

APPENDIX 2: COMPARISONS TO OTHER STATES

Overview

An understanding of how well enrollees fare in Maryland in terms of the number and type of services delivered compared to Medicaid/SCHIP recipients in other states is important to an analysis of the success of HealthChoice. It is difficult, however, to make direct comparisons between Medicaid programs in different states. The relative independence of each state in designing and operating its Medicaid program adds to the inherent differences in the demographics and health status of the Medicaid population.

Each state's Medicaid program is unique, as is the extent to and manner in which managed care has been incorporated into the program. Some states have a capitated system throughout the state, others have a primary care case management program, and still others mix the two to varying degrees. There is also wide variability across states and within some states regarding whether managed care enrollment is voluntary or mandatory.

State Children's Health Insurance Program (SCHIP). An additional variable between states is a result of the federal SCHIP program, which affords states a great deal of flexibility in their use of available funds. The SCHIP population is necessarily different from the Medicaid population, at least with respect to participants' average income level. Eligibility rules under SCHIP vary from state to state. A state may elect to serve children in families with income up to 150 percent of the Federal Poverty Line (FPL), but some state programs include children in households with income of up to 300 percent of the FPL. Another variable, whether or not a state includes the SCHIP-eligible population in its Medicaid managed care program, can also make it difficult to compare the Medicaid managed care programs of different states.

Data Sources

In addition to programmatic differences, differences in data collection methodology pose a significant barrier to meaningful comparisons among states.

Encounter Data. The majority of utilization measures for the HealthChoice program are based on encounter data, a type of administrative data. As noted earlier, Maryland has worked hard to develop reliable encounter data, and Maryland's encounter data is now recognized as being among the best in the country.¹

Many states, unable to use their own encounter data, rely on other types of data for information about their programs. These data sources include claims, chart

¹ Rate-setting Forum 1.

reviews, a blend of claims or encounter data and chart reviews, and surveys. Survey data is a common method of program evaluation. While surveys provide a rich source of certain types of information, comparing administrative data to survey data can be problematic. Extensive studies have shown that very different results are obtained when using administrative data than when using survey data to measure health care utilization. For the measures and the population studied here, surveys are likely to over-report service utilization.²

Early and Periodic Screening, Diagnosis and Treatment (EPSDT) Data. Another source of data for states derives from the Form HCFA-416. The Centers for Medicare and Medicaid Services (formerly HCFA) require states to submit Form HCFA-416, which contains basic information regarding Medicaid children's participation in the EPSDT Program, in order to measure the Program's performance annually. HCFA-416 data is reported differently across the states and from year to year, which limits its usefulness as a source of data for comparisons between states or across time. For example, how children participating in the program are counted as defined by HCFA has changed year to year.

Specific practices with respect to reporting EPSDT data using HCFA-416 data in Maryland make the use of this data at this time particularly problematic. Prior to the implementation of the HealthChoice program in 1997, approximately 80,000 children were voluntarily enrolled in HMOs. The HMOs were not required to report encounter data. Form HCFA-416 instructions allowed the EPSDT Program to assume that each HMO enrolled child received at least one EPSDT screening service per year. This may have resulted in a higher participation rate than what may actually have occurred. We have not used HCFA-416 as a source of data in this review because of its known inconsistencies year to year in Maryland. The encounter data analysis presented in the comprehensive review uses a consistent methodology before and after HealthChoice and represents information on actual utilization, rather than making assumptions about utilization.

HEDIS Data. The Health Plan Employer Data and Information Set (HEDIS) —is a tool developed by the National Committee for Quality Assurance to collect data about the performance of health plans. HEDIS requires health plans to measure and collect data in a standardized way so that purchasers and consumers have the information they need to make reliable and valid comparisons between plans. Using HEDIS, health plans can report specific measures using a blend of data sources (administrative data, claims data, audited medical records and other sources). This type of blended data analysis allows plans to fill in the gaps that may exist when using only administrative or encounter data. Therefore, it is likely

² See, for example, S. Newell, et al., "Accuracy of patients' recall of Pap and cholesterol screening," *Am J Public Health* (September 2000): 1431-5; J.A. Bowman, R. Sanson-Fisher, and S. Redman, "The accuracy of self-reported Pap smear utilization," *Soc Sci Med* (April 1997): 969-76.

that the blended data analysis will result in higher numbers than an analysis using only encounter data.

HEDIS can be used to evaluate Medicaid managed care plans, but differences in state programs, such as the population served and enrollment procedures make the use of HEDIS as a benchmark to evaluate the service provided to Medicaid enrollees problematic.³ In 1998 a demonstration project was begun to create a national Medicaid HEDIS database using 1997 as the base year. By November 1998, when data collection for the Medicaid HEDIS pilot year ended, 18 states had pledged participation. Concerns about administrative burdens (on states and on plans) and a reluctance to change existing reporting requirements may have impeded states' willingness to commit to the entire Medicaid HEDIS measurement set.⁴

Currently in Maryland, the Department collects and reviews HEDIS data. The MCOs and the Department continue to work toward a comprehensive data collection and reporting strategy which will meet federal and state requirements, minimize duplication of effort, and produce data that are meaningful and useful. HEDIS is a critical component of this strategy. An auditor has been hired this year and is currently working with the MCOs to establish operating and data collection procedures. At this point, the Department is completing its first audit of MCO HEDIS Reports. Audited HEDIS data for Maryland's Medicaid managed care program were therefore not available at the time of the evaluation.

Despite the barriers to and limitations of data comparisons among states with the data sources currently available, we gathered data from sources that were most comparable to our data for the following measures: ambulatory care visits, well child visits, number of ER visits, Pap test rate, and dental services. The results are displayed and analyzed below.

Findings – Ambulatory Visits

The comparisons for this measure are presented in two parts, as some states report number of visits per enrollee per year, while others report the percent of the eligible population receiving service.

Visits Per Person Per Year.

- ***Maryland.*** As is discussed in the Utilization Analysis section of this report, the number of visits per person per year in HealthChoice declined from 4.3 in 1997 to 3.67 in 2000. Maryland data includes any time a recipient saw a

³ L. Partridge and C.I. Szlyk, National Medicaid HEDIS Database/Benchmark Project, Pilot-Year Experience and Benchmark Results, February, 2000, p.2.

⁴ See National Medicaid HEDIS Database/Benchmark Project, note 3 above, page 5.

- provider in an ambulatory setting, but it is an unduplicated count per enrollee per day, and both male and female adults are included.
- Wisconsin used data from a variety of sources, including HEDIS measures, collected from Medicaid HMOs in 1999 to calculate a rate of 3.00 visits per eligible year.⁵ The data reported for Wisconsin reflects only primary care visits for HMO enrollees, whereas the analysis of Maryland data reflects all physician visits.
 - Ohio reported 2.59 visits per person per year, which was calculated using statewide encounter data.⁶ This number includes primary care and specialist visits. By the end of 1999, the year this data was collected in Ohio, there were only seven counties in Ohio in which managed care enrollment was mandatory for Medicaid recipients. Enrollment was voluntary in nine counties.
 - Tennessee used encounter data to calculate the rate of 7.6 visits.⁷ This rate includes visits to primary care providers and specialists, but the report does not specify that this rate represents an unduplicated count per enrollee per day. Additionally, Tennessee's results were calculated for female enrollees only. Both of these factors are likely to inflate the reported rate.

Percentage of Eligible Population Receiving Service.

- Maryland. In 2000, 56.8 percent of HealthChoice-enrolled adults ages 21-39 received an ambulatory care visit, and 65.2 percent of adults ages 40-64 received an ambulatory care visit.
- Colorado. reported between 44 and 45 percent of all adults (20-64) receiving an ambulatory visit according to 1998 HEDIS data.⁸
- Arizona. Based on calculations using encounter data, Arizona reported the highest percentage of adults receiving an ambulatory visit - 78.7 percent.⁹

⁵ Wisconsin Medicaid HMO Comparison Report: 1998/1999, Wisconsin Department of Health and Family Services, page 36.

⁶ Ohio Medicaid Managed Care Plan 1999 Statewide Progress Report (dated October 3, 2000).

⁷ TennCare Report on Women's Health Issues (December, 2000), pages 65, 69.

⁸ Health Plan Employer Data and Information Set (HEDIS): A Comprehensive Performance Report of Colorado Medicaid Health Plans, December 1999, page 7 (Summary of HEDIS Measure Results).

⁹ Health Plan Performance Measures, Adult and Adolescent Indicators: Results and Analysis. Report produced by the Arizona Health Care Cost Containment System (AHCCCS), Office of Medical Management, using data from October 1, 1998 – September 30, 1999, page 47.

The measure of ambulatory care visits for adults could be sensitive to differences in eligibility criteria. States have flexibility in determining which adults will receive coverage in their program. A more restrictive set of eligibility criteria is likely to lead to a sicker population (indicated by a higher proportion of SSI-eligible enrollees), and hence a higher rate of services utilization.

FINDINGS - WELLCHILD VISITS

Maryland. Maryland 's 2000 rate - 61.5 percent of enrollees ages 1-2 receiving a well child visit - is an improvement over the 1997 rate of 55.6 percent. For children ages 3-5, Maryland's rate improved from 37.8 percent in 1997 to 42.6 percent in 2000. For children ages 6-9 and 10-14, rates increased slightly to 29.2 percent and 28.3 percent, respectively, in 2000. The rate for adolescents ages 15-18 improved slightly to 21.5 percent receiving a well care visit.

Other States.

- Wisconsin (excluding the Milwaukee area) reports that 84.2 percent of children ages 0-5 received a well child visit, while 28.2 percent of children ages 6-14 and 19.4 percent of adolescents ages 15-20 received a visit.¹⁰ Data for this measure was collected from a variety of sources, including HEDIS measures, from Medicaid HMOs in 1999. In the Milwaukee area, the reported utilization rate for well child visits was 69.3 percent for children ages 0-5, 35.2 for children ages 6-14, and 22.7 for ages 15-20.
- Massachusetts HEDIS data for 1998 was used to calculate rates of 73.1 percent for children ages 3-6, 78.2 percent for children ages 8-9, 57.5 percent for children ages 10-11, and 45.4 percent for adolescents ages 12-21.¹¹
- Colorado. Colorado's Medicaid program reports that for children ages 3-6, 35.36 percent received at least one well child visit with a primary care provider during 1997.¹² Colorado reported that 6.93 percent of Medicaid members aged 12-21 years received at least one comprehensive well care visit with a primary care provider during the 1997 reporting year. A closer examination of individual plan results reveals that this average was not weighted for plan enrollment, and is heavily influenced by the low percentages reported for Colorado's Primary Care Physician Program and the Unassigned Fee-For-Service programs.¹³

¹⁰ See note 5 above, pages 24-25.

¹¹ MassHealth Managed Care HEDIS 1999 Report (Reporting Year 1998), page 16.

¹² See note 8 above at page 35 (Table 13).

¹³ See note 8 above at page 37 (Table 14).

- Minnesota. Minnesota Medicaid officials first attempted to calculate a utilization rate for well child visits using encounter data. The result (27 percent of enrolled children overall) was thought to be too low to be accurate, so they proceeded with chart abstraction. The results were that 66.3 percent of children ages 1-2, 55.7 percent of children ages 2-6, 37.2 percent of children ages 6-15, and 40.2 percent of adolescents ages 15-21 received a well child visit in 1998.¹⁴
- Tennessee. Tennessee's reported results of 84 percent for children less than 5 years old, 67 percent for children ages 5-12, and 57 percent for adolescents ages 13-17 were calculated from responses to a telephone survey of a random sample of enrollees under age 22, stratified by age and plan.¹⁵ As noted above, comparisons between survey data and administrative data are notoriously unreliable.¹⁶ For a utilization measure taken in this population, survey data is likely to over-estimate utilization when compared to claims data or chart reviews.¹⁷
- Arizona. Arizona's reported rate of 44.5 percent for children ages 3-6 reflects children who were continuously enrolled (with no more than one break in enrollment of no more than 31 days) with one managed care plan during the reporting year of October 1, 1999 through September 30, 2000 and who received at least one well child visit during the reporting year.¹⁸ Thirty-one percent of enrolled adolescents ages 11-15 received a well care visit, and 18.4 percent of adolescents ages 16-20 received a well care visit during the most recent year.¹⁹ These notes are based on HEDIS

¹⁴ 1999 External Quality Review Study Child and Teen Checkups Participation Rate Review Final Report: August 2000. "Using administrative (encounter) data for 1998, DHS calculated the C&TC participation rate to be 27 percent, which is below the goal set by HCFA and below the national average." (Executive Summary, p.1).

¹⁵ Early, Periodic, Screening, Diagnosis and Testing (EPSDT): Knowledge, Attitudes and Health Care Utilization of TennCare Enrollees, produced by the Division of Health Care Services Evaluation, Bureau of Health Assessment and Evaluation, Metropolitan Health Department of Nashville and Davidson County, page 10.

¹⁶ See note 2 above.

¹⁷ See, for example, P.G. McGovern, N. Lurie, K.L. Margolis, and J.S. Slater, "Accuracy of self-report of mammography and Pap smear in a low-income urban population," American Journal of Preventive Medicine (April 1998): 201-8; E.D. Paskett et al., "Validation of self-reported breast and cervical cancer screening tests among low-income minority women," Cancer Epidemiology Biomarkers and Prevention (September 1996): 721-6.

¹⁸ Arizona Health Care Cost Containment System Pediatric Performance Indicators Results and Analysis for Reporting Period October 1, 1999 — September 30, 2000, p. 14.

¹⁹ See note 9 above.

data for a selected group of recipients who were continuously enrolled during the reporting year.²⁰

- *Medicaid HEDIS*. The National Medicaid HEDIS Database/Benchmark Project has published results for 1997 (pilot year) and 1998.²¹ For children ages 3-6, they report a benchmark (which is the mean of all plans reporting) of 60 percent receiving one or more well care visits with a primary care provider in 1997 and 51 percent in 1998. Adolescent well care was not a benchmark measure in 1997. For 1998, 27 percent of member ages 12-21 had at least one comprehensive well care visit with a primary care or OB/GYN practitioner during the reporting year.

Data is particularly difficult to compare for the well child measure due to the varying age breaks used from state to state, and the significant impact that this consistency can have on the data. For instance, Wisconsin and Tennessee both report a utilization percentage of children ages 0-5 receiving a well child visit. Their results, 69.3 percent for Milwaukee, 84.2 percent for the rest of the state of Wisconsin, and 84 percent for Tennessee, are difficult to compare to the other states because they combine the under two age group with the next oldest age group. The likelihood of a child receiving a well child visit correlates the age of the child, and EPSDT standards vary according to age. The greatest difference in the recommended number of visits is for children 15 months and younger versus those older than 15 months. Thus, including enrollees younger than 15 months old with other enrollees is likely to artificially inflate the overall rate.

Maryland's rate for children receiving a well child visit for ages 3-5 is lower than most of the states reported here, although it is higher than Colorado and only a few percentage points below the latest Medicaid HEDIS benchmark.

EMERGENCY ROOM VISITS

Maryland. HealthChoice program reports 301 emergency room visits that do not result in hospital admission per 1000 member years.

Other States.

- Colorado. Colorado's rate of 456 visits per 1000 member years was calculated using HEDIS data for the reporting year 1997.²² This measure, like Maryland's, includes only visits that did not result in hospital

²⁰ See note 18 at page i.

²¹ See note 3 above. For 1998, see National Medicaid HEDIS Database/Benchmark Project: Benchmarks for Measurement Year 1998 at <http://medicaid.aphsa.org/research%1998benchmarks.htm>.

²² See note 8 above at 40 (Table 16).

admission. The reported rate reflects the Colorado Medicaid average but was not weighted according to plan enrollment.

- Wisconsin. Wisconsin reported 710 visits per 1000 member years, based on 1999 data from Medicaid HMOs.²³
- New York. New York reported 357 visits per 1000 member years for the Medicaid managed care population.²⁴
- Tennessee. Tennessee reported 509 visits per 1000 member years for TennCare Medicaid Managed Care in 1996.²⁵

National Data.

- National Hospital Ambulatory Medical Care Survey (NAMCS) NHAMCS reports 378 emergency room visits per 1000 member years. This estimate is based on a sample, and includes visits (approximately 12.9 percent of the total) that resulted in a hospital admission.²⁶ This is an estimate for the entire population, not just Medicaid recipients.
- Medicaid HEDIS benchmarks were 456 visits per 1000 member years in 1997 and 504 visits per 1000 member years in 1998.²⁷

When compared to five other states, an overall national survey, and the Medicaid HEDIS benchmarks for two years, Maryland's 301 ER visits per 1000 member years is the lowest.

DENTAL SERVICES

Maryland. In 2000, 29.3 percent of the population ages 4-20 received a dental visit, a significant increase over the 19.9 percent receiving service in 1997.

- Wisconsin. Wisconsin reported 22.1 percent receiving service, which includes all dental visits for all ages, but only in Milwaukee County.

²³ See note 5 above at 34 (Graph 2.12).

²⁴ New York State Report 1997 Medicaid Managed Care (New York State Department of Health SPARCS data for upstate and the City).

²⁵ TennCare 1996 Medicaid payer data.

²⁶ L.F. McCaig and C.W. Burt , "National Hospital Ambulatory Medical Care Survey: 1999 Emergency Department Summary. Advance data from vital and health statistics; number 320," Hyattsville, Maryland: National Center for Health Statistics. 2001.

²⁷ See Medicaid HEDIS Benchmarks, notes 3 and 21 above.

- Oregon. Oregon reported a rate of 65.3 percent for children ages 1-17.²⁸ This rate is based on data obtained through a telephone survey.
- Tennessee. Tennessee's results are close behind Oregon's, reporting 65 percent for ages 5-12 and 59 percent for ages 13-17.²⁹ This data was also obtained through a telephone survey.
- California. In California 36 percent of children are estimated to have received a dental service in 1999, based on a 10 percent sample of enrollees in a combination fee for service and managed care system in 1999.³⁰
- Connecticut. Connecticut's Medicaid program reported 34 percent of children received dental services within the managed care program.³¹
- Massachusetts. Massachusetts reported that in 1998 42 percent of all MassHealth members (both children and adults) used any dental service.³² This information was reported by a Special Legislative Commission on Oral Health in February of 2000. The Commission found that data was not available to comprehensively evaluate the oral health status of its residents, so the Commission used information available from community studies, survey results from the Behavioral Risk Factor Surveillance System, cancer mortality statistics, and national data.³³
- Arizona. In Arizona 43.5 percent of children in the Medicaid managed care program received any dental service during the period October of 1999 through September of 2000.³⁴

The results for both Oregon and Tennessee, the two states reporting the highest percent of the population receiving a dental service, were obtained through a telephone survey. As noted above, telephone survey data has been shown to be

²⁸ J.B. Mitchell, S.G. Haber, and G. Khatutsky, "The Impact of the Oregon Health Plan on Beneficiary Satisfaction and Access to Care," (Health Economics Research, Inc. October 12, 1999), page 26.

²⁹ See note 15 above.

³⁰ R. Almeida, I. Hill, and G. Kenney, Does SCHIP Spell Better Dental Care Access for Children? An Early Look at New Initiatives. The Urban Institute, July 2001.

³¹ See note 29 above. For reporting year October, 1998 – September, 1999.

³² "The Oral Health Crisis in Massachusetts: Report of the Special Legislative Commission on Oral Health, (February 2000), page iii.

³³ See note 32 above, p. 3.

³⁴ See note 18 above, page 52.

unreliable when compared to administrative data and, for this population and level of utilization, survey data tends to overestimate utilization when compared to administrative data.³⁵

PAP TESTS

- In Maryland, 16.1 percent of individuals 15-20 years old and 17.5 percent of adults 21-64 years old with 12 months of continuous enrollment received a Pap test during the reporting year. Maryland's encounter data is not complete enough to conduct comparable utilization analysis for years prior to 2000. The percentages reported for one year in Maryland can be multiplied by three to get a rough estimate of the percent of the population that would have received a Pap test during three years. This yields 48.1 percent of women ages 15-20 and 52.4 percent of women ages 21-64 estimated to have received a Pap test during a three-year period if the data were available.
- The rate reported for Massachusetts is 79 percent.³⁶ More than 75 percent of the MassHealth managed care members were enrolled in the primary care case management plan as of December 1999. The percent receiving service was calculated by counting the number of women ages 21-64 that received a Pap test during the 1999 reporting year or the two previous years.
- Similarly, Arizona reported that 57.2 percent of the eligible population received one or more Pap tests in a three-year period.³⁷
- In Wisconsin, a higher percentage of Medicaid HMO enrollees living in the rest of the state (41.1 percent of 15-20 year-olds, 46.0 percent of those age 21 and older) received a Pap test than of those living in Milwaukee County (36.1 percent of 15-20 year-olds, 37.4 percent of those 21 and older).³⁸
- Tennessee reports 117.84 Pap tests per 1000 female member years (for women ages 21-64).³⁹ Converting this measure to 11.78 tests per 100 female member years renders it easier to compare to other states' reports. This measure, one of the few reported by Tennessee using encounter data, is low compared to other states.

³⁵ See note 2 above.

³⁶ HEDIS 2000 Report for MassHealth Managed Care (data for calendar year 1999).

³⁷ See note 9 above, page 15.

³⁸ See note 5 above, page 32.

³⁹ TennCare Report on Women's Health Issues (December 2000), page 83.

- Medicaid HEDIS benchmarks: The percentage of women ages 21-64 who received one or more Pap tests during the reporting year or the two years prior to the reporting year was 63 percent for 1997 and 60 percent for 1998.⁴⁰

CONCLUSION

The diversity of program design, population demographics, data sources, and calculation methods make it impossible to definitively compare the performance of Maryland's HealthChoice program with any other state's publicly-funded managed care program in order to draw conclusions about the relative value of the program. While we have tried to present the most comparable measures available, this is by no means an exhaustive study. The more important comparison, as has been the focus of this evaluation, is to measure progress over time, because we know how reliable our encounter data is and we can be sure that we are measuring the same things the same way year to year.

Despite the barriers and limitations to meaningful comparisons between states, conclusions can be drawn from the above analysis. First, very few states have yet been able, as Maryland has, to do a comprehensive and reliable analysis of service utilization using encounter data. Second, states report a broad range of values for these five measures.

⁴⁰ See Medicaid HEDIS Benchmarks, notes 3 and 21 above.