Briefing Report:
An Examination of Service Utilization and Expenditures among Adults with Diabetes Enrolled in Maryland's Medicaid Managed Care Program

Introduction

This report presents the findings of an assessment of the impact of diabetes on Maryland's Medicaid program. The assessment focuses on adults aged 35 to 64 years enrolled in HealthChoice, Maryland's Medicaid managed care program. The Hilltop Institute at the University of Maryland, Baltimore County (UMBC) conducted this assessment for MedChi, the Maryland State Medical Society, to provide a detailed view of the effects of diabetes diagnoses on the use of health care services and expenditures among adult HealthChoice enrollees. The assessment was guided by the following questions:

- What are the demographics of adult HealthChoice enrollees with diabetes?
- What are the costs of these services?
- How do the service utilization and expenditures of adult HealthChoice enrollees with diabetes compare to adult HealthChoice enrollees without diabetes?

Diabetes is a disease in which the body does not produce adequate insulin or the body cannot use insulin correctly. It is a chronic and serious illness that affects more than 29 million Americans. Those with diabetes have a higher risk of developing severe health issues, such as kidney failure, stroke, and amputations.[1] Medicaid plays an important role in providing health care coverage for those with diabetes. In fiscal year 2003, Medicaid covered 15 percent of people diagnosed with diabetes in the United States.[2]

Data and Methodology

For this analysis, Hilltop used a study from the UCLA Center for Health Policy Research on the impact of diabetes on hospitalizations in California[3] as a guide. Hilltop focused on adult Medicaid enrollees aged 35 through 64 years with 12 months of enrollment in a HealthChoice

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[1] Centers for Disease Control and Prevention. (2014, June). *Diabetes latest.* Retrieved from http://www.cdc.gov/features/diabetesfactsheet/

[2] Cohen, M. (2007, October). *An overview of Medicaid enrollees with diabetes in 2003.* Kaiser Commission on Medicaid and the Uninsured. Retrieved from https://kaiserfamilyfoundation.files.wordpress.com/2013/01/7700.pdf

[3] Meng, Y.Y., Pickett, M.C., Babey, S.H., Davis, A.C., & Goldstein, H. (2014, May). *Diabetes tied to a third of California hospital stays, driving health care costs higher.* UCLA Center for Health Policy Research and California Center for Public Health Advocacy.

managed care organization (MCO) in the measurement year. The analysis was conducted for two calendar years (CYs): 2013 and 2014. Using the Maryland Medicaid Management Information System (MMIS2), Hilltop identified all enrollees meeting the age and enrollment criteria and then divided the enrollees into two populations: 1) those with diabetes (the study group) and 2) those without diabetes (the comparison group).

Populations

Diabetes Population

The population with diabetes selected for this study was identified using the Healthcare Effectiveness Data and Information Set (HEDIS) technical specifications for the Comprehensive Diabetes Care measures (Table 1). These specifications require a set of three clinical criteria to identify a diabetes diagnosis. The enrollee must meet one of these clinical criteria in the measurement year or the year prior to the measurement year.

Table 1. Identification Criteria for Diabetes and Non-Diabetes Populations

Age Criteria Each member must be aged 35 through 64 years as of December 31 of the measurement year
Enrollment Criteria Each member of the cohort must have: ▪ Enrollment as of December 31 of the measurement year ▪ 12 months of enrollment in HealthChoice in the measurement year
Clinical Criteria – Diabetes Group Only Enrollees with diabetes will be identified using the following clinical criteria from HEDIS[4] (enrollee must meet one of the criteria during the measurement year or the year prior to the measurement year): ▪ At least one prescription for insulin or hypoglycemics/antihyperglycemics that was dispensed on an ambulatory basis ▪ At least two outpatient visits, observation visits, emergency department visits, or non-acute inpatient visits on different dates of service with a diabetes diagnosis ▪ At least one acute inpatient visit with a diabetes diagnosis Diabetes ICD-9-CM diagnosis codes: 250, 357.2, 362.0, 366.41, and 648.0

Notes: See HEDIS 2015 Technical Specifications for Health Plans, Volume 2, p. 143. Refer to Table CDC-A for a list of prescriptions. Refer to Outpatient Value Set, Observation Value Set, ED Value Set, and Nonacute Inpatient Value Set for codes to identify visit types.

[4] National Committee for Quality Assurance. (2014). *HEDIS 2015 technical specifications for health plans, Volume 2*. Washington, D.C.

Non-Diabetes Population

HealthChoice enrollees meeting the age and enrollment criteria of the study but not meeting the HEDIS clinical criteria for identifying diabetes were classified in the non-diabetes population. This population will be known as the comparison group.

Methods

Using Maryland Medicaid data in the MMIS2, Hilltop identified all fee-for-service (FFS) claims and MCO encounters for the HealthChoice enrollees in the diabetes and non-diabetes populations that occurred during CY 2013 and CY 2014. Then, the claims and encounters were grouped into the following service categories: inpatient; outpatient; pharmacy; physician and other services, such as durable medical equipment, laboratory tests, imaging, and home health. To tabulate the costs associated with these service categories, Hilltop used the cost reported on each FFS claim. Because HealthChoice MCOs do not report the cost per service, Hilltop imputed the MCO cost using fee schedules.

Once an enrollee is identified as having met the HEDIS diabetes clinical criteria, all the costs and service utilization attributed to that enrollee were tallied. Please note that this methodology provides a more complete picture of an enrollee's health care expenditures because it takes into account health care utilization, regardless of whether the medical services received are for diabetes-related treatment or for other medical conditions. The same method is used to compute the cost for the non-diabetes group.

Results

Demographics

Table 2 compares key demographic categories between the diabetes and non-diabetes populations for CY 2013. There were 12,900 enrollees who met the HEDIS clinical criteria for diabetes and the age (35 to 64 years) and enrollment requirements (12 months of HealthChoice enrollment in the CY) for the analysis. The non-diabetes group consisted of enrollees who did not meet the HEDIS clinical criteria for diabetes but met the same age and enrollment criteria. There were 82,995 enrollees who met the comparison group criteria in CY 2013 (i.e., enrolled in a HealthChoice MCO for 12 months and were aged 35 to 64 years in the calendar year).

Among the diabetes population, most enrollees had a Medicaid FFS claim or MCO encounter with a diagnosis of type 2 diabetes only (80.6 percent). An additional 17.0 percent of enrollees had a claim or encounter with a diagnosis of both type 1 and type 2 diabetes, while 0.4 percent of the enrollees in the diabetes group had type 1 diabetes only. For both groups, over 65 percent of the enrollees were female. The majority of the enrollees in the study group were aged 51 to 55 years (21.2 percent), while the majority of enrollees in the comparison group were aged 35 to 40 years (32.8 percent). The study group had a higher percentage of Black enrollees (52.4 percent)

than the comparison group (46.4 percent). Conversely, the comparison group had a higher percentage of Whites (33.1 percent) than the study group (29.8 percent). As for the county of residence, 44.4 percent of the study group resided in Baltimore City or Baltimore County in CY 2013, compared with 39.7 percent for the comparison group.

Table 2. Demographic Comparison between Diabetes and Non-Diabetes Populations, CY 2013

	Diabetes Population		Non-Diabetes Population	
	Number of Enrollees	Percent of Total	Number of Enrollees	Percent of Total
Diabetes Type				
Type 1	55	0.4%	N/A	N/A
Type 2	10,401	80.6%	N/A	N/A
Both	2,190	17.0%	N/A	N/A
None[5]	254	2.0%	N/A	N/A
Total	**12,900**	**100%**	N/A	N/A
Gender				
Female	8,426	65.3%	56,808	68.4%
Male	4,474	34.7%	26,187	31.6%
Total	**12,900**	**100%**	**82,995**	**100%**
Age Group				
35-40	1,797	13.9%	27,257	32.8%
41-45	1,932	15.0%	18,491	22.3%
46-50	2,403	18.6%	14,493	17.5%
51-55	2,734	21.2%	11,494	13.8%
56-60	2,470	19.1%	7,547	9.1%
61-64	1,564	12.1%	3,713	4.5%
Total	**12,900**	**100%**	**82,995**	**100%**
Race/Ethnicity				
Asian	503	3.9%	3,202	3.9%
Black	6,763	52.4%	38,480	46.4%
White	3,847	29.8%	27,511	33.1%
Hispanic	241	1.9%	1,712	2.1%
Other	1,546	12.0%	12,090	14.6%
Total	**12,900**	**100%**	**82,995**	**100%**

[5] These enrollees may have been identified as having diabetes through the pharmacy criteria only. The pharmacy files do not contain diagnosis information.

	Diabetes Population		Non-Diabetes Population	
	Number of Enrollees	Percent of Total	Number of Enrollees	Percent of Total
County				
Allegany	322	2.5%	1,733	2.1%
Anne Arundel	676	5.2%	4,741	5.7%
Baltimore City	4,052	31.4%	21,530	25.9%
Baltimore County	1,673	13.0%	11,457	13.8%
Calvert	140	1.1%	1,018	1.2%
Caroline	112	0.9%	782	0.9%
Carroll	138	1.1%	1,370	1.7%
Cecil	253	2.0%	1,744	2.1%
Charles	236	1.8%	1,597	1.9%
Dorchester	154	1.2%	892	1.1%
Frederick	252	2.0%	1,987	2.4%
Garrett	87	0.7%	625	0.8%
Harford	359	2.8%	2,476	3.0%
Howard	285	2.2%	2,291	2.8%
Kent	49	0.4%	335	0.4%
Montgomery	1,184	9.2%	8,710	10.5%
Prince George's	1,621	12.6%	10,858	13.1%
Queen Anne's	64	0.5%	755	0.9%
St. Mary's	215	1.7%	1,344	1.6%
Somerset	94	0.7%	627	0.8%
Talbot	85	0.7%	478	0.6%
Washington	375	2.9%	2,627	3.2%
Wicomico	344	2.7%	2,002	2.4%
Worcester	99	0.8%	863	1.0%
Out of State	31	0.2%	153	0.2%
Total	**12,900**	**100%**	**82,995**	**100%**

Table 3 compares key demographic categories between the diabetes and non-diabetes populations for CY 2014. There were 19,315 enrollees who met the study group criteria, while 119,673 enrollees met the comparison group criteria. For the non-diabetes population in CY 2014, the distribution across all specified demographic categories was similar to CY 2013. For the diabetes population, the cohort in CY 2014 had a higher proportion of males (38.0 percent compared to 34.7 percent in CY 2013) and older adults aged 51 to 64 years (57.8 percent compared to 52.4 percent in CY 2013).

The increase in the number of enrollees between CY 2013 and CY 2014 could possibly be explained by Maryland's decision to expand Medicaid under the Affordable Care Act (ACA). The ACA allowed states to offer coverage to individuals with incomes up to 138 percent of the federal poverty level on January 1, 2014. Individuals enrolled in Maryland's Medicaid Primary Adult Care (PAC) program were automatically transferred into this expansion coverage.

Table 3. Demographic Comparison between Diabetes and Non-Diabetes Populations, CY 2014

	Diabetes Population		Non-Diabetes Population	
	Number of Enrollees	Percent of Total	Number of Enrollees	Percent of Total
Diabetes Type				
Type 1	109	0.6%	N/A	N/A
Type 2	16,004	82.9%	N/A	N/A
Both	2,851	14.8%	N/A	N/A
None[6]	351	1.8%	N/A	N/A
Total	**19,315**	**100%**	N/A	N/A
Gender				
Female	11,972	62.0%	76,012	63.5%
Male	7,343	38.0%	43,661	36.5%
Total	**19,315**	**100%**	**119,673**	**100%**
Age Group				
35-40	2,243	11.6%	34,007	28.4%
41-45	2,557	13.2%	22,728	19.0%
46-50	3,342	17.3%	21,445	17.9%
51-55	4,355	22.5%	19,798	16.5%
56-60	4,166	21.6%	14,408	12.0%
61-64	2,652	13.7%	7,287	6.1%
Total	**19,315**	**100%**	**119,673**	**100%**
Race/Ethnicity				
Asian	776	4.0%	4,345	3.6%
Black	9,720	50.3%	53,525	44.7%
White	5,660	29.3%	40,532	33.9%
Hispanic	283	1.5%	1,837	1.5%
Other	2,876	14.9%	19,434	16.2%
Total	**19,315**	**100%**	**119,673**	**100%**

[6] See previous footnote.

	Diabetes Population		Non-Diabetes Population	
	Number of Enrollees	Percent of Total	Number of Enrollees	Percent of Total
County				
Allegany	409	2.1%	2,435	2.0%
Anne Arundel	1,085	5.6%	7,317	6.1%
Baltimore City	5,826	30.2%	31,912	26.7%
Baltimore County	2,462	12.7%	16,190	13.5%
Calvert	238	1.2%	1,440	1.2%
Caroline	167	0.9%	1,081	0.9%
Carroll	244	1.3%	2,074	1.7%
Cecil	370	1.9%	2,589	2.2%
Charles	403	2.1%	2,425	2.0%
Dorchester	231	1.2%	1,273	1.1%
Frederick	395	2.0%	2,906	2.4%
Garrett	118	0.6%	919	0.8%
Harford	500	2.6%	3,647	3.0%
Howard	429	2.2%	3,092	2.6%
Kent	72	0.4%	524	0.4%
Montgomery	1,737	9.0%	12,121	10.1%
Prince George's	2,476	12.8%	14,630	12.2%
Queen Anne's	107	0.6%	993	0.8%
St. Mary's	344	1.8%	2,084	1.7%
Somerset	157	0.8%	892	0.7%
Talbot	113	0.6%	781	0.7%
Washington	620	3.2%	3,911	3.3%
Wicomico	591	3.1%	2,890	2.4%
Worcester	193	1.0%	1,393	1.2%
Out of State	28	0.1%	154	0.1%
Total	**19,315**	**100%**	**119,673**	**100%**

Service Utilization

Table 4 compares the number of users in the diabetes and non-diabetes populations by service category in CY 2013 and CY 2014. Across all service categories, the results demonstrate that a higher percentage of enrollees in the diabetes population used services compared to enrollees in the non-diabetes population. The largest difference between the two groups was in the use of

outpatient facility services. In CY 2013, 71.5 percent of enrollees with diabetes received an outpatient facility service compared to 54.1 percent of enrollees without diabetes.

Overall, the results for the diabetes population in CY 2014 were similar to CY 2013. For example, in both years, 99.3 percent of enrollees in the diabetes cohort received professional services. Among the non-diabetes population, service use increased slightly between CY 2013 and CY 2014 for professional services and prescription drug services, but decreased slightly for inpatient facility and outpatient facility services. For example, the percentage of enrollees without diabetes receiving professional services increased from 89.9 percent in 2013 to 90.8 percent in 2014, and the percentage receiving outpatient facility services decreased from 54.1 percent to 53.8 percent.

Table 4. Number of Service Users among Diabetes and Non-Diabetes Populations, CY 2013 and CY 2014

CY 2013						
	Diabetes Population			Non-Diabetes Population		
Service Category	Number of Users	Total Enrollees	Percentage of Total	Number of Users	Total Enrollees	Percentage of Total
Inpatient Facility	3,166	12,900	24.5%	9,276	82,995	11.2%
Outpatient Facility	9,229	12,900	71.5%	44,914	82,995	54.1%
Professional Services & Other Services	12,814	12,900	99.3%	74,593	82,995	89.9%
Prescription Drugs	12,809	12,900	99.3%	71,014	82,995	85.6%
CY 2014						
	Diabetes Population			Non-Diabetes Population		
Service Category	Number of Users	Total Enrollees	Percentage of Total	Number of Users	Total Enrollees	Percentage of Total
Inpatient Facility	4,223	19,315	21.9%	13,051	119,673	10.9%
Outpatient Facility	13,611	19,315	70.5%	64,438	119,673	53.8%
Professional Services & Other Services	19,188	19,315	99.3%	108,714	119,673	90.8%
Prescription Drugs	19,167	19,315	99.2%	103,119	119,673	86.2%

Expenditures

Table 5 displays spending by service category for users in the diabetes and non-diabetes populations in CY 2013 and CY 2014. Across both years, enrollees with diabetes had higher average spending for each service category. The average total spending per user for enrollees with diabetes was more than double the average total spending per user for those without diabetes. For example, in CY 2013, the average spending was $24,173 per user for enrollees with

diabetes and $10,678 for those without diabetes. In CY 2014, the average spending per user was $24,387 for enrollees with diabetes and $10,880 for those without diabetes.

For both groups, there was an increase in spending across most service categories between CY 2013 and CY 2014. The most expensive service category for both groups was inpatient facility services. In CY 2013, the average spending for inpatient facility services was $27,078 for the diabetes population and $20,938 for those without diabetes, a difference of $6,140 or 25.6 percent. In CY 2014, the average spending for inpatient facility services increased to $29,272 for those with diabetes and to $20,946 for enrollees without diabetes, a difference of $8,326 or 33.2 percent.

Table 5. Estimated Expenditures for Diabetes and Non-Diabetes Populations, by Service Type, CY 2013 to CY 2014[7]

CY 2013						
	Diabetes Population			Non-Diabetes Population		
Service Category	**Number of Users**	**Total Spending**	**Per User Spending**	**Number of Users**	**Total Spending**	**Per User Spending**
Inpatient Facility	3,166	$85,728,506	$27,078	9,276	$194,225,295	$20,938
Outpatient Facility	9,229	$80,739,138	$8,748	44,914	$222,466,227	$4,953
Professional Services & Other Services	12,814	$86,076,552	$6,717	74,593	$312,965,203	$4,196
Prescription Drugs	12,809	$59,281,098	$4,628	71,014	$156,537,224	$2,204
Total	**12,900**	**$311,825,295**	**$24,173**	**82,995**	**$886,193,948**	**$10,678**
CY 2014						
	Diabetes Population			**Non-Diabetes Population**		
Service Category	**Number of Users**	**Total Spending**	**Per User Spending**	**Number of Users**	**Total Spending**	**Per User Spending**
Inpatient Facility	4,223	$123,616,777	$29,272	13,051	$273,361,215	$20,946
Outpatient Facility	13,611	$124,717,872	$9,163	64,438	$325,235,928	$5,047
Professional Services & Other Services	19,188	$118,203,669	$6,160	108,714	$440,446,167	$4,051
Prescription Drugs	19,167	$104,491,760	$5,452	103,119	$262,976,545	$2,550
Total	**19,315**	**$471,030,078**	**$24,387**	**119,673**	**$1,302,019,855**	**$10,880**

[7] Please see the appendix for a breakdown of estimated expenditures by county for CY 2013 and CY 2014.

Study Limitations

Our analysis of the impact of diabetes on the Medicaid program was limited by a few factors. First, using HEDIS clinical criteria to identify an enrollee with diabetes may have underestimated the true number of enrollees with diabetes; this is because some enrollees may not meet the strict HEDIS clinical criteria in addition to the12-month HealthChoice enrollment criteria used in this study. Another limitation is that the results may understate the true impact of diabetes on the Medicaid program because the analysis is restricted to enrollees aged 35 to 64 years and excludes Medicaid FFS enrollees. Also, the comparison group for this analysis was not chosen using statistical methods to reduce bias, such as risk adjustment or propensity score matching. Expanding the age and enrollment criteria would provide a more complete picture of the effect of diabetes on service use and expenditures.

It is also worth noting that imputing cost assumes that the MCOs pay the same amount for professional services as does the FFS program, but in practice, the MCOs are free to negotiate other payment rates and reimbursement systems, including bundled payments or sub-capitation arrangements. Thus, although the imputed cost is the best available estimate of MCO costs per service, it should not be considered a definitive estimate. For hospital institutional claims, the Maryland Health Services Cost Review Commission regulates the amounts hospitals may charge and requires all health insurance payers, including Medicaid, to pay according to these charges. Medicaid and Medicare receive a 6 percent discount from charges, so the MCO payment amount is calculated as 94 percent of the charge amount submitted with the encounter. Please note that the total expenditures based on imputed prices are likely to overestimate expenditures for several reasons, including the following:

- Third-party liability payment amounts are not reliably populated in the MMIS2, so the imputed cost may overstate payments for services for which another payer was responsible for a portion of the bill.
- Federal regulations require Medicaid to be the payer of last resort, while these payment estimates assume that Medicaid was the primary payer for all services.
- There is always a risk that some denied MCO encounters might be submitted to the MMIS2 and thus overestimate expenditures.
- Finally, the MCOs may reimburse out-of-state/non-regulated hospitals at a different rate than 94 percent of the reported charge.

Conclusion

This analysis identified adult HealthChoice enrollees with diabetes and compared their service utilization and expenditures to adult HealthChoice enrollees without diabetes in CY 2013 and CY 2014. Overall, this study demonstrates that adult HealthChoice enrollees with diabetes in Maryland's Medicaid program tend to use more services and have substantially higher

expenditures than adult HealthChoice enrollees without diabetes. In both CY 2013 and CY 2014, the average total spending per user for enrollees with diabetes was more than double the average total spending per user for those without diabetes. In CY 2013, the average spending was $24,173 per user for enrollees with diabetes and $10,678 for those without diabetes. In CY 2014, the average spending per user was $24,387 for enrollees with diabetes and $10,880 for those without diabetes. This study also demonstrates that the average spending per user remained largely the same across years for enrollees with and without diabetes.

Appendix A1. Estimated Total Expenditures for Diabetes and Non-Diabetes Populations by County, CY 2013

	Diabetes Population				Non-Diabetes Population			
County	Number of Users	Total Spending	Percent of Total	Per User Spending	Number of Users	Total Spending	Percent of Total	Per User Spending
Allegany	322	$7,033,335	2.26%	$21,843	1,733	$17,590,086	1.98%	$10,150
Anne Arundel	676	$14,217,025	4.56%	$21,031	4,741	$51,602,974	5.82%	$10,884
Baltimore City	4,052	$121,687,213	39.02%	$30,031	21,530	$317,235,184	35.80%	$14,735
Baltimore County	1,673	$40,988,060	13.14%	$24,500	11,457	$123,365,304	13.92%	$10,768
Calvert	140	$2,628,884	0.84%	$18,778	1,018	$8,263,015	0.93%	$8,117
Caroline	112	$2,647,913	0.85%	$23,642	782	$6,689,565	0.75%	$8,554
Carroll	138	$2,909,050	0.93%	$21,080	1,370	$17,012,517	1.92%	$12,418
Cecil	253	$6,251,576	2.00%	$24,710	1,744	$17,242,269	1.95%	$9,887
Charles	236	$7,228,461	2.32%	$30,629	1,597	$11,881,770	1.34%	$7,440
Dorchester	154	$3,254,849	1.04%	$21,135	892	$7,937,504	0.90%	$8,899
Frederick	252	$5,641,757	1.81%	$22,388	1,987	$15,941,046	1.80%	$8,023
Garrett	87	$1,812,863	0.58%	$20,838	625	$4,362,396	0.49%	$6,980
Harford	359	$8,548,211	2.74%	$23,811	2,476	$23,905,249	2.70%	$9,655
Howard	285	$5,455,674	1.75%	$19,143	2,291	$19,820,956	2.24%	$8,652
Kent	49	$866,013	0.28%	$17,674	335	$3,662,064	0.41%	$10,932
Montgomery	1,184	$19,294,149	6.19%	$16,296	8,710	$65,006,907	7.34%	$7,463
Prince Georges'	1,621	$33,768,336	10.83%	$20,832	10,858	$97,937,888	11.05%	$9,020
Queen Anne's	64	$1,426,960	0.46%	$22,296	755	$5,738,425	0.65%	$7,601
St. Mary's	215	$5,297,251	1.70%	$24,638	1,344	$11,867,896	1.34%	$8,830
Somerset	94	$1,546,031	0.50%	$16,447	627	$4,689,591	0.53%	$7,479
Talbot	85	$1,427,312	0.46%	$16,792	478	$3,604,452	0.41%	$7,541
Washington	375	$7,842,553	2.52%	$20,913	2,627	$24,131,459	2.72%	$9,186
Wicomico	344	$6,918,462	2.22%	$20,112	2,002	$17,016,028	1.92%	$8,500
Worcester	99	$2,480,510	0.80%	$25,056	863	$7,211,954	0.81%	$8,357
Out of State	31	$652,847	0.21%	$21,060	153	$2,477,448	0.28%	$16,192
Total	**12,900**	**$311,825,295**	**100%**	**$24,173**	**82,995**	**$886,193,949**	**100%**	**$10,678**

Appendix A2. Estimated Total Expenditures for Diabetes and Non-Diabetes Populations by County, CY 2014

	Diabetes Population				Non-Diabetes Population			
County	Number of Users	Total Spending	Percent of Total	Per User Spending	Number of Users	Total Spending	Percent of Total	Per User Spending
Allegany	409	$8,896,830	1.89%	$21,753	2435	$24,895,794	1.91%	$10,224
Anne Arundel	1,085	$24,499,642	5.20%	$22,580	7317	$78,321,499	6.02%	$10,704
Baltimore City	5,826	$176,961,664	37.57%	$30,374	31912	$460,509,729	35.37%	$14,431
Baltimore County	2,462	$56,821,770	12.06%	$23,080	16190	$179,380,747	13.78%	$11,080
Calvert	238	$5,080,666	1.08%	$21,347	1440	$12,486,984	0.96%	$8,672
Caroline	167	$3,679,042	0.78%	$22,030	1081	$8,506,961	0.65%	$7,870
Carroll	244	$6,011,657	1.28%	$24,638	2074	$22,606,455	1.74%	$10,900
Cecil	370	$9,904,540	2.10%	$26,769	2589	$29,926,598	2.30%	$11,559
Charles	403	$7,631,563	1.62%	$18,937	2425	$20,841,734	1.60%	$8,595
Dorchester	231	$4,418,525	0.94%	$19,128	1273	$12,557,135	0.96%	$9,864
Frederick	395	$8,562,802	1.82%	$21,678	2906	$25,508,334	1.96%	$8,778
Garrett	118	$2,190,063	0.46%	$18,560	919	$6,710,177	0.52%	$7,302
Harford	500	$11,525,451	2.45%	$23,051	3647	$38,100,525	2.93%	$10,447
Howard	429	$7,319,249	1.55%	$17,061	3092	$26,797,092	2.06%	$8,667
Kent	72	$1,549,537	0.33%	$21,521	524	$5,881,913	0.45%	$11,225
Montgomery	1,737	$31,679,321	6.73%	$18,238	12121	$94,723,232	7.28%	$7,815
Prince Georges'	2,476	$58,755,236	12.47%	$23,730	14630	$134,659,595	10.34%	$9,204
Queen Anne's	107	$1,833,276	0.39%	$17,133	993	$9,217,313	0.71%	$9,282
St. Mary's	344	$8,836,286	1.88%	$25,687	2084	$18,453,157	1.42%	$8,855
Somerset	157	$3,529,128	0.75%	$22,479	892	$8,316,671	0.64%	$9,324
Talbot	113	$2,378,574	0.50%	$21,049	781	$6,754,337	0.52%	$8,648
Washington	620	$13,617,993	2.89%	$21,965	3911	$36,453,551	2.80%	$9,321
Wicomico	591	$10,542,700	2.24%	$17,839	2890	$26,605,652	2.04%	$9,206
Worcester	193	$3,173,231	0.67%	$16,442	1393	$11,629,361	0.89%	$8,348
Out of State	28	$1,631,336	0.35%	$58,262	154	$2,175,309	0.17%	$14,125
Total	**19,315**	**$471,030,078**	**100%**	**$24,387**	**119,673**	**$1,302,019,855**	**100%**	**$10,880**