	0.40	30%(+/-)	Yes	Yes
% billing provider on IP claim	0.6	0.6	0.6	-2.10	6.47	N/A	N/A	N/A
% NPI billing provider on IP claim	0.7	0.7	0.7	-5.36	2.33	N/A	N/A	N/A
% billing provider on LT claim	0.3	0.3	0.4	6.10	5.09	N/A	N/A	N/A
% NPI billing provider on LT claim	0.3	0.3	0.4	2.98	1.96	N/A	N/A	N/A
% billing provider on OT claim	19.0	19.5	20.8	2.56	6.52	N/A	N/A	N/A
% servicing provider on OT claim	40.0	38.7	40.5	-3.14	4.70	N/A	N/A	N/A
% NPI servicing provider on OT claim	14.4	14.2	14.3	-1.58	1.03	N/A	N/A	N/A
% billing provider on RX claim	5.4	5.7	5.9	4.39	3.71	N/A	N/A	N/A
% prescribing provider on RX claim	45.5	46.7	46.3	2.52	-0.95	N/A	N/A	N/A
% NPI billing provider on RX claim	5.2	5.5	5.8	6.51	4.23	N/A	N/A	N/A
% billing provider	24.6	25.3	26.8	3.01	5.97	N/A	N/A	N/A
% NPI billing provider	6.0	6.3	6.5	5.11	4.07	N/A	N/A	N/A
% servicing provider	40.0	38.7	40.5	-3.14	4.70	N/A	N/A	N/A
% NPI servicing provider	14.4	14.2	14.3	-1.58	1.03	N/A	N/A	N/A
% prescribing provider	45.5	46.7	46.3	2.52	-0.95	N/A	N/A	N/A
% provider IDs with NPI	52.2	51.5	53.2	-1.29	3.29	30%(+/-)	Yes	Yes
% provider IDs linked to NPPES	52.0	51.5	53.2	-0.98	3.30	30%(+/-)	Yes	Yes
% provider IDs with or without NPI but linked to state provider file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
average number of claims	1,170.6	1,169.6	1,089.3	-0.09	-6.87	30%(+/-)	Yes	Yes
average number of beneficiaries with claims	195.4	199.0	193.1	1.85	-2.99	30%(+/-)	Yes	Yes
Provider IDs with NPI								
Number of provider IDs with NPI	70,638	71,390	74,035	1.06	3.71	30%(+/-)	Yes	Yes
% NPI source = MSIS	98.8	99.3	99.5	0.53	0.23	30%(+/-)	Yes	Yes
% NPI source = NPPES	1.2	0.7	0.5	-43.40	-33.06	30%(+/-)	Yes	Yes
% NPI source = state cross-reference file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs Linked to NPPES								
Number of provider IDs linked to NPPES	70,402	71,378	74,028	1.39	3.71	30%(+/-)	Yes	Yes
% linked via NPI	98.8	99.3	99.5	0.53	0.23	30%(+/-)	Yes	Yes
% linked via Medicaid legacy provider ID	0.0	0.0	0.0	50.00	54.38	30%(+/-)	Yes	Yes
% linked via Medicare UPIN	1.2	0.7	0.4	-44.69	-35.83	30%(+/-)	Yes	Yes
% with name prefix	22.5	23.0	22.9	2.44	-0.32	30%(+/-)	Yes	Yes
% with first name	49.7	50.3	50.4	1.30	0.27	30%(+/-)	Yes	Yes
% with middle name	39.5	40.4	40.5	2.42	0.07	30%(+/-)	Yes	Yes
% with last name	49.7	50.3	50.4	1.30	0.27	30%(+/-)	Yes	Yes
% with name suffix	2.6	2.7	2.7	2.90	-1.52	30%(+/-)	Yes	Yes
% male	31.4	31.0	30.3	-1.15	-2.18	30%(+/-)	Yes	Yes
% female	18.3	19.3	20.1	5.49	4.21	30%(+/-)	Yes	Yes
% with credential	48.1	48.7	48.6	1.13	-0.03	30%(+/-)	Yes	Yes
% with business name	50.3	49.3	49.4	-2.03	0.12	30%(+/-)	Yes	Yes
% with address line 1	100.0	99.6	99.8	-0.38	0.20	30%(+/-)	Yes	Yes
% with city	100.0	99.6	99.8	-0.38	0.20	30%(+/-)	Yes	Yes
% with state	100.0	99.6	99.8	-0.38	0.20	30%(+/-)	Yes	Yes
% state = claim file state code	62.3	62.3	63.3	0.02	1.56	30%(+/-)	Yes	Yes
% with zip code	100.0	99.6	99.8	-0.38	0.20	30%(+/-)	Yes	Yes
% with primary taxonomy	99.5	98.6	98.8	-0.95	0.21	30%(+/-)	Yes	Yes

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

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2009-2011 MAX All Provider Characteristics Validation Table
 State: TN
 Produced: 05/20/2013

Measure	2009 Value	2010 Value	2011 Value	% Change 2009-2010	% Change 2010-2011	Cross Year Expected Range	Cross Year 2009-2010 Within Range ^a	Cross Year 2010-2011 Within Range ^a
% with provider entity type = individual	49.7	50.3	50.4	1.30	0.27	30%(+/-)	Yes	Yes
% with provider entity type = organization	50.3	49.3	49.4	-2.03	0.12	30%(+/-)	Yes	Yes
Provider IDs with or without NPI but linked to state provider file								
Number of provider IDs with or without NPI linked to state provider file	0	0	0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs with NPPES Primary Taxonomy								
Number of provider IDs with NPPES primary taxonomy	70,258	70,363	73,127	0.15	3.93	30%(+/-)	Yes	Yes
% individual or group of individuals	52.5	53.9	54.7	2.64	1.47	30%(+/-)	Yes	Yes
% allopathic and osteopathic physicians	29.8	28.7	27.9	-3.73	-2.71	30%(+/-)	Yes	Yes
% behavioral health and social service providers	4.0	4.4	4.4	11.32	-0.81	30%(+/-)	Yes	Yes
% chiropractic providers	0.4	0.4	0.3	15.86	-21.09	30%(+/-)	Yes	Yes
% dental providers	1.8	2.8	3.5	59.07	23.90	30%(+/-)	Yes	Yes
% dietary and nutritional service providers	0.0	0.0	0.0	15.00	18.91	30%(+/-)	Yes	Yes
% emergency medical service providers	0.0	0.0	0.0	221.43	3.32	30%(+/-)	Yes	Yes
% eye and vision service providers	1.8	1.8	1.9	0.16	2.82	30%(+/-)	Yes	Yes
% nursing service providers	0.3	0.3	0.4	8.95	7.07	30%(+/-)	Yes	Yes
% nursing service-related providers	0.0	0.0	0.0	47.62	14.69	30%(+/-)	Yes	Yes
% other service providers	1.4	2.2	2.2	53.50	-0.02	30%(+/-)	Yes	Yes
% pharmacy service providers	0.0	0.2	0.2	2,842.86	-9.06	30%(+/-)	Yes	Yes
% physician assistants and advanced practice nursing providers	8.4	9.4	10.2	11.14	8.79	30%(+/-)	Yes	Yes
% podiatric medicine and surgery service providers	0.4	0.3	0.3	-9.83	-2.44	30%(+/-)	Yes	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	1.9	2.2	2.1	11.04	-0.89	30%(+/-)	Yes	Yes
% speech, language, and hearing service providers	0.6	0.8	0.9	30.36	8.31	30%(+/-)	Yes	Yes
% student health care	0.1	0.1	0.2	6.82	60.99	30%(+/-)	Yes	Yes
% technologists, technicians, and other technical service providers	0.0	0.0	0.0	236.36	-18.69	30%(+/-)	Yes	Yes
% group of individuals with multi- or single specialty	1.4	0.0	0.0	-100.00	Div by 0	30%(+/-)	Yes	N/A
% nonindividuals	47.5	46.1	45.3	-2.92	-1.72	30%(+/-)	Yes	Yes
% agencies	1.7	1.3	2.2	-23.00	68.92	30%(+/-)	Yes	Yes
% ambulatory health care facilities	2.1	1.8	1.8	-13.98	-1.75	30%(+/-)	Yes	Yes
% hospital units	1.2	0.2	0.2	-85.86	-4.69	30%(+/-)	Yes	Yes
% hospitals	17.2	16.3	14.6	-5.11	-10.33	30%(+/-)	Yes	Yes
% laboratories	0.4	0.5	0.5	28.53	3.38	30%(+/-)	Yes	Yes
% managed care organizations	0.0	0.0	0.0	271.43	-26.37	30%(+/-)	Yes	Yes
% nursing and custodial care facilities	1.5	1.3	1.3	-8.89	0.61	30%(+/-)	Yes	Yes
% residential treatment facilities	0.1	0.2	0.2	55.74	-2.12	30%(+/-)	Yes	Yes
% respite care facility	0.0	0.0	0.0	333.33	15.71	30%(+/-)	Yes	Yes
% suppliers	22.4	23.5	23.5	4.96	0.22	30%(+/-)	Yes	Yes
% transportation services	0.9	0.9	0.9	-1.06	-2.43	30%(+/-)	Yes	Yes
% nonmedical	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs with Entity Type = Individual								
Number of provider IDs with entity type = individual	34,961	35,907	37,342	2.71	4.00	30%(+/-)	Yes	Yes
% a sole proprietorship	17.7	18.8	19.4	6.49	3.18	30%(+/-)	Yes	Yes
% not a sole proprietorship	71.7	73.8	73.4	2.87	-0.44	30%(+/-)	Yes	Yes
% not answered	10.6	7.4	7.1	-30.19	-3.70	N/A	N/A	N/A
Provider IDs with Entity Type = Organization								
Number of provider IDs with entity type = organization	35,441	35,203	36,553	-0.67	3.83	30%(+/-)	Yes	Yes
% organization is a subpart	30.0	31.7	32.8	5.59	3.46	30%(+/-)	Yes	Yes
% organization is not a subpart	60.5	61.9	61.3	2.33	-1.10	30%(+/-)	Yes	Yes
% not answered	9.5	6.4	6.0	-32.53	-6.51	N/A	N/A	N/A

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

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