



The Hilltop Institute

analysis to advance the health of vulnerable populations

The Maryland Medicaid Dental Program: CY 2012 to CY 2016

A Chart Book

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Abridged Version

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UMBC
AN HONORS UNIVERSITY IN MARYLAND

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Chapter 1. Overview of the Maryland Medicaid Dental Program

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Maryland Medicaid Dental Program

The Maryland Medicaid Dental Program Chart Book outlines the demographics and service utilization for individuals enrolled in the Maryland Medicaid Dental Program. This chart book provides information about program participants who received services in calendar years (CYs) 2012 through 2016.

Program Eligibility

Individuals who qualify for dental services include those enrolled in Medicaid fee-for-service (FFS) or a HealthChoice managed care organization (MCO). Non-pregnant adults may receive dental benefits provided as an additional benefit of their MCO. The study population excludes participants who are not eligible for the dental benefit, including the following:

- Primary Adult Care (PAC) program participants (2012-2013)
- Undocumented immigrants
- Family Planning Program participants

Key Findings

Maryland Medicaid Dental Program Participants' Service Utilization by Children

Rates of dental visits increased across all age groups of children aged 0 to 20 who were enrolled in Medicaid between CY 2012 and CY 2016.

Among participants aged 4 to 20, the Washington Suburban region had the highest dental utilization rate in CY 2016.

Less than 1% of children aged 0 to 20 years had ED visits with a dental diagnosis or procedure in CY 2016. Enrollees aged 6 to 9 years demonstrated the highest rates of preventive/diagnostic dental visits in CY 2016, while enrollees aged 0 to 3 demonstrated the lowest utilization rates of these services. Enrollees aged 19 to 20 years received the highest rates of preventive/diagnostic services, followed by restorative services.

Maryland Medicaid Dental Program Participants' Service Utilization by Pregnant Women and Adults

The percentage of pregnant women aged 14 years or older who had dental visits decreased from 30.7% in CY 2012 to 25.9% in CY 2016. The percentage of pregnant women aged 21 years or older who had dental visits decreased from 30.1% in CY 2012 to 26.1% in CY 2016.

The percentage of non-pregnant adults (women aged 21 to 64) with 90 or more days in HealthChoice who received dental services decreased from CY 2012 to CY 2016. Non-pregnant adults aged 21 to 39 had a higher percentage of at least one dental visit than the age group of 40 to 64.

Chapter 1. Overview of the Maryland Medicaid Dental Program continued

Chart Book Organization

The data in this chart book are presented in five sections:

Dental Visits for Children: This section includes data on children enrolled in FFS Medicaid or a full-benefit HealthChoice MCO who received Medicaid dental services during each calendar year.

ED Visits with Dental Diagnoses/Procedures for Children: This section includes data on children aged 0 to 20 enrolled in Medicaid who had a dental diagnosis or procedure during an ED visit for any period during the measurement year.

Dental Visits for Pregnant Women: This section includes data on pregnant women aged 14 years and older—and pregnant women aged 21 years and older—who utilized Medicaid dental services.

Dental Visits for Non-Pregnant Adults: This section includes data on non-pregnant adults (aged 21 through 64 years) who were enrolled in a HealthChoice MCO for at least 90 days during the calendar year and had at least one dental visit or received dental services.

Dental Providers and Access: This section includes data on dental providers participating in Medicaid by region who have billed one or more services, or have billed \$10,000 or more for services.

Data Sources

The information in this chart book was derived from Medicaid FFS claims and HealthChoice MCO encounter data that were updated as of June 2016.

Dental-related ED visits were identified using the International Classification of Diseases-9th edition-Clinical Modification, (ICD-9-CM) diagnosis; International Classification of Diseases-10th edition-Clinical Modification (ICD-10-CM) diagnosis; and Current Procedural Terminology (CPT) codes.

Chapter 2.

Dental Visits for Children

Figure 1. Number of Children Aged 4–20 Years Enrolled in Medicaid* for at Least 320 Days Receiving Dental Services, CY 2012–CY 2016

Year	Total Number of Enrollees	Enrollees Receiving One or More Dental Services	Percentage Receiving Service
CY 2012	385,132	261,077	67.8%
CY 2013	405,873	277,272	68.3%
CY 2014	423,625	286,713	67.7%
CY 2015	404,118	278,796	69.0%
CY 2016	440,100	301,367	68.5%

Overall, the rate of children aged 4 to 20 years enrolled in Medicaid for at least 320 days receiving dental services increased by .7% between CY 2012 and CY 2016.

*The study population for CY 2012 through CY 2016 measured dental utilization for all qualifying individuals in Maryland’s Medical Assistance program, including FFS and HealthChoice MCO enrollees. The study population excludes participants who are not eligible for the dental benefit, including undocumented immigrants, those enrolled in the Women’s Breast and Cervical Cancer Health Program, those enrolled in the Family Planning program, and those enrolled in the Primary Adult Care program.

Figure 2. Number of Children Aged 0-20 Years Enrolled in Medicaid* for Any Period, CY 2012–2016

Age Group	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016
0–3	155,338	154,298	158,683	158,166	156,936
4–5	77,300	78,016	78,914	75,907	73,610
6–9	131,709	140,127	153,213	154,389	150,612
10–14	140,708	146,197	156,994	158,609	160,418
15–18	98,641	101,181	111,178	113,844	112,581
19–20	41,866	42,053	48,396	48,754	47,948
All	645,562	661,872	706,378	709,669	702,105

The total number of children aged 0 to 20 years enrolled in Medicaid for any period increased steadily between CY 2012 and CY 2015, but decreased between CY 2015 and CY 2016.

*See footnote from Figure 1.

Figure 3. Percentage of Children Aged 0–20 Years Enrolled in Medicaid* for Any Period who Had at Least One Dental Visit by Age Group, CY 2012–CY 2016

Age Group	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016
0–3	27.9%	29.8%	29.8%	28.9%	30.0%
4–5	64.8%	65.8%	65.2%	64.7%	66.3%
6–9	67.8%	68.9%	68.0%	68.0%	69.1%
10–14	62.9%	63.4%	62.1%	62.8%	64.7%
15–18	52.4%	53.2%	51.3%	51.6%	54.3%
19–20	35.1%	35.8%	34.3%	34.0%	36.7%
All	52.3%	53.7%	52.9%	52.8%	54.5%

Overall, the percentage of children aged 0 to 20 enrolled in Medicaid for any period who had at least one dental visit increased across all age groups between CY 2012 and CY 2016.

*See footnote from Figure 1.

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Chapter 3. ED Visits with Dental Diagnoses/ Procedures for Children

Figure 5. Number of ED Visits with a Dental Diagnosis or Procedure by Children Aged 0–20 Years Enrolled in Medicaid* for any Period, CY 2012–CY 2016

Year	Total Number of Enrollees	Number of Enrollees who had an ED Visit with a Dental Diagnosis or Procedure	Percentage of Enrollees who had an ED Visit with a Dental Diagnosis or Procedure	Number of ED Visits with a Dental Diagnosis or Procedures
CY 2012	645,562	2,899	0.4%	5,699
CY 2013	661,872	2,815	0.4%	5,464
CY 2014	706,378	2,806	0.4%	5,337
CY 2015	709,669	2,642	0.4%	5,547
CY 2016	702,105	2,741	0.4%	5,090

The number of ED visits with a dental diagnosis by children aged 0 to 20 years enrolled in Medicaid for any period experienced little variation throughout the evaluation period.

Of children aged 0 to 20 years enrolled in Medicaid, 0.4% had ED visits with a dental diagnosis or procedure. This percentage remained consistent from CY 2012 to CY 2016.

*See footnote from Figure 1.

Figure 6. Percentage of Children Aged 0–20 Years Enrolled in Medicaid* for Any Period who Received a Preventive/Diagnostic Visit followed by a Restorative Visit, CY 2012–2016

Year	Total Number of Enrollees	Number with Preventive/Diagnostic Visit	Percentage with Preventive/Diagnostic Visit	Number with Preventive/Diagnostic Visit Followed by a Restorative Visit	Percentage with Preventive/Diagnostic Visit Followed by a Restorative Visit
CY 2012	645,562	331,496	51.3%	102,028	30.8%
CY 2013	661,872	349,864	52.9%	106,862	30.5%
CY 2014	706,378	367,908	52.1%	107,595	29.2%
CY 2015	709,669	369,645	52.1%	109,614	29.7%
CY 2016	702,105	377,058	53.7%	109,048	28.9%

The percentage of children aged 0 to 20 years enrolled in Medicaid for any period who received a preventive/diagnostic visit increased overall but decreased when followed by a restorative visit.

*See footnote from Figure 1.

Figure 7. Percentage of Children Aged 4–20 Years Enrolled in Medicaid* for at Least 320 Days Receiving Dental Services, by Type of Service, CY 2012–CY 2016

Year	Diagnostic	Preventive	Restorative
CY 2012	66.0%	62.5%	24.3%
CY 2013	66.8%	63.2%	24.4%
CY 2014	66.2%	62.6%	23.2%
CY 2015	67.6%	64.0%	24.0%
CY 2016	67.0%	63.4%	23.2%

*See footnote from Figure 1.

Across all calendar years, diagnostic services were the most utilized type of dental service received by children aged 4 to 20 enrolled in Medicaid. Restorative services were the least utilized.

Figure 8. Number and Percentage of Children Aged 4–20 Years Enrolled in Medicaid* for 320 Days Who had Dental Visits in CY 2016, by Age Group and Type of Service

Age Group	Number of Enrollees	Number with at Least One Visit	Percentage with Dental Visits	Number with Diagnostic Service	Percentage with Diagnostic Service	Number with Preventive Service	Percentage with Preventive Service	Number with Restorative Service	Percentage with Restorative Service
4 – 5	59,861	43,817	73.2%	43,401	72.5%	41,059	68.6%	12,149	20.3%
6 – 9	123,904	93,940	75.8%	92,745	74.9%	88,209	71.2%	33,984	27.4%
10 – 14	132,158	94,124	71.2%	92,154	69.7%	88,041	66.6%	29,851	22.6%
15 – 18	90,367	55,013	60.9%	52,829	58.5%	49,290	54.5%	20,264	22.4%
19 – 20	33,810	14,473	42.8%	13,856	41.0%	12,211	36.1%	5,711	16.9%
Total	440,100	301,367	68.5%	294,985	67.0%	278,810	63.4%	101,959	23.2%

*See footnote from Figure 1.

Children aged 6 to 9 years had the highest percentage of utilization for both diagnostic and preventive services. Children aged 19 to 20 demonstrated the lowest utilization rates of all dental services throughout the evaluation period.

Figure 9. Number and Percentage of Children Aged 0–20 Years Enrolled for Any Period in Medicaid* who had Preventive/Diagnostic Visits followed by Restorative Visits in CY 2016, by Age Group

Age Group	Number of Enrollees	Number with Preventive/Diagnostic Visit	Percentage with Preventive/Diagnostic Visit	Number with Preventive/Diagnostic Service Followed by Restorative Service	Percentage with Preventive/Diagnostic Service Followed by Restorative Service
0 – 3	156,936	46,989	29.9%	3,566	7.6%
4 – 5	73,610	48,599	66.0%	12,682	26.1%
6 – 9	150,612	103,348	68.6%	34,985	33.9%
10 – 14	160,418	102,219	63.7%	30,726	30.1%
15 – 18	112,581	58,964	52.4%	20,719	35.1%
19 – 20	47,948	16,939	35.3%	6,370	37.6%
Total	702,105	377,058	53.7%	109,048	28.9%

The percentage of children who received a follow-up restorative service after a preventive or diagnostic visit varied across age groups.

*See footnote from Figure 1.

Chapter 4. Dental Visits for Pregnant Women

Figure 10. Number and Percentage of Pregnant Women Aged 14+ Years Enrolled in Medicaid* for Any Period who had Dental Visits, CY 2012–CY 2016

Year	Total Number of Enrollees	Number of Enrollees with at Least One Visit	Percentage with Dental Visits
CY 2012	27,092	8,330	30.7%
CY 2013	27,158	7,639	28.1%
CY 2014	30,743	8,228	26.8%
CY 2015	32,015	8,732	27.3%
CY 2016	34,275	8,883	25.9%

*See footnote from Figure 1.

The percentage of pregnant women aged 14 or older enrolled in Medicaid with at least one dental visit varied during the evaluation period, with an overall decline of 4.8%.

Just over a quarter of pregnant women aged 14 or older enrolled in Medicaid had a dental visit in CY 2016.

Figure 11. Number and Percentage of Pregnant Women Aged 21+ Years with at Least 90 Days in Medicaid* who had Dental Services, CY 2012–CY 2016

Year	Total Number of Enrollees	Number of Enrollees with at Least One Visit	Percentage with Dental Visits
CY 2012	21,708	6,537	30.1%
CY 2013	22,286	6,113	27.4%
CY 2014	25,408	6,858	27.0%
CY 2015	26,795	7,324	27.3%
CY 2016	29,014	7,562	26.1%

*See footnote from Figure 1.

Although the total number of pregnant enrollees aged 21 years or older increased between CY 2012 and CY 2016, the rate at which these enrollees received dental visits declined by 4% during the evaluation period.

More than a quarter of pregnant women aged 21 years or older who had been enrolled in Medicaid for at least 90 days utilized dental services in CY 2016.

Chapter 5. Dental Visits for Non-Pregnant Adults

Figure 12. Percentage of Non-Pregnant Adults Aged 21–64 Years with 90+ Days in HealthChoice* who Received Dental Services, CY 2012–CY 2016

Year	Total Number of Enrollees	Enrollees Receiving One or More Dental Services	Percentage Receiving Service
CY 2012	236,205	51,619	21.9%
CY 2013	248,524	33,093	13.3%
CY 2014	486,025	65,671	13.5%
CY 2015	533,689	72,556	13.6%
CY 2016	521,954	72,318	13.9%

*See footnote from Figure 1.

Overall, the percentage of non-pregnant adults receiving dental services decreased by 8% between CY 2012 and CY 2016.

Figure 13. Number and Percentage of Non-Pregnant Adults Aged 21–64 Years with 90+ Days in HealthChoice* who had at Least One Dental Visit in CY 2016, by Age Group

Age Group	Number of Enrollees	Number with at Least One Visit	Percentage with Dental Visits
21 - 39	282,087	41,870	14.8%
40 - 64	239,867	30,448	12.7%
Total	521,954	72,318	13.9%

Non-pregnant adults aged 21 to 39 years had a slightly higher percentage of dental visits than those aged 40 to 64 years.

*See footnote from Figure 1.

Chapter 6.

Dental Providers and Access

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The Hilltop Institute

University of Maryland, Baltimore County
Sondheim Hall, 3rd Floor
1000 Hilltop Circle
Baltimore, MD 21250

www.hilltopinstitute.org