

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

**State-Specific Validation Tables,  
2010**

**Mississippi**

May 31, 2013

Deo Bencio  
Mei-ling Mason

**MATHEMATICA**  
**Policy Research**

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## ACRONYMS

CMS	Centers for Medicare & Medicaid Services
CY	Calendar year
FY	Federal fiscal year
HIPAA	Health Insurance Portability and Accountability Act
ID	Identification/identifier
IP	Inpatient
LT	Long-term care
MAX	Medicaid Analytic Extract
MAXPC	MAX Provider Characteristics File
MSIS	Medicaid Statistical Information System
NPI	National Provider Identifier
NPPES	National Plan and Provider Enumeration System
OT	Other services
RX	Drug
UPIN	Unique Physician Identification Number

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## INTRODUCTION

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

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

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

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

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

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

The primary source of data used in the MAXPC 2010 files were the MSIS Valid claims files. The following measures in the MAXPC file were derived from original, unadjusted claims:

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



**2009-2010 MAX IP Billing Provider Characteristics Validation Table**

State: MS

Produced: 02/28/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range <sup>a</sup>
<b>IP Providers</b>					
Number of provider IDs	628	684	8.92	30% (+/-)	Yes
% billing provider on IP claim	50.0	49.6	-0.88	N/A	N/A
% NPI billing provider on IP claim	50.0	50.4	0.88	N/A	N/A
% also a provider on LT claim	9.1	7.5	-17.85	N/A	N/A
% also a provider on OT claim	81.5	82.3	0.96	N/A	N/A
% also a provider on RX claim	16.6	15.6	-5.54	N/A	N/A
% provider IDs with NPI	99.4	99.0	-0.39	30% (+/-)	Yes
% provider IDs linked to NPPES	99.4	99.0	-0.39	30% (+/-)	Yes
% provider IDs with or without NPI but linked to state provider file	0.0	0.0	Div by 0	N/A	N/A
average number of IP claims	464.0	396.6	-14.52	30% (+/-)	Yes
average number of beneficiaries with IP claims	360.0	312.6	-13.15	30% (+/-)	Yes
<b>Provider IDs with NPI</b>					
Number of provider IDs with NPI	624	677	8.49	30% (+/-)	Yes
% NPI source = MSIS	99.8	99.4	-0.43	30% (+/-)	Yes
% NPI source = NPPES	0.2	0.6	269.38	30% (+/-)	Yes
% NPI source = state cross-reference file	0.0	0.0	Div by 0	N/A	N/A
<b>Provider IDs Linked to NPPES</b>					
Number of provider IDs linked to NPPES	624	677	8.49	30% (+/-)	Yes
% linked via NPI	99.8	99.4	-0.43	30% (+/-)	Yes
% linked via Medicaid legacy provider ID	0.2	0.6	269.38	30% (+/-)	Yes
% linked via Medicare UPIN	0.0	0.0	Div by 0	30% (+/-)	N/A
% with name prefix	0.0	0.0	Div by 0	30% (+/-)	N/A
% with first name	0.0	0.6	Div by 0	30% (+/-)	N/A
% with middle name	0.0	0.3	Div by 0	30% (+/-)	N/A
% with last name	0.0	0.6	Div by 0	30% (+/-)	N/A
% with name suffix	0.0	0.0	Div by 0	30% (+/-)	N/A
% male	0.0	0.6	Div by 0	30% (+/-)	N/A
% female	0.0	0.0	Div by 0	30% (+/-)	N/A
% with credential	0.0	0.6	Div by 0	30% (+/-)	N/A
% with business name	100.0	99.4	-0.59	30% (+/-)	Yes
% with address line 1	100.0	100.0	0.00	30% (+/-)	Yes
% with city	100.0	100.0	0.00	30% (+/-)	Yes
% with state	100.0	100.0	0.00	30% (+/-)	Yes
% state = IP state code	47.8	42.8	-10.30	30% (+/-)	Yes
% with zip code	100.0	100.0	0.00	30% (+/-)	Yes
% with primary taxonomy	100.0	99.7	-0.30	30% (+/-)	Yes
% with provider entity type = individual	0.0	0.6	Div by 0	30% (+/-)	N/A
% with provider entity type = organization	100.0	99.4	-0.59	30% (+/-)	Yes
<b>Provider IDs with or without NPI but linked to state provider file</b>					
Number of provider IDs with or without NPI linked to state provider file	0	0	Div by 0	N/A	N/A
<b>Provider IDs with NPPES Primary Taxonomy</b>					
Number of provider IDs with NPPES primary taxonomy	624	675	8.17	30% (+/-)	Yes
% individual or group of individuals	1.0	0.6	-38.36	30% (+/-)	Yes
% allopathic and osteopathic physicians	0.5	0.6	23.28	30% (+/-)	Yes
% behavioral health and social service providers	0.0	0.0	Div by 0	30% (+/-)	N/A

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

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

**2009-2010 MAX IP Billing Provider Characteristics Validation Table**

State: MS

Produced: 02/28/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range <sup>a</sup>
% chiropractic providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% dental providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% dietary and nutritional service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% emergency medical service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% eye and vision service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% nursing service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% nursing service-related providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% other service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% pharmacy service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% physician assistants and advanced practice nursing providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% podiatric medicine and surgery service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% respiratory, developmental, rehabilitative, and restorative service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% speech, language, and hearing service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% student health care	0.0	0.0	Div by 0	30% (+/-)	N/A
% technologists, technicians, and other technical service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% group of individuals with multi- or single specialty	0.5	0.0	-100.00	30% (+/-)	Yes
% nonindividuals	99.0	99.4	0.37	30% (+/-)	Yes
% agencies	0.0	0.0	Div by 0	30% (+/-)	N/A
% ambulatory health care facilities	0.0	0.0	Div by 0	30% (+/-)	N/A
% hospital units	14.6	10.2	-29.90	30% (+/-)	Yes
% hospitals	83.3	88.9	6.67	30% (+/-)	Yes
% laboratories	0.0	0.0	Div by 0	30% (+/-)	N/A
% managed care organizations	0.0	0.0	Div by 0	30% (+/-)	N/A
% nursing and custodial care facilities	0.0	0.3	Div by 0	30% (+/-)	N/A
% residential treatment facilities	0.0	0.0	Div by 0	30% (+/-)	N/A
% respite care facility	0.0	0.0	Div by 0	30% (+/-)	N/A
% suppliers	0.2	0.0	-100.00	30% (+/-)	Yes
% transportation services	1.0	0.0	-100.00	30% (+/-)	Yes
% nonmedical	0.0	0.0	Div by 0	N/A	N/A
<b>Provider IDs with Entity Type = Individual</b>					
Number of provider IDs with entity type = individual	0	4	Div by 0	30% (+/-)	N/A
% a sole proprietorship	0.0	0.0	Div by 0	30% (+/-)	N/A
% not a sole proprietorship	0.0	100.0	Div by 0	30% (+/-)	N/A
% not answered	0.0	0.0	Div by 0	N/A	N/A
<b>Provider IDs with Entity Type = Organization</b>					
Number of provider IDs with entity type = organization	624	673	7.85	30% (+/-)	Yes
% organization is a subpart	11.7	12.6	7.96	30% (+/-)	Yes
% organization is not a subpart	74.8	75.6	1.06	30% (+/-)	Yes
% not answered	13.5	11.7	-12.81	N/A	N/A

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

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

**2009-2010 MAX LT Billing Provider Characteristics Validation Table**

State: MS

Produced: 02/28/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range <sup>a</sup>
<b>LT Providers</b>					
Number of provider IDs	524	521	-0.57	30% (+/-)	Yes
% billing provider on LT claim	49.6	49.7	0.19	N/A	N/A
% NPI billing provider on LT claim	50.4	50.3	-0.19	N/A	N/A
% also a provider on IP claim	10.9	9.8	-10.01	N/A	N/A
% also a provider on OT claim	17.4	17.3	-0.53	N/A	N/A
% also a provider on RX claim	2.1	1.2	-45.12	N/A	N/A
% provider IDs with NPI	99.2	98.8	-0.39	30% (+/-)	Yes
% provider IDs linked to NPPES	99.2	98.8	-0.39	30% (+/-)	Yes
% provider IDs with or without NPI but linked to state provider file	0.0	0.0	Div by 0	N/A	N/A
average number of LT claims	1,021.4	1,034.4	1.28	30% (+/-)	Yes
average number of beneficiaries with LT claims	107.7	109.3	1.45	30% (+/-)	Yes
<b>Provider IDs with NPI</b>					
Number of provider IDs with NPI	520	515	-0.96	30% (+/-)	Yes
% NPI source = MSIS	99.6	99.8	0.19	30% (+/-)	Yes
% NPI source = NPPES	0.4	0.2	-49.61	30% (+/-)	Yes
% NPI source = state cross-reference file	0.0	0.0	Div by 0	N/A	N/A
<b>Provider IDs Linked to NPPES</b>					
Number of provider IDs linked to NPPES	520	515	-0.96	30% (+/-)	Yes
% linked via NPI	99.6	99.8	0.19	30% (+/-)	Yes
% linked via Medicaid legacy provider ID	0.4	0.2	-49.61	30% (+/-)	Yes
% linked via Medicare UPIN	0.0	0.0	Div by 0	30% (+/-)	N/A
% with name prefix	0.0	0.0	Div by 0	30% (+/-)	N/A
% with first name	0.0	0.0	Div by 0	30% (+/-)	N/A
% with middle name	0.0	0.0	Div by 0	30% (+/-)	N/A
% with last name	0.0	0.0	Div by 0	30% (+/-)	N/A
% with name suffix	0.0	0.0	Div by 0	30% (+/-)	N/A
% male	0.0	0.0	Div by 0	30% (+/-)	N/A
% female	0.0	0.0	Div by 0	30% (+/-)	N/A
% with credential	0.0	0.0	Div by 0	30% (+/-)	N/A
% with business name	100.0	100.0	0.00	30% (+/-)	Yes
% with address line 1	100.0	100.0	0.00	30% (+/-)	Yes
% with city	100.0	100.0	0.00	30% (+/-)	Yes
% with state	100.0	100.0	0.00	30% (+/-)	Yes
% state = LT state code	95.8	96.1	0.36	30% (+/-)	Yes
% with zip code	100.0	100.0	0.00	30% (+/-)	Yes
% with primary taxonomy	100.0	100.0	0.00	30% (+/-)	Yes
% with provider entity type = individual	0.0	0.0	Div by 0	30% (+/-)	N/A
% with provider entity type = organization	100.0	100.0	0.00	30% (+/-)	Yes
<b>Provider IDs with or without NPI but linked to state provider file</b>					
Number of provider IDs with or without NPI linked to state provider file	0	0	Div by 0	N/A	N/A
<b>Provider IDs with NPPES Primary Taxonomy</b>					
Number of provider IDs with NPPES primary taxonomy	520	515	-0.96	30% (+/-)	Yes
% individual or group of individuals	0.4	0.0	-100.00	30% (+/-)	Yes
% allopathic and osteopathic physicians	0.4	0.0	-100.00	30% (+/-)	Yes
% behavioral health and social service providers	0.0	0.0	Div by 0	30% (+/-)	N/A

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

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

**2009-2010 MAX LT Billing Provider Characteristics Validation Table**

State: MS

Produced: 02/28/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range <sup>a</sup>
% chiropractic providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% dental providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% dietary and nutritional service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% emergency medical service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% eye and vision service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% nursing service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% nursing service-related providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% other service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% pharmacy service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% physician assistants and advanced practice nursing providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% podiatric medicine and surgery service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% respiratory, developmental, rehabilitative, and restorative service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% speech, language, and hearing service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% student health care	0.0	0.0	Div by 0	30% (+/-)	N/A
% technologists, technicians, and other technical service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% group of individuals with multi- or single specialty	0.0	0.0	Div by 0	30% (+/-)	N/A
% nonindividuals	99.6	100.0	0.39	30% (+/-)	Yes
% agencies	0.0	0.0	Div by 0	30% (+/-)	N/A
% ambulatory health care facilities	0.2	0.4	102.08	30% (+/-)	Yes
% hospital units	11.2	8.2	-26.89	30% (+/-)	Yes
% hospitals	3.8	5.6	46.41	30% (+/-)	Yes
% laboratories	0.0	0.0	Div by 0	30% (+/-)	N/A
% managed care organizations	0.0	0.4	Div by 0	30% (+/-)	N/A
% nursing and custodial care facilities	80.0	80.0	0.00	30% (+/-)	Yes
% residential treatment facilities	4.2	5.0	19.33	30% (+/-)	Yes
% respite care facility	0.0	0.0	Div by 0	30% (+/-)	N/A
% suppliers	0.2	0.4	102.08	30% (+/-)	Yes
% transportation services	0.0	0.0	Div by 0	30% (+/-)	N/A
% nonmedical	0.0	0.0	Div by 0	N/A	N/A
<b>Provider IDs with Entity Type = Individual</b>					
Number of provider IDs with entity type = individual	0	0	Div by 0	30% (+/-)	N/A
% a sole proprietorship	0.0	0.0	Div by 0	30% (+/-)	N/A
% not a sole proprietorship	0.0	0.0	Div by 0	30% (+/-)	N/A
% not answered	0.0	0.0	Div by 0	N/A	N/A
<b>Provider IDs with Entity Type = Organization</b>					
Number of provider IDs with entity type = organization	520	515	-0.96	30% (+/-)	Yes
% organization is a subpart	18.1	21.2	17.08	30% (+/-)	Yes
% organization is not a subpart	55.8	57.5	3.06	30% (+/-)	Yes
% not answered	26.2	21.4	-18.33	N/A	N/A

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

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

**2009-2010 MAX OT Servicing Provider Characteristics Validation Table**

State: MS

Produced: 02/28/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range <sup>a</sup>
<b>OT Providers</b>					
Number of provider IDs	32,263	30,680	-4.91	30% (+/-)	Yes
% billing provider on OT claim	16.9	15.0	-11.23	N/A	N/A
% servicing provider on OT claim	54.7	49.0	-10.42	N/A	N/A
% NPI servicing provider on OT claim	45.3	51.0	12.56	N/A	N/A
% also a provider on IP claim	1.6	1.1	-33.33	N/A	N/A
% also a provider on LT claim	0.3	0.3	1.48	N/A	N/A
% also a provider on RX claim	25.7	28.1	9.50	N/A	N/A
% provider IDs with NPI	91.2	99.6	9.24	30% (+/-)	Yes
% provider IDs linked to NPES	90.7	99.4	9.56	30% (+/-)	Yes
% provider IDs with or without NPI but linked to state provider file	0.0	0.0	Div by 0	N/A	N/A
average number of OT claims	1,642.2	1,607.7	-2.10	30% (+/-)	Yes
average number of beneficiaries with OT claims	301.6	307.0	1.77	30% (+/-)	Yes
<b>Provider IDs with NPI</b>					
Number of provider IDs with NPI	29,415	30,556	3.88	30% (+/-)	Yes
% NPI source = MSIS	99.9	99.9	0.04	30% (+/-)	Yes
% NPI source = NPES	0.2	0.1	-28.00	30% (+/-)	Yes
% NPI source = state cross-reference file	0.0	0.0	Div by 0	N/A	N/A
<b>Provider IDs Linked to NPES</b>					
Number of provider IDs linked to NPES	29,272	30,496	4.18	30% (+/-)	Yes
% linked via NPI	99.9	99.9	0.04	30% (+/-)	Yes
% linked via Medicaid legacy provider ID	0.1	0.1	-18.80	30% (+/-)	Yes
% linked via Medicare UPIN	0.0	0.0	-100.00	30% (+/-)	Yes
% with name prefix	39.5	40.4	2.31	30% (+/-)	Yes
% with first name	80.6	82.7	2.68	30% (+/-)	Yes
% with middle name	63.6	66.0	3.83	30% (+/-)	Yes
% with last name	80.6	82.7	2.68	30% (+/-)	Yes
% with name suffix	6.3	6.3	0.59	30% (+/-)	Yes
% male	53.5	54.0	0.94	30% (+/-)	Yes
% female	27.1	28.7	6.13	30% (+/-)	Yes
% with credential	78.4	80.3	2.51	30% (+/-)	Yes
% with business name	19.4	16.8	-13.64	30% (+/-)	Yes
% with address line 1	100.0	99.5	-0.49	30% (+/-)	Yes
% with city	100.0	99.5	-0.49	30% (+/-)	Yes
% with state	100.0	99.5	-0.49	30% (+/-)	Yes
% state = OT state code	63.0	60.9	-3.28	30% (+/-)	Yes
% with zip code	100.0	99.5	-0.49	30% (+/-)	Yes
% with primary taxonomy	99.8	98.5	-1.35	30% (+/-)	Yes
% with provider entity type = individual	80.6	82.7	2.68	30% (+/-)	Yes
% with provider entity type = organization	19.4	16.8	-13.64	30% (+/-)	Yes
<b>Provider IDs with or without NPI but linked to state provider file</b>					
Number of provider IDs with or without NPI linked to state provider file	0	0	Div by 0	N/A	N/A
<b>Provider IDs with NPES Primary Taxonomy</b>					
Number of provider IDs with NPES primary taxonomy	29,314	30,032	2.45	30% (+/-)	Yes
% individual or group of individuals	84.0	87.2	3.86	30% (+/-)	Yes
% allopathic and osteopathic physicians	57.3	57.0	-0.51	30% (+/-)	Yes

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

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

**2009-2010 MAX OT Servicing Provider Characteristics Validation Table**

State: MS

Produced: 02/28/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range <sup>a</sup>
% behavioral health and social service providers	1.6	1.4	-7.73	30% (+/-)	Yes
% chiropractic providers	0.8	0.8	1.04	30% (+/-)	Yes
% dental providers	3.6	3.6	-0.75	30% (+/-)	Yes
% dietary and nutritional service providers	0.0	0.0	0.00	30% (+/-)	Yes
% emergency medical service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% eye and vision service providers	1.9	2.1	10.70	30% (+/-)	Yes
% nursing service providers	0.6	0.9	59.89	30% (+/-)	Yes
% nursing service-related providers	0.4	0.2	-46.57	30% (+/-)	Yes
% other service providers	0.3	2.9	856.67	30% (+/-)	Yes
% pharmacy service providers	0.0	0.1	547.06	30% (+/-)	Yes
% physician assistants and advanced practice nursing providers	13.7	14.6	6.74	30% (+/-)	Yes
% podiatric medicine and surgery service providers	0.4	0.5	7.50	30% (+/-)	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	1.5	1.6	10.40	30% (+/-)	Yes
% speech, language, and hearing service providers	0.9	1.0	10.39	30% (+/-)	Yes
% student health care	0.0	0.3	4,185.71	30% (+/-)	Yes
% technologists, technicians, and other technical service providers	0.0	0.1	857.14	30% (+/-)	Yes
% group of individuals with multi- or single specialty	0.9	0.0	-100.00	30% (+/-)	Yes
% nonindividuals	16.0	12.8	-20.23	30% (+/-)	Yes
% agencies	1.5	1.6	13.11	30% (+/-)	Yes
% ambulatory health care facilities	3.2	2.0	-36.40	30% (+/-)	Yes
% hospital units	0.0	0.0	-73.68	30% (+/-)	Yes
% hospitals	3.0	2.0	-34.52	30% (+/-)	Yes
% laboratories	1.3	0.9	-31.64	30% (+/-)	Yes
% managed care organizations	0.0	0.1	76.47	30% (+/-)	Yes
% nursing and custodial care facilities	0.4	0.4	8.59	30% (+/-)	Yes
% residential treatment facilities	0.0	0.0	38.71	30% (+/-)	Yes
% respite care facility	0.1	0.1	0.00	30% (+/-)	Yes
% suppliers	5.9	5.1	-14.50	30% (+/-)	Yes
% transportation services	0.5	0.5	-1.81	30% (+/-)	Yes
% nonmedical	0.0	0.0	Div by 0	N/A	N/A
<b>Provider IDs with Entity Type = Individual</b>					
Number of provider IDs with entity type = individual	23,579	25,224	6.98	30% (+/-)	Yes
% a sole proprietorship	19.6	19.8	1.36	30% (+/-)	Yes
% not a sole proprietorship	70.8	73.9	4.50	30% (+/-)	Yes
% not answered	9.7	6.2	-35.70	N/A	N/A
<b>Provider IDs with Entity Type = Organization</b>					
Number of provider IDs with entity type = organization	5,693	5,122	-10.03	30% (+/-)	Yes
% organization is a subpart	12.1	14.2	17.11	30% (+/-)	Yes
% organization is not a subpart	66.1	69.8	5.56	30% (+/-)	Yes
% not answered	21.8	16.1	-26.35	N/A	N/A

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

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

# 2009-2010 MAX OT Billing Provider Characteristics Validation Table

State: MS

Produced: 02/28/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range <sup>a</sup>
<b>OT Providers</b>					
Number of provider IDs	7,293	7,294	0.01	30% (+/-)	Yes
% billing provider on OT claim	100.0	100.0	0.00	N/A	N/A
% servicing provider on OT claim	74.8	63.1	-15.59	N/A	N/A
% NPI servicing provider on OT claim	0.0	0.0	Div by 0	N/A	N/A
% also a provider on IP claim	3.5	3.8	8.94	N/A	N/A
% also a provider on LT claim	0.5	0.4	-25.00	N/A	N/A
% also a provider on RX claim	0.2	0.0	-87.67	N/A	N/A
% provider IDs with NPI	85.0	79.9	-5.95	30% (+/-)	Yes
% provider IDs linked to NPPES	84.3	79.4	-5.84	30% (+/-)	Yes
% provider IDs with or without NPI but linked to state provider file	0.0	0.0	Div by 0	N/A	N/A
average number of OT claims	3,642.7	3,717.8	2.06	30% (+/-)	Yes
average number of beneficiaries with OT claims	553.1	569.2	2.90	30% (+/-)	Yes
<b>Provider IDs with NPI</b>					
Number of provider IDs with NPI	6,197	5,829	-5.94	30% (+/-)	Yes
% NPI source = MSIS	87.1	82.1	-5.71	30% (+/-)	Yes
% NPI source = NPPES	12.9	17.9	38.39	30% (+/-)	No
% NPI source = state cross-reference file	0.0	0.0	Div by 0	N/A	N/A
<b>Provider IDs Linked to NPPES</b>					
Number of provider IDs linked to NPPES	6,148	5,790	-5.82	30% (+/-)	Yes
% linked via NPI	87.0	82.0	-5.73	30% (+/-)	Yes
% linked via Medicaid legacy provider ID	13.0	18.0	38.22	30% (+/-)	No
% linked via Medicare UPIN	0.0	0.0	Div by 0	30% (+/-)	N/A
% with name prefix	25.4	25.6	0.81	30% (+/-)	Yes
% with first name	41.3	41.8	1.21	30% (+/-)	Yes
% with middle name	35.1	35.7	1.61	30% (+/-)	Yes
% with last name	41.3	41.8	1.21	30% (+/-)	Yes
% with name suffix	4.5	4.4	-1.51	30% (+/-)	Yes
% male	30.5	30.2	-0.90	30% (+/-)	Yes
% female	10.8	11.6	7.14	30% (+/-)	Yes
% with credential	40.1	40.5	0.89	30% (+/-)	Yes
% with business name	58.7	57.8	-1.56	30% (+/-)	Yes
% with address line 1	100.0	99.6	-0.42	30% (+/-)	Yes
% with city	100.0	99.6	-0.42	30% (+/-)	Yes
% with state	100.0	99.6	-0.42	30% (+/-)	Yes
% state = OT state code	78.6	79.7	1.44	30% (+/-)	Yes
% with zip code	100.0	99.6	-0.42	30% (+/-)	Yes
% with primary taxonomy	99.5	98.2	-1.23	30% (+/-)	Yes
% with provider entity type = individual	41.3	41.8	1.21	30% (+/-)	Yes
% with provider entity type = organization	58.7	57.8	-1.56	30% (+/-)	Yes
<b>Provider IDs with or without NPI but linked to state provider file</b>					
Number of provider IDs with or without NPI linked to state provider file	0	0	Div by 0	N/A	N/A
<b>Provider IDs with NPPES Primary Taxonomy</b>					
Number of provider IDs with NPPES primary taxonomy	6,133	5,688	-7.26	30% (+/-)	Yes
% individual or group of individuals	60.0	63.4	5.71	30% (+/-)	Yes
% allopathic and osteopathic physicians	34.2	35.3	3.09	30% (+/-)	Yes

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

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

**2009-2010 MAX OT Billing Provider Characteristics Validation Table**

State: MS

Produced: 02/28/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range <sup>a</sup>
% behavioral health and social service providers	1.8	1.6	-11.82	30% (+/-)	Yes
% chiropractic providers	1.5	1.7	12.40	30% (+/-)	Yes
% dental providers	6.2	6.7	8.67	30% (+/-)	Yes
% dietary and nutritional service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% emergency medical service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% eye and vision service providers	3.6	4.4	21.51	30% (+/-)	Yes
% nursing service providers	1.4	1.7	27.08	30% (+/-)	Yes
% nursing service-related providers	1.2	0.7	-37.98	30% (+/-)	Yes
% other service providers	1.3	3.7	178.76	30% (+/-)	Yes
% pharmacy service providers	0.0	0.3	Div by 0	30% (+/-)	N/A
% physician assistants and advanced practice nursing providers	3.7	4.1	12.10	30% (+/-)	Yes
% podiatric medicine and surgery service providers	0.8	0.9	5.78	30% (+/-)	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	1.0	1.1	14.87	30% (+/-)	Yes
% speech, language, and hearing service providers	0.8	0.8	-3.45	30% (+/-)	Yes
% student health care	0.0	0.1	Div by 0	30% (+/-)	N/A
% technologists, technicians, and other technical service providers	0.0	0.2	378.79	30% (+/-)	Yes
% group of individuals with multi- or single specialty	2.4	0.0	-100.00	30% (+/-)	Yes
% nonindividuals	40.0	36.6	-8.55	30% (+/-)	Yes
% agencies	3.6	4.5	25.90	30% (+/-)	Yes
% ambulatory health care facilities	9.1	7.6	-16.58	30% (+/-)	Yes
% hospital units	0.1	0.1	-10.20	30% (+/-)	Yes
% hospitals	7.8	6.0	-22.75	30% (+/-)	Yes
% laboratories	2.9	2.3	-19.13	30% (+/-)	Yes
% managed care organizations	0.0	0.1	Div by 0	30% (+/-)	N/A
% nursing and custodial care facilities	0.8	0.8	-0.47	30% (+/-)	Yes
% residential treatment facilities	0.1	0.1	23.68	30% (+/-)	Yes
% respite care facility	0.4	0.4	12.53	30% (+/-)	Yes
% suppliers	14.0	13.2	-5.50	30% (+/-)	Yes
% transportation services	1.2	1.3	3.55	30% (+/-)	Yes
% nonmedical	0.0	0.0	Div by 0	N/A	N/A
<b>Provider IDs with Entity Type = Individual</b>					
Number of provider IDs with entity type = individual	2,541	2,422	-4.68	30% (+/-)	Yes
% a sole proprietorship	40.4	41.6	3.07	30% (+/-)	Yes
% not a sole proprietorship	53.4	55.0	3.06	30% (+/-)	Yes
% not answered	6.2	3.3	-46.22	N/A	N/A
<b>Provider IDs with Entity Type = Organization</b>					
Number of provider IDs with entity type = organization	3,607	3,344	-7.29	30% (+/-)	Yes
% organization is a subpart	11.2	13.1	17.23	30% (+/-)	Yes
% organization is not a subpart	66.0	69.3	4.92	30% (+/-)	Yes
% not answered	22.8	17.6	-22.71	N/A	N/A

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

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



# 2009-2010 MAX RX Billing Provider Characteristics Validation Table

State: MS

Produced: 02/28/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range <sup>a</sup>
<b>RX Providers</b>					
Number of provider IDs	1,766	1,756	-0.57	30% (+/-)	Yes
% billing provider on RX claim	50.0	50.3	0.68	N/A	N/A
% prescribing provider on RX claim	0.0	0.0	Div by 0	N/A	N/A
% NPI billing provider on RX claim	50.0	49.7	-0.68	N/A	N/A
% also a provider on IP claim	0.1	0.1	0.00	N/A	N/A
% also a provider on LT claim	0.0	0.0	Div by 0	N/A	N/A
% also a provider on OT claim	16.5	14.3	-13.25	N/A	N/A
% provider IDs with NPI	99.9	99.3	-0.63	30% (+/-)	Yes
% provider IDs linked to NPPES	99.3	99.3	-0.06	30% (+/-)	Yes
% provider IDs with or without NPI but linked to state provider file	0.0	0.0	Div by 0	N/A	N/A
average number of RX claims	6,435.4	6,612.8	2.76	30% (+/-)	Yes
average number of beneficiaries with RX claims	887.1	891.0	0.44	30% (+/-)	Yes
<b>Provider IDs with NPI</b>					
Number of provider IDs with NPI	1,764	1,743	-1.19	30% (+/-)	Yes
% NPI source = MSIS	100.0	99.9	-0.06	30% (+/-)	Yes
% NPI source = NPPES	0.0	0.1	Div by 0	30% (+/-)	N/A
% NPI source = state cross-reference file	0.0	0.0	Div by 0	N/A	N/A
<b>Provider IDs Linked to NPPES</b>					
Number of provider IDs linked to NPPES	1,754	1,743	-0.63	30% (+/-)	Yes
% linked via NPI	100.0	99.9	-0.06	30% (+/-)	Yes
% linked via Medicaid legacy provider ID	0.0	0.1	Div by 0	30% (+/-)	N/A
% linked via Medicare UPIN	0.0	0.0	Div by 0	30% (+/-)	N/A
% with name prefix	0.9	0.8	-6.08	30% (+/-)	Yes
% with first name	1.0	0.9	-5.26	30% (+/-)	Yes
% with middle name	0.9	0.8	-6.08	30% (+/-)	Yes
% with last name	1.0	0.9	-5.26	30% (+/-)	Yes
% with name suffix	0.2	0.2	0.44	30% (+/-)	Yes
% male	0.9	0.9	0.66	30% (+/-)	Yes
% female	0.1	0.0	-100.00	30% (+/-)	Yes
% with credential	0.9	0.8	-6.08	30% (+/-)	Yes
% with business name	99.0	98.6	-0.41	30% (+/-)	Yes
% with address line 1	100.0	99.5	-0.46	30% (+/-)	Yes
% with city	100.0	99.5	-0.46	30% (+/-)	Yes
% with state	100.0	99.5	-0.46	30% (+/-)	Yes
% state = RX state code	91.1	90.7	-0.44	30% (+/-)	Yes
% with zip code	100.0	99.5	-0.46	30% (+/-)	Yes
% with primary taxonomy	100.0	98.0	-1.95	30% (+/-)	Yes
% with provider entity type = individual	1.0	0.9	-5.26	30% (+/-)	Yes
% with provider entity type = organization	99.0	98.6	-0.41	30% (+/-)	Yes
<b>Provider IDs with or without NPI but linked to state provider file</b>					
Number of provider IDs with or without NPI linked to state provider file	0	0	Div by 0	N/A	N/A
<b>Provider IDs with NPPES Primary Taxonomy</b>					
Number of provider IDs with NPPES primary taxonomy	1,764	1,709	-3.12	30% (+/-)	Yes
% individual or group of individuals	0.5	8.1	1,678.63	30% (+/-)	Yes
% allopathic and osteopathic physicians	0.0	0.0	Div by 0	30% (+/-)	N/A

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

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

# 2009-2010 MAX RX Billing Provider Characteristics Validation Table

State: MS

Produced: 02/28/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range <sup>a</sup>
% behavioral health and social service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% chiropractic providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% dental providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% dietary and nutritional service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% emergency medical service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% eye and vision service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% nursing service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% nursing service-related providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% other service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% pharmacy service providers	0.3	8.1	2,275.00	30% (+/-)	Yes
% physician assistants and advanced practice nursing providers	0.1	0.0	-100.00	30% (+/-)	Yes
% podiatric medicine and surgery service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% respiratory, developmental, rehabilitative, and restorative service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% speech, language, and hearing service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% student health care	0.0	0.0	Div by 0	30% (+/-)	N/A
% technologists, technicians, and other technical service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% group of individuals with multi- or single specialty	0.0	0.0	Div by 0	30% (+/-)	N/A
% nonindividuals	99.5	91.9	-7.66	30% (+/-)	Yes
% agencies	0.0	0.2	Div by 0	30% (+/-)	N/A
% ambulatory health care facilities	0.0	0.1	Div by 0	30% (+/-)	N/A
% hospital units	0.0	0.0	Div by 0	30% (+/-)	N/A
% hospitals	0.2	0.5	106.17	30% (+/-)	Yes
% laboratories	0.0	0.0	Div by 0	30% (+/-)	N/A
% managed care organizations	0.0	0.0	Div by 0	30% (+/-)	N/A
% nursing and custodial care facilities	0.0	0.0	Div by 0	30% (+/-)	N/A
% residential treatment facilities	0.1	0.1	105.26	30% (+/-)	Yes
% respite care facility	0.0	0.0	Div by 0	30% (+/-)	N/A
% suppliers	99.3	90.9	-8.45	30% (+/-)	Yes
% transportation services	0.0	0.1	Div by 0	30% (+/-)	N/A
% nonmedical	0.0	0.0	Div by 0	N/A	N/A
<b>Provider IDs with Entity Type = Individual</b>					
Number of provider IDs with entity type = individual	17	16	-5.88	30% (+/-)	Yes
% a sole proprietorship	88.2	75.0	-15.00	30% (+/-)	Yes
% not a sole proprietorship	0.0	12.5	Div by 0	30% (+/-)	N/A
% not answered	11.8	12.5	6.25	N/A	N/A
<b>Provider IDs with Entity Type = Organization</b>					
Number of provider IDs with entity type = organization	1,737	1,719	-1.04	30% (+/-)	Yes
% organization is a subpart	29.8	32.0	7.29	30% (+/-)	Yes
% organization is not a subpart	51.5	52.6	2.18	30% (+/-)	Yes
% not answered	18.7	15.4	-17.66	N/A	N/A

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

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

**2009-2010 MAX RX Prescribing Provider Characteristics Validation Table**

State: MS

Produced: 02/28/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range <sup>a</sup>
<b>RX Providers</b>					
Number of provider IDs	18,136	18,566	2.37	30% (+/-)	Yes
% billing provider on RX claim	0.0	0.0	Div by 0	N/A	N/A
% prescribing provider on RX claim	100.0	100.0	0.00	N/A	N/A
% NPI billing provider on RX claim	0.0	0.0	Div by 0	N/A	N/A
% also a provider on IP claim	0.6	0.6	0.53	N/A	N/A
% also a provider on LT claim	0.1	0.0	-47.54	N/A	N/A
% also a provider on OT claim	44.2	45.2	2.28	N/A	N/A
% provider IDs with NPI	44.2	45.3	2.30	30% (+/-)	Yes
% provider IDs linked to NPES	44.1	45.3	2.70	30% (+/-)	Yes
% provider IDs with or without NPI but linked to state provider file	0.0	0.0	Div by 0	N/A	N/A
average number of RX claims	313.3	313.1	-0.06	30% (+/-)	Yes
average number of beneficiaries with RX claims	70.1	69.0	-1.55	30% (+/-)	Yes
<b>Provider IDs with NPI</b>					
Number of provider IDs with NPI	8,023	8,402	4.72	30% (+/-)	Yes
% NPI source = MSIS	99.9	99.9	-0.03	30% (+/-)	Yes
% NPI source = NPES	0.1	0.1	42.67	30% (+/-)	Yes
% NPI source = state cross-reference file	0.0	0.0	Div by 0	N/A	N/A
<b>Provider IDs Linked to NPES</b>					
Number of provider IDs linked to NPES	7,992	8,402	5.13	30% (+/-)	Yes
% linked via NPI	99.9	99.9	-0.03	30% (+/-)	Yes
% linked via Medicaid legacy provider ID	0.0	0.0	-7.69	30% (+/-)	Yes
% linked via Medicare UPIN	0.1	0.1	50.79	30% (+/-)	Yes
% with name prefix	49.5	49.3	-0.36	30% (+/-)	Yes
% with first name	95.1	94.9	-0.19	30% (+/-)	Yes
% with middle name	76.7	77.0	0.43	30% (+/-)	Yes
% with last name	95.1	94.9	-0.19	30% (+/-)	Yes
% with name suffix	8.1	7.6	-5.91	30% (+/-)	Yes
% male	65.1	63.9	-1.92	30% (+/-)	Yes
% female	30.0	31.0	3.58	30% (+/-)	Yes
% with credential	93.2	93.2	-0.07	30% (+/-)	Yes
% with business name	4.9	4.5	-8.96	30% (+/-)	Yes
% with address line 1	100.0	99.4	-0.62	30% (+/-)	Yes
% with city	100.0	99.4	-0.62	30% (+/-)	Yes
% with state	100.0	99.4	-0.62	30% (+/-)	Yes
% state = RX state code	75.7	72.9	-3.61	30% (+/-)	Yes
% with zip code	100.0	99.4	-0.62	30% (+/-)	Yes
% with primary taxonomy	99.9	98.3	-1.58	30% (+/-)	Yes
% with provider entity type = individual	95.1	94.9	-0.19	30% (+/-)	Yes
% with provider entity type = organization	4.9	4.5	-8.96	30% (+/-)	Yes
<b>Provider IDs with or without NPI but linked to state provider file</b>					
Number of provider IDs with or without NPI linked to state provider file	0	0	Div by 0	N/A	N/A
<b>Provider IDs with NPES Primary Taxonomy</b>					
Number of provider IDs with NPES primary taxonomy	8,017	8,263	3.07	30% (+/-)	Yes
% individual or group of individuals	96.4	97.1	0.79	30% (+/-)	Yes
% allopathic and osteopathic physicians	70.5	66.8	-5.24	30% (+/-)	Yes

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

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

**2009-2010 MAX RX Prescribing Provider Characteristics Validation Table**

State: MS

Produced: 02/28/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range <sup>a</sup>
% behavioral health and social service providers	0.2	0.2	-9.00	30% (+/-)	Yes
% chiropractic providers	0.1	0.1	-27.00	30% (+/-)	Yes
% dental providers	6.3	6.1	-2.98	30% (+/-)	Yes
% dietary and nutritional service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% emergency medical service providers	0.0	0.1	Div by 0	30% (+/-)	N/A
% eye and vision service providers	3.0	3.1	3.52	30% (+/-)	Yes
% nursing service providers	0.0	0.3	1,112.00	30% (+/-)	Yes
% nursing service-related providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% other service providers	0.2	3.5	1,770.59	30% (+/-)	Yes
% pharmacy service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% physician assistants and advanced practice nursing providers	14.8	15.9	7.69	30% (+/-)	Yes
% podiatric medicine and surgery service providers	0.6	0.7	10.97	30% (+/-)	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	0.2	0.1	-51.56	30% (+/-)	Yes
% speech, language, and hearing service providers	0.1	0.0	-61.29	30% (+/-)	Yes
% student health care	0.0	0.3	Div by 0	30% (+/-)	N/A
% technologists, technicians, and other technical service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% group of individuals with multi- or single specialty	0.4	0.0	-100.00	30% (+/-)	Yes
% nonindividuals	3.6	2.9	-21.04	30% (+/-)	Yes
% agencies	0.1	0.1	5.84	30% (+/-)	Yes
% ambulatory health care facilities	1.7	1.1	-33.63	30% (+/-)	Yes
% hospital units	0.1	0.0	-72.41	30% (+/-)	Yes
% hospitals	1.2	1.4	13.91	30% (+/-)	Yes
% laboratories	0.3	0.0	-88.46	30% (+/-)	Yes
% managed care organizations	0.0	0.0	-35.14	30% (+/-)	Yes
% nursing and custodial care facilities	0.0	0.0	-52.00	30% (+/-)	Yes
% residential treatment facilities	0.0	0.0	-35.14	30% (+/-)	Yes
% respite care facility	0.0	0.0	Div by 0	30% (+/-)	N/A
% suppliers	0.1	0.0	-52.00	30% (+/-)	Yes
% transportation services	0.1	0.1	46.00	30% (+/-)	Yes
% nonmedical	0.0	0.0	Div by 0	N/A	N/A
<b>Provider IDs with Entity Type = Individual</b>					
Number of provider IDs with entity type = individual	7,597	7,972	4.94	30% (+/-)	Yes
% a sole proprietorship	20.1	20.4	1.35	30% (+/-)	Yes
% not a sole proprietorship	71.4	74.1	3.84	30% (+/-)	Yes
% not answered	8.5	5.5	-35.25	N/A	N/A
<b>Provider IDs with Entity Type = Organization</b>					
Number of provider IDs with entity type = organization	395	378	-4.30	30% (+/-)	Yes
% organization is a subpart	10.1	10.8	7.11	30% (+/-)	Yes
% organization is not a subpart	70.1	72.8	3.74	30% (+/-)	Yes
% not answered	19.7	16.4	-16.94	N/A	N/A

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

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

**2009-2010 MAX All Provider Characteristics Validation Table**

State: MS

Produced: 02/28/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range <sup>a</sup>
<b>All Providers</b>					
Number of provider IDs	46,193	45,552	-1.39	30%(+/-)	Yes
% billing provider on IP claim	0.7	0.7	9.41	N/A	N/A
% NPI billing provider on IP claim	0.7	0.8	11.32	N/A	N/A
% billing provider on LT claim	0.6	0.6	1.07	N/A	N/A
% NPI billing provider on LT claim	0.6	0.6	0.52	N/A	N/A
% billing provider on OT claim	15.8	16.0	1.42	N/A	N/A
% servicing provider on OT claim	38.2	33.0	-13.62	N/A	N/A
% NPI servicing provider on OT claim	31.7	34.4	8.54	N/A	N/A
% billing provider on RX claim	1.9	1.9	1.52	N/A	N/A
% prescribing provider on RX claim	39.3	40.8	3.81	N/A	N/A
% NPI billing provider on RX claim	1.9	1.9	0.10	N/A	N/A
% billing provider	18.2	18.5	1.75	N/A	N/A
% NPI billing provider	3.1	3.2	3.04	N/A	N/A
% servicing provider	38.2	33.0	-13.62	N/A	N/A
% NPI servicing provider	31.7	34.4	8.54	N/A	N/A
% prescribing provider	39.3	40.8	3.81	N/A	N/A
% provider IDs with NPI	69.7	74.2	6.57	30%(+/-)	Yes
% provider IDs linked to NPPES	69.3	74.1	6.88	30%(+/-)	Yes
% provider IDs with or without NPI but linked to state provider file	0.0	0.0	Div by 0	N/A	N/A
average number of claims	1,646.3	1,710.0	3.87	30%(+/-)	Yes
average number of beneficiaries with claims	280.9	292.8	4.25	30%(+/-)	Yes
<b>Provider IDs with NPI</b>					
Number of provider IDs with NPI	32,177	33,816	5.09	30%(+/-)	Yes
% NPI source = MSIS	97.4	96.9	-0.59	30%(+/-)	Yes
% NPI source = NPPES	2.6	3.1	22.39	30%(+/-)	Yes
% NPI source = state cross-reference file	0.0	0.0	Div by 0	N/A	N/A
<b>Provider IDs Linked to NPPES</b>					
Number of provider IDs linked to NPPES	32,027	33,756	5.40	30%(+/-)	Yes
% linked via NPI	97.4	96.9	-0.58	30%(+/-)	Yes
% linked via Medicaid legacy provider ID	2.5	3.1	22.55	30%(+/-)	Yes
% linked via Medicare UPIN	0.0	0.0	-22.58	30%(+/-)	Yes
% with name prefix	36.2	36.7	1.42	30%(+/-)	Yes
% with first name	73.8	75.0	1.68	30%(+/-)	Yes
% with middle name	58.2	59.8	2.82	30%(+/-)	Yes
% with last name	73.8	75.0	1.68	30%(+/-)	Yes
% with name suffix	5.7	5.7	-0.43	30%(+/-)	Yes
% male	49.0	48.9	-0.11	30%(+/-)	Yes
% female	24.8	26.1	5.21	30%(+/-)	Yes
% with credential	71.8	72.8	1.51	30%(+/-)	Yes
% with business name	26.2	24.5	-6.49	30%(+/-)	Yes
% with address line 1	100.0	99.5	-0.47	30%(+/-)	Yes
% with city	100.0	99.5	-0.47	30%(+/-)	Yes
% with state	100.0	99.5	-0.47	30%(+/-)	Yes
% state = claim file state code	65.3	63.3	-3.11	30%(+/-)	Yes
% with zip code	100.0	99.5	-0.47	30%(+/-)	Yes

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

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**2009-2010 MAX All Provider Characteristics Validation Table**

State: MS

Produced: 02/28/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range <sup>a</sup>
% with primary taxonomy	99.8	98.5	-1.31	30%(+/-)	Yes
% with provider entity type = individual	73.8	75.0	1.68	30%(+/-)	Yes
% with provider entity type = organization	26.2	24.5	-6.49	30%(+/-)	Yes
<b>Provider IDs with or without NPI but linked to state provider file</b>					
Number of provider IDs with or without NPI linked to state provider file	0	0	Div by 0	N/A	N/A
<b>Provider IDs with NPPES Primary Taxonomy</b>					
Number of provider IDs with NPPES primary taxonomy	32,059	33,243	3.69	30%(+/-)	Yes
% individual or group of individuals	78.8	81.3	3.16	30%(+/-)	Yes
% allopathic and osteopathic physicians	53.7	52.8	-1.66	30%(+/-)	Yes
% behavioral health and social service providers	1.5	1.5	-0.89	30%(+/-)	Yes
% chiropractic providers	0.8	0.8	0.00	30%(+/-)	Yes
% dental providers	3.5	3.4	-1.47	30%(+/-)	Yes
% dietary and nutritional service providers	0.0	0.0	0.00	30%(+/-)	Yes
% emergency medical service providers	0.0	0.0	Div by 0	30%(+/-)	N/A
% eye and vision service providers	1.8	2.0	8.93	30%(+/-)	Yes
% nursing service providers	0.5	0.8	57.09	30%(+/-)	Yes
% nursing service-related providers	0.4	0.2	-47.03	30%(+/-)	Yes
% other service providers	0.4	2.7	572.66	30%(+/-)	Yes
% pharmacy service providers	0.0	0.5	1,412.90	30%(+/-)	Yes
% physician assistants and advanced practice nursing providers	12.7	13.4	5.56	30%(+/-)	Yes
% podiatric medicine and surgery service providers	0.4	0.4	5.91	30%(+/-)	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	1.4	1.6	9.12	30%(+/-)	Yes
% speech, language, and hearing service providers	0.9	0.9	9.06	30%(+/-)	Yes
% student health care	0.0	0.3	4,416.67	30%(+/-)	Yes
% technologists, technicians, and other technical service providers	0.0	0.1	566.67	30%(+/-)	Yes
% group of individuals with multi- or single specialty	0.9	0.0	-100.00	30%(+/-)	Yes
% nonindividuals	21.2	18.7	-11.74	30%(+/-)	Yes
% agencies	1.3	1.5	12.80	30%(+/-)	Yes
% ambulatory health care facilities	3.2	2.6	-18.33	30%(+/-)	Yes
% hospital units	0.3	0.2	-29.87	30%(+/-)	Yes
% hospitals	3.0	2.8	-5.84	30%(+/-)	Yes
% laboratories	1.2	0.8	-32.47	30%(+/-)	Yes
% managed care organizations	0.0	0.1	93.55	30%(+/-)	Yes
% nursing and custodial care facilities	1.4	1.4	-1.41	30%(+/-)	Yes
% residential treatment facilities	0.1	0.1	25.24	30%(+/-)	Yes
% respite care facility	0.1	0.1	-1.53	30%(+/-)	Yes
% suppliers	10.0	8.6	-14.34	30%(+/-)	Yes
% transportation services	0.5	0.4	-3.66	30%(+/-)	Yes
% nonmedical	0.0	0.0	Div by 0	N/A	N/A
<b>Provider IDs with Entity Type = Individual</b>					
Number of provider IDs with entity type = individual	23,623	25,316	7.17	30%(+/-)	Yes
% a sole proprietorship	19.7	20.0	1.65	30%(+/-)	Yes
% not a sole proprietorship	70.7	73.8	4.42	30%(+/-)	Yes
% not answered	9.7	6.2	-35.71	N/A	N/A
<b>Provider IDs with Entity Type = Organization</b>					
Number of provider IDs with entity type = organization	8,404	8,283	-1.44	30%(+/-)	Yes
% organization is a subpart	14.8	16.8	13.62	30%(+/-)	Yes
% organization is not a subpart	63.1	66.4	5.11	30%(+/-)	Yes
% not answered	22.1	16.8	-23.74	N/A	N/A

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

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