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

**State-Specific Validation Tables,
2011**

June 28, 2013

Deo Bencio
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

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[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.

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	1,154	1,654	1,975	43.33	19.41	30% (+/-)	No	Yes
% billing provider on IP claim	72.4	69.0	67.1	-4.66	-2.67	N/A	N/A	N/A
% NPI billing provider on IP claim	31.3	34.9	33.7	11.71	-3.65	N/A	N/A	N/A
% also a provider on LT claim	21.1	19.2	12.3	-9.07	-36.00	N/A	N/A	N/A
% also a provider on OT claim	66.0	78.6	72.5	19.03	-7.75	N/A	N/A	N/A
% also a provider on RX claim	15.1	19.5	25.9	29.12	32.90	N/A	N/A	N/A
% provider IDs with NPI	84.2	81.0	82.5	-3.89	1.95	30% (+/-)	Yes	Yes
% provider IDs linked to NPPES	83.5	80.8	82.5	-3.23	2.10	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	191.8	304.9	327.2	58.99	7.31	30% (+/-)	No	Yes
average number of beneficiaries with IP claims	152.4	208.6	218.9	36.90	4.92	30% (+/-)	No	Yes
Provider IDs with NPI								
Number of provider IDs with NPI	972	1,339	1,630	37.76	21.73	30% (+/-)	No	Yes
% NPI source = MSIS	99.0	97.5	97.5	-1.53	0.02	30% (+/-)	Yes	Yes
% NPI source = NPPES	1.0	2.5	2.5	146.74	-0.93	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	964	1,337	1,630	38.69	21.91	30% (+/-)	No	Yes
% linked via NPI	99.0	97.5	97.5	-1.52	0.03	30% (+/-)	Yes	Yes
% linked via Medicaid legacy provider ID	0.9	2.4	2.4	156.21	-0.02	30% (+/-)	Yes	Yes
% linked via Medicare UPIN	0.1	0.2	0.1	44.23	-18.20	30% (+/-)	Yes	Yes
% with name prefix	0.3	0.4	1.2	44.37	173.27	30% (+/-)	Yes	Yes
% with first name	0.5	1.1	2.1	116.18	85.91	30% (+/-)	Yes	Yes
% with middle name	0.2	0.9	1.6	333.82	77.63	30% (+/-)	Yes	Yes
% with last name	0.5	1.1	2.1	116.18	85.91	30% (+/-)	Yes	Yes
% with name suffix	0.0	0.0	0.1	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% male	0.4	0.6	1.8	44.10	197.52	30% (+/-)	Yes	Yes
% female	0.1	0.5	0.3	403.85	-41.46	30% (+/-)	Yes	Yes
% with credential	0.5	1.1	2.0	116.18	80.44	30% (+/-)	Yes	Yes
% with business name	99.5	98.7	97.9	-0.83	-0.81	30% (+/-)	Yes	Yes
% with address line 1	100.0	99.8	99.9	-0.22	0.16	30% (+/-)	Yes	Yes
% with city	100.0	99.8	99.9	-0.22	0.16	30% (+/-)	Yes	Yes
% with state	100.0	99.8	99.9	-0.22	0.16	30% (+/-)	Yes	Yes
% state = IP state code	62.4	42.4	38.7	-32.09	-8.72	30% (+/-)	No	Yes
% with zip code	100.0	99.8	99.9	-0.22	0.16	30% (+/-)	Yes	Yes
% with primary taxonomy	99.7	99.5	99.8	-0.21	0.34	30% (+/-)	Yes	Yes
% with provider entity type = individual	0.5	1.1	2.1	116.18	85.91	30% (+/-)	Yes	Yes
% with provider entity type = organization	99.5	98.7	97.9	-0.83	-0.81	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: MI
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	965	1,330	1,627	37.82	22.33	30% (+/-)	No	Yes
% individual or group of individuals	9.7	4.9	5.8	-49.83	18.22	30% (+/-)	Yes	Yes
% allopathic and osteopathic physicians	5.6	2.9	4.5	-47.61	55.12	30% (+/-)	Yes	Yes
% behavioral health and social service providers	1.9	1.1	0.6	-43.54	-41.63	30% (+/-)	Yes	Yes
% chiropractic providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% dental providers	0.2	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	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	0.2	0.1	Div by 0	-18.05	30% (+/-)	N/A	Yes
% 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	0.2	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	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	0.2	0.1	Div by 0	-59.02	30% (+/-)	N/A	Yes
% pharmacy service providers	0.1	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	N/A
% physician assistants and advanced practice nursing providers	1.3	0.5	0.2	-60.95	-64.95	30% (+/-)	Yes	Yes
% podiatric medicine and surgery service providers	0.0	0.1	0.1	Div by 0	-18.05	30% (+/-)	N/A	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% speech, language, and hearing service providers	0.0	0.0	0.2	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	0.4	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	N/A
% nonindividuals	90.3	95.1	94.2	5.38	-0.94	30% (+/-)	Yes	Yes
% agencies	0.7	1.4	1.8	86.62	36.28	30% (+/-)	Yes	Yes
% ambulatory health care facilities	2.3	2.1	1.9	-7.68	-9.48	30% (+/-)	Yes	Yes
% hospital units	9.7	7.3	4.7	-25.13	-35.11	30% (+/-)	Yes	Yes
% hospitals	76.7	82.8	84.6	7.95	2.24	30% (+/-)	Yes	Yes
% laboratories	0.0	0.1	0.1	Div by 0	63.90	30% (+/-)	N/A	Yes
% managed care organizations	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nursing and custodial care facilities	0.1	0.3	0.4	189.42	22.52	30% (+/-)	Yes	Yes
% residential treatment facilities	0.0	0.2	0.0	Div by 0	-100.00	30% (+/-)	N/A	Yes
% respite care facility	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% suppliers	0.6	0.9	0.5	45.02	-45.49	30% (+/-)	Yes	Yes
% transportation services	0.1	0.2	0.1	44.23	-18.05	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	5	15	34	200.00	126.67	30% (+/-)	No	No
% a sole proprietorship	0.0	20.0	23.5	Div by 0	17.65	30% (+/-)	N/A	Yes
% not a sole proprietorship	60.0	80.0	55.9	33.33	-30.15	30% (+/-)	No	No
% not answered	40.0	0.0	20.6	-100.00	Div by 0	N/A	N/A	N/A
Provider IDs with Entity Type = Organization								
Number of provider IDs with entity type = organization	959	1,319	1,595	37.54	20.92	30% (+/-)	No	Yes
% organization is a subpart	10.0	12.6	10.0	25.72	-20.29	30% (+/-)	Yes	Yes
% organization is not a subpart	75.7	77.1	81.3	1.85	5.46	30% (+/-)	Yes	Yes
% not answered	14.3	10.3	8.7	-27.82	-16.09	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: MI
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	1,714	1,325	1,194	-22.70	-9.89	30% (+/-)	Yes	Yes
% billing provider on LT claim	70.7	61.0	56.0	-13.76	-8.12	N/A	N/A	N/A
% NPI billing provider on LT claim	31.9	43.0	44.7	34.80	3.96	N/A	N/A	N/A
% also a provider on IP claim	14.2	24.0	20.4	68.59	-15.20	N/A	N/A	N/A
% also a provider on OT claim	32.1	33.7	24.2	4.71	-28.09	N/A	N/A	N/A
% also a provider on RX claim	5.4	9.7	12.6	78.03	30.92	N/A	N/A	N/A
% provider IDs with NPI	92.6	90.0	91.5	-2.84	1.76	30% (+/-)	Yes	Yes
% provider IDs linked to NPPES	92.4	89.7	91.5	-2.84	2.01	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	460.1	607.7	639.9	32.09	5.30	30% (+/-)	No	Yes
average number of beneficiaries with LT claims	80.9	91.8	91.8	13.49	-0.02	30% (+/-)	Yes	Yes
Provider IDs with NPI								
Number of provider IDs with NPI	1,587	1,192	1,093	-24.89	-8.31	30% (+/-)	Yes	Yes
% NPI source = MSIS	99.3	98.3	99.0	-0.99	0.68	30% (+/-)	Yes	Yes
% NPI source = NPPES	0.7	1.7	1.0	142.14	-40.02	30% (+/-)	Yes	Yes
% NPI source = state cross-reference file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs Linked to NPPES								
Number of provider IDs linked to NPPES	1,583	1,189	1,093	-24.89	-8.07	30% (+/-)	Yes	Yes
% linked via NPI	99.3	98.3	99.0	-0.99	0.69	30% (+/-)	Yes	Yes
% linked via Medicaid legacy provider ID	0.7	1.7	0.9	142.01	-45.61	30% (+/-)	Yes	Yes
% linked via Medicare UPIN	0.0	0.0	0.1	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% with name prefix	0.0	0.1	0.1	Div by 0	8.92	30% (+/-)	N/A	Yes
% with first name	0.0	0.1	0.2	Div by 0	117.84	30% (+/-)	N/A	Yes
% with middle name	0.0	0.1	0.1	Div by 0	8.92	30% (+/-)	N/A	Yes
% with last name	0.0	0.1	0.2	Div by 0	117.84	30% (+/-)	N/A	Yes
% with name suffix	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% male	0.0	0.1	0.2	Div by 0	117.84	30% (+/-)	N/A	Yes
% female	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% with credential	0.0	0.1	0.2	Div by 0	117.84	30% (+/-)	N/A	Yes
% with business name	100.0	99.7	99.7	-0.25	-0.02	30% (+/-)	Yes	Yes
% with address line 1	100.0	99.8	99.9	-0.17	0.08	30% (+/-)	Yes	Yes
% with city	100.0	99.8	99.9	-0.17	0.08	30% (+/-)	Yes	Yes
% with state	100.0	99.8	99.9	-0.17	0.08	30% (+/-)	Yes	Yes
% state = LT state code	96.1	96.2	98.1	0.14	1.94	30% (+/-)	Yes	Yes
% with zip code	100.0	99.8	99.9	-0.17	0.08	30% (+/-)	Yes	Yes
% with primary taxonomy	98.5	97.8	97.7	-0.68	-0.10	30% (+/-)	Yes	Yes
% with provider entity type = individual	0.0	0.1	0.2	Div by 0	117.84	30% (+/-)	N/A	Yes
% with provider entity type = organization	100.0	99.7	99.7	-0.25	-0.02	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: MI
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	1,560	1,163	1,068	-25.45	-8.17	30% (+/-)	Yes	Yes
% individual or group of individuals	3.4	2.2	2.5	-34.18	13.06	30% (+/-)	Yes	Yes
% allopathic and osteopathic physicians	2.0	1.3	1.6	-35.08	23.39	30% (+/-)	Yes	Yes
% behavioral health and social service providers	0.9	0.9	0.7	5.46	-20.82	30% (+/-)	Yes	Yes
% chiropractic providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% dental providers	0.1	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	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	0.4	0.0	0.2	-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	0.0	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	96.6	97.8	97.5	1.20	-0.30	30% (+/-)	Yes	Yes
% agencies	0.6	1.6	2.4	183.19	48.99	30% (+/-)	Yes	Yes
% ambulatory health care facilities	1.7	1.4	2.4	-17.46	76.92	30% (+/-)	Yes	Yes
% hospital units	1.1	2.2	0.8	105.14	-62.31	30% (+/-)	Yes	Yes
% hospitals	7.2	13.6	9.0	89.25	-33.84	30% (+/-)	No	No
% laboratories	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% managed care organizations	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nursing and custodial care facilities	85.7	78.2	82.1	-8.80	5.06	30% (+/-)	Yes	Yes
% residential treatment facilities	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% respite care facility	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% suppliers	0.4	0.8	0.7	101.04	-15.32	30% (+/-)	Yes	Yes
% transportation services	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% nonmedical	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs with Entity Type = Individual								
Number of provider IDs with entity type = individual	0	1	2	Div by 0	100.00	30% (+/-)	N/A	Yes
% a sole proprietorship	0.0	0.0	100.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% not a sole proprietorship	0.0	100.0	0.0	Div by 0	-100.00	30% (+/-)	N/A	No
% not answered	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs with Entity Type = Organization								
Number of provider IDs with entity type = organization	1,583	1,186	1,090	-25.08	-8.09	30% (+/-)	Yes	Yes
% organization is a subpart	14.4	14.1	14.2	-2.24	0.99	30% (+/-)	Yes	Yes
% organization is not a subpart	63.9	66.6	66.7	4.30	0.13	30% (+/-)	Yes	Yes
% not answered	21.7	19.3	19.1	-11.15	-1.17	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: MI
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	195,587	198,167	205,939	1.32	3.92	30% (+/-)	Yes	Yes
% billing provider on OT claim	44.4	61.9	63.3	39.24	2.30	N/A	N/A	N/A
% servicing provider on OT claim	96.9	94.1	80.3	-2.85	-14.67	N/A	N/A	N/A
% NPI servicing provider on OT claim	18.3	17.5	20.0	-4.40	14.78	N/A	N/A	N/A
% also a provider on IP claim	0.4	0.6	0.7	66.84	7.30	N/A	N/A	N/A
% also a provider on LT claim	0.3	0.2	0.1	-20.38	-33.95	N/A	N/A	N/A
% also a provider on RX claim	16.0	18.2	19.4	13.49	6.54	N/A	N/A	N/A
% provider IDs with NPI	49.8	36.2	38.1	-27.32	5.39	30% (+/-)	Yes	Yes
% provider IDs linked to NPPES	49.4	36.1	38.1	-26.99	5.72	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	827.4	886.3	888.6	7.12	0.25	30% (+/-)	Yes	Yes
average number of beneficiaries with OT claims	96.0	137.1	136.3	42.89	-0.56	30% (+/-)	No	Yes
Provider IDs with NPI								
Number of provider IDs with NPI	97,398	71,720	78,552	-26.36	9.53	30% (+/-)	Yes	Yes
% NPI source = MSIS	95.3	89.4	91.4	-6.25	2.23	30% (+/-)	Yes	Yes
% NPI source = NPPES	4.7	10.6	8.6	127.92	-18.77	30% (+/-)	No	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	96,586	71,445	78,492	-26.03	9.86	30% (+/-)	Yes	Yes
% linked via NPI	95.3	89.3	91.4	-6.26	2.27	30% (+/-)	Yes	Yes
% linked via Medicaid legacy provider ID	4.7	10.6	8.6	126.85	-19.00	30% (+/-)	No	Yes
% linked via Medicare UPIN	0.0	0.0	0.0	128.57	-23.03	30% (+/-)	Yes	Yes
% with name prefix	17.3	23.3	24.1	34.51	3.61	30% (+/-)	No	Yes
% with first name	35.1	48.1	51.8	36.98	7.72	30% (+/-)	No	Yes
% with middle name	26.8	37.0	39.0	38.34	5.26	30% (+/-)	No	Yes
% with last name	35.1	48.1	51.8	36.98	7.72	30% (+/-)	No	Yes
% with name suffix	0.9	1.1	1.1	25.47	2.97	30% (+/-)	Yes	Yes
% male	22.7	31.0	34.5	36.32	11.39	30% (+/-)	No	Yes
% female	12.3	17.1	17.2	38.18	1.05	30% (+/-)	No	Yes
% with credential	33.9	46.5	50.3	37.25	8.14	30% (+/-)	No	Yes
% with business name	64.9	51.6	48.0	-20.48	-6.95	30% (+/-)	Yes	Yes
% with address line 1	100.0	99.7	99.8	-0.33	0.12	30% (+/-)	Yes	Yes
% with city	100.0	99.7	99.8	-0.33	0.12	30% (+/-)	Yes	Yes
% with state	100.0	99.7	99.8	-0.33	0.12	30% (+/-)	Yes	Yes
% state = OT state code	85.5	83.8	85.9	-2.05	2.53	30% (+/-)	Yes	Yes
% with zip code	100.0	99.7	99.8	-0.33	0.12	30% (+/-)	Yes	Yes
% with primary taxonomy	99.1	97.8	98.1	-1.34	0.29	30% (+/-)	Yes	Yes
% with provider entity type = individual	35.1	48.1	51.8	36.98	7.72	30% (+/-)	No	Yes
% with provider entity type = organization	64.9	51.6	48.0	-20.48	-6.95	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.

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	96,235	69,853	76,963	-27.41	10.18	30% (+/-)	Yes	Yes
% individual or group of individuals	67.3	75.5	77.3	12.17	2.27	30% (+/-)	Yes	Yes
% allopathic and osteopathic physicians	44.0	46.3	54.3	5.25	17.35	30% (+/-)	Yes	Yes
% behavioral health and social service providers	2.8	3.7	0.8	33.19	-77.06	30% (+/-)	Yes	Yes
% chiropractic providers	2.0	3.4	2.9	69.20	-15.26	30% (+/-)	Yes	Yes
% dental providers	4.9	6.8	4.4	38.39	-35.26	30% (+/-)	Yes	Yes
% dietary and nutritional service providers	0.0	0.0	0.0	8.89	-84.09	30% (+/-)	Yes	Yes
% emergency medical service providers	0.0	0.0	0.0	112.50	26.11	30% (+/-)	Yes	Yes
% eye and vision service providers	1.8	2.2	2.1	22.00	-7.86	30% (+/-)	Yes	Yes
% nursing service providers	0.2	0.2	0.2	12.08	-20.47	30% (+/-)	Yes	Yes
% nursing service-related providers	0.0	0.0	0.0	-38.89	-52.75	30% (+/-)	Yes	Yes
% other service providers	0.9	2.4	2.6	178.93	5.90	30% (+/-)	Yes	Yes
% pharmacy service providers	0.1	0.1	0.1	6.67	-17.17	30% (+/-)	Yes	Yes
% physician assistants and advanced practice nursing providers	6.3	6.8	6.7	7.18	-1.35	30% (+/-)	Yes	Yes
% podiatric medicine and surgery service providers	1.3	1.8	1.8	40.30	2.76	30% (+/-)	Yes	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	0.7	1.2	0.8	74.96	-28.95	30% (+/-)	Yes	Yes
% speech, language, and hearing service providers	0.5	0.4	0.4	-5.70	-18.61	30% (+/-)	Yes	Yes
% student health care	0.0	0.1	0.1	156.00	92.87	30% (+/-)	Yes	Yes
% technologists, technicians, and other technical service providers	0.0	0.0	0.0	61.90	-31.21	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	32.7	24.5	22.7	-25.10	-7.00	30% (+/-)	Yes	Yes
% agencies	2.7	2.5	2.3	-8.54	-5.96	30% (+/-)	Yes	Yes
% ambulatory health care facilities	3.3	5.3	5.1	61.31	-3.84	30% (+/-)	Yes	Yes
% hospital units	0.2	0.1	0.1	-13.10	-33.25	30% (+/-)	Yes	Yes
% hospitals	17.5	6.6	5.8	-62.30	-11.47	30% (+/-)	No	Yes
% laboratories	0.4	0.6	0.5	31.35	-13.53	30% (+/-)	Yes	Yes
% managed care organizations	0.0	0.2	0.4	314.63	136.17	30% (+/-)	Yes	Yes
% nursing and custodial care facilities	0.3	0.2	0.1	-25.08	-53.72	30% (+/-)	Yes	Yes
% residential treatment facilities	0.1	0.1	0.1	152.54	-62.50	30% (+/-)	Yes	Yes
% respite care facility	0.0	0.0	0.0	-55.00	1.06	30% (+/-)	Yes	Yes
% suppliers	7.1	7.6	7.3	7.99	-4.49	30% (+/-)	Yes	Yes
% transportation services	1.1	1.2	1.1	8.13	-12.29	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	33,882	34,330	40,628	1.32	18.35	30% (+/-)	Yes	Yes
% a sole proprietorship	21.6	20.9	18.3	-3.59	-12.39	30% (+/-)	Yes	Yes
% not a sole proprietorship	67.9	69.9	72.6	3.00	3.94	30% (+/-)	Yes	Yes
% not answered	10.5	9.3	9.1	-11.97	-1.84	N/A	N/A	N/A
Provider IDs with Entity Type = Organization								
Number of provider IDs with entity type = organization	62,704	36,882	37,705	-41.18	2.23	30% (+/-)	No	Yes
% organization is a subpart	11.0	10.0	10.2	-8.90	2.38	30% (+/-)	Yes	Yes
% organization is not a subpart	71.2	74.5	75.8	4.67	1.63	30% (+/-)	Yes	Yes
% not answered	17.8	15.5	14.0	-13.18	-9.40	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: MI
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	131,261	134,117	134,079	2.18	-0.03	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	66.2	91.3	97.0	37.89	6.30	N/A	N/A	N/A
% NPI servicing provider on OT claim	2.6	5.3	0.7	105.53	-86.11	N/A	N/A	N/A
% also a provider on IP claim	0.4	0.7	0.6	52.05	-4.35	N/A	N/A	N/A
% also a provider on LT claim	0.3	0.2	0.1	-14.98	-43.49	N/A	N/A	N/A
% also a provider on RX claim	2.4	7.5	10.4	213.74	38.96	N/A	N/A	N/A
% provider IDs with NPI	17.9	21.0	17.8	17.63	-15.57	30% (+/-)	Yes	Yes
% provider IDs linked to NPPES	17.8	20.9	17.8	17.86	-15.16	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	920.7	1,041.4	979.8	13.11	-5.92	30% (+/-)	Yes	Yes
average number of beneficiaries with OT claims	130.2	148.1	136.4	13.75	-7.92	30% (+/-)	Yes	Yes
Provider IDs with NPI								
Number of provider IDs with NPI	23,486	28,228	23,825	20.19	-15.60	30% (+/-)	Yes	Yes
% NPI source = MSIS	86.6	75.7	71.4	-12.54	-5.62	30% (+/-)	Yes	Yes
% NPI source = NPPES	13.4	24.3	28.6	80.74	17.51	30% (+/-)	No	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	23,303	28,063	23,802	20.43	-15.18	30% (+/-)	Yes	Yes
% linked via NPI	86.4	75.6	71.4	-12.60	-5.48	30% (+/-)	Yes	Yes
% linked via Medicaid legacy provider ID	13.5	24.4	28.5	80.61	16.94	30% (+/-)	No	Yes
% linked via Medicare UPIN	0.1	0.1	0.1	34.78	17.46	30% (+/-)	Yes	Yes
% with name prefix	27.0	25.8	20.7	-4.39	-19.55	30% (+/-)	Yes	Yes
% with first name	47.8	50.8	43.8	6.40	-13.83	30% (+/-)	Yes	Yes
% with middle name	37.4	40.0	34.2	7.04	-14.40	30% (+/-)	Yes	Yes
% with last name	47.8	50.8	43.8	6.40	-13.83	30% (+/-)	Yes	Yes
% with name suffix	1.4	1.2	1.0	-10.88	-15.77	30% (+/-)	Yes	Yes
% male	35.3	33.1	30.1	-6.34	-9.11	30% (+/-)	Yes	Yes
% female	12.4	17.7	13.7	42.54	-22.65	30% (+/-)	No	Yes
% with credential	46.7	49.2	42.6	5.43	-13.44	30% (+/-)	Yes	Yes
% with business name	52.2	48.9	56.0	-6.41	14.64	30% (+/-)	Yes	Yes
% with address line 1	100.0	99.7	99.8	-0.29	0.12	30% (+/-)	Yes	Yes
% with city	100.0	99.7	99.8	-0.29	0.12	30% (+/-)	Yes	Yes
% with state	100.0	99.7	99.8	-0.29	0.12	30% (+/-)	Yes	Yes
% state = OT state code	86.7	83.9	83.2	-3.26	-0.80	30% (+/-)	Yes	Yes
% with zip code	100.0	99.7	99.8	-0.29	0.12	30% (+/-)	Yes	Yes
% with primary taxonomy	99.0	98.2	98.7	-0.86	0.56	30% (+/-)	Yes	Yes
% with provider entity type = individual	47.8	50.8	43.8	6.40	-13.83	30% (+/-)	Yes	Yes
% with provider entity type = organization	52.2	48.9	56.0	-6.41	14.64	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.

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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	23,175	27,554	23,501	18.90	-14.71	30% (+/-)	Yes	Yes
% individual or group of individuals	60.1	70.7	65.5	17.63	-7.42	30% (+/-)	Yes	Yes
% allopathic and osteopathic physicians	40.3	39.0	43.7	-3.08	11.85	30% (+/-)	Yes	Yes
% behavioral health and social service providers	1.5	6.9	1.5	365.20	-78.93	30% (+/-)	Yes	Yes
% chiropractic providers	1.5	3.2	3.1	109.48	-3.05	30% (+/-)	Yes	Yes
% dental providers	8.4	9.0	4.2	7.86	-53.81	30% (+/-)	Yes	Yes
% dietary and nutritional service providers	0.0	0.1	0.0	138.46	-86.27	30% (+/-)	Yes	Yes
% emergency medical service providers	0.0	0.0	0.0	38.46	-5.44	30% (+/-)	Yes	Yes
% eye and vision service providers	1.7	1.7	1.9	0.30	11.88	30% (+/-)	Yes	Yes
% nursing service providers	0.3	0.2	0.1	-53.01	-4.53	30% (+/-)	Yes	Yes
% nursing service-related providers	0.0	0.0	0.0	5.88	-76.36	30% (+/-)	Yes	Yes
% other service providers	1.3	2.3	2.4	70.74	4.51	30% (+/-)	Yes	Yes
% pharmacy service providers	0.2	0.1	0.1	-46.32	8.46	30% (+/-)	Yes	Yes
% physician assistants and advanced practice nursing providers	2.2	4.9	5.3	125.42	8.52	30% (+/-)	Yes	Yes
% podiatric medicine and surgery service providers	1.4	1.5	1.9	12.47	21.73	30% (+/-)	Yes	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	0.4	1.4	0.9	261.96	-38.41	30% (+/-)	Yes	Yes
% speech, language, and hearing service providers	0.3	0.3	0.3	-8.30	15.61	30% (+/-)	Yes	Yes
% student health care	0.0	0.0	0.1	10.00	170.78	30% (+/-)	Yes	Yes
% technologists, technicians, and other technical service providers	0.0	0.1	0.0	96.15	-41.60	30% (+/-)	Yes	Yes
% group of individuals with multi- or single specialty	0.6	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	N/A
% nonindividuals	39.9	29.3	34.5	-26.58	17.93	30% (+/-)	Yes	Yes
% agencies	3.7	3.0	3.4	-20.11	14.25	30% (+/-)	Yes	Yes
% ambulatory health care facilities	3.5	4.5	4.9	28.25	8.34	30% (+/-)	Yes	Yes
% hospital units	0.3	0.2	0.1	-24.57	-40.31	30% (+/-)	Yes	Yes
% hospitals	11.9	9.6	11.3	-19.47	17.87	30% (+/-)	Yes	Yes
% laboratories	0.7	0.9	1.1	37.00	13.99	30% (+/-)	Yes	Yes
% managed care organizations	0.0	0.3	1.2	616.28	278.54	30% (+/-)	Yes	Yes
% nursing and custodial care facilities	0.6	0.3	0.1	-57.31	-54.77	30% (+/-)	Yes	Yes
% residential treatment facilities	0.1	0.2	0.0	136.84	-90.54	30% (+/-)	Yes	Yes
% respite care facility	0.0	0.0	0.0	66.67	-43.26	30% (+/-)	Yes	Yes
% suppliers	16.9	9.1	11.2	-46.13	22.83	30% (+/-)	No	Yes
% transportation services	2.2	1.2	1.3	-45.93	10.07	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	11,131	14,262	10,423	28.13	-26.92	30% (+/-)	Yes	Yes
% a sole proprietorship	27.1	22.9	19.5	-15.75	-14.65	30% (+/-)	Yes	Yes
% not a sole proprietorship	60.9	67.4	70.4	10.70	4.32	30% (+/-)	Yes	Yes
% not answered	11.9	9.7	10.1	-18.79	4.48	N/A	N/A	N/A
Provider IDs with Entity Type = Organization								
Number of provider IDs with entity type = organization	12,172	13,719	13,339	12.71	-2.77	30% (+/-)	Yes	Yes
% organization is a subpart	12.2	8.8	8.5	-27.92	-2.79	30% (+/-)	Yes	Yes
% organization is not a subpart	73.3	76.4	79.4	4.25	3.95	30% (+/-)	Yes	Yes
% not answered	14.6	14.8	12.1	1.94	-18.67	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: MI
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	11,909	16,106	27,396	35.24	70.10	30% (+/-)	No	No
% billing provider on RX claim	97.6	90.2	78.1	-7.58	-13.37	N/A	N/A	N/A
% prescribing provider on RX claim	10.6	16.8	48.8	59.00	190.62	N/A	N/A	N/A
% NPI billing provider on RX claim	24.3	57.6	71.9	137.22	24.77	N/A	N/A	N/A
% also a provider on IP claim	0.2	0.6	0.8	247.62	43.13	N/A	N/A	N/A
% also a provider on LT claim	0.1	0.3	0.3	152.54	-2.01	N/A	N/A	N/A
% also a provider on OT claim	18.9	44.3	71.4	134.74	60.98	N/A	N/A	N/A
% provider IDs with NPI	53.1	75.0	84.7	41.29	12.97	30% (+/-)	No	Yes
% provider IDs linked to NPPES	52.7	67.5	82.5	27.94	22.32	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	1,913.6	1,316.1	1,363.1	-31.22	3.57	30% (+/-)	No	Yes
average number of beneficiaries with RX claims	248.6	168.1	194.4	-32.36	15.65	30% (+/-)	No	Yes
Provider IDs with NPI								
Number of provider IDs with NPI	6,322	12,080	23,213	91.08	92.16	30% (+/-)	No	No
% NPI source = MSIS	91.5	86.6	93.2	-5.40	7.62	30% (+/-)	Yes	Yes
% NPI source = NPPES	8.5	13.4	6.8	58.28	-49.15	30% (+/-)	No	No
% NPI source = state cross-reference file	0.0	0.0	0.0	Div by 0	Div by 0	N/A	N/A	N/A
Provider IDs Linked to NPPES								
Number of provider IDs linked to NPPES	6,281	10,868	22,613	73.03	108.07	30% (+/-)	No	No
% linked via NPI	91.5	85.1	93.0	-6.98	9.30	30% (+/-)	Yes	Yes
% linked via Medicaid legacy provider ID	8.5	14.8	7.0	74.79	-52.86	30% (+/-)	No	No
% linked via Medicare UPIN	0.0	0.1	0.0	72.92	-84.02	30% (+/-)	Yes	Yes
% with name prefix	0.5	6.6	22.7	1,235.43	243.82	30% (+/-)	Yes	No
% with first name	1.1	13.6	48.9	1,159.10	258.29	30% (+/-)	No	No
% with middle name	0.7	9.7	36.4	1,190.37	277.44	30% (+/-)	Yes	No
% with last name	1.1	13.6	48.9	1,159.10	258.29	30% (+/-)	No	No
% with name suffix	0.0	0.3	1.0	934.38	215.30	30% (+/-)	Yes	Yes
% male	0.8	8.0	30.8	925.13	285.04	30% (+/-)	Yes	No
% female	0.3	5.6	18.1	1,767.55	220.38	30% (+/-)	Yes	No
% with credential	1.0	13.4	47.9	1,277.86	257.80	30% (+/-)	No	No
% with business name	98.9	86.1	50.9	-12.93	-40.86	30% (+/-)	Yes	No
% with address line 1	100.0	99.8	99.8	-0.24	0.03	30% (+/-)	Yes	Yes
% with city	100.0	99.8	99.8	-0.24	0.03	30% (+/-)	Yes	Yes
% with state	100.0	99.8	99.8	-0.24	0.03	30% (+/-)	Yes	Yes
% state = RX state code	91.6	61.5	73.5	-32.84	19.55	30% (+/-)	No	Yes
% with zip code	100.0	99.8	99.8	-0.24	0.03	30% (+/-)	Yes	Yes
% with primary taxonomy	99.1	99.1	99.0	-0.02	-0.10	30% (+/-)	Yes	Yes
% with provider entity type = individual	1.1	13.6	48.9	1,159.10	258.29	30% (+/-)	No	No
% with provider entity type = organization	98.9	86.1	50.9	-12.93	-40.86	30% (+/-)	Yes	No
Provider IDs with or without NPI but linked to state provider file								
Number of provider IDs with or without NPI linked to state provider file	0	0	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: MI
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	6,240	10,766	22,379	72.53	107.87	30% (+/-)	No	No
% individual or group of individuals	8.8	28.4	62.4	224.45	119.38	30% (+/-)	No	No
% allopathic and osteopathic physicians	5.8	24.5	50.6	318.60	106.76	30% (+/-)	No	No
% behavioral health and social service providers	0.2	0.2	0.1	27.50	-40.86	30% (+/-)	Yes	Yes
% chiropractic providers	0.0	0.0	0.0	Div by 0	-0.70	30% (+/-)	N/A	Yes
% dental providers	0.0	0.0	1.6	-100.00	Div by 0	30% (+/-)	Yes	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	0.2	Div by 0	1,885.99	30% (+/-)	N/A	Yes
% nursing service providers	0.0	0.1	0.1	112.50	13.90	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	0.1	1.0	2.0	770.54	103.49	30% (+/-)	Yes	Yes
% pharmacy service providers	2.2	1.1	0.5	-49.68	-58.35	30% (+/-)	Yes	Yes
% physician assistants and advanced practice nursing providers	0.2	1.3	5.8	492.86	334.06	30% (+/-)	Yes	Yes
% podiatric medicine and surgery service providers	0.0	0.2	0.6	Div by 0	245.29	30% (+/-)	N/A	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	0.0	0.0	0.1	18.75	229.26	30% (+/-)	Yes	Yes
% speech, language, and hearing service providers	0.0	0.0	0.0	Div by 0	-52.96	30% (+/-)	N/A	Yes
% student health care	0.0	0.0	0.8	Div by 0	8,936.25	30% (+/-)	N/A	Yes
% technologists, technicians, and other technical service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% group of individuals with multi- or single specialty	0.1	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	N/A
% nonindividuals	91.2	71.6	37.6	-21.57	-47.45	30% (+/-)	Yes	No
% agencies	1.0	1.2	0.7	14.11	-39.49	30% (+/-)	Yes	Yes
% ambulatory health care facilities	1.2	3.4	2.9	177.59	-15.41	30% (+/-)	Yes	Yes
% hospital units	0.0	0.0	0.0	-12.50	-68.08	30% (+/-)	Yes	Yes
% hospitals	0.2	0.5	0.6	150.00	16.01	30% (+/-)	Yes	Yes
% laboratories	0.0	0.0	0.0	Div by 0	-3.38	30% (+/-)	N/A	Yes
% managed care organizations	0.1	0.1	0.1	27.50	-38.67	30% (+/-)	Yes	Yes
% nursing and custodial care facilities	0.0	0.0	0.0	75.00	11.71	30% (+/-)	Yes	Yes
% residential treatment facilities	0.0	0.0	0.0	Div by 0	-52.96	30% (+/-)	N/A	Yes
% respite care facility	0.0	0.0	0.0	-12.50	-52.12	30% (+/-)	Yes	Yes
% suppliers	88.6	66.2	33.3	-25.28	-49.76	30% (+/-)	Yes	No
% transportation services	0.0	0.0	0.0	Div by 0	-100.00	30% (+/-)	N/A	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	68	1,482	11,048	2,079.41	645.48	30% (+/-)	No	No
% a sole proprietorship	29.4	13.2	15.0	-55.04	13.07	30% (+/-)	No	Yes
% not a sole proprietorship	54.4	77.5	77.0	42.49	-0.71	30% (+/-)	No	Yes
% not answered	16.2	9.2	8.1	-42.85	-12.76	N/A	N/A	N/A
Provider IDs with Entity Type = Organization								
Number of provider IDs with entity type = organization	6,213	9,360	11,518	50.65	23.06	30% (+/-)	No	Yes
% organization is a subpart	16.9	30.2	28.7	78.38	-5.02	30% (+/-)	No	Yes
% organization is not a subpart	74.4	63.9	64.2	-14.11	0.59	30% (+/-)	Yes	Yes
% not answered	8.7	5.9	7.1	-31.91	19.20	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: MI
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	68,783	78,252	65,810	13.77	-15.90	30% (+/-)	Yes	Yes
% billing provider on RX claim	1.7	2.5	13.9	45.66	449.68	N/A	N/A	N/A
% prescribing provider on RX claim	100.0	100.0	100.0	0.00	0.00	N/A	N/A	N/A
% NPI billing provider on RX claim	1.6	1.3	15.0	-22.46	1,089.99	N/A	N/A	N/A
% also a provider on IP claim	0.2	0.3	0.6	43.42	69.61	N/A	N/A	N/A
% also a provider on LT claim	0.1	0.1	0.1	0.00	14.61	N/A	N/A	N/A
% also a provider on OT claim	43.8	40.8	50.4	-6.95	23.56	N/A	N/A	N/A
% provider IDs with NPI	20.3	21.0	42.4	3.43	102.41	30% (+/-)	Yes	No
% provider IDs linked to NPPES	20.1	21.0	42.4	4.11	102.43	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	395.7	288.4	380.1	-27.10	31.79	30% (+/-)	Yes	No
average number of beneficiaries with RX claims	65.5	52.8	69.1	-19.49	30.88	30% (+/-)	Yes	No
Provider IDs with NPI								
Number of provider IDs with NPI	13,946	16,410	27,935	17.67	70.23	30% (+/-)	Yes	No
% NPI source = MSIS	92.2	87.2	92.9	-5.40	6.57	30% (+/-)	Yes	Yes
% NPI source = NPPES	7.8	12.8	7.1	63.51	-44.75	30% (+/-)	No	No
% 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	13,853	16,407	27,932	18.44	70.24	30% (+/-)	Yes	No
% linked via NPI	92.1	87.2	92.9	-5.34	6.57	30% (+/-)	Yes	Yes
% linked via Medicaid legacy provider ID	7.7	12.7	7.0	64.28	-44.63	30% (+/-)	No	No
% linked via Medicare UPIN	0.2	0.2	0.1	-15.56	-55.25	30% (+/-)	Yes	Yes
% with name prefix	40.3	43.3	42.7	7.39	-1.45	30% (+/-)	Yes	Yes
% with first name	76.8	83.9	90.9	9.32	8.34	30% (+/-)	Yes	Yes
% with middle name	59.5	64.1	67.2	7.68	4.79	30% (+/-)	Yes	Yes
% with last name	76.8	83.9	90.9	9.32	8.34	30% (+/-)	Yes	Yes
% with name suffix	1.9	1.9	1.8	-1.01	-2.67	30% (+/-)	Yes	Yes
% male	50.4	55.8	59.9	10.62	7.40	30% (+/-)	Yes	Yes
% female	26.4	28.2	31.0	6.85	10.19	30% (+/-)	Yes	Yes
% with credential	74.9	82.0	88.8	9.45	8.30	30% (+/-)	Yes	Yes
% with business name	23.2	15.7	8.8	-32.36	-43.77	30% (+/-)	No	No
% with address line 1	100.0	99.6	99.8	-0.36	0.12	30% (+/-)	Yes	Yes
% with city	100.0	99.6	99.8	-0.36	0.12	30% (+/-)	Yes	Yes
% with state	100.0	99.6	99.8	-0.36	0.12	30% (+/-)	Yes	Yes
% state = RX state code	89.4	89.6	90.7	0.24	1.29	30% (+/-)	Yes	Yes
% with zip code	100.0	99.6	99.8	-0.36	0.12	30% (+/-)	Yes	Yes
% with primary taxonomy	99.4	98.5	98.5	-0.83	-0.04	30% (+/-)	Yes	Yes
% with provider entity type = individual	76.8	83.9	90.9	9.32	8.34	30% (+/-)	Yes	Yes
% with provider entity type = organization	23.2	15.7	8.8	-32.36	-43.77	30% (+/-)	No	No
Provider IDs with or without NPI but linked to state provider file								
Number of provider IDs with or without NPI linked to state provider file	0	0	0	Div by 0	Div by 0	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: MI
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	13,821	16,167	27,512	16.97	70.17	30% (+/-)	Yes	No
% individual or group of individuals	83.5	90.3	95.1	8.19	5.22	30% (+/-)	Yes	Yes
% allopathic and osteopathic physicians	47.6	57.8	74.9	21.55	29.56	30% (+/-)	Yes	Yes
% behavioral health and social service providers	0.9	0.6	0.1	-32.64	-77.10	30% (+/-)	Yes	Yes
% chiropractic providers	0.2	0.2	0.1	-11.61	-63.29	30% (+/-)	Yes	Yes
% dental providers	18.6	16.2	5.3	-12.72	-67.63	30% (+/-)	Yes	No
% dietary and nutritional service providers	0.0	0.0	0.0	35.71	-100.00	30% (+/-)	Yes	Yes
% emergency medical service providers	0.0	0.0	0.0	171.43	148.70	30% (+/-)	Yes	Yes
% eye and vision service providers	3.9	3.2	1.9	-17.08	-42.02	30% (+/-)	Yes	Yes
% nursing service providers	0.1	0.1	0.1	-19.51	28.50	30% (+/-)	Yes	Yes
% nursing service-related providers	0.0	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	N/A
% other service providers	0.9	2.0	2.4	109.54	23.08	30% (+/-)	Yes	Yes
% pharmacy service providers	0.1	0.0	0.0	-46.25	-74.64	30% (+/-)	Yes	Yes
% physician assistants and advanced practice nursing providers	8.5	7.9	7.7	-7.11	-3.04	30% (+/-)	Yes	Yes
% podiatric medicine and surgery service providers	1.9	1.9	1.7	1.42	-14.12	30% (+/-)	Yes	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	0.1	0.1	0.1	-9.48	-37.69	30% (+/-)	Yes	Yes
% speech, language, and hearing service providers	0.1	0.0	0.0	-52.31	-41.37	30% (+/-)	Yes	Yes
% student health care	0.1	0.2	0.8	239.22	383.24	30% (+/-)	Yes	Yes
% technologists, technicians, and other technical service providers	0.0	0.0	0.0	Div by 0	Div by 0	30% (+/-)	N/A	N/A
% group of individuals with multi- or single specialty	0.5	0.0	0.0	-100.00	Div by 0	30% (+/-)	Yes	N/A
% nonindividuals	16.5	9.7	4.9	-41.46	-48.84	30% (+/-)	No	Yes
% agencies	0.6	0.5	0.3	-15.54	-36.82	30% (+/-)	Yes	Yes
% ambulatory health care facilities	1.5	1.3	0.9	-9.49	-31.71	30% (+/-)	Yes	Yes
% hospital units	0.2	0.2	0.1	-0.45	-70.66	30% (+/-)	Yes	Yes
% hospitals	6.0	4.9	2.2	-17.20	-55.34	30% (+/-)	Yes	Yes
% laboratories	0.0	0.2	0.2	260.47	21.94	30% (+/-)	Yes	Yes
% managed care organizations	0.0	0.0	0.0	121.43	5.53	30% (+/-)	Yes	Yes
% nursing and custodial care facilities	0.1	0.1	0.0	-8.05	-63.65	30% (+/-)	Yes	Yes
% residential treatment facilities	0.0	0.0	0.0	342.86	-41.37	30% (+/-)	Yes	Yes
% respite care facility	0.0	0.0	0.0	-57.14	-100.00	30% (+/-)	Yes	Yes
% suppliers	8.0	2.3	1.2	-71.02	-49.97	30% (+/-)	Yes	Yes
% transportation services	0.0	0.0	0.0	-13.89	-64.82	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	10,636	13,771	25,399	29.48	84.44	30% (+/-)	Yes	No
% a sole proprietorship	20.3	19.4	16.3	-4.43	-16.28	30% (+/-)	Yes	Yes
% not a sole proprietorship	70.8	72.7	75.8	2.69	4.29	30% (+/-)	Yes	Yes
% not answered	8.9	7.9	7.9	-11.31	0.53	N/A	N/A	N/A
Provider IDs with Entity Type = Organization								
Number of provider IDs with entity type = organization	3,217	2,577	2,467	-19.89	-4.27	30% (+/-)	Yes	Yes
% organization is a subpart	10.8	8.4	7.0	-21.70	-16.73	30% (+/-)	Yes	Yes
% organization is not a subpart	74.4	76.8	80.1	3.15	4.25	30% (+/-)	Yes	Yes
% not answered	14.8	14.8	12.9	-0.07	-12.54	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 All Provider Characteristics Validation Table
State: MI
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	289,361	266,011	250,224	-8.07	-5.93	30%(+/-)	Yes	Yes
% billing provider on IP claim	0.3	0.4	0.5	48.44	23.53	N/A	N/A	N/A
% NPI billing provider on IP claim	0.1	0.2	0.3	73.60	22.47	N/A	N/A	N/A
% billing provider on LT claim	0.4	0.3	0.3	-27.45	-12.05	N/A	N/A	N/A
% NPI billing provider on LT claim	0.2	0.2	0.2	13.23	-0.28	N/A	N/A	N/A
% billing provider on OT claim	45.4	50.4	53.6	11.15	6.28	N/A	N/A	N/A
% servicing provider on OT claim	65.5	70.1	66.1	7.07	-5.73	N/A	N/A	N/A
% NPI servicing provider on OT claim	12.3	13.0	16.5	5.36	26.81	N/A	N/A	N/A
% billing provider on RX claim	4.0	5.5	8.6	35.96	56.66	N/A	N/A	N/A
% prescribing provider on RX claim	23.8	29.4	26.3	23.75	-10.59	N/A	N/A	N/A
% NPI billing provider on RX claim	1.0	3.5	7.9	249.15	125.61	N/A	N/A	N/A
% billing provider	49.6	54.6	59.3	10.10	8.51	N/A	N/A	N/A
% NPI billing provider	1.3	3.9	8.3	201.48	114.12	N/A	N/A	N/A
% servicing provider	65.5	70.1	66.1	7.07	-5.73	N/A	N/A	N/A
% NPI servicing provider	12.3	13.0	16.5	5.36	26.81	N/A	N/A	N/A
% prescribing provider	23.8	29.4	26.3	23.75	-10.59	N/A	N/A	N/A
% provider IDs with NPI	35.8	30.2	35.3	-15.66	17.10	30%(+/-)	Yes	Yes
% provider IDs linked to NPPES	35.5	29.6	35.1	-16.54	18.42	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	830.0	936.2	1,041.5	12.79	11.25	30%(+/-)	Yes	Yes
average number of beneficiaries with claims	108.4	137.6	149.2	26.91	8.47	30%(+/-)	Yes	Yes
Provider IDs with NPI								
Number of provider IDs with NPI	103,541	80,278	88,422	-22.47	10.14	30%(+/-)	Yes	Yes
% NPI source = MSIS	94.9	89.2	91.9	-5.98	2.97	30%(+/-)	Yes	Yes
% NPI source = NPPES	5.1	10.8	8.1	111.38	-24.64	30%(+/-)	No	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	102,692	78,793	87,770	-23.27	11.39	30%(+/-)	Yes	Yes
% linked via NPI	94.9	89.0	91.8	-6.15	3.14	30%(+/-)	Yes	Yes
% linked via Medicaid legacy provider ID	5.1	10.9	8.1	113.96	-25.46	30%(+/-)	No	Yes
% linked via Medicare UPIN	0.0	0.1	0.1	72.73	-28.04	30%(+/-)	Yes	Yes
% with name prefix	16.4	21.3	22.5	30.00	5.24	30%(+/-)	Yes	Yes
% with first name	33.2	43.9	48.1	32.34	9.64	30%(+/-)	No	Yes
% with middle name	25.3	33.8	36.2	33.61	7.18	30%(+/-)	No	Yes
% with last name	33.2	43.9	48.1	32.34	9.64	30%(+/-)	No	Yes
% with name suffix	0.8	1.0	1.0	21.16	4.39	30%(+/-)	Yes	Yes
% male	21.5	28.3	31.8	31.65	12.58	30%(+/-)	No	Yes
% female	11.7	15.6	16.3	33.62	4.31	30%(+/-)	No	Yes
% with credential	32.1	42.5	46.8	32.61	10.07	30%(+/-)	No	Yes
% with business name	66.8	55.8	51.7	-16.54	-7.37	30%(+/-)	Yes	Yes
% with address line 1	100.0	99.7	99.8	-0.32	0.12	30%(+/-)	Yes	Yes
% with city	100.0	99.7	99.8	-0.32	0.12	30%(+/-)	Yes	Yes
% with state	100.0	99.7	99.8	-0.32	0.12	30%(+/-)	Yes	Yes
% state = claim file state code	85.7	79.8	80.7	-6.88	1.16	30%(+/-)	Yes	Yes
% with zip code	100.0	99.7	99.8	-0.32	0.12	30%(+/-)	Yes	Yes
% with primary taxonomy	99.1	97.9	98.2	-1.21	0.29	30%(+/-)	Yes	Yes

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

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2009-2011 MAX All Provider Characteristics Validation Table
State: MI
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	33.2	43.9	48.1	32.34	9.64	30%(+/-)	No	Yes
% with provider entity type = organization	66.8	55.8	51.7	-16.54	-7.37	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	102,288	77,126	86,158	-24.60	11.71	30%(+/-)	Yes	Yes
% individual or group of individuals	63.8	69.1	71.2	8.25	3.16	30%(+/-)	Yes	Yes
% allopathic and osteopathic physicians	41.6	42.3	49.6	1.64	17.32	30%(+/-)	Yes	Yes
% behavioral health and social service providers	2.6	3.3	0.8	28.13	-77.29	30%(+/-)	Yes	Yes
% chiropractic providers	1.9	3.1	2.6	62.61	-16.49	30%(+/-)	Yes	Yes
% dental providers	4.7	6.2	4.2	33.60	-32.70	30%(+/-)	Yes	Yes
% dietary and nutritional service providers	0.0	0.0	0.0	2.33	-84.17	30%(+/-)	Yes	Yes
% emergency medical service providers	0.0	0.0	0.0	106.67	27.30	30%(+/-)	Yes	Yes
% eye and vision service providers	1.8	2.0	1.8	16.46	-9.39	30%(+/-)	Yes	Yes
% nursing service providers	0.2	0.2	0.2	8.67	-19.35	30%(+/-)	Yes	Yes
% nursing service-related providers	0.0	0.0	0.0	-41.18	-53.57	30%(+/-)	Yes	Yes
% other service providers	0.8	2.2	2.4	170.25	5.26	30%(+/-)	Yes	Yes
% pharmacy service providers	0.2	0.2	0.1	6.70	-22.22	30%(+/-)	Yes	Yes
% physician assistants and advanced practice nursing providers	5.9	6.2	6.5	3.88	5.47	30%(+/-)	Yes	Yes
% podiatric medicine and surgery service providers	1.2	1.6	1.6	35.18	1.47	30%(+/-)	Yes	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	0.6	1.1	0.7	68.14	-30.10	30%(+/-)	Yes	Yes
% speech, language, and hearing service providers	0.4	0.4	0.3	-9.19	-19.47	30%(+/-)	Yes	Yes
% student health care	0.0	0.1	0.3	160.87	383.61	30%(+/-)	Yes	Yes
% technologists, technicians, and other technical service providers	0.0	0.0	0.0	55.00	-32.61	30%(+/-)	Yes	Yes
% group of individuals with multi- or single specialty	1.7	0.0	0.0	-100.00	Div by 0	30%(+/-)	Yes	N/A
% nonindividuals	36.2	30.9	28.8	-14.54	-7.06	30%(+/-)	Yes	Yes
% agencies	2.5	2.2	2.1	-11.61	-7.32	30%(+/-)	Yes	Yes
% ambulatory health care facilities	3.1	4.8	4.6	55.94	-4.92	30%(+/-)	Yes	Yes
% hospital units	0.2	0.2	0.1	-18.70	-32.97	30%(+/-)	Yes	Yes
% hospitals	16.7	6.3	5.7	-62.31	-9.20	30%(+/-)	No	Yes
% laboratories	0.4	0.5	0.4	26.21	-14.74	30%(+/-)	Yes	Yes
% managed care organizations	0.0	0.2	0.4	278.57	127.75	30%(+/-)	Yes	Yes
% nursing and custodial care facilities	1.4	1.3	1.1	-8.73	-15.10	30%(+/-)	Yes	Yes
% residential treatment facilities	0.1	0.1	0.0	138.60	-63.30	30%(+/-)	Yes	Yes
% respite care facility	0.0	0.0	0.0	-60.00	1.56	30%(+/-)	Yes	Yes
% suppliers	10.6	14.2	13.4	33.45	-5.93	30%(+/-)	No	Yes
% transportation services	1.1	1.1	1.0	3.99	-13.47	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	34,075	34,601	42,257	1.54	22.13	30%(+/-)	Yes	Yes
% a sole proprietorship	21.6	20.8	18.3	-3.78	-11.95	30%(+/-)	Yes	Yes
% not a sole proprietorship	67.9	70.0	72.8	3.07	3.98	30%(+/-)	Yes	Yes
% not answered	10.5	9.2	8.9	-12.11	-3.29	N/A	N/A	N/A
Provider IDs with Entity Type = Organization								
Number of provider IDs with entity type = organization	68,617	43,940	45,337	-35.96	3.18	30%(+/-)	No	Yes
% organization is a subpart	11.3	14.0	14.7	23.82	4.74	30%(+/-)	Yes	Yes
% organization is not a subpart	71.3	72.0	72.7	0.99	1.03	30%(+/-)	Yes	Yes
% not answered	17.4	14.0	12.6	-19.58	-10.07	N/A	N/A	N/A

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