

# *The Importance of Big Data*

Mary E. Foley, RDH, MPH

Tuesday, April 19<sup>th</sup>, 2016

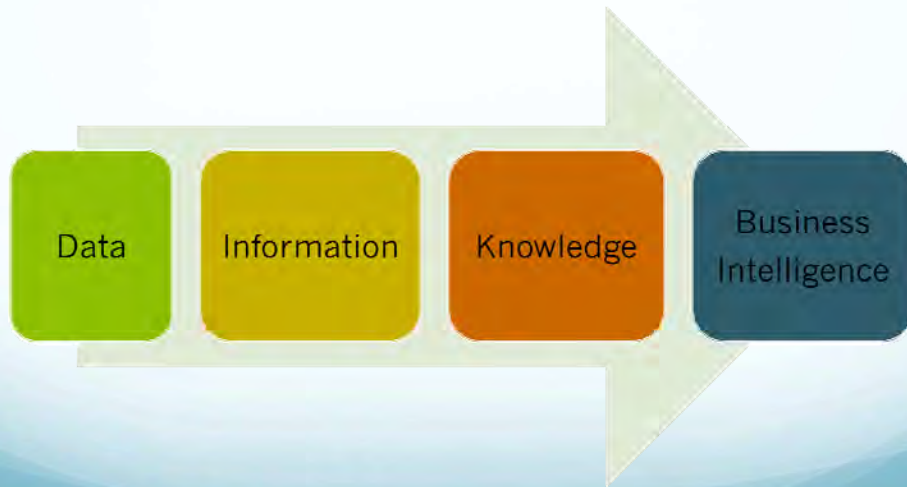


## What is Big Data?

“Big data” is a term that describes the large volume of data – both structured and unstructured – that inundates a business on a day-to-day basis.

And then we have **Medicaid!**

# Business Intelligence



Slide courtesy of DQI

3

# Medicaid Big Data

## Uses of Medicaid Big Data

- Federal and state Medicaid agencies, rely on program data and reports to assess many items such as
- ACCESS
- QUALITY
- PROGRAM ADMINISTRATIVE MODELS
- PROGRAM INTEGRITY
- AMONG MANY OTHER OUTCOMES OF INTEREST

## Medicaid Data Sources

- CMS Form 416
- MAX: Medicaid Analytic eXtract
- MSIS: Medicaid Statistical Information System
- T-MSIS: *Transformed* Medicaid Statistical Information System
- Metric—Claims data

# CMS Form 416

**FORM CMS-416: ANNUAL EPSDT PARTICIPATION REPORT**

State Code	Fiscal Year	Totals	Age Group	Age Group	Age Group	Age Group	Age Group	Age Group	Age Group
			<1	1-2	3-5	6-8	10-14	15-18	19-20
1a. Total Individuals eligible for EPSDT	CN	0							
	MN	0							
	Total	0							
1b. Total Individuals eligible for EPSDT for 90 Continuous Days	CN	0							
	MN	0							
	Total	0							
1c. Total Individuals Eligible under a CHIP Medicaid Expansion	CN	0							
	MN	0							
	Total	0							
<b>2a. State Periodicity Schedule</b>									
2b. Number of Years in Age Group			1	2	3	4	5	4	2
<b>2c. Annualized State Periodicity Schedule</b>									
		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3a. Total Months of Eligibility	CN	0							
	MN	0							
	Total	0							
3b. Average Period of Eligibility	CN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4. Expected Number of Screenings per Eligible	CN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5. Expected Number of Screenings	CN	0							
	MN	0							
	Total	0							
6. Total Screens Received	CN	0							
	MN	0							
	Total	0							
7. SCREENING RATIO	CN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8. Total Eligibles Who Should Receive at Least One Initial or Periodic Screen	CN	0							
	MN	0							
	Total	0							
9. Total Eligibles Receiving at least One Initial or Periodic Screen	CN	0							
	MN	0							
	Total	0							
10. PARTICIPANT RATIO	CN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11. Total Eligibles Referred for Corrective Treatment	CN	0							
	MN	0							
	Total	0							

# CMS Form 416 Continued

86	12a. Total Eligibles Receiving Any Dental Services	CN	0						
87		MN	0						
88		Total	0						
89	12b. Total Eligibles Receiving Preventive Dental Services	CN	0						
90		MN	0						
91		Total	0						
92	12c. Total Eligibles Receiving Dental Treatment Services	CN	0						
93		MN	0						
94		Total	0						
95	12d. Total Eligibles Receiving a Sealant on a Permanent Molar Tooth	CN	0						
96		MN	0						
97		Total	0						
98	12e. Total Eligibles Receiving Dental Diagnostic Services	CN	0						
99		MN	0						
01		Total	0						
02	12f. Total Eligibles Receiving Oral Health Services provided by a Non-Dentist Provider	CN	0						
03		MN	0						
04		Total	0						
05	12g. Total Eligibles Receiving Any Dental Or Oral Health Service	CN	0						
06		MN	0						
07		Total	0						
08	13. Total Eligibles Enrolled in Managed Care	CN	0						
09		MN	0						
10		Total	0						
11	14. Total Number of Screening Blood Lead Tests	CN	0						
12		MN	0						
13		Total	0						

\* Includes 12-month visit  
 Note: "CN"=Categorically Needy, "MN"= Medically Needy  
 Disclosure Statement - According to the Paperwork Reduction Act of 1996, no persons are required to respond to a collection of information unless it displays a valid OMB control number for this information collection is 0938-0384. The time required to complete this information collection is estimated to average 28 hours per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have comments concerning the accuracy of the time estimate(s) or suggestions for improving this form, please write to CMS, 7500 Security Boulevard, Attn: PRA Reports Clearance Officer, Mail Stop: C7-06-05, Baltimore, Maryland 21244-1650.

Annual EPSDT Participation Report Form CMS-416 (National) Fiscal Year: 2014									
Description	Cat	Total	< 1	1-2	3-5	6-9	10-14	15-18	19-20
1a. Total Individuals eligible for EPSDT	CN	38,094,109	2,219,215	4,505,089	6,462,966	8,185,092	6,638,419	6,054,228	2,029,100
	MN	2,457,940	153,246	217,333	229,459	440,725	501,861	412,787	502,529
	Total	40,552,049	2,372,461	4,722,422	6,692,425	8,625,817	9,140,280	6,467,015	2,531,629
1b. Total Individuals eligible for EPSDT for 90 Continuous Days	CN	35,792,976	1,752,543	4,268,089	6,182,686	7,834,883	8,249,532	5,726,738	1,778,505
	MN	2,269,722	129,558	195,090	212,861	415,550	471,587	382,991	462,085
	Total	38,062,698	1,882,101	4,463,179	6,395,547	8,250,433	8,721,119	6,109,729	2,240,589
1c. Total Individuals Eligible under a CHIP Medicaid Expansion	CN	1,711,592	23,943	101,894	175,135	431,019	516,191	404,467	58,943
	MN	62,643	618	4,282	7,620	10,282	11,892	12,217	15,732
	Total	1,774,235	24,561	106,176	182,755	441,301	528,083	416,684	74,675
2a. State Periodicity Schedule			n/a	n/a	n/a	n/a	n/a	n/a	n/a
2b. Number of Years in Age Group			n/a	n/a	n/a	n/a	n/a	n/a	n/a
2c. Annualized State Periodicity Schedule			n/a	n/a	n/a	n/a	n/a	n/a	n/a
3a. Total Months of Eligibility	CN	370,615,759	12,440,179	45,282,416	66,060,846	83,395,105	87,614,493	59,804,941	16,017,778
	MN	23,277,542	1,122,127	1,974,615	2,211,351	4,473,815	5,074,488	4,040,220	4,480,926
	Total	393,993,301	13,562,306	47,257,031	68,272,197	87,868,920	92,688,981	63,845,161	20,498,704
3b. Average Period of Eligibility	CN	0.86	0.59	0.88	0.89	0.89	0.89	0.87	0.75
	MN	0.86	0.72	0.84	0.87	0.90	0.90	0.88	0.81
	Total	0.86	0.60	0.88	0.89	0.89	0.89	0.87	0.76
4. Expected Number of Screenings per Eligible	CN		3.65	1.82	0.90	0.73	0.80	0.77	0.66
	MN		4.37	1.39	0.86	0.52	0.90	0.88	0.80
	Total		3.70	1.80	0.90	0.72	0.81	0.78	0.69
5. Expected Number of Screenings	CN	37,642,606	6,396,594	7,771,446	5,558,234	5,713,485	6,611,070	4,414,262	1,177,515
	MN	2,365,777	565,745	270,709	183,499	216,547	423,601	335,143	370,533
	Total	40,008,383	6,962,339	8,042,155	5,741,733	5,930,032	7,034,671	4,749,405	1,548,048
6. Total Screens Received	CN	38,480,159	6,421,183	9,205,344	6,217,466	5,528,747	6,161,882	3,867,801	1,077,736
	MN	5,302,737	475,375	871,006	883,778	934,526	965,197	771,065	401,790
	Total	43,782,896	6,896,558	10,076,350	7,101,244	6,463,273	7,127,079	4,638,866	1,479,526
7. SCREENING RATIO	CN	1.00	1.00	1.00	1.00	0.97	0.93	0.88	0.92
	MN	1.00	0.84	1.00	1.00	1.00	1.00	1.00	1.00
	Total	1.00	0.99	1.00	1.00	1.00	1.00	0.98	0.96

Annual EPSDT Participation Report Form CMS-416 (National) Fiscal Year: 2014									
Description	Cat	Total	< 1	1-2	3-5	6-9	10-14	15-18	19-20
8. Total Eligibles Who Should Receive at Least One Initial or Periodic Screen	CN	39,455,090	1,752,414	4,260,463	5,519,923	5,715,411	6,613,403	4,415,526	1,177,945
	MN	1,853,945	129,558	195,064	183,499	216,547	423,601	335,143	370,533
	Total	31,309,035	1,881,972	4,455,527	5,703,422	5,931,958	7,037,004	4,750,669	1,548,478
9. Total Eligibles Receiving at least One Initial or Periodic Screen	CN	17,190,807	1,549,722	3,288,341	3,677,019	3,150,075	3,396,872	1,850,894	277,884
	MN	1,162,993	112,505	147,178	134,714	230,460	256,157	175,265	106,614
	Total	18,353,800	1,662,227	3,435,519	3,811,733	3,380,535	3,653,029	2,026,159	384,498
10. PARTICIPANT RATIO	CN	0.58	0.88	0.77	0.67	0.55	0.51	0.42	0.34
	MN	0.63	0.87	0.76	0.73	1.00	0.60	0.52	0.29
	Total	0.59	0.88	0.77	0.67	0.57	0.52	0.43	0.25
11. Total Eligibles Referred for Corrective Treatment	CN	7,174,980	717,156	1,250,819	1,236,023	1,348,288	1,438,999	945,964	237,629
	MN	441,561	739	6,085	54,648	113,635	110,801	103,022	52,631
	Total	7,616,541	717,897	1,256,904	1,290,671	1,461,923	1,549,800	1,048,986	290,260
12a. Total Eligibles Receiving Any Dental Services	CN	16,912,222	56,833	1,087,300	3,349,242	4,763,667	4,578,122	2,613,771	463,267
	MN	957,214	609	26,340	103,999	246,662	262,115	174,111	143,378
	Total	17,869,436	57,442	1,113,640	3,453,241	5,010,329	4,840,237	2,787,882	606,645
12b. Total Eligibles Receiving Preventive Dental Services	CN	15,138,495	14,029	727,245	3,065,512	4,459,979	4,241,772	2,271,785	358,173
	MN	891,694	402	24,222	99,505	238,344	249,577	158,320	121,224
	Total	16,030,189	14,431	751,467	3,165,017	4,698,323	4,491,349	2,430,105	479,397
12c. Total Eligibles Receiving Dental Treatment Services	CN	7,721,382	3,466	150,841	1,234,723	2,389,624	2,231,860	1,444,177	266,489
	MN	468,653	89	2,917	52,138	133,293	134,614	96,076	79,576
	Total	8,190,035	3,557	153,758	1,286,861	2,523,117	2,366,474	1,540,253	346,065
12d. Total Eligibles Receiving a Sealant on a Permanent Molar Tooth	CN	2,409,839				1,302,540	1,107,299		
	MN	114,359				60,879	53,380		
	Total	2,524,198				1,363,419	1,160,679		
12e. Total Eligibles Receiving Dental Diagnostic Services	CN	15,707,604	48,129	1,005,779	3,150,031	4,457,457	4,261,882	2,373,644	410,682
	MN	836,539	413	24,465	97,239	227,487	233,913	149,424	123,588
	Total	16,544,143	48,542	1,030,244	3,247,270	4,684,944	4,495,795	2,523,068	534,270



Annual EPSDT Participation Report Form CMS-416 (National) Fiscal Year: 2014									
Description	Cat	Total	< 1	1-2	3-5	6-9	10-14	15-18	19-20
12f. Total Eligibles Receiving Oral Health Services provided by a Non-Dentist Provider	CN	980,308	49,812	429,799	226,417	117,467	66,386	52,640	17,487
	MN	139,867	499	7,745	18,412	40,704	39,426	22,346	10,735
	Total	1,120,175	50,311	437,544	244,829	158,171	125,812	75,186	28,222
12g. Total Eligibles Receiving Any Dental Or Oral Health Service	CN	17,423,934	97,927	1,366,396	3,436,080	4,803,769	4,611,616	2,635,433	472,611
	MN	968,241	988	29,893	106,542	246,211	262,964	174,656	144,987
	Total	18,392,175	98,915	1,396,289	3,542,622	5,051,980	4,874,580	2,810,091	617,598
13. Total Eligibles Enrolled in Managed Care	CN	30,461,682	1,466,492	3,775,428	5,389,282	6,715,004	6,951,070	4,750,699	1,413,707
	MN	2,312,168	145,934	190,411	207,834	402,778	456,751	371,806	536,654
	Total	32,773,850	1,612,426	3,965,839	5,597,116	7,117,782	7,407,821	5,122,505	1,950,361
14. Total Number of Screening Blood Lead Tests	CN	2,781,757	61,545	1,750,137	970,075				
	MN	23,541	423	12,532	10,586				
	Total	2,805,298	61,968	1,762,669	980,661				

Annual EPSDT Participation Report Form CMS-416 Fiscal Year: 2014 State: Arkansas									
Description	Cat	Total	< 1	1-2	3-5	6-9	10-14	15-18	19-20
1a. Total Individuals eligible for EPSDT	CN	430,945	25,304	53,192	76,803	95,498	96,999	66,633	16,516
	MN	75	0	1	4	6	21	29	14
	Total	431,020	25,304	53,193	76,807	95,504	97,020	66,662	16,530
1b. Total Individuals eligible for EPSDT for 90 Continuous Days	CN	402,051	18,783	50,326	73,695	90,937	92,340	62,931	13,039
	MN	29	0	1	3	3	5	7	10
	Total	402,080	18,783	50,327	73,698	90,940	92,345	62,938	13,049
1c. Total Individuals Eligible under a CHIP Medicaid Expansion	CN	0	0	0	0	0	0	0	0
	MN	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0
2a. State Periodicity Schedule			6	3	3	2	5	4	2
2b. Number of Years in Age Group			1	2	3	4	5	4	2
2c. Annualized State Periodicity Schedule			6.00	1.50	1.00	0.50	1.00	1.00	1.00
3a. Total Months of Eligibility	CN	4,467,283	140,979	556,278	845,784	1,043,906	1,054,254	711,056	115,026
	MN	233	0	10	9	22	19	76	97
	Total	4,467,516	140,979	556,288	845,793	1,043,928	1,054,273	711,132	115,123
3b. Average Period of Eligibility	CN	0.93	0.63	0.92	0.96	0.96	0.95	0.94	0.74
	MN	0.67	0.00	0.83	0.25	0.61	0.32	0.90	0.81
	Total	0.93	0.63	0.92	0.96	0.96	0.95	0.94	0.74
4. Expected Number of Screenings per Eligible	CN		3.78	1.38	0.96	0.48	0.95	0.94	0.74
	MN		0.00	1.25	0.25	0.31	0.32	0.90	0.81
	Total		3.78	1.38	0.96	0.48	0.95	0.94	0.74
5. Expected Number of Screenings	CN	411,374	71,000	69,451	70,747	43,650	87,723	59,155	9,649
	MN	19	0	1	1	1	2	6	8
	Total	411,393	71,000	69,451	70,748	43,651	87,725	59,161	9,657
6. Total Screens Received	CN	254,516	64,329	73,362	42,057	25,886	32,224	15,983	675
	MN	4	0	0	1	0	2	1	0
	Total	254,520	64,329	73,362	42,058	25,886	32,226	15,984	675
7. SCREENING RATIO	CN		0.62	0.91	1.00	0.59	0.59	0.37	0.27
	Total		0.62	0.91	1.00	0.59	0.59	0.37	0.27

Annual EPSDT Participation Report									
Form CMS-416									
Fiscal Year: 2014									
State: Arkansas									
Description	Cat	Total	< 1	1-2	3-5	6-9	10-14	15-18	19-20
8. Total Eligibles Who Should Receive at Least One Initial or Periodic Screen	CN	340,033	18,783	50,326	70,747	43,650	87,723	59,155	9,649
	MN	19	0	1	1	1	2	6	8
	Total	340,052	18,783	50,327	70,748	43,651	87,725	59,161	9,657
9. Total Eligibles Receiving at least One Initial or Periodic Screen	CN	164,712	17,304	34,900	39,961	25,210	31,217	15,452	668
	MN	4	0	0	1	0	2	1	0
	Total	164,716	17,304	34,900	39,962	25,210	31,219	15,453	668
10. PARTICIPANT RATIO	CN	0.48	0.92	0.69	0.56	0.58	0.36	0.26	0.07
	MN	0.21	0.00	0.00	1.00	0.00	1.00	0.17	0.00
	Total	0.48	0.92	0.69	0.56	0.58	0.36	0.26	0.07
11. Total Eligibles Referred for Corrective Treatment	CN	126,492	13,834	27,505	30,550	19,027	23,580	11,515	481
	MN	3	0	0	0	0	2	1	0
	Total	126,495	13,834	27,505	30,550	19,027	23,582	11,516	481
12a. Total Eligibles Receiving Any Dental Services	CN	209,071	105	10,400	41,857	60,727	58,389	33,566	4,027
	MN	8	0	0	0	0	1	3	4
	Total	209,079	105	10,400	41,857	60,727	58,390	33,569	4,031
12b. Total Eligibles Receiving Preventive Dental Services	CN	195,938	62	8,663	39,216	58,288	55,779	30,618	3,312
	MN	6	0	0	0	0	1	3	2
	Total	195,944	62	8,663	39,216	58,288	55,780	30,621	3,314
12c. Total Eligibles Receiving Dental Treatment Services	CN	103,404	14	1,231	15,205	32,644	31,398	20,394	2,518
	MN	5	0	0	0	0	1	1	3
	Total	103,409	14	1,231	15,205	32,644	31,399	20,395	2,521
12d. Total Eligibles Receiving a Sealant on a Permanent Molar Tooth	CN	20,288				12,082	8,206		
	MN	0				0	0		
	Total	20,288				12,082	8,206		

Annual EPSDT Participation Report									
Form CMS-416									
Fiscal Year: 2014									
State: Arkansas									
Description	Cat	Total	< 1	1-2	3-5	6-9	10-14	15-18	19-20
12e. Total Eligibles Receiving Dental Diagnostic Services	CN	204,263	102	10,316	41,168	59,432	57,131	32,323	3,791
	MN	7	0	0	0	0	1	3	3
	Total	204,270	102	10,316	41,168	59,432	57,132	32,326	3,794
12f. Total Eligibles Receiving Oral Health Services provided by a Non-Dentist Provider	CN	0	0	0	0	0	0	0	0
	MN	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0
12g. Total Eligibles Receiving Any Dental Or Oral Health Service	CN	209,071	105	10,400	41,857	60,727	58,389	33,566	4,027
	MN	8	0	0	0	0	1	3	4
	Total	209,079	105	10,400	41,857	60,727	58,390	33,569	4,031
13. Total Eligibles Enrolled in Managed Care	CN	387,228	20,437	49,282	71,477	87,792	87,548	58,581	12,111
	MN	51	0	1	1	5	14	21	9
	Total	387,279	20,437	49,283	71,478	87,797	87,562	58,602	12,120
14. Total Number of Screening Blood Lead Tests	CN	15,788	353	8,897	6,538				
	MN	0	0	0	0				
	Total	15,788	353	8,897	6,538				

# CMS 416 Report Summary Comparison

CMS 416 – 2014 Report

## National Data

- 12a: 46.9%
- 12b: 42.1%
- 12c: 21.5%
- 12d: 6.6%
- 12e: 16.6%
- 12f: 2.9%
- 12g: 48.3%

## Arkansas

- 12a: 51.9%
- 12b: 48.7%
- 12c: 25.7%
- 12d: 5.0%
- 12e: 13.2%
- 12f: 0%
- 12g: 51.9%

## CMS Form 416

- Definitions and Instructions for state submission:  
Version Nov 2014
  - <https://www.medicaid.gov/medicaid-chip-program-information/by-topics/benefits/downloads/cms-416-instructions.pdf>
  - <https://www.medicaid.gov/medicaid-chip-program-information/by-topics/benefits/downloads/416-faqs.pdf>



# MSIS Data

## Medicaid and Statistical Information System

### *Medicaid Payments*

**Key eligibility, enrollment, program, utilization and expenditure data for Medicaid and the Children's Health Insurance Program (CHIP)**

**Table 16 Fiscal Year 2012 Medicaid Payments by Basis of Eligibility (BOE) of Beneficiaries**  
 Source: FY2012 MSIS State Summary DataMart (States excluded: AZ, CO, DC, FL, HI, ID, KS, LA, MA, ME, TX, UT)  
 Produced: 1/15/2015

STATE	FY 2012 TOTAL PAYMENTS	AGE 65 AND OLDER	BLIND/ DISABLED	CHILDREN	ADULTS	FOSTER CARE CHILDREN	BREAST AND CERVICAL CANCER WOMEN*
AK	\$1,333,705,473	\$207,167,464	\$526,011,771	\$333,326,516	\$205,679,597	\$44,457,625	\$2,716,534
AL	\$4,107,251,877	\$806,797,918	\$1,703,041,783	\$851,362,259	\$348,776,422	\$102,158,598	\$16,143,821
AR	\$3,582,287,234	\$694,128,469	\$1,599,932,339	\$978,127,413	\$172,432,563	\$73,206,584	\$13,038,694
CA	\$35,509,650,692	\$7,077,488,471	\$16,509,530,049	\$5,589,003,497	\$5,129,930,932	\$544,904,707	\$139,352,904
CT	\$5,881,762,015	\$1,620,767,872	\$1,884,301,710	\$931,601,457	\$1,375,392,268	\$25,475,329	\$4,661,372
DE	\$1,568,919,630	\$207,098,003	\$496,236,398	\$290,070,200	\$541,041,192	\$17,389,128	\$1,600,291
GA	\$9,097,604,331	\$1,074,765,572	\$3,454,120,507	\$2,230,374,477	\$1,476,667,476	\$145,959,258	\$105,390,997
IA	\$3,424,347,984	\$723,945,942	\$1,599,315,052	\$544,426,548	\$357,994,705	\$71,262,406	\$4,496,381
IL	\$13,447,497,357	\$1,507,946,780	\$5,404,765,495	\$2,523,771,583	\$1,839,265,024	\$260,578,392	\$30,289,328
IN	\$6,549,757,761	\$1,228,951,878	\$3,227,892,132	\$1,144,599,112	\$786,258,671	\$102,343,039	\$26,707,587
KY	\$5,663,553,097	\$738,164,497	\$2,690,041,067	\$1,259,725,978	\$658,071,811	\$189,768,208	\$10,711,978
MD	\$7,448,916,811	\$1,089,977,132	\$3,253,685,348	\$1,439,641,513	\$1,405,112,132	\$174,914,226	\$13,463,120
MI	\$12,302,236,874	\$1,769,077,593	\$4,963,902,633	\$2,113,217,685	\$1,804,188,470	\$66,444,897	\$22,797,730

# MSIS Data

## *Eligibilities by Age Group*

**Table 05 Fiscal Year 2009 Medicaid Eligibles by Age Group**  
 Source: MSIS State Summary FY 2009 (States excluded are MA, UT and WI)  
 Created: 10/28/2011

STATE	FY 2009 TOTAL ELIGIBLES	UNDER 1	1 to 5	6 to 12	13 to 14	15 to 18	19 to 20	21 to 44	45 to 64	65 to 74	75 to 84	85 AND OVER	AGE GROUP UN-KNOWN
AK	128,774	5,680	25,299	27,429	6,802	14,485	4,504	24,666	11,403	4,260	2,953	1,293	0
AL	954,793	36,477	171,141	169,884	39,272	78,264	33,100	198,189	107,478	52,321	43,046	25,621	0
AR	755,565	25,433	139,522	161,071	39,590	79,038	28,373	144,642	68,246	29,731	23,556	16,362	1
AZ	1,721,267	88,848	269,824	279,643	66,076	128,196	61,540	532,615	220,749	50,316	35,127	18,331	2
CA	11,168,140	324,413	1,406,929	1,392,991	379,591	967,380	582,946	4,036,023	1,079,143	482,961	354,163	161,594	6
CO	632,255	30,781	142,202	126,400	25,571	48,951	15,552	133,483	52,609	24,742	19,262	12,702	0
CT	586,751	17,907	85,633	99,749	25,690	52,281	19,266	148,114	69,121	24,822	22,771	21,397	0
DC	175,678	5,923	25,864	26,750	7,262	16,689	8,449	40,231	28,856	8,037	4,785	2,830	2
DE	207,357	6,122	30,978	31,315	7,333	15,314	8,082	65,680	28,225	6,126	4,822	3,360	0
FL	3,421,911	143,095	629,753	591,094	140,261	278,429	102,957	736,163	354,649	202,527	154,929	88,054	0
GA	2,048,362	98,730	441,709	464,913	107,621	206,429	58,272	331,019	168,888	80,168	57,417	33,187	9

# T-MSIS

- Enhanced information:
  - Key eligibility
  - Enrollment
  - Programs
  - Utilization
  - Expenditure data
  - Statistics for Medicaid and CHIP.

# MAX Data

- Extracted from MSIS1 to support research and policy analysis.
- MAX data is organized into annual calendar year files

2010-2012 MAX FS Validation Table

**Table PLS- FFS Information for Non-Dual Medicaid Enrollees**  
 (includes EOB Duplicates, people who enrolled in MAGNORs or PACE, with missing eligibility information, S-CHIP only, FF Only, Adults with restricted benefits only, prescription drug only enrollees, and patients enrolled only in assistance with enrollment of MC coverage) — NOTE: S-CHIP only, FF Only, and Adults with restricted benefits were NOT excluded prior to 2011. Prescription drug only enrollees were NOT excluded prior to 2012. PACE enrollees were not excluded prior to 2011.  
 State: All

Measure	Expected Range	2010 Value	2010 Value Within Range	2011 Value	2011 Value Within Range	2012 Value	2012 Value Within Range	% Change 2010 - 2011	% Change 2011 - 2012	Cross Year Expected Range	CF Vi Ni Ra
6. Total Non-Dual FFS Enrollees	N/A	531,051	N/A	578,753	N/A	583,583	N/A	0	1	30% (+)	✓
7. Total Non-Dual FFS Receipts	N/A	526,843	N/A	528,004	N/A	533,463	N/A	0	1	30% (+)	✓
8. % Non-Dual FFS Enrollees Who are Receipts	N/A	98	N/A	91	N/A	91	N/A	-1	0	30% (+)	✓
9. Total Non-Dual FFS Prescription North of Enrollment	N/A	490,104	N/A	498,310	N/A	499,240	N/A	1	1	30% (+)	✓
10. Total Total	N/A	1,178	N/A	1,110	N/A	1,058	N/A	-6	-1	30% (+)	✓
11. Agent, Cash (MAX Elig Code = 1)	N/A	531	N/A	483	N/A	508	N/A	-7	3	30% (+)	✓
12. Agent, Medicaid Needy (MAX Elig Code = 21)	N/A	86	N/A	74	N/A	70	N/A	-12	-5	30% (+)	✓
13. Agent, Poverty (MAX Elig Code = 31)	N/A	105	N/A	103	N/A	108	N/A	3	3	30% (+)	✓
14. Other Agent (MAX Elig Code = 41)	N/A	481	N/A	440	N/A	414	N/A	-6	-6	30% (+)	✓
15. 1115 Agent (MAX Elig Code = 51)	N/A	0	N/A	0	N/A	0	N/A	Div by 0	Div by 0	30% (+)	✓
16. Disabled	N/A	87,559	N/A	80,215	N/A	80,565	N/A	-7	3	30% (+)	✓
17. Disabled, Cash (MAX Elig Code = 12)	N/A	76,368	N/A	82,243	N/A	88,513	N/A	6	3	30% (+)	✓
18. Disabled, Medicaid Needy (MAX Elig Code = 22)	N/A	2,001	N/A	1,868	N/A	1,866	N/A	-7	7	30% (+)	✓
19. Disabled, Poverty (MAX Elig Code = 32 or 3A)	N/A	928	N/A	962	N/A	1,090	N/A	7	10	30% (+)	✓
20. Other Disabled (MAX Elig Code = 42)	N/A	1,418	N/A	1,348	N/A	1,336	N/A	-6	-1	30% (+)	✓
21. 1115 Disabled (MAX Elig Code = 52)	N/A	0	N/A	0	N/A	0	N/A	Div by 0	Div by 0	30% (+)	✓
22. Child	N/A	441,351	N/A	437,039	N/A	439,278	N/A	-1	1	30% (+)	✓
23. AFDC Child, Cash (MAX Elig Code = 14)	N/A	13,348	N/A	11,989	N/A	10,773	N/A	-11	-10	30% (+)	✓
24. AFDC-U Child, Cash (MAX Elig Code = 16)	N/A	0	N/A	0	N/A	0	N/A	Div by 0	Div by 0	30% (+)	✓
25. AFDC Child, Medicaid Needy (MAX Elig Code = 24)	N/A	434	N/A	348	N/A	272	N/A	-20	-21	30% (+)	✓
26. Child Poverty (MAX Elig Code = 34)	N/A	324,836	N/A	321,134	N/A	326,775	N/A	-1	2	30% (+)	✓
27. Other Child (MAX Elig Code = 44)	N/A	1,863	N/A	2,030	N/A	1,821	N/A	8	-11	30% (+)	✓
28. Foster Care Child (MAX Elig Code = 46)	N/A	8,207	N/A	8,270	N/A	8,284	N/A	1	0	30% (+)	✓

How do you *interpret this data*,  
*draw conclusions*, or *identify best  
practices*, when there is so much  
variability among State Medicaid  
Programs?



### **National Profile: Descriptive Database of Medicaid Dental Programs**

- 2013 First Survey Results -> Variability
- Annual 50+ item *Survey Questionnaire* (4<sup>th</sup> year)
- Cross-sectional study design
- Records a snapshot of the 50+ state Medicaid and CHIP oral health programs at a *point in time*.
- Online platform: <http://www.msdanationalprofile.com/>

# Purpose

The purpose of the *MSDA National Profile of State Medicaid and CHIP Oral Health Programs* is to:

- contribute *comprehensive, valid, and relevant, descriptive, quantitative, and qualitative* Medicaid and CHIP dental program information and data to a *publically available* national and state-based oral health *measurement system*;
- Use in conjunction with the the Big Data; so to
- identify *national trends* and *program characteristics* that *advance the quality* of the oral healthcare delivery system for Medicaid and CHIP beneficiaries.

The screenshot shows the MSDA website interface. At the top left is the MSDA logo with the text "MEDICAID | MEDICARE | CHIP SERVICES DENTAL ASSOCIATION" and "NATIONAL PROFILE OF STATE MEDICAID & CHIP ORAL HEALTH PROGRAMS". To the right are links for "Main Site" and "About Us", and a search bar. Below the logo is a horizontal navigation menu with links: HOME, 2014 PROFILE, ARCHIVED PROFILES, RESOURCES, GLOSSARY, METHODOLOGY, and CONTACT US. A "Sign In" link is located at the bottom right of the menu. The main content area features the heading "Choose a State or Select a Category" above a map of the United States where each state is labeled with its two-letter abbreviation. To the right of the map is a "PROFILE CATEGORIES" sidebar with a list of categories: General Information, Financing, Policy and Benefits, Administrative Models, Management, Reporting and Quality Measurement, and Federal Priorities. Each category has a radio button next to it.

## Type of CHIP Program

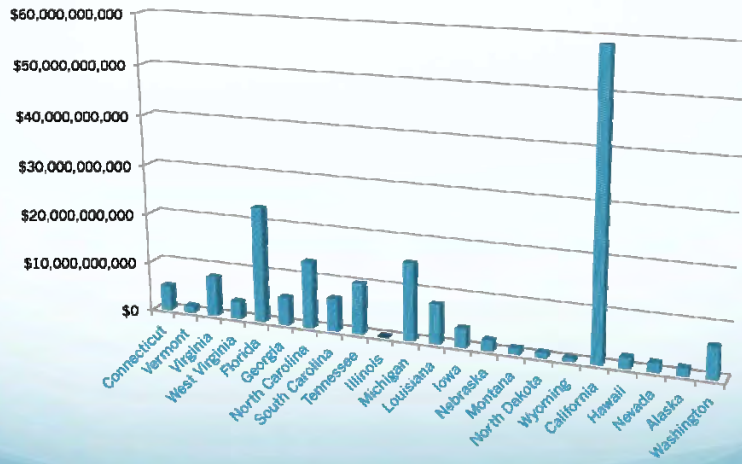
Regions	Medicaid Expansion	Separate CHIP	Combined
1	1	1	5
2	0	1	1
3	0	2	4
4	0	5	3
5	0	0	6
6	0	1	4
7	0	0	4
8	0	4	2
9	0	1	2
10	1	3	1
<b>National</b>	<b>2</b>	<b>16</b>	<b>32</b>

## Separate Dental Budget

State	Dental Program	Administration	Service Expenditures
Maryland	X	X	X
Virginia	X	X	X
West Virginia	X	-	X
Alabama	X	-	-
Florida	X	-	X
North Carolina	X	-	X
South Carolina	X	X	X
Tennessee	X	X	X
Illinois	X	-	-
Michigan	X	-	-
Louisiana	X	-	X
Nebraska	X	-	-
North Dakota	X	-	X
Wyoming	X	-	-
California	X	-	X
Hawaii	X	-	X
Alaska	X	-	-
Washington	X	-	X
<b>National Summary</b>	<b>18</b>	<b>4</b>	<b>12</b>

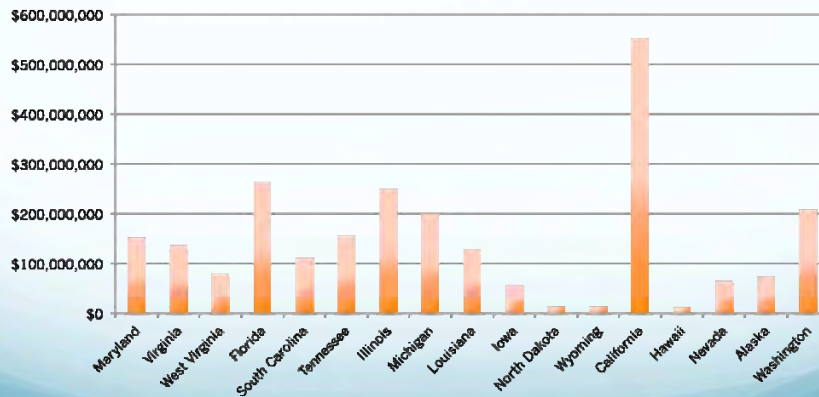


## Overall State Medicaid Budget



## Dental Medicaid Expenditures

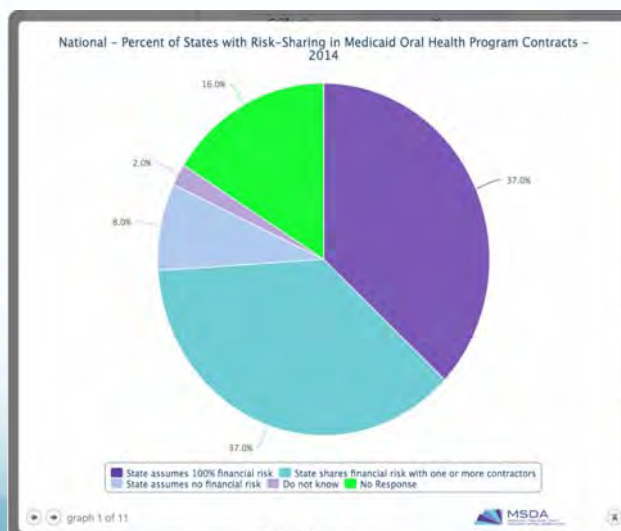
Total Dental Expenditures by State



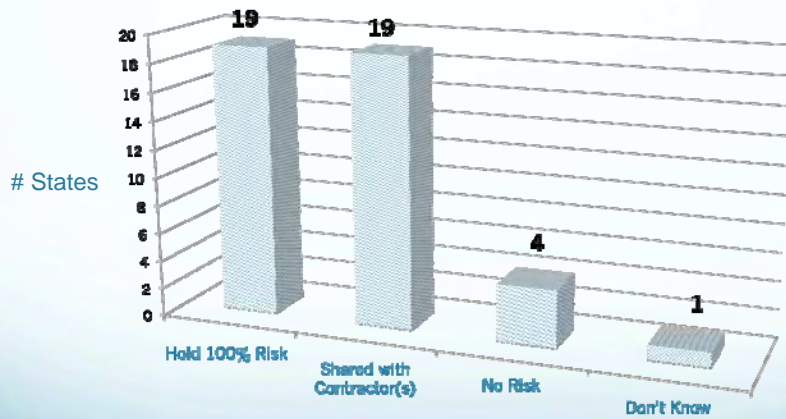
# New Administrative Models

- Managed Care Organizations
- Accountable Care Organizations
- Dental Benefits Administrators
- Carve-Ins and Carve-Outs
- New Payment Models
- New Provider Types
- Pay-for-Performance

## Changes in Fiscal Responsibility



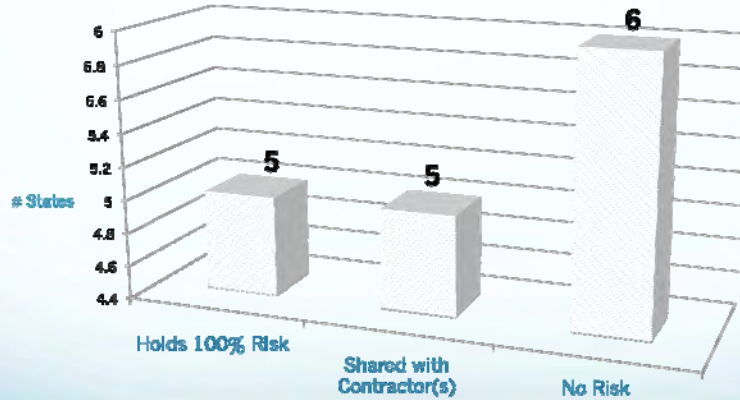
## # States Sharing Fiscal Responsibility-Medicaid



43 of 50+ States Responded



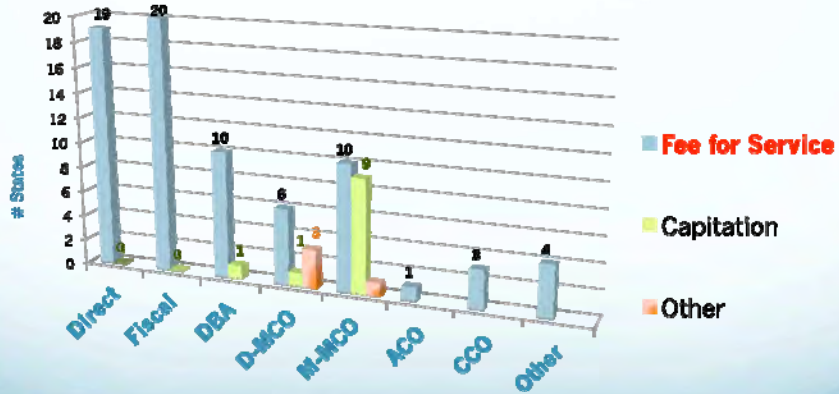
## # States Sharing Fiscal Responsibility-CHIP



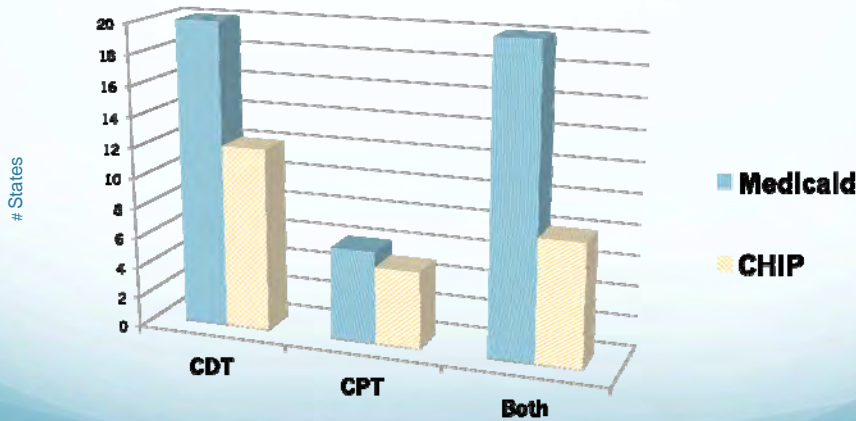
16 Separate State CHIP Programs



## Variability in Dental Provider Reimbursement

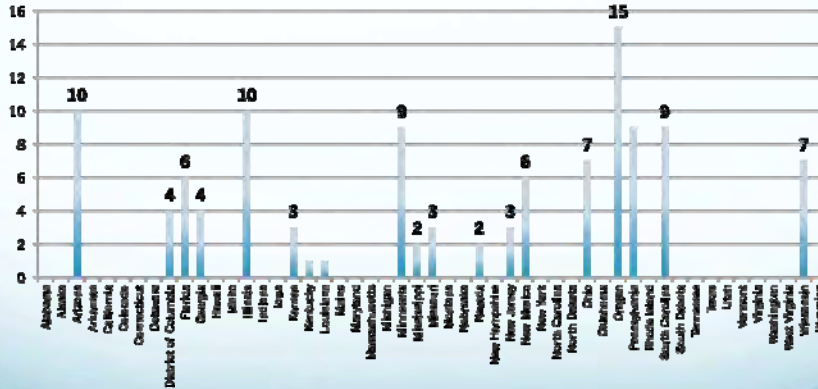


## Non-Dental Provider Reimbursement



# Managed Care in US

## Number of M-Managed Care Contractors

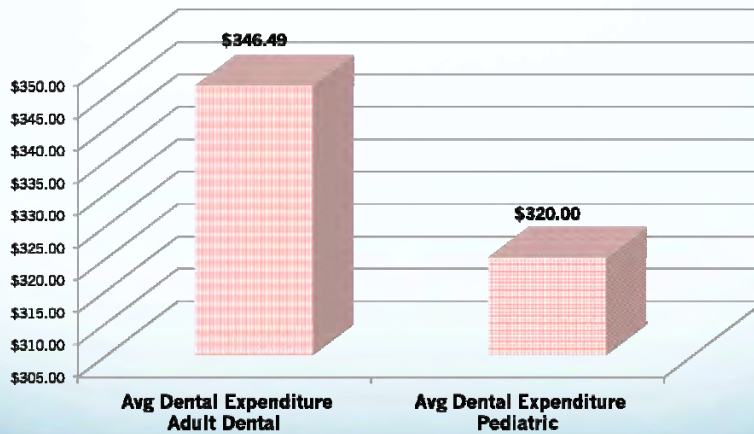


# Arizona Managed Care

11 M-MCOs	Category	Children-M	Children-CHIP
Bridgeway	Subgroup-By Special Geographic Area	9,938	954
Care 1st	Subgroup-By Special Geographic Area	38,535	3,060
Comprehensive Medical and Dental Program	Subgroup-By Special Population	14,533	
Division of Developmental Disabilities	Subgroup-By Special Population	15,256	
Health Choice	Subgroup-By Special Geographic Area	121,028	10,339
Health Net Access	Subgroup-By Special Geographic Area	31	
Maricopa Health Plan	Subgroup-By Special Geographic Area	36,578	3,392
Mercy Care Plan	Subgroup-By Special Geographic Area	199,636	15,899
Phoenix Health Plan	Subgroup-By Special Geographic Area	130,433	11,617
United Health Community	Subgroup-By Special Geographic Area	163,391	14,288
University Family Care	Subgroup-By Special Geographic	42,436	3,334

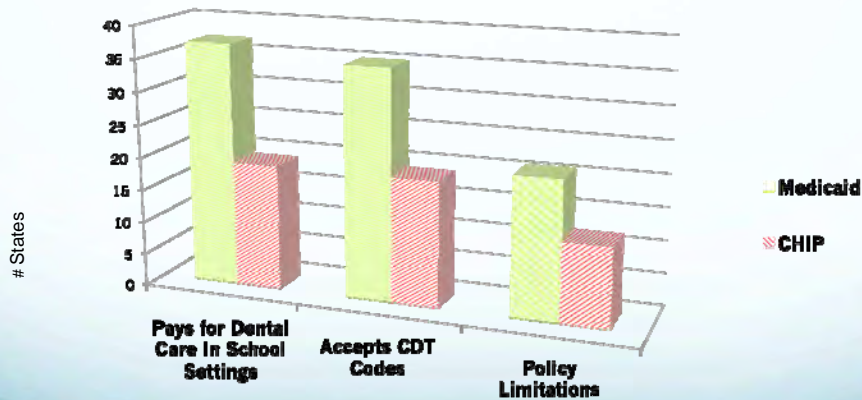


## FFS Annual Dental Expenditures National Average

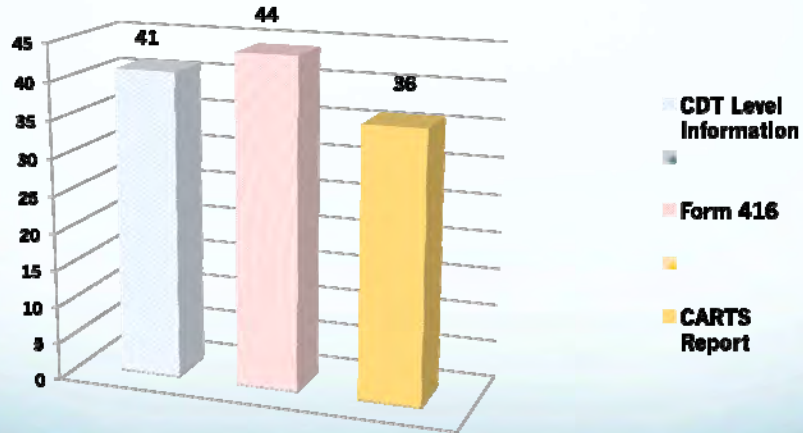


40/50+ State Programs Reporting

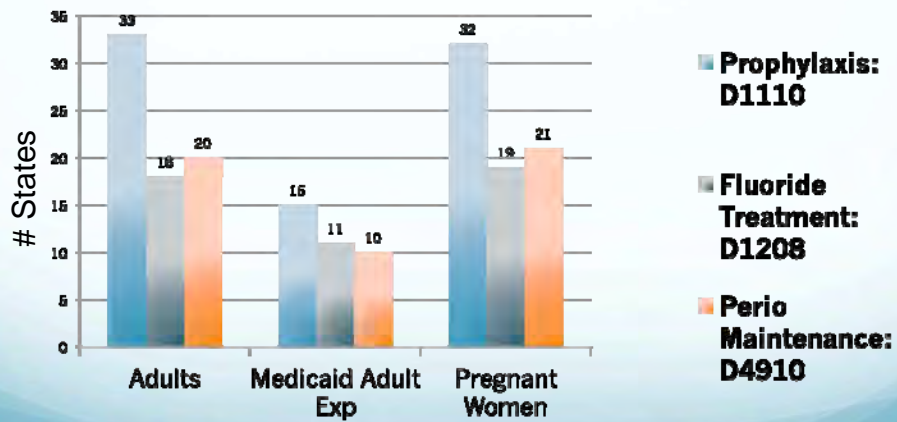
## School-Based Dental Services



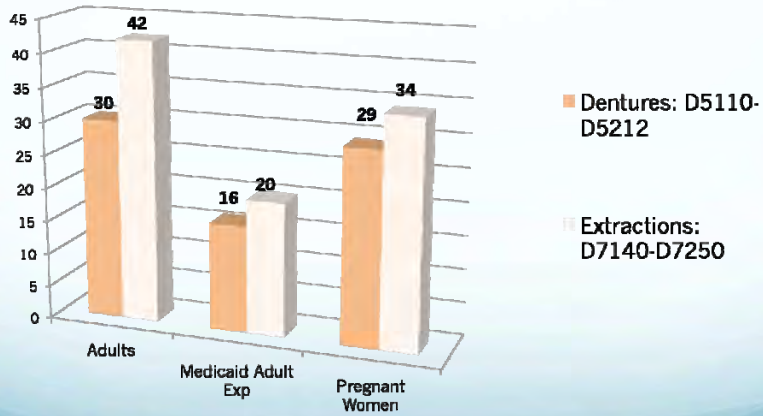
## FQHC Dental Claims Data Collection and Reporting



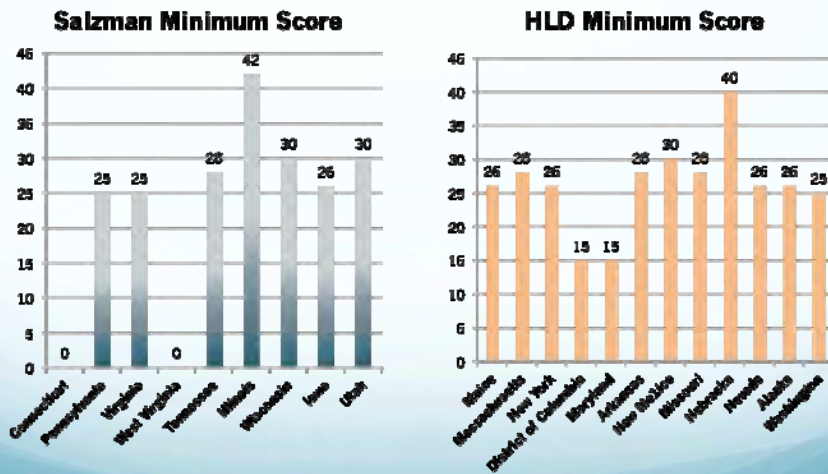
## Adult Dental Benefits Preventive Services



## Adult Dental Benefits Dentures and Extractions

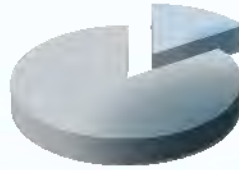


## Orthodontic Policy



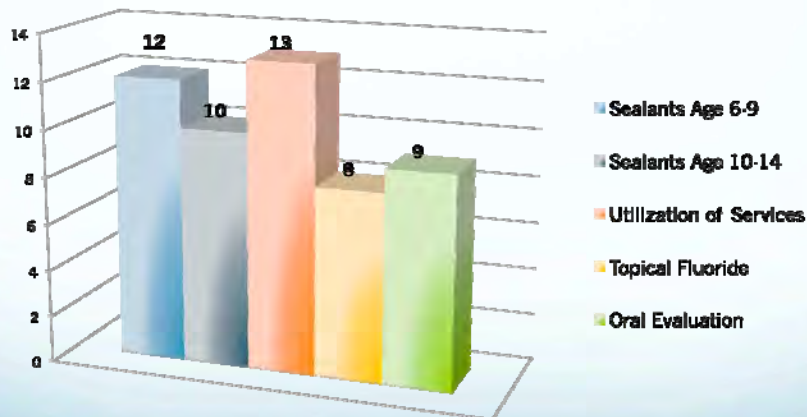
## Risk-Based Care

- Arizona
- Montana
- Texas
- Illinois
- Tennessee
- Delaware
- New Jersey
- Connecticut



- States Using Caries Risk Assessment Codes D0601; D0602; D0603
- States Not Using Risk Assessment Codes

## Quality Measurement # States Using DQA Measures



# Questions

## 2016 National Medicaid and CHIP Oral Health Symposium



*Bringing It All Together*

June 12-14<sup>th</sup>, 2016

Washington Marriott Wardman Park  
Washington DC 20008

Register online at: [www.medicaidental.org](http://www.medicaidental.org)

MSDA State Membership: Travel Stipends Available \$\$



## Contact Information

**Ms. Martha Dellapenna, RDH, MEd**

Director, Center for Medicaid and CHIP Quality, Policy and Financing  
Medicaid|Medicare|CHIP Services Dental Association  
4411 Connecticut Ave NW, Suite 401  
Washington DC 20008  
202-609-7758

**Mary E. Foley, RDH, MPH**

Executive Director  
Medicaid|Medicare|CHIP Services Dental Association  
4411 Connecticut Ave NW, Suite 401  
Washington DC 20008  
202-248-3993