

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

**State-Specific Validation Tables,
2010**

North Carolina

May 31, 2013

Deo Bencio
Mei-ling Mason

MATHEMATICA
Policy Research

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ACRONYMS

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

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INTRODUCTION

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

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

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

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

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

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

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

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

2009-2010 MAX IP Billing Provider Characteristics Validation Table

State: NC

Produced: 03/13/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range ^a
IP Providers					
Number of provider IDs	672	754	12.20	30% (+/-)	Yes
% billing provider on IP claim	49.3	50.1	1.78	N/A	N/A
% NPI billing provider on IP claim	50.7	49.9	-1.73	N/A	N/A
% also a provider on LT claim	0.6	0.1	-77.65	N/A	N/A
% also a provider on OT claim	81.0	81.3	0.43	N/A	N/A
% also a provider on RX claim	10.1	7.6	-25.29	N/A	N/A
% provider IDs with NPI	100.0	100.0	0.00	30% (+/-)	Yes
% provider IDs linked to NPPES	99.1	100.0	0.90	30% (+/-)	Yes
% provider IDs with or without NPI but linked to state provider file	0.3	0.0	-100.00	N/A	N/A
average number of IP claims	1,057.2	930.4	-11.99	30% (+/-)	Yes
average number of beneficiaries with IP claims	860.5	754.2	-12.34	30% (+/-)	Yes
Provider IDs with NPI					
Number of provider IDs with NPI	672	754	12.20	30% (+/-)	Yes
% NPI source = MSIS	89.9	99.7	10.96	30% (+/-)	Yes
% NPI source = NPPES	4.6	0.3	-94.26	30% (+/-)	Yes
% NPI source = state cross-reference file	5.5	0.0	-100.00	N/A	N/A
Provider IDs Linked to NPPES					
Number of provider IDs linked to NPPES	666	754	13.21	30% (+/-)	Yes
% linked via NPI	95.3	99.7	4.60	30% (+/-)	Yes
% linked via Medicaid legacy provider ID	4.7	0.3	-94.31	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 = IP state code	53.5	46.4	-13.16	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
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	2	0	-100.00	N/A	N/A
Provider IDs with NPPES Primary Taxonomy					
Number of provider IDs with NPPES primary taxonomy	670	754	12.54	30% (+/-)	Yes
% individual or group of individuals	0.3	0.0	-100.00	30% (+/-)	Yes
% allopathic and osteopathic physicians	0.3	0.0	-100.00	30% (+/-)	Yes
% behavioral health and social service providers	0.0	0.0	Div by 0	30% (+/-)	N/A

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

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

2009-2010 MAX IP Billing Provider Characteristics Validation Table

State: NC

Produced: 03/13/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range ^a
% chiropractic providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% dental providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% dietary and nutritional service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% emergency medical service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% eye and vision service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% nursing service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% nursing service-related providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% other service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% pharmacy service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% physician assistants and advanced practice nursing providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% podiatric medicine and surgery service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% respiratory, developmental, rehabilitative, and restorative service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% speech, language, and hearing service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% student health care	0.0	0.0	Div by 0	30% (+/-)	N/A
% technologists, technicians, and other technical service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% group of individuals with multi- or single specialty	0.0	0.0	Div by 0	30% (+/-)	N/A
% nonindividuals	99.7	100.0	0.30	30% (+/-)	Yes
% agencies	0.0	0.0	Div by 0	30% (+/-)	N/A
% ambulatory health care facilities	0.0	0.3	Div by 0	30% (+/-)	N/A
% hospital units	14.8	13.3	-10.24	30% (+/-)	Yes
% hospitals	84.6	85.9	1.55	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	0.3	0.3	-11.37	30% (+/-)	Yes
% residential treatment facilities	0.0	0.0	Div by 0	30% (+/-)	N/A
% respite care facility	0.0	0.0	Div by 0	30% (+/-)	N/A
% suppliers	0.0	0.3	Div by 0	30% (+/-)	N/A
% transportation services	0.0	0.0	Div by 0	30% (+/-)	N/A
% nonmedical	0.0	0.0	Div by 0	N/A	N/A
Provider IDs with Entity Type = Individual					
Number of provider IDs with entity type = individual	0	0	Div by 0	30% (+/-)	N/A
% a sole proprietorship	0.0	0.0	Div by 0	30% (+/-)	N/A
% not a sole proprietorship	0.0	0.0	Div by 0	30% (+/-)	N/A
% not answered	0.0	0.0	Div by 0	N/A	N/A
Provider IDs with Entity Type = Organization					
Number of provider IDs with entity type = organization	666	754	13.21	30% (+/-)	Yes
% organization is a subpart	12.3	12.2	-0.89	30% (+/-)	Yes
% organization is not a subpart	74.9	78.8	5.15	30% (+/-)	Yes
% not answered	12.8	9.0	-29.33	N/A	N/A

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

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

2009-2010 MAX LT Billing Provider Characteristics Validation Table

State: NC

Produced: 03/13/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range ^a
LT Providers					
Number of provider IDs	1,871	1,770	-5.40	30% (+/-)	Yes
% billing provider on LT claim	55.1	54.2	-1.68	N/A	N/A
% NPI billing provider on LT claim	44.9	45.8	2.06	N/A	N/A
% also a provider on IP claim	0.2	0.1	-73.83	N/A	N/A
% also a provider on OT claim	42.9	46.0	7.16	N/A	N/A
% also a provider on RX claim	0.2	0.2	5.61	N/A	N/A
% provider IDs with NPI	100.0	100.0	0.00	30% (+/-)	Yes
% provider IDs linked to NPPES	99.6	100.0	0.43	30% (+/-)	Yes
% provider IDs with or without NPI but linked to state provider file	0.1	0.0	-100.00	N/A	N/A
average number of LT claims	1,090.4	1,158.5	6.24	30% (+/-)	Yes
average number of beneficiaries with LT claims	59.9	63.2	5.54	30% (+/-)	Yes
Provider IDs with NPI					
Number of provider IDs with NPI	1,871	1,770	-5.40	30% (+/-)	Yes
% NPI source = MSIS	97.2	100.0	2.86	30% (+/-)	Yes
% NPI source = NPPES	1.3	0.0	-100.00	30% (+/-)	Yes
% NPI source = state cross-reference file	1.4	0.0	-100.00	N/A	N/A
Provider IDs Linked to NPPES					
Number of provider IDs linked to NPPES	1,863	1,770	-4.99	30% (+/-)	Yes
% linked via NPI	98.7	100.0	1.36	30% (+/-)	Yes
% linked via Medicaid legacy provider ID	1.3	0.0	-100.00	30% (+/-)	Yes
% linked via Medicare UPIN	0.0	0.0	Div by 0	30% (+/-)	N/A
% with name prefix	0.0	0.0	Div by 0	30% (+/-)	N/A
% with first name	0.1	0.1	5.61	30% (+/-)	Yes
% with middle name	0.0	0.0	Div by 0	30% (+/-)	N/A
% with last name	0.1	0.1	5.61	30% (+/-)	Yes
% with name suffix	0.0	0.0	Div by 0	30% (+/-)	N/A
% male	0.0	0.0	Div by 0	30% (+/-)	N/A
% female	0.1	0.1	5.61	30% (+/-)	Yes
% with credential	0.0	0.0	Div by 0	30% (+/-)	N/A
% with business name	99.9	99.9	-0.01	30% (+/-)	Yes
% with address line 1	100.0	100.0	0.00	30% (+/-)	Yes
% with city	100.0	100.0	0.00	30% (+/-)	Yes
% with state	100.0	100.0	0.00	30% (+/-)	Yes
% state = LT state code	98.0	97.5	-0.46	30% (+/-)	Yes
% with zip code	100.0	100.0	0.00	30% (+/-)	Yes
% with primary taxonomy	98.7	97.7	-1.04	30% (+/-)	Yes
% with provider entity type = individual	0.1	0.1	5.61	30% (+/-)	Yes
% with provider entity type = organization	99.9	99.9	-0.01	30% (+/-)	Yes
Provider IDs with or without NPI but linked to state provider file					
Number of provider IDs with or without NPI linked to state provider file	2	0	-100.00	N/A	N/A
Provider IDs with NPPES Primary Taxonomy					
Number of provider IDs with NPPES primary taxonomy	1,845	1,729	-6.29	30% (+/-)	Yes
% individual or group of individuals	0.7	0.3	-55.54	30% (+/-)	Yes
% allopathic and osteopathic physicians	0.3	0.0	-100.00	30% (+/-)	Yes
% behavioral health and social service providers	0.1	0.1	114.81	30% (+/-)	Yes

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

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

2009-2010 MAX LT Billing Provider Characteristics Validation Table

State: NC

Produced: 03/13/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range ^a
% chiropractic providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% dental providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% dietary and nutritional service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% emergency medical service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% eye and vision service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% nursing service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% nursing service-related providers	0.1	0.2	61.11	30% (+/-)	Yes
% 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	0.1	0.0	-100.00	30% (+/-)	Yes
% speech, language, and hearing service providers	0.1	0.0	-100.00	30% (+/-)	Yes
% student health care	0.0	0.0	Div by 0	30% (+/-)	N/A
% technologists, technicians, and other technical service providers	0.0	0.0	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	99.4	99.7	0.36	30% (+/-)	Yes
% agencies	0.1	0.2	327.78	30% (+/-)	Yes
% ambulatory health care facilities	0.0	0.0	Div by 0	30% (+/-)	N/A
% hospital units	1.1	1.4	28.04	30% (+/-)	Yes
% hospitals	2.1	1.6	-26.11	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	84.9	82.5	-2.82	30% (+/-)	Yes
% residential treatment facilities	11.2	14.0	25.36	30% (+/-)	Yes
% respite care facility	0.0	0.0	Div by 0	30% (+/-)	N/A
% suppliers	0.0	0.0	Div by 0	30% (+/-)	N/A
% transportation services	0.0	0.0	Div by 0	30% (+/-)	N/A
% nonmedical	0.0	0.0	Div by 0	N/A	N/A
Provider IDs with Entity Type = Individual					
Number of provider IDs with entity type = individual	2	2	0.00	30% (+/-)	Yes
% a sole proprietorship	100.0	100.0	0.00	30% (+/-)	Yes
% not a sole proprietorship	0.0	0.0	Div by 0	30% (+/-)	N/A
% not answered	0.0	0.0	Div by 0	N/A	N/A
Provider IDs with Entity Type = Organization					
Number of provider IDs with entity type = organization	1,861	1,768	-5.00	30% (+/-)	Yes
% organization is a subpart	6.1	6.0	-2.14	30% (+/-)	Yes
% organization is not a subpart	57.8	65.1	12.70	30% (+/-)	Yes
% not answered	36.1	28.9	-19.96	N/A	N/A

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

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

2009-2010 MAX OT Servicing Provider Characteristics Validation Table

State: NC

Produced: 03/13/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range ^a
OT Providers					
Number of provider IDs	105,266	102,817	-2.33	30% (+/-)	Yes
% billing provider on OT claim	25.5	19.3	-24.27	N/A	N/A
% servicing provider on OT claim	52.4	52.3	-0.19	N/A	N/A
% NPI servicing provider on OT claim	47.6	47.7	0.21	N/A	N/A
% also a provider on IP claim	0.5	0.6	13.76	N/A	N/A
% also a provider on LT claim	0.8	0.8	3.80	N/A	N/A
% also a provider on RX claim	22.9	24.1	5.00	N/A	N/A
% provider IDs with NPI	100.0	100.0	-0.01	30% (+/-)	Yes
% provider IDs linked to NPPES	99.1	100.0	0.84	30% (+/-)	Yes
% provider IDs with or without NPI but linked to state provider file	0.3	0.0	-98.75	N/A	N/A
average number of OT claims	1,960.4	1,984.5	1.23	30% (+/-)	Yes
average number of beneficiaries with OT claims	255.1	274.1	7.48	30% (+/-)	Yes
Provider IDs with NPI					
Number of provider IDs with NPI	105,244	102,784	-2.34	30% (+/-)	Yes
% NPI source = MSIS	97.9	99.7	1.87	30% (+/-)	Yes
% NPI source = NPPES	1.0	0.1	-90.47	30% (+/-)	Yes
% NPI source = state cross-reference file	1.1	0.2	-80.96	N/A	N/A
Provider IDs Linked to NPPES					
Number of provider IDs linked to NPPES	104,346	102,775	-1.51	30% (+/-)	Yes
% linked via NPI	99.0	99.9	0.94	30% (+/-)	Yes
% linked via Medicaid legacy provider ID	1.0	0.1	-90.54	30% (+/-)	Yes
% linked via Medicare UPIN	0.0	0.0	-100.00	30% (+/-)	Yes
% with name prefix	31.6	34.5	9.11	30% (+/-)	Yes
% with first name	61.7	67.9	10.00	30% (+/-)	Yes
% with middle name	50.6	55.7	9.96	30% (+/-)	Yes
% with last name	61.7	67.9	10.00	30% (+/-)	Yes
% with name suffix	3.8	4.0	5.63	30% (+/-)	Yes
% male	36.9	39.3	6.65	30% (+/-)	Yes
% female	24.8	28.5	14.99	30% (+/-)	Yes
% with credential	59.2	65.2	10.07	30% (+/-)	Yes
% with business name	38.3	31.8	-17.08	30% (+/-)	Yes
% with address line 1	100.0	99.6	-0.38	30% (+/-)	Yes
% with city	100.0	99.6	-0.38	30% (+/-)	Yes
% with state	100.0	99.6	-0.38	30% (+/-)	Yes
% state = OT state code	89.8	88.0	-2.02	30% (+/-)	Yes
% with zip code	100.0	99.6	-0.38	30% (+/-)	Yes
% with primary taxonomy	99.0	98.0	-1.04	30% (+/-)	Yes
% with provider entity type = individual	61.7	67.9	10.00	30% (+/-)	Yes
% with provider entity type = organization	38.3	31.8	-17.08	30% (+/-)	Yes
Provider IDs with or without NPI but linked to state provider file					
Number of provider IDs with or without NPI linked to state provider file	336	4	-98.81	N/A	N/A
Provider IDs with NPPES Primary Taxonomy					
Number of provider IDs with NPPES primary taxonomy	104,102	100,722	-3.25	30% (+/-)	Yes
% individual or group of individuals	75.5	75.8	0.32	30% (+/-)	Yes
% allopathic and osteopathic physicians	44.5	44.2	-0.71	30% (+/-)	Yes

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

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

2009-2010 MAX OT Servicing Provider Characteristics Validation Table

State: NC

Produced: 03/13/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range ^a
% behavioral health and social service providers	8.7	9.7	11.68	30% (+/-)	Yes
% chiropractic providers	1.6	1.2	-21.59	30% (+/-)	Yes
% dental providers	4.6	4.0	-12.83	30% (+/-)	Yes
% dietary and nutritional service providers	0.0	0.0	66.67	30% (+/-)	Yes
% emergency medical service providers	0.0	0.0	64.71	30% (+/-)	Yes
% eye and vision service providers	2.1	2.0	-7.24	30% (+/-)	Yes
% nursing service providers	0.1	0.1	-5.22	30% (+/-)	Yes
% nursing service-related providers	1.1	0.3	-74.74	30% (+/-)	Yes
% other service providers	1.7	2.3	33.22	30% (+/-)	Yes
% pharmacy service providers	0.0	0.1	153.85	30% (+/-)	Yes
% physician assistants and advanced practice nursing providers	4.9	6.4	32.11	30% (+/-)	Yes
% podiatric medicine and surgery service providers	0.6	0.6	-3.15	30% (+/-)	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	2.1	2.4	14.41	30% (+/-)	Yes
% speech, language, and hearing service providers	2.0	2.1	3.34	30% (+/-)	Yes
% student health care	0.1	0.1	81.48	30% (+/-)	Yes
% technologists, technicians, and other technical service providers	0.0	0.0	-6.06	30% (+/-)	Yes
% group of individuals with multi- or single specialty	1.2	0.0	-100.00	30% (+/-)	Yes
% nonindividuals	24.5	24.2	-0.98	30% (+/-)	Yes
% agencies	8.3	8.4	2.13	30% (+/-)	Yes
% ambulatory health care facilities	2.6	1.9	-27.06	30% (+/-)	Yes
% hospital units	0.0	0.0	-17.50	30% (+/-)	Yes
% hospitals	1.2	1.4	17.39	30% (+/-)	Yes
% laboratories	0.2	0.3	6.10	30% (+/-)	Yes
% managed care organizations	0.1	0.1	23.81	30% (+/-)	Yes
% nursing and custodial care facilities	3.4	3.3	-1.93	30% (+/-)	Yes
% residential treatment facilities	2.2	2.0	-8.12	30% (+/-)	Yes
% respite care facility	0.0	0.0	4.17	30% (+/-)	Yes
% suppliers	6.0	6.3	4.38	30% (+/-)	Yes
% transportation services	0.5	0.5	5.71	30% (+/-)	Yes
% nonmedical	0.0	0.0	-4.17	N/A	N/A
Provider IDs with Entity Type = Individual					
Number of provider IDs with entity type = individual	64,366	69,738	8.35	30% (+/-)	Yes
% a sole proprietorship	18.5	19.0	2.83	30% (+/-)	Yes
% not a sole proprietorship	74.7	76.2	1.95	30% (+/-)	Yes
% not answered	6.8	4.8	-29.06	N/A	N/A
Provider IDs with Entity Type = Organization					
Number of provider IDs with entity type = organization	39,980	32,651	-18.33	30% (+/-)	Yes
% organization is a subpart	8.3	9.1	9.52	30% (+/-)	Yes
% organization is not a subpart	67.3	71.4	6.07	30% (+/-)	Yes
% not answered	24.4	19.6	-19.94	N/A	N/A

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

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

2009-2010 MAX OT Billing Provider Characteristics Validation Table
State: NC
Produced: 03/13/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range ^a
OT Providers					
Number of provider IDs	27,816	27,209	-2.18	30% (+/-)	Yes
% billing provider on OT claim	100.0	100.0	0.00	N/A	N/A
% servicing provider on OT claim	96.6	73.1	-24.38	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	1.0	1.1	15.75	N/A	N/A
% also a provider on LT claim	0.1	0.1	-63.57	N/A	N/A
% also a provider on RX claim	22.9	19.4	-15.20	N/A	N/A
% provider IDs with NPI	99.7	96.7	-3.06	30% (+/-)	Yes
% provider IDs linked to NPES	99.3	96.7	-2.70	30% (+/-)	Yes
% provider IDs with or without NPI but linked to state provider file	0.4	0.0	-98.14	N/A	N/A
average number of OT claims	4,107.4	4,818.3	17.31	30% (+/-)	Yes
average number of beneficiaries with OT claims	438.8	490.6	11.79	30% (+/-)	Yes
Provider IDs with NPI					
Number of provider IDs with NPI	27,736	26,300	-5.18	30% (+/-)	Yes
% NPI source = MSIS	88.9	74.6	-16.11	30% (+/-)	Yes
% NPI source = NPES	4.5	10.6	137.64	30% (+/-)	No
% NPI source = state cross-reference file	6.6	14.8	123.60	N/A	N/A
Provider IDs Linked to NPES					
Number of provider IDs linked to NPES	27,630	26,298	-4.82	30% (+/-)	Yes
% linked via NPI	95.5	89.4	-6.40	30% (+/-)	Yes
% linked via Medicaid legacy provider ID	4.5	10.6	136.79	30% (+/-)	No
% linked via Medicare UPIN	0.0	0.0	100.00	30% (+/-)	Yes
% with name prefix	16.0	13.6	-15.51	30% (+/-)	Yes
% with first name	24.6	20.3	-17.46	30% (+/-)	Yes
% with middle name	21.0	17.2	-17.91	30% (+/-)	Yes
% with last name	24.6	20.3	-17.46	30% (+/-)	Yes
% with name suffix	1.9	1.6	-18.57	30% (+/-)	Yes
% male	14.5	11.3	-22.47	30% (+/-)	Yes
% female	10.1	9.1	-10.26	30% (+/-)	Yes
% with credential	23.4	19.2	-17.70	30% (+/-)	Yes
% with business name	75.4	79.3	5.18	30% (+/-)	Yes
% with address line 1	100.0	99.6	-0.39	30% (+/-)	Yes
% with city	100.0	99.6	-0.39	30% (+/-)	Yes
% with state	100.0	99.6	-0.39	30% (+/-)	Yes
% state = OT state code	92.9	93.0	0.07	30% (+/-)	Yes
% with zip code	100.0	99.6	-0.39	30% (+/-)	Yes
% with primary taxonomy	98.6	97.4	-1.21	30% (+/-)	Yes
% with provider entity type = individual	24.6	20.3	-17.46	30% (+/-)	Yes
% with provider entity type = organization	75.4	79.3	5.18	30% (+/-)	Yes
Provider IDs with or without NPI but linked to state provider file					
Number of provider IDs with or without NPI linked to state provider file	105	2	-98.10	N/A	N/A
Provider IDs with NPES Primary Taxonomy					
Number of provider IDs with NPES primary taxonomy	27,298	25,619	-6.15	30% (+/-)	Yes
% individual or group of individuals	55.8	48.9	-12.49	30% (+/-)	Yes
% allopathic and osteopathic physicians	24.2	21.3	-11.87	30% (+/-)	Yes

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

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

2009-2010 MAX OT Billing Provider Characteristics Validation Table
State: NC
Produced: 03/13/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range ^a
% behavioral health and social service providers	9.2	9.4	1.93	30% (+/-)	Yes
% chiropractic providers	2.4	2.0	-15.65	30% (+/-)	Yes
% dental providers	6.7	5.8	-13.46	30% (+/-)	Yes
% dietary and nutritional service providers	0.0	0.0	71.43	30% (+/-)	Yes
% emergency medical service providers	0.0	0.0	27.78	30% (+/-)	Yes
% eye and vision service providers	2.6	2.5	-6.41	30% (+/-)	Yes
% nursing service providers	0.1	0.1	10.38	30% (+/-)	Yes
% nursing service-related providers	2.7	0.6	-76.57	30% (+/-)	Yes
% other service providers	2.1	2.8	29.94	30% (+/-)	Yes
% pharmacy service providers	0.1	0.2	105.26	30% (+/-)	Yes
% physician assistants and advanced practice nursing providers	0.9	0.7	-20.31	30% (+/-)	Yes
% podiatric medicine and surgery service providers	0.8	0.7	-8.88	30% (+/-)	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	1.4	1.1	-20.96	30% (+/-)	Yes
% speech, language, and hearing service providers	1.7	1.6	-1.21	30% (+/-)	Yes
% student health care	0.0	0.0	71.43	30% (+/-)	Yes
% technologists, technicians, and other technical service providers	0.1	0.1	-7.27	30% (+/-)	Yes
% group of individuals with multi- or single specialty	1.0	0.0	-100.00	30% (+/-)	Yes
% nonindividuals	44.2	51.1	15.80	30% (+/-)	Yes
% agencies	12.9	16.2	25.47	30% (+/-)	Yes
% ambulatory health care facilities	4.6	6.1	32.56	30% (+/-)	Yes
% hospital units	0.1	0.1	11.43	30% (+/-)	Yes
% hospitals	2.2	2.9	32.05	30% (+/-)	Yes
% laboratories	0.5	0.5	9.81	30% (+/-)	Yes
% managed care organizations	0.2	0.3	53.09	30% (+/-)	Yes
% nursing and custodial care facilities	5.4	5.1	-5.06	30% (+/-)	Yes
% residential treatment facilities	4.5	4.1	-7.53	30% (+/-)	Yes
% respite care facility	0.0	0.1	6.25	30% (+/-)	Yes
% suppliers	12.8	14.7	14.44	30% (+/-)	Yes
% transportation services	1.0	1.1	9.03	30% (+/-)	Yes
% nonmedical	0.1	0.1	-1.01	N/A	N/A
Provider IDs with Entity Type = Individual					
Number of provider IDs with entity type = individual	6,799	5,341	-21.44	30% (+/-)	Yes
% a sole proprietorship	44.4	52.4	17.93	30% (+/-)	Yes
% not a sole proprietorship	46.9	40.9	-12.91	30% (+/-)	Yes
% not answered	8.7	6.8	-21.89	N/A	N/A
Provider IDs with Entity Type = Organization					
Number of provider IDs with entity type = organization	20,831	20,853	0.11	30% (+/-)	Yes
% organization is a subpart	9.1	10.3	12.47	30% (+/-)	Yes
% organization is not a subpart	67.3	71.0	5.41	30% (+/-)	Yes
% not answered	23.5	18.8	-20.29	N/A	N/A

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

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

2009-2010 MAX RX Billing Provider Characteristics Validation Table
State: NC
Produced: 03/13/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range ^a
RX Providers					
Number of provider IDs	4,264	4,343	1.85	30% (+/-)	Yes
% billing provider on RX claim	50.1	50.1	-0.07	N/A	N/A
% prescribing provider on RX claim	2.1	0.9	-57.92	N/A	N/A
% NPI billing provider on RX claim	49.9	49.9	0.07	N/A	N/A
% also a provider on IP claim	0.1	0.1	-1.43	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	70.4	83.3	18.29	N/A	N/A
% provider IDs with NPI	100.0	100.0	0.00	30% (+/-)	Yes
% provider IDs linked to NPES	99.7	100.0	0.33	30% (+/-)	Yes
% provider IDs with or without NPI but linked to state provider file	0.3	0.0	-100.00	N/A	N/A
average number of RX claims	7,360.8	7,264.3	-1.31	30% (+/-)	Yes
average number of beneficiaries with RX claims	847.0	805.5	-4.90	30% (+/-)	Yes
Provider IDs with NPI					
Number of provider IDs with NPI	4,264	4,343	1.85	30% (+/-)	Yes
% NPI source = MSIS	100.0	99.9	-0.05	30% (+/-)	Yes
% NPI source = NPES	0.0	0.0	Div by 0	30% (+/-)	N/A
% NPI source = state cross-reference file	0.0	0.0	0.00	N/A	N/A
Provider IDs Linked to NPES					
Number of provider IDs linked to NPES	4,250	4,343	2.19	30% (+/-)	Yes
% linked via NPI	100.0	100.0	-0.05	30% (+/-)	Yes
% linked via Medicaid legacy provider ID	0.0	0.0	Div by 0	30% (+/-)	N/A
% linked via Medicare UPIN	0.0	0.0	Div by 0	30% (+/-)	N/A
% with name prefix	0.0	0.0	Div by 0	30% (+/-)	N/A
% with first name	0.1	0.1	22.34	30% (+/-)	Yes
% with middle name	0.1	0.1	22.34	30% (+/-)	Yes
% with last name	0.1	0.1	22.34	30% (+/-)	Yes
% with name suffix	0.0	0.0	-2.13	30% (+/-)	Yes
% male	0.1	0.1	-2.13	30% (+/-)	Yes
% female	0.0	0.0	Div by 0	30% (+/-)	N/A
% with credential	0.1	0.1	22.34	30% (+/-)	Yes
% with business name	99.9	99.8	-0.11	30% (+/-)	Yes
% with address line 1	100.0	99.9	-0.09	30% (+/-)	Yes
% with city	100.0	99.9	-0.09	30% (+/-)	Yes
% with state	100.0	99.9	-0.09	30% (+/-)	Yes
% state = RX state code	93.3	93.0	-0.32	30% (+/-)	Yes
% with zip code	100.0	99.9	-0.09	30% (+/-)	Yes
% with primary taxonomy	96.3	96.3	0.01	30% (+/-)	Yes
% with provider entity type = individual	0.1	0.1	22.34	30% (+/-)	Yes
% with provider entity type = organization	99.9	99.8	-0.11	30% (+/-)	Yes
Provider IDs with or without NPI but linked to state provider file					
Number of provider IDs with or without NPI linked to state provider file	14	0	-100.00	N/A	N/A
Provider IDs with NPES Primary Taxonomy					
Number of provider IDs with NPES primary taxonomy	4,095	4,183	2.15	30% (+/-)	Yes
% individual or group of individuals	2.4	2.5	4.80	30% (+/-)	Yes
% allopathic and osteopathic physicians	0.0	0.0	-100.00	30% (+/-)	Yes

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

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

2009-2010 MAX RX Billing Provider Characteristics Validation Table
State: NC
Produced: 03/13/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range ^a
% behavioral health and social service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% chiropractic providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% dental providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% dietary and nutritional service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% emergency medical service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% eye and vision service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% nursing service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% nursing service-related providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% other service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% pharmacy service providers	2.4	2.5	5.89	30% (+/-)	Yes
% physician assistants and advanced practice nursing providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% podiatric medicine and surgery service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% respiratory, developmental, rehabilitative, and restorative service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% speech, language, and hearing service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% student health care	0.0	0.0	Div by 0	30% (+/-)	N/A
% technologists, technicians, and other technical service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% group of individuals with multi- or single specialty	0.0	0.0	Div by 0	30% (+/-)	N/A
% nonindividuals	97.6	97.5	-0.12	30% (+/-)	Yes
% agencies	0.4	0.2	-54.37	30% (+/-)	Yes
% ambulatory health care facilities	0.2	0.2	8.64	30% (+/-)	Yes
% hospital units	0.0	0.0	Div by 0	30% (+/-)	N/A
% hospitals	0.2	0.1	-26.67	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	0.0	-2.04	30% (+/-)	Yes
% residential treatment facilities	0.0	0.0	-2.04	30% (+/-)	Yes
% respite care facility	0.0	0.0	Div by 0	30% (+/-)	N/A
% suppliers	96.7	96.8	0.12	30% (+/-)	Yes
% transportation services	0.0	0.0	Div by 0	30% (+/-)	N/A
% nonmedical	0.0	0.0	Div by 0	N/A	N/A
Provider IDs with Entity Type = Individual					
Number of provider IDs with entity type = individual	4	5	25.00	30% (+/-)	Yes
% a sole proprietorship	100.0	100.0	0.00	30% (+/-)	Yes
% not a sole proprietorship	0.0	0.0	Div by 0	30% (+/-)	N/A
% not answered	0.0	0.0	Div by 0	N/A	N/A
Provider IDs with Entity Type = Organization					
Number of provider IDs with entity type = organization	4,246	4,334	2.07	30% (+/-)	Yes
% organization is a subpart	19.1	19.5	1.83	30% (+/-)	Yes
% organization is not a subpart	70.0	72.0	2.85	30% (+/-)	Yes
% not answered	10.9	8.5	-21.54	N/A	N/A

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

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

2009-2010 MAX RX Prescribing Provider Characteristics Validation Table

State: NC

Produced: 03/13/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range ^a
RX Providers					
Number of provider IDs	25,816	23,499	-8.98	30% (+/-)	Yes
% billing provider on RX claim	0.4	0.2	-52.84	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	0.3	0.2	-8.73	N/A	N/A
% also a provider on LT claim	0.0	0.0	13.33	N/A	N/A
% also a provider on OT claim	82.2	91.7	11.63	N/A	N/A
% provider IDs with NPI	94.7	99.4	4.95	30% (+/-)	Yes
% provider IDs linked to NPPES	94.2	99.4	5.50	30% (+/-)	Yes
% provider IDs with or without NPI but linked to state provider file	0.5	0.0	-100.00	N/A	N/A
average number of RX claims	341.2	360.3	5.62	30% (+/-)	Yes
average number of beneficiaries with RX claims	75.2	76.0	1.11	30% (+/-)	Yes
Provider IDs with NPI					
Number of provider IDs with NPI	24,451	23,359	-4.47	30% (+/-)	Yes
% NPI source = MSIS	83.4	90.1	8.09	30% (+/-)	Yes
% NPI source = NPPES	6.3	3.7	-42.32	30% (+/-)	Yes
% NPI source = state cross-reference file	10.3	6.2	-39.49	N/A	N/A
Provider IDs Linked to NPPES					
Number of provider IDs linked to NPPES	24,325	23,359	-3.97	30% (+/-)	Yes
% linked via NPI	93.6	96.3	2.90	30% (+/-)	Yes
% linked via Medicaid legacy provider ID	6.4	3.7	-42.61	30% (+/-)	Yes
% linked via Medicare UPIN	0.0	0.0	Div by 0	30% (+/-)	N/A
% with name prefix	49.2	50.1	1.67	30% (+/-)	Yes
% with first name	93.8	95.0	1.34	30% (+/-)	Yes
% with middle name	78.6	79.6	1.24	30% (+/-)	Yes
% with last name	93.8	95.0	1.34	30% (+/-)	Yes
% with name suffix	6.6	6.5	-1.34	30% (+/-)	Yes
% male	64.0	64.0	0.01	30% (+/-)	Yes
% female	29.8	31.0	4.21	30% (+/-)	Yes
% with credential	91.4	92.7	1.49	30% (+/-)	Yes
% with business name	6.2	4.5	-28.20	30% (+/-)	Yes
% with address line 1	100.0	99.5	-0.50	30% (+/-)	Yes
% with city	100.0	99.5	-0.50	30% (+/-)	Yes
% with state	100.0	99.5	-0.50	30% (+/-)	Yes
% state = RX state code	87.3	86.5	-0.98	30% (+/-)	Yes
% with zip code	100.0	99.5	-0.50	30% (+/-)	Yes
% with primary taxonomy	99.2	98.4	-0.75	30% (+/-)	Yes
% with provider entity type = individual	93.8	95.0	1.34	30% (+/-)	Yes
% with provider entity type = organization	6.2	4.5	-28.20	30% (+/-)	Yes
Provider IDs with or without NPI but linked to state provider file					
Number of provider IDs with or without NPI linked to state provider file	125	0	-100.00	N/A	N/A
Provider IDs with NPPES Primary Taxonomy					
Number of provider IDs with NPPES primary taxonomy	24,170	22,992	-4.87	30% (+/-)	Yes
% individual or group of individuals	97.5	98.6	1.08	30% (+/-)	Yes
% allopathic and osteopathic physicians	73.8	76.5	3.60	30% (+/-)	Yes

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

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

2009-2010 MAX RX Prescribing Provider Characteristics Validation Table

State: NC

Produced: 03/13/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range ^a
% behavioral health and social service providers	1.7	0.7	-60.16	30% (+/-)	Yes
% chiropractic providers	0.2	0.1	-51.25	30% (+/-)	Yes
% dental providers	9.3	8.3	-10.91	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	18.18	30% (+/-)	Yes
% eye and vision service providers	2.9	3.0	2.30	30% (+/-)	Yes
% nursing service providers	0.1	0.1	-1.61	30% (+/-)	Yes
% nursing service-related providers	0.0	0.0	-76.47	30% (+/-)	Yes
% other service providers	2.3	3.3	42.99	30% (+/-)	Yes
% pharmacy service providers	0.0	0.0	-66.67	30% (+/-)	Yes
% physician assistants and advanced practice nursing providers	4.2	5.2	24.91	30% (+/-)	Yes
% podiatric medicine and surgery service providers	0.9	0.9	-7.18	30% (+/-)	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	0.4	0.2	-52.90	30% (+/-)	Yes
% speech, language, and hearing service providers	0.3	0.2	-47.45	30% (+/-)	Yes
% student health care	0.2	0.2	37.36	30% (+/-)	Yes
% technologists, technicians, and other technical service providers	0.0	0.0	8.33	30% (+/-)	Yes
% group of individuals with multi- or single specialty	1.2	0.0	-100.00	30% (+/-)	Yes
% nonindividuals	2.5	1.4	-42.59	30% (+/-)	Yes
% agencies	0.2	0.1	-47.53	30% (+/-)	Yes
% ambulatory health care facilities	1.3	0.7	-43.86	30% (+/-)	Yes
% hospital units	0.0	0.0	-60.61	30% (+/-)	Yes
% hospitals	0.3	0.3	-8.26	30% (+/-)	Yes
% laboratories	0.0	0.0	8.33	30% (+/-)	Yes
% managed care organizations	0.0	0.0	-23.91	30% (+/-)	Yes
% nursing and custodial care facilities	0.0	0.0	0.00	30% (+/-)	Yes
% residential treatment facilities	0.0	0.0	0.00	30% (+/-)	Yes
% respite care facility	0.0	0.0	-100.00	30% (+/-)	Yes
% suppliers	0.5	0.2	-64.23	30% (+/-)	Yes
% transportation services	0.0	0.0	Div by 0	30% (+/-)	N/A
% nonmedical	0.0	0.0	Div by 0	N/A	N/A
Provider IDs with Entity Type = Individual					
Number of provider IDs with entity type = individual	22,811	22,199	-2.68	30% (+/-)	Yes
% a sole proprietorship	13.8	14.0	1.26	30% (+/-)	Yes
% not a sole proprietorship	78.8	81.2	3.04	30% (+/-)	Yes
% not answered	7.3	4.8	-35.10	N/A	N/A
Provider IDs with Entity Type = Organization					
Number of provider IDs with entity type = organization	1,514	1,044	-31.04	30% (+/-)	No
% organization is a subpart	8.1	10.3	27.34	30% (+/-)	Yes
% organization is not a subpart	69.7	72.6	4.19	30% (+/-)	Yes
% not answered	22.2	17.1	-23.17	N/A	N/A

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

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2009-2010 MAX All Provider Characteristics Validation Table

State: NC

Produced: 03/13/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range ^a
All Providers					
Number of provider IDs	113,214	113,897	0.60	30%(+/-)	Yes
% billing provider on IP claim	0.3	0.3	13.70	N/A	N/A
% NPI billing provider on IP claim	0.3	0.3	9.63	N/A	N/A
% billing provider on LT claim	0.9	0.8	-7.57	N/A	N/A
% NPI billing provider on LT claim	0.7	0.7	-4.04	N/A	N/A
% billing provider on OT claim	24.6	23.9	-2.77	N/A	N/A
% servicing provider on OT claim	48.7	47.2	-3.10	N/A	N/A
% NPI servicing provider on OT claim	44.2	43.0	-2.71	N/A	N/A
% billing provider on RX claim	1.9	1.9	1.17	N/A	N/A
% prescribing provider on RX claim	22.8	20.6	-9.52	N/A	N/A
% NPI billing provider on RX claim	1.9	1.9	1.33	N/A	N/A
% billing provider	26.2	25.1	-4.11	N/A	N/A
% NPI billing provider	2.9	2.9	0.86	N/A	N/A
% servicing provider	48.7	47.2	-3.10	N/A	N/A
% NPI servicing provider	44.2	43.0	-2.71	N/A	N/A
% prescribing provider	22.8	20.6	-9.52	N/A	N/A
% provider IDs with NPI	98.7	99.1	0.36	30%(+/-)	Yes
% provider IDs linked to NPPES	97.9	99.1	1.24	30%(+/-)	Yes
% provider IDs with or without NPI but linked to state provider file	0.4	0.0	-98.90	N/A	N/A
average number of claims	2,263.9	2,614.5	15.49	30%(+/-)	Yes
average number of beneficiaries with claims	289.5	333.1	15.04	30%(+/-)	Yes
Provider IDs with NPI					
Number of provider IDs with NPI	111,764	112,845	0.97	30%(+/-)	Yes
% NPI source = MSIS	94.3	92.4	-2.01	30%(+/-)	Yes
% NPI source = NPPES	2.2	3.1	40.48	30%(+/-)	Yes
% NPI source = state cross-reference file	3.5	4.5	28.88	N/A	N/A
Provider IDs Linked to NPPES					
Number of provider IDs linked to NPPES	110,781	112,836	1.86	30%(+/-)	Yes
% linked via NPI	97.8	96.9	-0.89	30%(+/-)	Yes
% linked via Medicaid legacy provider ID	2.2	3.1	39.24	30%(+/-)	Yes
% linked via Medicare UPIN	0.0	0.0	100.00	30%(+/-)	Yes
% with name prefix	31.3	32.4	3.36	30%(+/-)	Yes
% with first name	60.9	63.4	4.19	30%(+/-)	Yes
% with middle name	50.1	52.1	4.08	30%(+/-)	Yes
% with last name	60.9	63.4	4.19	30%(+/-)	Yes
% with name suffix	3.7	3.7	-0.11	30%(+/-)	Yes
% male	36.4	36.7	0.93	30%(+/-)	Yes
% female	24.5	26.7	9.05	30%(+/-)	Yes
% with credential	58.5	60.9	4.22	30%(+/-)	Yes
% with business name	39.1	36.2	-7.53	30%(+/-)	Yes
% with address line 1	100.0	99.6	-0.39	30%(+/-)	Yes
% with city	100.0	99.6	-0.39	30%(+/-)	Yes
% with state	100.0	99.6	-0.39	30%(+/-)	Yes
% state = claim file state code	89.3	87.9	-1.58	30%(+/-)	Yes
% with zip code	100.0	99.6	-0.39	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: NC

Produced: 03/13/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range ^a
% with primary taxonomy	99.0	97.9	-1.04	30%(+/-)	Yes
% with provider entity type = individual	60.9	63.4	4.19	30%(+/-)	Yes
% with provider entity type = organization	39.1	36.2	-7.53	30%(+/-)	Yes
Provider IDs with or without NPI but linked to state provider file					
Number of provider IDs with or without NPI linked to state provider file	411	4	-99.03	N/A	N/A
Provider IDs with NPPES Primary Taxonomy					
Number of provider IDs with NPPES primary taxonomy	110,409	110,500	0.08	30%(+/-)	Yes
% individual or group of individuals	74.5	74.1	-0.59	30%(+/-)	Yes
% allopathic and osteopathic physicians	43.8	43.0	-1.86	30%(+/-)	Yes
% behavioral health and social service providers	8.4	9.4	12.44	30%(+/-)	Yes
% chiropractic providers	1.5	1.2	-17.36	30%(+/-)	Yes
% dental providers	4.9	4.2	-14.32	30%(+/-)	Yes
% dietary and nutritional service providers	0.0	0.0	66.67	30%(+/-)	Yes
% emergency medical service providers	0.0	0.0	35.00	30%(+/-)	Yes
% eye and vision service providers	2.0	1.9	-5.91	30%(+/-)	Yes
% nursing service providers	0.1	0.1	-6.11	30%(+/-)	Yes
% nursing service-related providers	1.1	0.3	-75.30	30%(+/-)	Yes
% other service providers	1.8	2.4	37.26	30%(+/-)	Yes
% pharmacy service providers	0.1	0.1	26.26	30%(+/-)	Yes
% physician assistants and advanced practice nursing providers	4.9	6.1	24.03	30%(+/-)	Yes
% podiatric medicine and surgery service providers	0.6	0.6	-4.87	30%(+/-)	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	2.1	2.4	14.57	30%(+/-)	Yes
% speech, language, and hearing service providers	2.0	2.1	6.37	30%(+/-)	Yes
% student health care	0.1	0.1	71.25	30%(+/-)	Yes
% technologists, technicians, and other technical service providers	0.0	0.0	-6.45	30%(+/-)	Yes
% group of individuals with multi- or single specialty	1.1	0.0	-100.00	30%(+/-)	Yes
% nonindividuals	25.5	25.9	1.71	30%(+/-)	Yes
% agencies	8.0	9.1	13.99	30%(+/-)	Yes
% ambulatory health care facilities	2.5	2.3	-7.58	30%(+/-)	Yes
% hospital units	0.1	0.1	1.67	30%(+/-)	Yes
% hospitals	1.2	1.4	17.76	30%(+/-)	Yes
% laboratories	0.2	0.2	3.42	30%(+/-)	Yes
% managed care organizations	0.1	0.1	44.66	30%(+/-)	Yes
% nursing and custodial care facilities	3.9	3.6	-7.35	30%(+/-)	Yes
% residential treatment facilities	2.3	2.2	-5.51	30%(+/-)	Yes
% respite care facility	0.0	0.0	0.00	30%(+/-)	Yes
% suppliers	6.7	6.3	-5.38	30%(+/-)	Yes
% transportation services	0.5	0.5	2.30	30%(+/-)	Yes
% nonmedical	0.0	0.1	8.51	N/A	N/A
Provider IDs with Entity Type = Individual					
Number of provider IDs with entity type = individual	67,450	71,582	6.13	30%(+/-)	Yes
% a sole proprietorship	18.4	19.0	3.31	30%(+/-)	Yes
% not a sole proprietorship	74.7	76.1	1.97	30%(+/-)	Yes
% not answered	7.0	4.9	-29.86	N/A	N/A
Provider IDs with Entity Type = Organization					
Number of provider IDs with entity type = organization	43,331	40,810	-5.82	30%(+/-)	Yes
% organization is a subpart	8.5	9.1	7.39	30%(+/-)	Yes
% organization is not a subpart	67.1	71.6	6.68	30%(+/-)	Yes
% not answered	24.4	19.3	-20.98	N/A	N/A

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

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