

**Maryland Department of Health and Mental Hygiene  
FY 2006 Memorandum of Understanding**

**Annual Report  
of  
Activities and Accomplishments**

August 28, 2006



CENTER FOR HEALTH PROGRAM  
DEVELOPMENT AND MANAGEMENT

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## Executive Summary

The Center for Health Program Development and Management (Center), located at the University of Maryland, Baltimore County (UMBC), works with public agencies and nonprofit community-based agencies in Maryland and elsewhere to improve the health and social outcomes of vulnerable populations in a manner that maximizes the impact of available resources. Since its inception in 1994, the Center has maintained a successful, nationally recognized partnership with the Maryland Department of Health and Mental Hygiene to analyze state health policies and address issues and develop solutions for the Maryland Medicaid program.

The Center's interdisciplinary team of just over 50 professionals includes clinicians, economists, attorneys, statisticians, social scientists, and computer programmers. While Medicaid remains the central focus, the Center has grown to address issues that touch upon other publicly administered programs such as aging services, public health, Medicare, and federally funded AIDS initiatives. The Center is committed to addressing complex issues through informed, objective, and innovative research and analysis.

Within the framework of our Memorandum of Understanding (MOU) with the Department, the Center performed a wide range of services in FY 2006. Selected activities are reported below and then discussed in greater depth in subsequent sections of this annual report.

**Medicaid Program Development and Policy Analysis:** The Center carried out a number of functions crucial to the launch of Maryland's new Primary Adult Care Program, ranging from drafting regulations to developing the capitated payment methodology. The Center modeled physician fee increases and projected the impact on Medicaid expenditures and physician participation in the Medicaid program. The Center conceptualized how an electronic information and referral system might be structured in Maryland to increase access to free or low-cost care. Options for reforming the Maryland Children's Health Program were examined, as well as a number of issues related to Medicaid behavioral health services. The Center developed fiscal analyses of legislation considered during the 2006 session and provided guidance on how the federal Deficit Reduction Act might impact the Maryland Medicaid program. The Center carried out special studies on reducing medical errors and transitioning Medicaid beneficiaries in chronic care hospitals to nursing facilities.

**HealthChoice: Program Support, Evaluation, and Monitoring:** The Center assessed the performance of HealthChoice and prepared the annual evaluation update. The Center continued to monitor, report, and validate managed care organization (MCO) encounter data and provide technical assistance to MCOs in data collection and processing. The Center produced reports on value-based purchasing and management for results measures. The Current Population Survey undercount study was completed, concluding that there was a significant undercount of the number of Medicaid enrollees in the U.S. census data. The Center carried out special analyses on academic health centers, HIV/AIDS, pediatric asthma, child abuse and neglect, emergency room use for non-urgent care, and avoidable admissions.



**Long-Term Supports and Services:** The Center continued to provide support to the Department on the development of CommunityChoice, Maryland's proposed managed long-term care program, completing the budget neutrality analysis for the Section 1115 federal waiver application, investigating functional assessment tools, and investigating capitated payment methodologies used by other states. The Center completed a telephone survey of 2,500 community-dwelling Maryland Medicaid beneficiaries as the first phase of a broader research agenda to explore how functional status is related to Medicaid resource use over time, and how such measures might be used for rate setting. The Center prepared a report as directed by the Maryland legislature on the indirect costs incurred by personal care providers, as well as a study examining the delivery of personal care services in Maryland and other states. An assessment of the impact of the Maryland Hospital Discharge Pilot Program was carried out, and long-term care management reports on nursing facility utilization and the Living at Home, Older Adults, and Autism waivers were completed.

**Managed Care Financing: Payment Development and Financial Monitoring:** The Center continued to work with the Department to develop risk-adjusted capitation payments for MCOs participating in HealthChoice. The Center is working to develop a rate setting methodology for CommunityChoice that may include the use of risk adjustment factors to predict the need for long-term supports and services, such as activities of daily living and other functional measures. The Center completed a nursing home work measurement study that will be used to establish nursing home reimbursement rates. Payment rates were developed for Medicaid nursing facilities and the Program for All-Inclusive Care for the Elderly (PACE).

**Data Warehouse and Web-Accessible Databases:** The Center continued to house Maryland Medicaid data, processing 5 million records each month and creating yearly databases in excess of 50 million records. The Center also maintained inpatient and outpatient hospital data from the Health Services Cost Review Commission, Minimum Data Set (MDS) data, and the Department's Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) and REM databases. Capabilities of the Decision Support System (DSS) were upgraded and enhanced and Department staff were trained to use the system. The Center carried out troubleshooting and maintenance for the Older Adult Waiver application tracking system and began developing a similar system for the Living at Home waiver. The Center responded to numerous ad hoc requests for data and analysis from the Department, as well as external organizations.

The Center looks forward to continuing its partnership with the Department in FY 2007. The Center values its relationship with the Department and the opportunity to contribute informed, objective analysis to health policy decision-making in Maryland.

## The Center for Health Program Development and Management: Overview and Background

The mission of the Center for Health Program Development and Management is *to work with public agencies and nonprofit community-based agencies in Maryland and elsewhere to improve the health and social outcomes of vulnerable populations in a manner that maximizes the impact of available resources.*

Located at UMBC, the Center is Maryland's premier public applied research organization in health. The Center strives to be a source of objective information for state policy makers and seeks to contribute to the national understanding of how to better serve vulnerable populations. To fulfill its mission, the Center:

- Analyzes federal and state health care policies to optimize access to services, quality of care, provider performance, and purchaser value.
- Develops, implements, and evaluates new delivery and financing models for public health insurance programs.
- Designs and maintains state-of-the-art, interactive, web-based data management systems that provide easy access to comprehensive information on Medicaid and other public health insurance programs in order to inform policy-making.
- Assesses the health of communities, which involves monitoring health outcomes and designing new programs that enhance access to—and the quality of—health services.

UMBC established the Center in 1994 at the request of the Maryland Department of Health and Mental Hygiene. Initially chartered to design and manage Maryland's High-Risk Patient Management Initiative, the Center's responsibilities evolved as the state's Medicaid managed care programs developed. The Center was instrumental in the 1997 launch of HealthChoice, Maryland's Medicaid managed care program. Today the Center continues to conduct research and policy analysis for HealthChoice and develops capitated payment rates for HealthChoice providers. The Center develops other managed care initiatives with the Maryland Department of Health and Mental Hygiene and warehouses all of the state's Medicaid claims and encounter data.

The Center also provides services to other Maryland state agencies, including the Maryland Department of Aging, the Maryland State Department of Education, and the Maryland AIDS Administration. In addition, the Center works with local government and health and human services agencies in Maryland, as well as other states, the federal government, and foundations.

The Center's work with Maryland Medicaid is supported through an annual MOU with the Department of Health and Mental Hygiene. This report discusses activities and accomplishments under the FY 2006 MOU.

# **FY 2006 MOU Activities and Accomplishments**



## Medicaid Program Development and Policy Analysis

During FY 2006, the Center assisted with the launch of the Primary Adult Care Program, modeled the cost of physician fee increases, developed fiscal analyses for proposed legislation, and conducted other special studies and analyses of the Maryland Medicaid program at the request of the Department of Health and Mental Hygiene.

**Primary Adult Care (PAC) Program:** This new program, which began July 1, 2006, provides primary care physician office visits, prescription drugs, outpatient mental health care, and some other limited health care services to low-income adults in Maryland. The Center performed a number of functions crucial to the launch of PAC. The Center drafted regulations for the program and managed the application and selection process for the four MCOs that applied to and were approved for program participation. The Center also developed the capitated payment methodology for PAC, discussed in this report in the section entitled *Managed Care Financing: Payment Development and Financial Monitoring* (see page 16).

**Physician Fee Increases:** Throughout FY 2006, the Center modeled physician fee increases and the projected impact on Medicaid expenditures and physician participation as the Department considered a number of strategies for increasing fees over time. This work culminated in a preliminary plan for physician fee increases through FY 2010 that would gradually move physician fees towards Medicare levels.<sup>1</sup>

**Reimbursement Rates Fairness Act:** Pursuant to Chapter 702 (House Bill 1071) of the 2001 session and Chapter 464 (Senate Bill 481) of the 2002 session, the Center prepared the fifth annual report for the Maryland legislature. The report addresses progress the state has made in updating fee-for-service Medicaid reimbursement rates to promote provider participation in the Medicaid program.<sup>2</sup> Specifically, the report examines physician participation in Maryland Medicaid and compares Maryland Medicaid fees with Medicare fees and Medicaid fees in other states.

**Coverage for the Uninsured:** The Department requested assistance from the Center in conceptualizing how an electronic information and referral system to increase access to free or low-cost health care might be constructed and maintained. The Center investigated electronic referral systems operated by other states, examined approaches to collecting and periodically updating information on free or low-cost health care services, and suggested approaches to financing, developing, and maintaining a resource database.<sup>3</sup>

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<sup>1</sup> "Plan for Future Physicians' Fee Increases," e-mail attachment to Audrey Richardson from Hamid Fakhraei, May 2, 2006.

<sup>2</sup> *Report on the Maryland Medical Assistance Program and Maryland Children's Health Program—Reimbursement Rates Fairness Act*, September 2005.

<sup>3</sup> *Proposed Development of an Electronic Information and Referral System to Increase Access to Free or Low-Cost Health Care for Uninsured Maryland Citizens*, August 23, 2005.



**Maryland Children’s Health Program (MCHP):** In FY 2006, the state was considering eliminating MCHP and the MCHP Premium program, replacing both with a new state program separate from Medicaid. The Center examined four options under consideration by the state and projected the impact of each on enrollment, utilization, and costs.<sup>4</sup>

**Behavioral Health Services:** The Center carried out a number of special analyses as background to better understanding Medicaid beneficiaries’ need for and utilization of behavioral health services. A Center analysis found that in FY 2004, the Medicaid program provided mental health and substance abuse services to almost 190,000 individuals at a cost of \$580 million.<sup>5</sup> The Center estimated that Medicaid served 12,150 adults with schizophrenia in FY 2004.<sup>6</sup> For FY 2004 and FY 2005, the Center analyzed the number of children and youth receiving selected psychotropic drugs, clustered by age and by drug class.<sup>7</sup> Another analysis, which examined treatment rates and fee-for-service costs for pharmaceutical therapies for children in foster care in FY 2004, found that 11 percent of the children received at least one prescription for a mental health drug.<sup>8</sup>

**Transitioning Beneficiaries from Chronic Hospitals to Nursing Facilities:** In Maryland, patients with long-term needs too complex to be cared for in skilled nursing facilities are often placed in chronic hospitals. At the request of the Department, the Center examined the clinical, cost, and policy implications of transitioning patients from chronic hospitals to nursing facilities.<sup>9</sup>

**Decreasing Medical Errors:** The Department requested that the Center investigate payment strategies that might help reduce medical errors by Maryland Medicaid providers. The study involved a review of strategies employed by other states, an examination of incentives versus disincentives, a discussion of challenges and barriers to implementing a program in Maryland to reduce medical errors, and recommendations for next steps.<sup>10</sup>

**Analysis of 2006 Legislation:** At the Department’s request, the Center developed fiscal estimates for the following four bills presented during the 2006 legislative session:

- Consumer Health Open Insurance Act of 2006 (SB 530)
- Health Insurance—Individual Health Benefit Plans—Pregnancy Coverage (HB 737)

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<sup>4</sup> “Financial Impact of Various MCHP Reform Proposals,” memo to Susan Tucker and Amanda Folsom from Todd Eberly, August 25, 2005.

<sup>5</sup> “Quantification of Mental Health and Substance Abuse Service Utilization Under Maryland’s Medicaid System,” memo to Amanda Folsom and Tricia Roddy from Michael Abrams, October 21, 2005.

<sup>6</sup> “Adults with Schizophrenia Served in FY 2004,” memo to Timothy Santoni, University of Maryland Schools of Medicine, from Michael Abrams, October 28, 2005; “Clarification Regarding Counts on Individuals with Severe Mental Illness,” memo to Alycia Steinberg from Michael Abrams, February 8, 2006.

<sup>7</sup> “Drug Analysis for Medicaid Enrollees Age 0-21 Years,” memo to Mary Mussman from Michael Abrams, Ann Volpel, and Nancy Svhela, February 2, 2006.

<sup>8</sup> “Pharmaceutical Use Among Foster Care Children in FY 2004—FFS Data,” memo to Alycia Steinberg from Michael Abrams, December 22, 2005.

<sup>9</sup> *Options for Transitioning Enrollees from Chronic Hospitals to Nursing Facilities*, forthcoming.

<sup>10</sup> *Payment Strategies and Decreasing Medical Errors in Maryland*, forthcoming.



- Maryland Trauma Physician Services Fund—Reimbursement Rates (HB 1164)
- Public-Private Partnership for Health Coverage for All Marylanders (HB 1144)

**Deficit Reduction Act:** In April 2006, the Center presented a briefing to Department staff on the implications of the federal Deficit Reduction Act for state Medicaid programs.

**Trauma Services:** As a result of legislation passed during the 2003 session (SB479), the Maryland Medicaid program is required to pay enhanced fees for trauma-related services. The Medicaid program is then reimbursed for the enhanced fees through the Trauma and Emergency Medical Fund, also established by the 2003 legislation. Each month during FY 2006, the Center evaluated the trauma claims paid by Medicaid to determine the reimbursement amount that is due to Medicaid from the Fund. Monthly reports were submitted to the Maryland Health Care Commission, which administers the Fund along with Maryland Health Services Cost Review Commission.

## HealthChoice: Program Support, Evaluation, and Monitoring

In FY 2006, the Center continued its key role in supporting HealthChoice, Maryland's managed acute care program, by assisting the Department in collecting and validating encounter data, monitoring program performance, and carrying out special policy studies and analyses.

**HealthChoice Evaluation Update:** The Center prepared the annual HealthChoice evaluation update to enable the Department to monitor program performance on a variety of measures, such as enrollment; ambulatory, well-child, and emergency department visits; dental services; lead testing; and access to care for minority groups, children in foster care, and enrollees with diabetes and asthma.<sup>11</sup>

**Encounter Data Reporting and Validation:** Through monthly, quarterly, and annual reports to the Department and MCOs, the Center verified the completeness, correctness, and reliability of encounter data. Encounter data is used not only to assess access to care and network adequacy, but also to develop payment rates for HealthChoice. Monthly reports consist of date of service analyses and MCO data submission projections. Quarterly reports show services available by county. Annual reports focus on the ratio of service users to enrollees, the distribution of diagnoses; diagnoses per claim; and cohorts by risk-adjusted category assignments. The process the Center follows for continuously monitoring and validating encounter data is described in a November 2005 report.<sup>12</sup> Maryland is recognized nationally for the completeness and quality of its encounter data.

The Center also prepares a series of reports on HealthChoice providers. Quarterly reports provide data on the number of providers and primary care physicians by region and by MCO; enrollment for primary care providers by region and by MCO; and specialists by region and by MCO specialty network.

In FY 2006, Center staff participated with Department staff in monthly MCO Internal Work Group meetings, monthly MCO Liaison meetings, and semi-annual MCO Encounter Data Work Group meetings.

**Value-Based Purchasing:** In March 2006, the Center produced reports for the Department on the percentage of SSI HealthChoice enrollees using services and the number who received an ambulatory visit by MCO for CY 2001 through CY 2005.<sup>13</sup> The Center also used encounter data to prepare reports by MCO on adult access to preventive and ambulatory care, children's access to well-child services, and women receiving a screening mammogram.<sup>14</sup>

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<sup>11</sup> *HealthChoice Evaluation*, March 2006.

<sup>12</sup> *Encounter Data Validation Report CY 2004*, November 2005.

<sup>13</sup> "SSI Value-Based Purchasing Preliminary Run," memo to Tricia Roddy and Alycia Steinberg from Todd Eberly.

<sup>14</sup> "Encounter Data-Based Runs of Select HEDIS Measures," memo to Tricia Roddy and Alycia Steinberg from Todd Eberly, May 23, 2006.



**Management for Results:** The Center prepared asthma and diabetes Management for Results measures for CY 2002 through CY 2004. For HealthChoice enrollees diagnosed with diabetes or asthma (in accordance with HEDIS®<sup>15</sup> enrollment and clinical criteria), the Center analyzed the number of avoidable asthma or diabetes inpatient claims and the number of avoidable hospital admissions.<sup>16</sup>

**MCO Application Guidance:** HealthChoice MCOs usually depend on contracted providers for service delivery. To assist MCOs in completing applications for provider subcontracting and to facilitate more efficient application review by the Department, the Center drafted application guidance for MCOs.<sup>17</sup>

**Regulatory Issues:** The Center provided the Department with analysis of regulations related to performance-based incentives for MCOs (32:25 Md. R. 1941)<sup>18</sup> and the application of the Insurance Article, §15-1009, to MCOs.<sup>19</sup>

**The Maryland Current Population Survey (CPS) Undercount Study:** The Center completed the final report on this study in FY 2006.<sup>20</sup> The Department commissioned the study because general population surveys such as the CPS are the most common approach to estimating the number of uninsured, yet these surveys appear to undercount the number of Medicaid enrollees, sometimes by as much as 40 to 50 percent. The Center surveyed Maryland Medicaid beneficiaries and found a significant discrepancy between the CPS count and state Medicaid records. The Center concluded that the undercount could be significantly corrected if “Medical Assistance” was included in the CPS survey instrument as an alternative name for the Maryland Medicaid program, as this is the name by which Medicaid is known to most Maryland Medicaid enrollees.

**Academic Health Centers and HealthChoice:** In response to Section 33 of House Bill 147, the Department commissioned the Center to draft a report examining payment methodology for academic health center-affiliated clinics serving HealthChoice beneficiaries. The study examined the implications of using a reimbursement methodology for academic health center-affiliated clinics similar to the methodology used for federally qualified health centers, discussed recommendations for regulatory or legislative changes in MCO rates, and suggested other options to assist academic health centers outside the MCO rate setting process.<sup>21</sup>

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<sup>15</sup> Health Plan Employer Data and Information Set.

<sup>16</sup> “Management for Results Data (Asthma and Diabetes),” memo to Amanda Folsom from David Idala and Ann Volpel, September 27, 2005.

<sup>17</sup> *MCO Application Guidance: Subcontract Review and Benefits Crosswalk*, February 27, 2006.

<sup>18</sup> “Performance-Based Incentive Regulation—Maryland HealthChoice Program,” memo to Kristan Younger and Susan Abramson from Martha Somerville, March 1, 2006.

<sup>19</sup> “Insurance Article, §15-1009: Applicability to MCOs,” memo to Dee Miller from Martha Somerville, March 6, 2006.

<sup>20</sup> *The Maryland Current Population Survey Medicaid Undercount Study*, July 25, 2005.

<sup>21</sup> *Report on the Impact of Using Academic Health Centers on the HealthChoice Program: Report Completed Pursuant to House Bill 147*, DRAFT, August 15, 2005.

**Special Analyses:** In FY 2006, the Center conducted a number of special analyses requested by the Department:

- **HIV/AIDS:** The Center examined the number of HealthChoice enrollees in the HIV and AIDS payment rate cells and trends in capitation rates for these populations.<sup>22</sup>
- **Pediatric Asthma:** The Center reviewed Maryland Medicaid encounter data to determine the prevalence of asthma in children.<sup>23</sup>
- **Child Abuse and Neglect:** The Center analyzed 2004 ICD-9 listings and identified codes most likely to be related to child abuse and neglect.<sup>24</sup> This preliminary analysis was conducted for the Center of Excellence Initiative created by the Maryland General Assembly in 2005, charged with developing curricula and training programs for providers on child abuse.
- **Emergency Room Use for Non-Urgent Care:** The Center analyzed emergency room visits for non-urgent care by the Medicaid fee-for-service and HealthChoice populations to estimate costs and potential savings that would be incurred by redirecting patients to primary care settings.<sup>25</sup>
- **Avoidable Admissions:** The Center estimated the prevalence of potentially avoidable hospital admissions in the Medicaid program, defined as admissions that might have been averted if preventive care had been obtained before the illness progressed. Analyzing Medicaid data for CY 2002 through CY 2004, the Center concluded that approximately 12 percent of admissions are potentially avoidable.<sup>26</sup> A follow-up analysis estimated avoidable admissions for REM and Model Waiver enrollees and low birth weight children.<sup>27</sup>

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<sup>22</sup> "HIV/AIDS Enrollees in HealthChoice as of June 2006," e-mail attachment to Betty Flint from Ann Volpel, June 24, 2006.

<sup>23</sup> "Asthma Study Using Medicaid Data," Memo to Mary Mussman and John O'Brien from David Idala and Todd Eberly, March 20, 2006.

<sup>24</sup> "Medical Care for Child Abuse in Maryland," memo to Mary Mussman from Todd Eberly, March 29, 2006.

<sup>25</sup> "ER Costs and Potential Savings Analysis," memo to Amanda Folsom from Todd Eberly and David Idala, September 28, 2005.

<sup>26</sup> "Potentially Avoidable Hospitalizations," memo to Amanda Folsom and Mary Mussman from David Idala, October 12, 2005.

<sup>27</sup> "Avoidable Admissions," memo to Mary Mussman and Tricia Roddy from David Idala, February 2, 2006.



## Long-Term Supports and Services

The Center provided support to the Department on the development of CommunityChoice, Maryland's proposed managed long-term care program; continued work to build the Center's capacity to carry out research and policy analysis related to dual eligibles; and examined personal care services in Maryland.

**CommunityChoice:** In fall 2005, the Center completed the budget neutrality analysis for the federal Section 1115 waiver application for CommunityChoice. The waiver application was submitted to the Centers for Medicare and Medicaid Services (CMS) and is now awaiting federal approval. The Center also simulated the CommunityChoice population and projected patterns of service and resource use.<sup>28</sup> The Center investigated functional assessment tools for community-based care used by other programs and presented options for a comprehensive assessment database for CommunityChoice. In addition, the Center began drafting access regulations for CommunityChoice. To inform the development of a rate setting methodology, the Center investigated payment methodologies used for integrated managed long-term care programs in Arizona, Florida, Massachusetts, Minnesota, New York, Texas, and Wisconsin.<sup>29</sup> The Center also researched the experience of these states with enrolling urban versus rural populations in their programs.<sup>30</sup>

**Dual Eligibles:** To develop a better understanding of the characteristics and needs of Maryland's "dual eligibles"—those individuals eligible for both Medicare and Medicaid—the Center continues efforts to link Medicaid data, Medicare data, and data from the federal government's Minimum Data Set (MDS) on nursing facility residents. Linking these data sets for Maryland Medicaid enrollees will provide a better understanding of how coverage by both Medicaid and Medicare impacts utilization, delivery of services, and costs. These merged files will provide a vast resource for program and policy research, enabling the Center to track demographic, diagnostic, and utilization patterns over time and across settings and payers.

During FY 2006, the Center conducted an analysis of dual eligibles in nursing facilities who expressed a preference for returning to the community,<sup>31</sup> as well as an analysis of dual eligibles who are HIV-positive for use by the Greater Baltimore HIV Health Services Planning Council.<sup>32</sup>

**Survey of Functional Status:** With financial support from the Center for Health Care Strategies, Inc., and on behalf of the Department, the Center completed a telephone survey of 2,500 community-dwelling Maryland Medicaid beneficiaries. This is the first phase of a broader research agenda to explore how functional status, as measured by activities of daily living

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<sup>28</sup> "Notes on Defining Cohorts for CommunityChoice Analyses," analysis by Anthony Tucker, August 17, 2005.

<sup>29</sup> "Notes on Current Examples of Rate-Setting Systems for Medicaid Managed Long-Term Care," e-mail attachment to Timothy Engelhardt from Anthony Tucker, July 13, 2005.

<sup>30</sup> "Select State Managed Long-Term Care Plans," e-mail attachment to DHMH from Wayne Smith, December 22, 2005.

<sup>31</sup> "MDS Data Element Q1a for FY 2005," e-mail to Timothy Engelhardt from Anthony Tucker, December 9, 2005.

<sup>32</sup> "Count of Dual Eligibles Who Are HIV-Positive," memo to Tricia Roddy from Ann Volpel, February 3, 2006.



(ADLs), is related to Medicaid resource use over time, as well as how such measures might be used for rate setting and performance assessment in an integrated managed long-term care program such as CommunityChoice. Survey respondents were older adults or adults with disabilities. The survey was sponsored by the Department and financed by the Center for Health Care Strategies, Inc. The Schaefer Center for Public Policy Research at the University of Baltimore administered the survey. A comprehensive report on survey findings will be available in early FY 2007.

**Long-Term Care Management Reports:** The Center completed an analysis of nursing home utilization among Maryland Medicaid beneficiaries<sup>33</sup> and analyses of enrollment, utilization, and costs of the Medicaid Living at Home Waiver,<sup>34</sup> the Medicaid Waiver for Older Adults,<sup>35</sup> and the Medicaid Autism Waiver.<sup>36</sup> These reports, prepared annually, alert the Department to trends in long-term supports and services. This year the reports highlighted the continued increase in the number of new Medicaid admissions and resident days for persons under 65 in nursing facilities, coupled with the “flattening” in the rate of decline for persons over 65. These findings point to the challenge the state will face in reducing admissions and returning nursing home residents to the community. For the three waiver programs, utilization and cost increases moderated somewhat, but were still strongly positive.

**Personal Care:** To inform the development of new initiatives to enhance the level of choice and control afforded to persons with disabilities, the Center carried out a study that examined the delivery of personal care services in Maryland, as well as best practices in consumer-directed care and the provision of workplace supports in ten other states. The study incorporated focus groups to obtain individual, employer, and other stakeholder perspectives on employment for persons with disabilities in Maryland.<sup>37</sup>

The Center prepared a report for the Department as directed by the Maryland legislature on indirect costs incurred by personal care providers while providing services to Medical Care Program recipients. The Center surveyed personal care providers and asked respondents about out-of-pocket expenses and satisfaction with administrative processes.<sup>38</sup>

The Center drafted regulations for Maryland’s Employed Individuals with Disabilities program, which began operating April 1, 2006, under the authority of Maryland’s §1115 HealthChoice waiver. The Center also examined the program to determine which elements would require modification in the event the state moved to convert the program’s authority from the waiver to the State Plan.<sup>39</sup>

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<sup>33</sup> Medicaid Nursing Home Report, DHMH Long-Term Care Management Report for CY 2004.

<sup>34</sup> Medicaid Living at Home Waiver, DHMH Long-Term Care Management Report for CY 2004.

<sup>35</sup> Medicaid Waiver for Older Adults, DHMH Long-Term Care Management Report for CY 2004.

<sup>36</sup> Medicaid Autism Waiver, DHMH Long-Term Care Management Report for CY 2004.

<sup>37</sup> Abt Associates, Inc., Maryland Personal Assistance Services Final Report, March 24, 2006.

<sup>38</sup> *The Maryland Personal Care Provider Survey*, December 2005.

<sup>39</sup> “EID—Changes Needed for Conversion into State Plan Program,” memo to Terri Frasier from Martha Somerville, March 9, 2006.

**Maryland Hospital Discharge Pilot Program:** The Center reviewed existing data sources to determine whether this program had an impact on discharge patterns of acute care hospitals. This pilot project, funded through a federal Real Choice Systems Change grant, aimed to reduce unnecessary nursing home admissions and utilization. The project supported nurses at two Maryland county hospitals who arranged for referrals and home-based services for patients with disabilities who were discharged from the hospital. The Center concluded that available data were insufficient to determine whether the intervention altered discharge patterns.



## Managed Care Financing: Payment Development and Financial Monitoring

In FY 2006, the Center developed capitation rates for HealthChoice and the new Primary Adult Care Program, provided technical assistance on the development of a rate setting methodology for CommunityChoice, and completed the nursing home work measurement study.

**HealthChoice:** In FY 2006, the Center continued to work with the Department to develop risk-adjusted capitation payments for MCOs participating in HealthChoice.<sup>40</sup> Maryland's risk-adjusted payment methodology is based on the Johns Hopkins University Adjusted Clinical Group (ACG) Case Mix System. The methodology is continuously refined to accommodate program and policy changes. The Center subcontracts with Johns Hopkins for ongoing support in the development of the rate methodology and with Mercer to secure actuarial certification, which is required to obtain federal financial participation in HealthChoice. In FY 2006, the state paid \$1.6 billion in capitation payments to the seven MCOs participating in HealthChoice, providing insurance for more than 628,000 Medicaid beneficiaries.

The HealthChoice Financial Monitoring Report, compiled annually by the Center, examines MCO performance on selected measures to better understand cost differences among MCOs and the impact of capitation rates on plan performance.<sup>41</sup> The report also compares the performance of Provider-Sponsored Organizations (PSOs) to non-PSOs. The Center prepares an annual report for the Department summarizing, for all MCOs, capitation payments and enrollment by major eligibility category and examining the variance between planned payments and associated member months to actual results.<sup>42</sup>

**CommunityChoice:** The Center completed the budget neutrality analysis required for the Section 1115 waiver for CommunityChoice, Maryland's proposed managed long-term care program. This analysis demonstrated that costs for participants in CommunityChoice will not exceed "status quo" fee-for-service costs for this population. The Center continued to provide technical assistance to the Department in developing the CommunityChoice rate setting methodology. The methodology is being designed to use risk adjustment factors that predict the need for long-term care services, such as an enrollee's ADLs and other functional measures. Such a methodology is expected to better reflect utilization and costs for the CommunityChoice population than a diagnosis-based risk adjustment model such as that used for HealthChoice. The Center has also developed the Community Care Organization (CCO) data book which, once CommunityChoice becomes operational, will present financial and encounter data to facilitate monitoring service utilization.

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<sup>40</sup> See "Calendar Year 2007 HealthChoice Rate Setting Work Plan," February 27, 2006.

<sup>41</sup> Analysis of Calendar Year 2003 HFMR Data to Evaluate Differences in Cost of Medical Care among Maryland MCOs, December 2005.

<sup>42</sup> *FY 2006 Capitation Payment Monitoring Report as of June 30, 2006*, report to Audrey Richardson from Chuck Milligan, July 5, 2006.



**Primary Adult Care Program:** The Center developed the methodology for calculating payment rates for Maryland's new Primary Adult Care Program.<sup>43</sup> The capitation rates are for MCOs qualified to participate in HealthChoice. The program will provide primary care services in a physician's office, prescription drug coverage similar to the HealthChoice benefit, and limited diagnostic and laboratory benefits. Enrollees in this new program are current beneficiaries of the Maryland Pharmacy Assistance Program. Hence, rates were developed from the pharmacy experience of enrollees. The Center will institute more traditional rate setting methods in the third year of the program, basing rates on actual utilization and costs during the first two years.

**Nursing Home Work Measurement Study:** In FY 2006, the Center completed a work measurement study of the time required to perform nursing services in nursing homes enrolled in the Maryland Medicaid program. The Department is mandated by COMAR 10.09.10.11G(7)(a) to update time measurements at seven-year intervals for use in establishing Medicaid reimbursement rates. The Center measured differences in the hours of care and personnel mix based on a resident's payment source in a random sample of 18 nursing facilities. The study included five personnel categories and eight ancillary nursing services. Nursing staff were trained to record data on hand-held personal digital assistants (PDAs), which provided for more accurate and efficient data collection.

**Nursing Home and Program for All-Inclusive Care for the Elderly (PACE) Rate Setting:** In FY 2005, the Center continued to develop Medicaid reimbursement rates for Maryland nursing homes and PACE. In addition, the Center continued to facilitate the electronic submission of cost reports by nursing home providers.

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<sup>43</sup> *Proposed Methodology to Determine MCO Capitation Rates for the New Primary Adult Care Program Based on an Effective Date of July 1, 2006*, Updated December 6, 2005.

## Data Warehouse and Web-Accessible Databases

The research and analysis performed by the Center would not be possible without the rich data sources warehoused by the Center. The Center also has considerable expertise in website design and information architecture; web-accessible reporting, query, and tracking systems; and web-based surveys.

In FY 2006, the Center developed and finalized a *Risk Assessment and Management Plan for Data and Information Technology Systems*<sup>44</sup> as part of ongoing efforts to identify, assess, and mitigate risks within the Center's information technology systems. This plan addresses the Health Insurance Portability and Accountability Act (HIPAA) and outlines the Center's role as a business associate of the Department in ensuring compliance with HIPAA, its regulations (45CFR Parts 160 and 64), and the Maryland Confidentiality of Medical Records Act (MCMRA).

The Center's data warehouse functions are described below, along with the Decision Support System and waiver tracking systems developed by the Center.

### Databases Warehoused by the Center

- **Maryland Medicaid Data:** The Center maintains Maryland Medicaid data from as far back as 1991. The Center receives data electronically from the Department on a monthly basis. Included in the data transmissions are fee-for-service claims (medical, institutional, and pharmacy) and MMIS-eligibility and encounter data. The Center receives and updates provider data quarterly. The Center processes 5 million Medicaid records each month, creating yearly databases in excess of 50 million records. The fee-for-service database is the largest, with over 500 variables and more than 30 million records processed annually.
- **Health Services Cost Review Commission (HSCRC) Data:** The Center currently maintains hospital inpatient and outpatient HSCRC data from 1996 through 2005. These data are used for HealthChoice analyses; case counts and cost studies; analyses by diagnostic related group (DRG); and studies on nursing home discharges, emergency room admissions, and hospital admissions.
- **Minimum Data Set (MDS):** MDS assessments are federally mandated and completed for all residents of certified nursing homes, regardless of payment source. The Center maintains MDS data from nursing homes in Maryland for all residents, regardless of payer. The MDS assessments contain resident identification, demographic data, information on the patient's physical and mental state, and ADLs. The Center updates MDS data on a quarterly basis.
- **Linked MDS, Medicare, and Medicaid Data:** Work is now underway at the Center to link MDS data to Medicare and Medicaid claims files to support Medicaid program research, especially related to the development of managed long-term care for dual eligibles.

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<sup>44</sup> *Risk Assessment and Management Plan for Data and Information Technology Systems*, January 10, 2006.



### **Databases Developed and Maintained for the Department**

- **EPSDT:** In FY 2006, the Center continued to maintain and add new features to this database for the Maryland Healthy Kids program. The database enables the program to determine whether providers are complying with program requirements and facilitates studies of inter-rater reliability.
- **REM:** The Center continued to maintain and troubleshoot the REM database in FY 2006, reporting enrollment, utilization, and cost data to the Department. The Center submitted a trend analysis to the Department in December 2005 and also reported FY 2005 cost data for each REM enrollee to case management organizations.
- **Sentinel Birth Defects:** In FY 2006, the Center completed development of a database on sentinel birth defects for the Department as part of an initiative of the Centers for Disease Control and Prevention.

**Decision Support System (DSS):** This system, password-protected and maintained for the exclusive use of the Department, provides easy access to data on Medicaid program eligibility, enrollment, service utilization, and payments. In FY 2006, the Center continued to make improvements to the DSS and provide technical assistance to Department staff using the system. Working with the Department, the Center identified new content areas to add to the DSS, increased functionality, improved site navigation, and upgraded the mapping capability using Instant Atlas. A new “executive reports” section, currently under development, will provide concise, up-to-date reports for Department managers. The Center also created new tutorials on the DDS and issued new user identification numbers. The Center conducts training sessions when requested by the Department and trained more than 100 staff to use the system in FY 2006. Currently, 105 Department staff members are registered to use the DSS. The Center also maintains *Maryland Medicaid eHealth Statistics* ([www.chpdm-ehealth.org](http://www.chpdm-ehealth.org)), a public website providing a subset of the data available on the DSS.

**Waiver Tracking Systems:** In FY 2006, the Center maintained and provided troubleshooting for the Older Adult Waiver application tracking system, which processes about 200 applications each month and maintains information on about 2,800 individuals receiving waiver services. This web-based application, developed by the Center, tracks the flow of waiver applications, increasing agency efficiency, reducing application processing time, and providing real-time access to information on waiver applicants. Six agencies are now using the system. The Center began development of a similar application tracking system for the Living at Home Waiver that will be used by five agencies.

**Immunization Registry:** The Center continued to prepare and import immunization data for Medicaid beneficiaries to the Maryland Immunization Registry. The Center culls data from various databases, including eligibility, claims, and provider files, to compile data on each Medicaid beneficiary who had an immunization procedure during the period reported. Since FY 2000, the Center has reported 3.1 million immunization procedures for 925,000 Medicaid beneficiaries.



**Data Requests:** In FY 2006, the Center prepared numerous ad hoc data analyses and reports for the Department (Exhibit 1). The Center also responded to many external requests for Medicaid data, as directed by the Department (Exhibit 2).

**Exhibit 1**  
**Ad Hoc Data Requests and Reports for the Department, FY 2006**

- Reports on the number of Medicaid beneficiaries who received managed care and fee-for-service services.
- For the Older Adults Waiver, generated reports on enrollment, utilization, and expenditures.
- For a group of children in Montgomery County, mental health, fee-for-service, and capitation payments before and after enrollment in case management.
- Using HSCRC data, Medicaid discharges by source of admission; Medicaid fee-for-service expenditures for Medicaid beneficiaries discharged from the hospital; and outpatient ambulatory care for Medicaid beneficiaries.
- Medicaid recipients using ventilator services.
- For Older Adult Waiver enrollees, use of medical day care while in an assisted living facility.
- For the Maryland Children’s Health Program, total expenditures and fee-for-service beneficiaries and claims processed.
- Modeled utilization in the event the Medicaid medical day care benefit was reduced to a maximum of five days per week.
- Data file on primary care providers of the seven HealthChoice MCOs.
- Cancer screening reports (mammography and colonoscopy).
- For REM enrollees, report for MCOs on current fee-for-service providers who provide specialty services and reports for case management agencies on costs.

**Exhibit 2**  
**External Data Requests, FY 2006**

- **CAHPS®:** Data on adult and child Maryland Medical Assistance enrollees and primary care providers in the seven HealthChoice MCO networks for an annual study of consumer health plans.
- **Elder Health:** Quarterly pharmacy utilization data for all Elder Health Maryland HMO members who are also eligible for pharmacy coverage through the Maryland Medical Assistance program.
- **Johns Hopkins University—Adjusted Clinical Groups (ACGs):** Medicaid data for technical assistance with risk-adjusted rate setting for HealthChoice and CommunityChoice.
- **Johns Hopkins University—Asthma Interventions for Minority Children:** Fee-for-service pharmacy claims and MCO pharmacy encounters for two studies: 1) assessing two interventions for reducing emergency department or urgent care facility visits and 2) determining if an intensive home nebulizer education intervention is cost-effective, reduces morbidity, and improves symptom identification and medication adherence.
- **Johns Hopkins University—Project ALIVE:** Prescription drug utilization data for Medicaid-eligible study participants for an investigation on the relationship between injection drug use and infection with HIV.
- **Maryland Health Care Commission:** Medicaid monthly eligibility counts used by the Commission to track state managed care enrollment and to conduct an annual analysis of state health care expenditures.
- **Mercer:** Medicaid data for actuarial analysis and certification of payment rates for HealthChoice.

## Selected Publications and Reports, FY 2006

1. Abt Associates, Inc., Maryland Personal Assistance Services Final Report, March 24, 2006.
2. “Adults with Schizophrenia Served in FY 2004,” memo to Timothy Santoni, University of Maryland Schools of Medicine, from Michael Abrams, October 28, 2005.
3. Analysis of Calendar Year 2003 HFMR Data to Evaluate Differences in Cost of Medical Care among Maryland MCOs, December 2005.
4. “Asthma Study Using Medicaid Data,” Memo to Mary Mussman and John O’Brien from David Idala and Todd Eberly, March 20, 2006.
5. “Avoidable Admissions,” memo to Mary Mussman and Tricia Roddy from David Idala, February 2, 2006.
6. “Calendar Year 2007 HealthChoice Rate Setting Work Plan,” February 27, 2006.
7. “Clarification Regarding Counts on Individuals with Severe Mental Illness,” memo to Alycia Steinberg from Michael Abrams, February 8, 2006.
8. “Count of Dual Eligibles Who Are HIV-Positive,” memo to Tricia Roddy from Ann Volpel, February 3, 2006.
9. “Drug Analysis for Medicaid Enrollees Age 0-21 Years,” memo to Mary Mussman from Michael Abrams, Ann Volpel, and Nancy Svhela, February 2, 2006.
10. “EID—Changes Needed for Conversion into State Plan Program,” memo to Terri Frasier from Martha Somerville, March 9, 2006.
11. “Encounter Data-Based Runs of Select HEDIS Measures,” memo to Tricia Roddy and Alycia Steinberg from Todd Eberly, May 23, 2006.
12. *Encounter Data Validation Report CY 2004*, November 2005.
13. “ER Costs and Potential Savings Analysis,” memo to Amanda Folsom from Todd Eberly and David Idala, September 28, 2005.
14. “Financial Impact of Various MCHP Reform Proposals,” memo to Susan Tucker and Amanda Folsom from Todd Eberly, August 25, 2005.
15. *FY 2006 Capitation Payment Monitoring Report as of June 30, 2006*, report to Audrey Richardson from Chuck Milligan, July 5, 2006.

16. *HealthChoice Evaluation*, March 2006.
17. “HIV/AIDS Enrollees in HealthChoice as of June 2006,” e-mail attachment to Betty Flint from Ann Volpel, June 24, 2006.
18. “Insurance Article, §15-1009: Applicability to MCOs,” memo to Dee Miller from Martha Somerville, March 6, 2006.
19. “Management for Results Data (Asthma and Diabetes),” memo to Amanda Folsom from David Idala and Ann Volpel, September 27, 2005.
20. *MCO Application Guidance: Subcontract Review and Benefits Crosswalk*, February 27, 2006.
21. “MDS Data Element Q1a for FY 2005,” e-mail to Timothy Engelhardt from Anthony Tucker, December 9, 2005.
22. Medicaid Nursing Home Report, DHMH Long-Term Care Management Report for CY 2004.
23. Medicaid Living at Home Waiver, DHMH Long-Term Care Management Report for CY 2004.
24. Medicaid Waiver for Older Adults, DHMH Long-Term Care Management Report for CY 2004.
25. Medicaid Autism Waiver, DHMH Long-Term Care Management Report for CY 2004.
26. “Medical Care for Child Abuse in Maryland,” memo to Mary Mussman from Todd Eberly, March 29, 2006.
27. “Notes on Current Examples of Rate-Setting Systems for Medicaid Managed Long-Term Care,” e-mail attachment to Timothy Engelhardt from Anthony Tucker, July 13, 2005.
28. “Notes on Defining Cohorts for CommunityChoice Analyses,” analysis by Anthony Tucker, August 17, 2005.
29. *Options for Transitioning Enrollees from Chronic Hospitals to Nursing Facilities*, forthcoming.
30. *Payment Strategies and Decreasing Medical Errors in Maryland*, forthcoming.
31. “Performance-Based Incentive Regulation—Maryland HealthChoice Program,” memo to Kristan Younger and Susan Abramson from Martha Somerville, March 1, 2006.

32. “Pharmaceutical Use Among Foster Care Children in FY 2004—FFS Data,” memo to Alycia Steinberg from Michael Abrams, December 22, 2005.
33. “Plan for Future Physicians’ Fee Increases,” e-mail attachment to Audrey Richardson from Hamid Fakhraei, May 2, 2006.
34. “Potentially Avoidable Hospitalizations,” memo to Amanda Folsom and Mary Mussman from David Idala, October 12, 2005.
35. *Proposed Development of an Electronic Information and Referral System to Increase Access to Free or Low-Cost Health Care for Uninsured Maryland Citizens*, August 23, 2005.
36. *Proposed Methodology to Determine MCO Capitation Rates for the New Primary Adult Care Program Based on an Effective Date of July 1, 2006*, Updated December 6, 2005.
37. “Quantification of Mental Health and Substance Abuse Service Utilization Under Maryland’s Medicaid System,” memo to Amanda Folsom and Tricia Roddy from Michael Abrams, October 21, 2005.
38. *Report on the Impact of Using Academic Health Centers on the HealthChoice Program: Report Completed Pursuant to House Bill 147*, DRAFT, August 15, 2005.
39. *Report on the Maryland Medical Assistance Program and Maryland Children’s Health Program—Reimbursement Rates Fairness Act*, September 2005.
40. *Risk Assessment and Management Plan for Data and Information Technology Systems*, January 10, 2006.
41. “Select State Managed Long-Term Care Plans,” e-mail attachment to DHMH from Wayne Smith, December 22, 2005.
42. “SSI Value-Based Purchasing Preliminary Run,” memo to Tricia Roddy and Alycia Steinberg from Todd Eberly.
43. *The Maryland Current Population Survey Medicaid Undercount Study*, July 25, 2005.
44. *The Maryland Personal Care Provider Survey*, December 2005.