Medicaid Analytic Extract Provider Characteristics (MAXPC)

State-Specific Validation Tables, 2010

Hawaii

May 31, 2013

Deo Bencio
Mei-ling Mason

MATHEMATICA
Policy Research

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(MAXPC)**

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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

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[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: HI
Produced: 02/26/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range[a]
IP Providers					
Number of provider IDs	223	243	8.97	30% (+/-)	Yes
% billing provider on IP claim	52.0	51.0	-1.90	N/A	N/A
% NPI billing provider on IP claim	48.0	49.0	2.06	N/A	N/A
% also a provider on LT claim	48.0	23.0	-51.97	N/A	N/A
% also a provider on OT claim	79.4	81.1	2.14	N/A	N/A
% also a provider on RX claim	10.8	7.8	-27.35	N/A	N/A
% provider IDs with NPI	89.7	93.4	4.16	30% (+/-)	Yes
% provider IDs linked to NPPES	89.7	93.4	4.16	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	251.8	368.9	46.49	30% (+/-)	No
average number of beneficiaries with IP claims	157.7	178.0	12.83	30% (+/-)	Yes
Provider IDs with NPI					
Number of provider IDs with NPI	200	227	13.50	30% (+/-)	Yes
% NPI source = MSIS	99.5	99.6	0.06	30% (+/-)	Yes
% NPI source = NPPES	0.5	0.4	-11.80	30% (+/-)	Yes
% NPI source = state cross-reference file	0.0	0.0	Div by 0	N/A	N/A
Provider IDs Linked to NPPES					
Number of provider IDs linked to NPPES	200	227	13.50	30% (+/-)	Yes
% linked via NPI	99.5	99.6	0.06	30% (+/-)	Yes
% linked via Medicaid legacy provider ID	0.5	0.4	-11.80	30% (+/-)	Yes
% linked via Medicare UPIN	0.0	0.0	Div by 0	30% (+/-)	N/A
% with name prefix	4.0	4.0	-0.88	30% (+/-)	Yes
% with first name	6.5	4.0	-39.00	30% (+/-)	Yes
% with middle name	5.0	3.1	-38.32	30% (+/-)	Yes
% with last name	6.5	4.0	-39.00	30% (+/-)	Yes
% with name suffix	0.0	0.0	Div by 0	30% (+/-)	N/A
% male	3.5	3.5	0.69	30% (+/-)	Yes
% female	3.0	0.4	-85.30	30% (+/-)	Yes
% with credential	6.5	4.0	-39.00	30% (+/-)	Yes
% with business name	93.5	96.0	2.71	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	88.0	91.2	3.62	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	6.5	4.0	-39.00	30% (+/-)	Yes
% with provider entity type = organization	93.5	96.0	2.71	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	0	0	Div by 0	N/A	N/A
Provider IDs with NPPES Primary Taxonomy					
Number of provider IDs with NPPES primary taxonomy	200	227	13.50	30% (+/-)	Yes
% individual or group of individuals	11.0	9.3	-15.90	30% (+/-)	Yes
% allopathic and osteopathic physicians	7.5	6.2	-17.77	30% (+/-)	Yes
% behavioral health and social service providers	0.0	0.0	Div by 0	30% (+/-)	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 IP Billing Provider Characteristics Validation Table
State: HI
Produced: 02/26/2013

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	3.0	3.1	2.80	30% (+/-)	Yes
% pharmacy service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% physician assistants and advanced practice nursing providers	0.5	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	89.0	90.7	1.97	30% (+/-)	Yes
% agencies	5.5	14.1	156.31	30% (+/-)	No
% ambulatory health care facilities	2.0	1.8	-11.90	30% (+/-)	Yes
% hospital units	3.0	3.5	17.47	30% (+/-)	Yes
% hospitals	36.5	32.2	-11.89	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	40.0	37.9	-5.29	30% (+/-)	Yes
% residential treatment facilities	1.0	0.4	-55.90	30% (+/-)	Yes
% respite care facility	0.0	0.0	Div by 0	30% (+/-)	N/A
% suppliers	1.0	0.9	-11.90	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	13	9	-30.77	30% (+/-)	No
% a sole proprietorship	30.8	11.1	-63.89	30% (+/-)	No
% not a sole proprietorship	69.2	77.8	12.35	30% (+/-)	Yes
% not answered	0.0	11.1	Div by 0	N/A	N/A
Provider IDs with Entity Type = Organization					
Number of provider IDs with entity type = organization	187	218	16.58	30% (+/-)	Yes
% organization is a subpart	9.6	14.2	47.72	30% (+/-)	No
% organization is not a subpart	57.2	52.3	-8.61	30% (+/-)	Yes
% not answered	33.2	33.5	1.00	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: HI
Produced: 02/26/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range[a]
LT Providers					
Number of provider IDs	123	64	-47.97	30% (+/-)	No
% billing provider on LT claim	52.0	51.6	-0.90	N/A	N/A
% NPI billing provider on LT claim	48.0	48.4	0.98	N/A	N/A
% also a provider on IP claim	87.0	87.5	0.58	N/A	N/A
% also a provider on OT claim	75.6	73.4	-2.87	N/A	N/A
% also a provider on RX claim	11.4	15.6	37.28	N/A	N/A
% provider IDs with NPI	95.9	95.3	-0.65	30% (+/-)	Yes
% provider IDs linked to NPPES	95.9	95.3	-0.65	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	108.7	37.1	-65.84	30% (+/-)	No
average number of beneficiaries with LT claims	55.3	9.3	-83.20	30% (+/-)	No
Provider IDs with NPI					
Number of provider IDs with NPI	118	61	-48.31	30% (+/-)	No
% NPI source = MSIS	100.0	100.0	0.00	30% (+/-)	Yes
% NPI source = NPPES	0.0	0.0	Div by 0	30% (+/-)	N/A
% NPI source = state cross-reference file	0.0	0.0	Div by 0	N/A	N/A
Provider IDs Linked to NPPES					
Number of provider IDs linked to NPPES	118	61	-48.31	30% (+/-)	No
% linked via NPI	100.0	100.0	0.00	30% (+/-)	Yes
% linked via Medicaid legacy provider ID	0.0	0.0	Div by 0	30% (+/-)	N/A
% linked via Medicare UPIN	0.0	0.0	Div by 0	30% (+/-)	N/A
% with name prefix	0.0	0.0	Div by 0	30% (+/-)	N/A
% with first name	0.0	0.0	Div by 0	30% (+/-)	N/A
% with middle name	0.0	0.0	Div by 0	30% (+/-)	N/A
% with last name	0.0	0.0	Div by 0	30% (+/-)	N/A
% with name suffix	0.0	0.0	Div by 0	30% (+/-)	N/A
% male	0.0	0.0	Div by 0	30% (+/-)	N/A
% female	0.0	0.0	Div by 0	30% (+/-)	N/A
% with credential	0.0	0.0	Div by 0	30% (+/-)	N/A
% with business name	100.0	100.0	0.00	30% (+/-)	Yes
% with address line 1	100.0	100.0	0.00	30% (+/-)	Yes
% with city	100.0	100.0	0.00	30% (+/-)	Yes
% with state	100.0	100.0	0.00	30% (+/-)	Yes
% state = LT state code	98.3	100.0	1.72	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	0	0	Div by 0	N/A	N/A
Provider IDs with NPPES Primary Taxonomy					
Number of provider IDs with NPPES primary taxonomy	118	61	-48.31	30% (+/-)	No
% individual or group of individuals	6.8	6.6	-3.29	30% (+/-)	Yes
% allopathic and osteopathic physicians	3.4	3.3	-3.27	30% (+/-)	Yes
% behavioral health and social service providers	0.0	0.0	Div by 0	30% (+/-)	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: HI
Produced: 02/26/2013

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	3.4	3.3	-3.27	30% (+/-)	Yes
% 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	93.2	93.4	0.24	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	1.7	0.0	-100.00	30% (+/-)	Yes
% hospitals	27.1	41.0	51.13	30% (+/-)	No
% laboratories	0.0	0.0	Div by 0	30% (+/-)	N/A
% managed care organizations	0.0	0.0	Div by 0	30% (+/-)	N/A
% nursing and custodial care facilities	61.0	45.9	-24.77	30% (+/-)	Yes
% residential treatment facilities	3.4	6.6	93.42	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	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	118	61	-48.31	30% (+/-)	No
% organization is a subpart	6.8	6.6	-3.29	30% (+/-)	Yes
% organization is not a subpart	54.2	67.2	23.92	30% (+/-)	Yes
% not answered	39.0	26.2	-32.71	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.

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range[a]
OT Providers					
Number of provider IDs	10,785	12,420	15.16	30% (+/-)	Yes
% billing provider on OT claim	49.0	48.9	-0.17	N/A	N/A
% servicing provider on OT claim	58.8	56.2	-4.45	N/A	N/A
% NPI servicing provider on OT claim	41.2	43.8	6.35	N/A	N/A
% also a provider on IP claim	1.6	1.6	-1.01	N/A	N/A
% also a provider on LT claim	0.8	0.4	-54.18	N/A	N/A
% also a provider on RX claim	6.2	5.5	-11.99	N/A	N/A
% provider IDs with NPI	65.3	68.2	4.54	30% (+/-)	Yes
% provider IDs linked to NPPES	65.0	68.2	5.01	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	926.6	1,167.3	25.99	30% (+/-)	Yes
average number of beneficiaries with OT claims	188.8	203.3	7.69	30% (+/-)	Yes
Provider IDs with NPI					
Number of provider IDs with NPI	7,040	8,475	20.38	30% (+/-)	Yes
% NPI source = MSIS	96.6	97.1	0.54	30% (+/-)	Yes
% NPI source = NPPES	3.4	2.9	-15.19	30% (+/-)	Yes
% NPI source = state cross-reference file	0.0	0.0	Div by 0	N/A	N/A
Provider IDs Linked to NPPES					
Number of provider IDs linked to NPPES	7,008	8,475	20.93	30% (+/-)	Yes
% linked via NPI	96.6	97.1	0.56	30% (+/-)	Yes
% linked via Medicaid legacy provider ID	2.9	2.4	-16.50	30% (+/-)	Yes
% linked via Medicare UPIN	0.5	0.5	-10.70	30% (+/-)	Yes
% with name prefix	41.7	41.0	-1.79	30% (+/-)	Yes
% with first name	65.5	65.6	0.16	30% (+/-)	Yes
% with middle name	52.3	52.1	-0.27	30% (+/-)	Yes
% with last name	65.5	65.6	0.16	30% (+/-)	Yes
% with name suffix	1.7	1.6	-6.83	30% (+/-)	Yes
% male	43.2	41.1	-4.89	30% (+/-)	Yes
% female	22.2	24.4	9.99	30% (+/-)	Yes
% with credential	63.8	63.7	-0.05	30% (+/-)	Yes
% with business name	34.5	33.9	-1.90	30% (+/-)	Yes
% with address line 1	100.0	99.4	-0.56	30% (+/-)	Yes
% with city	100.0	99.4	-0.56	30% (+/-)	Yes
% with state	100.0	99.4	-0.56	30% (+/-)	Yes
% state = OT state code	92.1	88.4	-4.04	30% (+/-)	Yes
% with zip code	100.0	99.4	-0.56	30% (+/-)	Yes
% with primary taxonomy	98.0	96.6	-1.47	30% (+/-)	Yes
% with provider entity type = individual	65.5	65.6	0.16	30% (+/-)	Yes
% with provider entity type = organization	34.5	33.9	-1.90	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	0	0	Div by 0	N/A	N/A
Provider IDs with NPPES Primary Taxonomy					
Number of provider IDs with NPPES primary taxonomy	6,887	8,187	18.88	30% (+/-)	Yes
% individual or group of individuals	81.3	81.1	-0.25	30% (+/-)	Yes
% allopathic and osteopathic physicians	49.2	47.6	-3.37	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 OT Servicing Provider Characteristics Validation Table
State: HI
Produced: 02/26/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range[a]
% behavioral health and social service providers	8.9	10.6	19.11	30% (+/-)	Yes
% chiropractic providers	0.1	0.0	-79.31	30% (+/-)	Yes
% dental providers	4.2	3.6	-12.65	30% (+/-)	Yes
% dietary and nutritional service providers	0.0	0.2	1,446.67	30% (+/-)	Yes
% emergency medical service providers	0.0	0.0	-20.00	30% (+/-)	Yes
% eye and vision service providers	3.5	4.0	14.50	30% (+/-)	Yes
% nursing service providers	0.3	0.3	23.91	30% (+/-)	Yes
% nursing service-related providers	0.0	0.1	306.67	30% (+/-)	Yes
% other service providers	5.9	4.8	-18.36	30% (+/-)	Yes
% pharmacy service providers	0.1	0.0	-57.76	30% (+/-)	Yes
% physician assistants and advanced practice nursing providers	2.8	3.2	13.92	30% (+/-)	Yes
% podiatric medicine and surgery service providers	0.8	0.7	-6.51	30% (+/-)	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	5.0	5.4	7.97	30% (+/-)	Yes
% speech, language, and hearing service providers	0.3	0.3	-19.46	30% (+/-)	Yes
% student health care	0.1	0.1	54.02	30% (+/-)	Yes
% technologists, technicians, and other technical service providers	0.1	0.1	-15.52	30% (+/-)	Yes
% group of individuals with multi- or single specialty	0.0	0.0	Div by 0	30% (+/-)	N/A
% nonindividuals	18.7	18.9	1.07	30% (+/-)	Yes
% agencies	1.6	2.7	67.50	30% (+/-)	Yes
% ambulatory health care facilities	4.6	4.3	-5.20	30% (+/-)	Yes
% hospital units	0.1	0.1	12.64	30% (+/-)	Yes
% hospitals	3.7	3.6	-3.27	30% (+/-)	Yes
% laboratories	0.3	0.5	85.87	30% (+/-)	Yes
% managed care organizations	1.5	1.0	-33.22	30% (+/-)	Yes
% nursing and custodial care facilities	0.9	0.8	-13.09	30% (+/-)	Yes
% residential treatment facilities	0.1	0.0	-43.68	30% (+/-)	Yes
% respite care facility	0.0	0.0	60.00	30% (+/-)	Yes
% suppliers	5.7	5.5	-3.31	30% (+/-)	Yes
% transportation services	0.3	0.4	17.07	30% (+/-)	Yes
% 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	4,587	5,556	21.12	30% (+/-)	Yes
% a sole proprietorship	37.2	37.5	1.01	30% (+/-)	Yes
% not a sole proprietorship	54.4	55.7	2.48	30% (+/-)	Yes
% not answered	8.4	6.7	-20.43	N/A	N/A
Provider IDs with Entity Type = Organization					
Number of provider IDs with entity type = organization	2,421	2,872	18.63	30% (+/-)	Yes
% organization is a subpart	7.2	7.8	8.04	30% (+/-)	Yes
% organization is not a subpart	68.3	71.0	3.97	30% (+/-)	Yes
% not answered	24.5	21.2	-13.43	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: HI
Produced: 02/26/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range[a]
OT Providers					
Number of provider IDs	6,271	6,846	9.17	30% (+/-)	Yes
% billing provider on OT claim	100.0	100.0	0.00	N/A	N/A
% servicing provider on OT claim	84.3	88.8	5.31	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	1.5	1.5	1.65	N/A	N/A
% also a provider on LT claim	0.8	0.4	-54.12	N/A	N/A
% also a provider on RX claim	3.5	5.4	55.90	N/A	N/A
% provider IDs with NPI	32.6	35.8	9.86	30% (+/-)	Yes
% provider IDs linked to NPPES	32.4	35.8	10.45	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	1,455.4	1,702.9	17.01	30% (+/-)	Yes
average number of beneficiaries with OT claims	245.4	264.4	7.76	30% (+/-)	Yes
Provider IDs with NPI					
Number of provider IDs with NPI	2,042	2,449	19.93	30% (+/-)	Yes
% NPI source = MSIS	87.4	89.5	2.35	30% (+/-)	Yes
% NPI source = NPPES	12.6	10.5	-16.30	30% (+/-)	Yes
% NPI source = state cross-reference file	0.0	0.0	Div by 0	N/A	N/A
Provider IDs Linked to NPPES					
Number of provider IDs linked to NPPES	2,031	2,449	20.58	30% (+/-)	Yes
% linked via NPI	87.3	89.5	2.43	30% (+/-)	Yes
% linked via Medicaid legacy provider ID	10.3	8.7	-15.89	30% (+/-)	Yes
% linked via Medicare UPIN	2.3	1.8	-20.61	30% (+/-)	Yes
% with name prefix	41.0	39.6	-3.43	30% (+/-)	Yes
% with first name	64.7	62.3	-3.76	30% (+/-)	Yes
% with middle name	52.8	49.9	-5.47	30% (+/-)	Yes
% with last name	64.7	62.3	-3.76	30% (+/-)	Yes
% with name suffix	1.5	1.5	-0.98	30% (+/-)	Yes
% male	42.0	37.9	-9.88	30% (+/-)	Yes
% female	22.7	24.4	7.58	30% (+/-)	Yes
% with credential	63.4	60.6	-4.31	30% (+/-)	Yes
% with business name	35.3	37.0	4.82	30% (+/-)	Yes
% with address line 1	100.0	99.3	-0.73	30% (+/-)	Yes
% with city	100.0	99.3	-0.73	30% (+/-)	Yes
% with state	100.0	99.3	-0.73	30% (+/-)	Yes
% state = OT state code	92.6	87.7	-5.34	30% (+/-)	Yes
% with zip code	100.0	99.3	-0.73	30% (+/-)	Yes
% with primary taxonomy	97.6	96.4	-1.17	30% (+/-)	Yes
% with provider entity type = individual	64.7	62.3	-3.76	30% (+/-)	Yes
% with provider entity type = organization	35.3	37.0	4.82	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	0	0	Div by 0	N/A	N/A
Provider IDs with NPPES Primary Taxonomy					
Number of provider IDs with NPPES primary taxonomy	1,988	2,362	18.81	30% (+/-)	Yes
% individual or group of individuals	77.1	76.0	-1.50	30% (+/-)	Yes
% allopathic and osteopathic physicians	40.5	36.2	-10.82	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 OT Billing Provider Characteristics Validation Table
State: HI
Produced: 02/26/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range[a]
% behavioral health and social service providers	13.1	15.6	19.13	30% (+/-)	Yes
% chiropractic providers	0.2	0.0	-72.19	30% (+/-)	Yes
% dental providers	4.1	3.2	-21.01	30% (+/-)	Yes
% dietary and nutritional service providers	0.0	0.3	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	4.4	5.0	15.13	30% (+/-)	Yes
% nursing service providers	0.2	0.5	131.84	30% (+/-)	Yes
% nursing service-related providers	0.1	0.1	154.00	30% (+/-)	Yes
% other service providers	6.0	4.8	-19.38	30% (+/-)	Yes
% pharmacy service providers	0.2	0.1	-57.71	30% (+/-)	Yes
% physician assistants and advanced practice nursing providers	2.4	3.1	28.04	30% (+/-)	Yes
% podiatric medicine and surgery service providers	1.0	0.9	-7.01	30% (+/-)	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	4.3	5.6	29.17	30% (+/-)	Yes
% speech, language, and hearing service providers	0.6	0.3	-38.70	30% (+/-)	Yes
% student health care	0.0	0.0	Div by 0	30% (+/-)	N/A
% technologists, technicians, and other technical service providers	0.2	0.2	-15.92	30% (+/-)	Yes
% group of individuals with multi- or single specialty	0.0	0.0	Div by 0	30% (+/-)	N/A
% nonindividuals	22.9	24.0	5.07	30% (+/-)	Yes
% agencies	2.6	2.8	8.45	30% (+/-)	Yes
% ambulatory health care facilities	5.0	5.1	0.99	30% (+/-)	Yes
% hospital units	0.2	0.2	11.92	30% (+/-)	Yes
% hospitals	2.6	3.3	27.87	30% (+/-)	Yes
% laboratories	0.5	0.8	77.48	30% (+/-)	Yes
% managed care organizations	0.4	0.3	-27.84	30% (+/-)	Yes
% nursing and custodial care facilities	1.6	1.4	-13.09	30% (+/-)	Yes
% residential treatment facilities	0.2	0.0	-72.19	30% (+/-)	Yes
% respite care facility	0.1	0.0	-16.00	30% (+/-)	Yes
% suppliers	9.3	9.4	1.00	30% (+/-)	Yes
% transportation services	0.6	0.7	19.21	30% (+/-)	Yes
% 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	1,315	1,526	16.05	30% (+/-)	Yes
% a sole proprietorship	48.5	50.0	3.06	30% (+/-)	Yes
% not a sole proprietorship	41.7	42.3	1.24	30% (+/-)	Yes
% not answered	9.7	7.7	-20.56	N/A	N/A
Provider IDs with Entity Type = Organization					
Number of provider IDs with entity type = organization	716	905	26.40	30% (+/-)	Yes
% organization is a subpart	8.5	9.1	6.35	30% (+/-)	Yes
% organization is not a subpart	67.7	72.5	7.01	30% (+/-)	Yes
% not answered	23.7	18.5	-22.28	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: HI
Produced: 02/26/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range[a]
RX Providers					
Number of provider IDs	530	479	-9.62	30% (+/-)	Yes
% billing provider on RX claim	51.3	50.7	-1.15	N/A	N/A
% prescribing provider on RX claim	39.2	0.2	-99.47	N/A	N/A
% NPI billing provider on RX claim	48.7	49.3	1.21	N/A	N/A
% also a provider on IP claim	4.5	4.0	-12.39	N/A	N/A
% also a provider on LT claim	2.6	2.1	-20.97	N/A	N/A
% also a provider on OT claim	64.2	68.3	6.42	N/A	N/A
% provider IDs with NPI	93.2	96.7	3.70	30% (+/-)	Yes
% provider IDs linked to NPPES	92.5	96.7	4.55	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	4,365.6	9,273.7	112.43	30% (+/-)	No
average number of beneficiaries with RX claims	756.9	1,137.6	50.29	30% (+/-)	No
Provider IDs with NPI					
Number of provider IDs with NPI	494	463	-6.28	30% (+/-)	Yes
% NPI source = MSIS	99.8	100.0	0.20	30% (+/-)	Yes
% NPI source = NPPES	0.2	0.0	-100.00	30% (+/-)	Yes
% NPI source = state cross-reference file	0.0	0.0	Div by 0	N/A	N/A
Provider IDs Linked to NPPES					
Number of provider IDs linked to NPPES	490	463	-5.51	30% (+/-)	Yes
% linked via NPI	99.8	100.0	0.20	30% (+/-)	Yes
% linked via Medicaid legacy provider ID	0.2	0.0	-100.00	30% (+/-)	Yes
% linked via Medicare UPIN	0.0	0.0	Div by 0	30% (+/-)	N/A
% with name prefix	3.9	0.9	-77.72	30% (+/-)	Yes
% with first name	6.7	1.1	-83.96	30% (+/-)	Yes
% with middle name	5.5	0.9	-84.32	30% (+/-)	Yes
% with last name	6.7	1.1	-83.96	30% (+/-)	Yes
% with name suffix	0.0	0.0	Div by 0	30% (+/-)	N/A
% male	5.3	0.9	-83.72	30% (+/-)	Yes
% female	1.4	0.2	-84.88	30% (+/-)	Yes
% with credential	6.1	0.9	-85.89	30% (+/-)	Yes
% with business name	93.3	98.5	5.60	30% (+/-)	Yes
% with address line 1	100.0	99.6	-0.43	30% (+/-)	Yes
% with city	100.0	99.6	-0.43	30% (+/-)	Yes
% with state	100.0	99.6	-0.43	30% (+/-)	Yes
% state = RX state code	97.1	95.2	-1.95	30% (+/-)	Yes
% with zip code	100.0	99.6	-0.43	30% (+/-)	Yes
% with primary taxonomy	99.2	97.0	-2.23	30% (+/-)	Yes
% with provider entity type = individual	6.7	1.1	-83.96	30% (+/-)	Yes
% with provider entity type = organization	93.3	98.5	5.60	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	0	0	Div by 0	N/A	N/A
Provider IDs with NPPES Primary Taxonomy					
Number of provider IDs with NPPES primary taxonomy	486	449	-7.61	30% (+/-)	Yes
% individual or group of individuals	9.7	2.5	-74.67	30% (+/-)	Yes
% allopathic and osteopathic physicians	6.2	1.1	-81.95	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: HI
Produced: 02/26/2013

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	0.6	0.0	-100.00	30% (+/-)	Yes
% pharmacy service providers	2.9	1.3	-53.63	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	90.3	97.6	7.99	30% (+/-)	Yes
% agencies	0.0	0.0	Div by 0	30% (+/-)	N/A
% ambulatory health care facilities	3.3	3.1	-5.29	30% (+/-)	Yes
% hospital units	0.0	0.0	Div by 0	30% (+/-)	N/A
% hospitals	3.7	3.6	-3.81	30% (+/-)	Yes
% laboratories	0.0	0.0	Div by 0	30% (+/-)	N/A
% managed care organizations	1.6	1.3	-18.83	30% (+/-)	Yes
% nursing and custodial care facilities	0.4	0.0	-100.00	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	81.3	89.5	10.16	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	33	5	-84.85	30% (+/-)	No
% a sole proprietorship	36.4	20.0	-45.00	30% (+/-)	No
% not a sole proprietorship	63.6	80.0	25.72	30% (+/-)	Yes
% 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	457	456	-0.22	30% (+/-)	Yes
% organization is a subpart	14.0	15.4	9.62	30% (+/-)	Yes
% organization is not a subpart	71.6	72.8	1.75	30% (+/-)	Yes
% not answered	14.4	11.8	-18.00	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: HI
Produced: 02/26/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range[a]
RX Providers					
Number of provider IDs	3,207	1,840	-42.63	30% (+/-)	No
% billing provider on RX claim	6.5	0.1	-99.17	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	0.2	0.1	-75.23	N/A	N/A
% also a provider on LT claim	0.1	0.0	-100.00	N/A	N/A
% also a provider on OT claim	14.7	19.1	29.70	N/A	N/A
% provider IDs with NPI	7.9	3.0	-62.26	30% (+/-)	Yes
% provider IDs linked to NPPES	7.9	3.0	-61.96	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	390.5	136.4	-65.07	30% (+/-)	No
average number of beneficiaries with RX claims	75.1	29.0	-61.37	30% (+/-)	No
Provider IDs with NPI					
Number of provider IDs with NPI	254	55	-78.35	30% (+/-)	No
% NPI source = MSIS	98.0	83.6	-14.68	30% (+/-)	Yes
% NPI source = NPPES	2.0	16.4	731.08	30% (+/-)	No
% NPI source = state cross-reference file	0.0	0.0	Div by 0	N/A	N/A
Provider IDs Linked to NPPES					
Number of provider IDs linked to NPPES	252	55	-78.17	30% (+/-)	No
% linked via NPI	98.0	83.6	-14.67	30% (+/-)	Yes
% linked via Medicaid legacy provider ID	1.6	10.9	587.40	30% (+/-)	No
% linked via Medicare UPIN	0.4	5.5	1,274.06	30% (+/-)	Yes
% with name prefix	2.0	14.5	633.11	30% (+/-)	No
% with first name	3.6	21.8	510.98	30% (+/-)	No
% with middle name	3.2	18.2	472.66	30% (+/-)	No
% with last name	3.6	21.8	510.98	30% (+/-)	No
% with name suffix	0.0	0.0	Div by 0	30% (+/-)	N/A
% male	3.2	12.7	300.85	30% (+/-)	No
% female	0.4	9.1	2,189.92	30% (+/-)	Yes
% with credential	3.6	20.0	460.07	30% (+/-)	No
% with business name	96.4	78.2	-18.92	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 = RX state code	98.4	94.5	-3.93	30% (+/-)	Yes
% with zip code	100.0	100.0	0.00	30% (+/-)	Yes
% with primary taxonomy	99.2	100.0	0.80	30% (+/-)	Yes
% with provider entity type = individual	3.6	21.8	510.98	30% (+/-)	No
% with provider entity type = organization	96.4	78.2	-18.92	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	0	0	Div by 0	N/A	N/A
Provider IDs with NPPES Primary Taxonomy					
Number of provider IDs with NPPES primary taxonomy	250	55	-78.00	30% (+/-)	No
% individual or group of individuals	7.2	25.5	253.54	30% (+/-)	No
% allopathic and osteopathic physicians	3.6	20.0	455.56	30% (+/-)	No

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: HI
Produced: 02/26/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range[a]
% behavioral health and social service providers	0.4	1.8	354.50	30% (+/-)	Yes
% chiropractic providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% dental providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% dietary and nutritional service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% emergency medical service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% eye and vision service providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% nursing service providers	0.0	1.8	Div by 0	30% (+/-)	N/A
% nursing service-related providers	0.0	0.0	Div by 0	30% (+/-)	N/A
% other service providers	0.4	1.8	354.50	30% (+/-)	Yes
% pharmacy service providers	2.8	0.0	-100.00	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	92.8	74.5	-19.67	30% (+/-)	Yes
% agencies	0.0	0.0	Div by 0	30% (+/-)	N/A
% ambulatory health care facilities	0.4	0.0	-100.00	30% (+/-)	Yes
% hospital units	0.0	0.0	Div by 0	30% (+/-)	N/A
% hospitals	21.6	72.7	236.70	30% (+/-)	No
% laboratories	0.0	0.0	Div by 0	30% (+/-)	N/A
% managed care organizations	2.0	1.8	-9.10	30% (+/-)	Yes
% nursing and custodial care facilities	0.4	0.0	-100.00	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	68.4	0.0	-100.00	30% (+/-)	No
% 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	9	12	33.33	30% (+/-)	No
% a sole proprietorship	33.3	25.0	-25.00	30% (+/-)	Yes
% not a sole proprietorship	66.7	58.3	-12.50	30% (+/-)	Yes
% not answered	0.0	16.7	Div by 0	N/A	N/A
Provider IDs with Entity Type = Organization					
Number of provider IDs with entity type = organization	243	43	-82.30	30% (+/-)	No
% organization is a subpart	9.9	0.0	-100.00	30% (+/-)	Yes
% organization is not a subpart	79.8	100.0	25.26	30% (+/-)	Yes
% not answered	10.3	0.0	-100.00	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: HI
Produced: 02/26/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range[a]
All Providers					
Number of provider IDs	14,679	14,881	1.38	30%(+/-)	Yes
% billing provider on IP claim	0.8	0.8	5.44	N/A	N/A
% NPI billing provider on IP claim	0.7	0.8	9.74	N/A	N/A
% billing provider on LT claim	0.4	0.2	-49.08	N/A	N/A
% NPI billing provider on LT claim	0.4	0.2	-48.26	N/A	N/A
% billing provider on OT claim	42.7	46.0	7.69	N/A	N/A
% servicing provider on OT claim	43.2	46.9	8.54	N/A	N/A
% NPI servicing provider on OT claim	30.3	36.6	20.81	N/A	N/A
% billing provider on RX claim	1.9	1.6	-11.87	N/A	N/A
% prescribing provider on RX claim	21.8	12.4	-43.40	N/A	N/A
% NPI billing provider on RX claim	1.8	1.6	-9.78	N/A	N/A
% billing provider	43.7	46.7	7.00	N/A	N/A
% NPI billing provider	2.5	2.3	-4.36	N/A	N/A
% servicing provider	43.2	46.9	8.54	N/A	N/A
% NPI servicing provider	30.3	36.6	20.81	N/A	N/A
% prescribing provider	21.8	12.4	-43.40	N/A	N/A
% provider IDs with NPI	49.7	58.4	17.54	30%(+/-)	Yes
% provider IDs linked to NPPES	49.5	58.4	18.09	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	1,104.2	1,553.0	40.65	30%(+/-)	No
average number of beneficiaries with claims	196.8	233.6	18.66	30%(+/-)	Yes
Provider IDs with NPI					
Number of provider IDs with NPI	7,297	8,695	19.16	30%(+/-)	Yes
% NPI source = MSIS	96.3	96.9	0.61	30%(+/-)	Yes
% NPI source = NPPES	3.7	3.1	-16.07	30%(+/-)	Yes
% NPI source = state cross-reference file	0.0	0.0	Div by 0	N/A	N/A
Provider IDs Linked to NPPES					
Number of provider IDs linked to NPPES	7,263	8,695	19.72	30%(+/-)	Yes
% linked via NPI	96.3	96.9	0.63	30%(+/-)	Yes
% linked via Medicaid legacy provider ID	3.0	2.5	-16.10	30%(+/-)	Yes
% linked via Medicare UPIN	0.7	0.6	-18.02	30%(+/-)	Yes
% with name prefix	40.4	40.0	-0.96	30%(+/-)	Yes
% with first name	63.3	64.0	1.04	30%(+/-)	Yes
% with middle name	50.6	50.9	0.63	30%(+/-)	Yes
% with last name	63.3	64.0	1.04	30%(+/-)	Yes
% with name suffix	1.6	1.5	-5.85	30%(+/-)	Yes
% male	41.8	40.1	-3.91	30%(+/-)	Yes
% female	21.6	23.9	10.63	30%(+/-)	Yes
% with credential	61.7	62.2	0.83	30%(+/-)	Yes
% with business name	36.7	35.5	-3.26	30%(+/-)	Yes
% with address line 1	100.0	99.5	-0.54	30%(+/-)	Yes
% with city	100.0	99.5	-0.54	30%(+/-)	Yes
% with state	100.0	99.5	-0.54	30%(+/-)	Yes
% state = claim file state code	91.9	88.4	-3.78	30%(+/-)	Yes
% with zip code	100.0	99.5	-0.54	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: HI
Produced: 02/26/2013

Measure	2009 Value	2010 Value	% Change 2009-2010	Cross Year Expected Range	Cross Year Within Range[a]
% with primary taxonomy	98.1	96.6	-1.52	30%(+/-)	Yes
% with provider entity type = individual	63.3	64.0	1.04	30%(+/-)	Yes
% with provider entity type = organization	36.7	35.5	-3.26	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	0	0	Div by 0	N/A	N/A
Provider IDs with NPPES Primary Taxonomy					
Number of provider IDs with NPPES primary taxonomy	7,141	8,400	17.63	30%(+/-)	Yes
% individual or group of individuals	78.9	79.3	0.51	30%(+/-)	Yes
% allopathic and osteopathic physicians	47.7	46.5	-2.48	30%(+/-)	Yes
% behavioral health and social service providers	8.6	10.4	20.07	30%(+/-)	Yes
% chiropractic providers	0.1	0.0	-78.57	30%(+/-)	Yes
% dental providers	4.0	3.6	-11.73	30%(+/-)	Yes
% dietary and nutritional service providers	0.0	0.2	1,514.29	30%(+/-)	Yes
% emergency medical service providers	0.0	0.0	-14.29	30%(+/-)	Yes
% eye and vision service providers	3.3	3.9	15.95	30%(+/-)	Yes
% nursing service providers	0.3	0.3	25.19	30%(+/-)	Yes
% nursing service-related providers	0.0	0.1	328.57	30%(+/-)	Yes
% other service providers	5.7	4.7	-17.49	30%(+/-)	Yes
% pharmacy service providers	0.2	0.1	-63.78	30%(+/-)	Yes
% physician assistants and advanced practice nursing providers	2.7	3.1	13.77	30%(+/-)	Yes
% podiatric medicine and surgery service providers	0.8	0.7	-7.27	30%(+/-)	Yes
% respiratory, developmental, rehabilitative, and restorative service providers	4.8	5.2	9.13	30%(+/-)	Yes
% speech, language, and hearing service providers	0.4	0.3	-28.02	30%(+/-)	Yes
% student health care	0.1	0.1	55.95	30%(+/-)	Yes
% technologists, technicians, and other technical service providers	0.1	0.1	-15.18	30%(+/-)	Yes
% group of individuals with multi- or single specialty	0.0	0.0	Div by 0	30%(+/-)	N/A
% nonindividuals	21.1	20.7	-1.92	30%(+/-)	Yes
% agencies	1.6	2.6	68.53	30%(+/-)	Yes
% ambulatory health care facilities	4.4	4.2	-4.19	30%(+/-)	Yes
% hospital units	0.1	0.2	49.11	30%(+/-)	Yes
% hospitals	3.7	3.5	-4.39	30%(+/-)	Yes
% laboratories	0.3	0.5	87.97	30%(+/-)	Yes
% managed care organizations	1.4	1.0	-32.49	30%(+/-)	Yes
% nursing and custodial care facilities	1.3	1.2	-9.45	30%(+/-)	Yes
% residential treatment facilities	0.1	0.1	-15.18	30%(+/-)	Yes
% respite care facility	0.0	0.0	71.43	30%(+/-)	Yes
% suppliers	7.9	7.0	-11.07	30%(+/-)	Yes
% transportation services	0.3	0.4	18.32	30%(+/-)	Yes
% 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	4,600	5,564	20.96	30%(+/-)	Yes
% a sole proprietorship	37.2	37.5	1.01	30%(+/-)	Yes
% not a sole proprietorship	54.4	55.8	2.45	30%(+/-)	Yes
% not answered	8.4	6.7	-20.31	N/A	N/A
Provider IDs with Entity Type = Organization					
Number of provider IDs with entity type = organization	2,663	3,084	15.81	30%(+/-)	Yes
% organization is a subpart	7.6	7.8	2.18	30%(+/-)	Yes
% organization is not a subpart	67.6	70.5	4.18	30%(+/-)	Yes
% not answered	24.8	21.8	-12.08	N/A	N/A

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

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