

**Maryland Department of Health and Mental Hygiene  
FY 2005 Memorandum of Understanding**

**Annual Report  
of  
Activities and Accomplishments**

August 30, 2005



CENTER FOR HEALTH PROGRAM  
DEVELOPMENT AND MANAGEMENT

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## Executive Summary

In October 2004, the Center for Health Program Development and Management (Center) at the University of Maryland, Baltimore County (UMBC) celebrated its tenth anniversary. The partnership between the Center and the Maryland Department of Health and Mental Hygiene (Department) has been mutually beneficial, strengthening and enhancing the Department's research and analytical capabilities while building a highly regarded health policy research capacity within the University of Maryland system.

The Center's interdisciplinary team of just over 50 professionals includes clinicians, economists, attorneys, statisticians, social scientists, and computer programmers. While Medicaid remains the Center's central focus, we have 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.

During FY 2005 and within the framework of our Memorandum of Understanding (MOU) with the Department, the Center performed a wide range of services. Selected activities are grouped below and then discussed in greater depth in subsequent sections of this annual report.

**Medicaid Program Development and Policy Analysis:** The Center completed a three-year study of strategies to assess health plan performance on chronic disease management funded by the Robert Wood Johnson Foundation's Center for Health Care Strategies, Inc. (CHCS). The Center prepared costs analyses for proposals to increase Medicaid fees for specialist physicians and analyzed the effects of rate increases on physician participation in Medicaid. Trauma claims were evaluated monthly as required by Senate Bill 479 passed in 2003, and the Center imported immunization data on Medicaid beneficiaries to the Maryland Immunization Registry. The Center drafted regulations for a pilot Medicaid buy-in eligibility category and the Maryland Adult Primary Care waiver. During the 2005 legislative session, the Center detailed a full-time senior research analyst to the Department to provide analytical support to the Office of Planning.

**HealthChoice: Program Support, Evaluation, and Monitoring:** The Center succeeded in bringing all managed care organizations (MCOs) participating in Maryland Medicaid to HIPAA compliance. The Center continued to monitor, report, and validate MCO encounter data and provide technical assistance to MCOs in data collection and processing. The Center prepared its annual HealthChoice evaluation update and produced reports for the Department for the Value Based Purchasing initiative. Regulations were drafted for implementing the requirements of House Bill 85 concerning MCO medical loss ratios. The Center also completed a survey of Medicaid beneficiaries to explore the inconsistencies in Medicaid enrollment counts reported by the U.S. Census Bureau's Current Population Survey compared to the Department's enrollment counts and administrative data maintained by the Centers for Medicare and Medicaid Services (CMS).

**Managed Care Financing: Payment Development and Financial Monitoring:** The Center continued to develop annual capitation rates for HealthChoice and began developing rate-setting methodologies for CommunityChoice, Maryland's proposed managed long-term care program, and the Adult Primary Care waiver. Reimbursement rates for Maryland nursing homes and the Program for All-Inclusive Care for the Elderly (PACE) were also developed by the Center. The Center completed the budget neutrality analysis required for the Section 1115 waiver application for CommunityChoice submitted to CMS. The HealthChoice Financial Monitoring Report was prepared to examine MCO performance on selected measures and to better understand the cost differences among MCOs and Provider-Sponsored Organizations (PSOs). The Center began work on a nursing home effort study, which will be used to establish Medicaid reimbursement rates for nursing homes.

**Long-Term Supports and Services:** The Center renamed and refocused the former long-term care unit. The new unit on long-term supports and services has been structured to better meet the emerging needs of the Department. Work is now underway to link Minimum Data Set (MDS) data, Medicaid data (diagnoses and service use), and Medicare claims files to enable the Center to track demographic, diagnostic, and utilization patterns for individuals dually eligible for Medicare and Medicaid. The Center prepared its annual report to the Department on nursing home utilization and utilization of home- and community-based services. The Center also researched managed long-term care programs in other states and functional assessment instruments that might be used for CommunityChoice.

**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, 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 the Center trained more than 75 Department staff to use it. The Older Adult Waiver application tracking system was completed, and the Center has begun work on 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 a number of data requests from external organizations.

**Special Needs and High-Cost Populations:** The Center conducted an EPSDT inter-rater reliability study to assess the consistency of nurses' ratings of provider compliance with EPSDT requirements. The Center examined substance abuse and mental disorders among HealthChoice enrollees and analyzed mental health prescription drug use in the Maryland Medicaid population. An analysis of the impact of Medicare Part D coverage on the Maryland Pharmacy Assistance Program and the Maryland Pharmacy Discount Program was carried out, and the Center estimated the number of foster care children who had not received Medicaid services in the past three years. The Center continued to staff the Special Needs Children Advisory Council on behalf of the Department, as well as the Dimensions Oversight Committee. The Dimensions Oversight Committee completed its final report with recommendations for addressing the financial crisis at Prince George's Hospital Center and other facilities operated by the Dimensions Health Corporation.

The Center looks forward to continuing its partnership with the Department in FY 2006. In addition to the many accomplishments enumerated above, FY 2005 has been a year of capacity building for the Center. We have strengthened staff resources in long-term supports and services, policy analysis, and programming. At the same time, we have upgraded and expanded our information technology infrastructure, all to better serve the future needs of the Department. We are now well positioned to take on the many new tasks outlined in the FY 2006 MOU. 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, located at the University of Maryland, Baltimore County, 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*. 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, designing new programs that enhance access to and the quality of health services, and monitoring health outcomes.

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 Memorandum of Understanding between the Center and the Department comprises the largest portion of the Center's work and budget.

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.

In the Center's FY 2005 MOU, the Department drew on the Center's core areas of expertise by tasking us to provide services in data collection and analysis, survey design and research, economic research and policy analysis, financial modeling and rate setting, community and public health initiatives, and long-term care and aging studies.

## **FY 2005 MOU Activities and Accomplishments**

## Medicaid Program Development and Policy Analysis

During FY 2005, the Center carried out special studies and policy analyses on the Medicaid program, drafted new regulations, and responded to ad hoc data and analysis requests from the Department.

**Assessing Health Plan Performance:** The Center completed a three-year study of health plan performance funded by a grant to the Department from the Robert Wood Johnson Foundation's Center for Health Care Strategies, Inc. (CHCS).<sup>1</sup> This study aimed to develop a process to measure and monitor performance by using encounter data to evaluate the care provided to Medicaid beneficiaries with chronic diseases. The application of health-based risk adjustment provided the ability to reduce the potentially confounding effects of case-mix differences between health plans. Using disease-specific measures as well as more generic performance measures, the Center evaluated the performance of six health plans participating in Maryland's Medicaid program on their ability to provide appropriate care to enrollees with asthma, diabetes, HIV/AIDS, and schizophrenia. Key findings include:

- There is a strong direct relationship between health status (as measured by severity) and utilization rates for inpatient admissions and emergency room visits.
- Performance on process measures is generally not sensitive to health status.
- Receiving ambulatory care services is associated with a decrease in the likelihood of an inpatient admission.

This project will contribute to Maryland's larger goal of designing a systematic approach to stratifying its entire Medicaid managed care program by diagnosis and cost and establishing a set of appropriate performance measures.

**Analysis of Payments for Physician Services:** The Center prepared cost analyses for proposals to increase Medicaid fees for procedures performed by specialist physicians. *The Maryland Patients' Access to Quality Health Care Act of 2004—Implementation and Corrective Provisions* (Senate Bill 836) allocated \$15 million in state funds (\$30 million total with federal match) for increasing fees for CPT procedure codes used by orthopedic, obstetric/gynecology, neurosurgery, and emergency medicine physicians. The Center assisted the Department in developing a plan for distributing these additional funds among the procedures performed by these specialist physicians and determining new reimbursement rates. The Center also assisted the Department in developing a plan for Medicaid reimbursement rate increases for submission to various House and Senate Committees as required by Senate Bill 836.

A journal article written by Center staff on Maryland Medicaid payments to physicians was accepted for publication in the *International Journal of Healthcare Technology and*

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<sup>1</sup> Ann Volpel and John O'Brien, *Strategies for Assessing Health Plan Performance on Chronic Diseases: Selecting Performance Indicators and Applying Health-Based Risk Adjustment*, Center for Health Care Strategies, March 2005.



*Management.*<sup>2</sup> The article compares reimbursement rates in Maryland with other states and examines the impact of rate increases on physician participation in the Medicaid program.

**Management for Results (MFR):** The Center recommended that the Department use “avoidable admissions” as an MFR measure based on an analysis of HealthChoice encounter data for inpatient admissions for asthma and diabetes during CY 2002 and CY 2003.<sup>3</sup> “Avoidable admissions” are defined as hospital admissions that are preventable if proper ambulatory care is provided in a timely and effective manner.

**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 2005, the Center evaluated the trauma claims paid by Medicaid using a complex algorithm to determine the reimbursement amount that is due to Medicaid from the Fund. Monthly reports were submitted to the Maryland Health Care Commission (MHCC), which administers the Fund along with Health Services Cost Review Commission (HSCRC).

**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 being reported. Since FY 2000, the Center has reported 2.1 million separate immunization procedures for about 620,000 Medicaid beneficiaries.

**Regulations for New Medicaid Programs:** In FY 2005, the Center began developing regulations for a pilot Medicaid buy-in eligibility category, which would enable employed persons with disabilities whose earned income does not exceed 300 percent of the federal poverty level to receive Medical Assistance coverage with payment of a premium. The Center also developed initial drafts of regulations to implement the Maryland Adult Primary Care waiver program.

**On-Site Analytical Support:** During the 2005 legislative session, Todd Eberly, a senior research analyst at the Center, was detailed to the Department to provide full-time analytical support to the Office of Planning. Mr. Eberly reviewed pending legislative proposals to determine the potential impact on Medicaid, prepared fiscal impact statements on proposed legislation, and drafted amendments to bills. This one-time arrangement was implemented to assist the Department during the maternity leave of the head of the Office of Planning.

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<sup>2</sup> Hamid Fakhraei, “Payments for Physician Services: An Analysis of Maryland Medicaid Reimbursement Rates,” *International Journal of Healthcare Technology and Management*, 7(1/2), 2006 (in press).

<sup>3</sup> “Management for Results Data,” Memorandum to Amanda Folsom from Ann Volpel and David Idala, November 4, 2004.

## HealthChoice: Program Support, Evaluation, and Monitoring

During FY 2005, the Center succeeded in bringing all MCOs to HIPAA compliance. The Center continued to monitor, report, and validate MCO encounter data and provide technical assistance to MCOs in encounter data collection and processing.

**HIPAA Compliance:** As of June 2005, encounter data transactions of all six Maryland MCOs are now fully electronic and HIPAA compliant. The Center facilitated this transition on behalf of the Department between October 2004 and June 2005. Professional encounter data is now submitted in the national format required by HIPAA, allowing up to eight diagnoses per claim (previously a maximum of four diagnoses). Institutional encounter data, also submitted in the new national format, is allowed up to 12 diagnoses per claim (previously a maximum of four diagnoses). The Center developed a “crosswalk of codes”—matching old codes to new codes—to facilitate the transition for waiver services and to facilitate research across the different coding periods to compare services and quality over time.

**Encounter Data Reporting and Validation:** Maryland is nationally recognized for the completeness and quality of its encounter data. The Center’s ongoing process for continuously monitoring and validating encounter data is described in a November 2004 report.<sup>4</sup> Through regular monthly, quarterly, and annual reports to the Department and the MCOs, the Center verifies the completeness, correctness, and reliability of encounter data, which provides the basis for setting HealthChoice rates. Monthly reports include 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 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.

As part of its work to monitor and validate encounter data, in FY 2005 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.

**HealthChoice Evaluation Update:** To enable the Department to continuously monitor HealthChoice’s impact on access to care, the Center prepared the annual HealthChoice evaluation update.<sup>5</sup> The report highlights trends in enrollment, ambulatory visits, well-child visits, dental services, lead screening, emergency department visits, services for the foster care population, and avoidable hospital admissions for asthma and diabetes.

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<sup>4</sup> *Encounter Data Validation Report CY 2003*, November 10, 2004.

<sup>5</sup> *HealthChoice Evaluation Update*, February 2005.

**Value-Based Purchasing:** In July 2004, the Center produced reports for the Department on the number of SSI enrollees who received an ambulatory visit by MCO. This data, compiled annually, is one of a number of measures used by the Department to assess MCOs and the HealthChoice program.

**The Maryland Current Population Survey (CPS) Undercount Study:** General population surveys, such as the CPS conducted by the U.S. Census Bureau, are the most common approach to estimating the number of uninsured. These surveys, however, appear to undercount the number of individuals enrolled in Medicaid. The 2003 CPS reported that there were only 441,000 Medicaid enrollees in Maryland, a potential undercount of 38 percent. The Department contracted with the Center to conduct a telephone survey of Medicaid enrollees to explore the inconsistencies in CPS data and Medicaid enrollment. The Center concluded that including “Medical Assistance” as an option for Medicaid coverage in the CPS survey of Marylanders would reduce the undercount to 21-25 percent, consistent with the discrepancy reported nationally between the CPS count and administrative data from the Centers for Medicare and Medicaid Services.<sup>6</sup>

**Regulatory Changes:** The Center drafted regulations for implementing the requirements of House Bill 85 concerning MCO medical loss ratios. The Center also drafted regulatory changes to incorporate an MCO-specific case mix adjustment for HIV/AIDS and Hepatitis C and to allow supplemental payments for MCOs with significant rural enrollment.

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<sup>6</sup> *The Maryland Current Population Survey Undercount Study*, June 2005 (PowerPoint).

## **Managed Care Financing: Payment Development and Financial Monitoring**

In FY 2005, the Center continued to develop capitation rates for HealthChoice and began developing a rate-setting methodology for CommunityChoice, Maryland's proposed managed long-term care program, and the Maryland Adult Primary Care waiver.

**HealthChoice:** Since 1997, the Center has worked with the Department to make risk-adjusted capitation payments for the HealthChoice program. This is the methodology by which over \$1.9 billion is paid annually to participating MCOs to provide insurance for more than 485,000 beneficiaries. The Center integrated the Johns Hopkins University Adjusted Clinical Group (ACG) Case Mix System with the Department's information systems to design risk-adjusted payment methodologies. The Center has refined these methodologies to accommodate program and policy changes. The Center contracts with Johns Hopkins for ongoing support.

In FY 2005, the Center continued to manage the process for setting annual HealthChoice capitation rates, working closely with the Department and participating MCOs.<sup>7</sup> As required to obtain federal financial participation in the managed care program, the Center secured actuarial certification from Mercer, with whom the Center contracts for this purpose.

**CommunityChoice:** The Center conducted the budget neutrality analysis required for the Section 1115 waiver for CommunityChoice, Maryland's proposed managed long-term care program. This analysis seeks to demonstrate that the costs for the population participating in the waiver program will not exceed "status quo" fee-for-service costs for this same population during the five-year waiver period. Following the model used for HealthChoice rate setting, the Center designed a process for developing CommunityChoice capitation rates during Calendar Year 2006.<sup>8</sup> To assist the Department in developing financial standards for CommunityChoice community care organizations (CCOs), the Center summarized Maryland financial standards applicable to HMOs, MCOs, and Medicare Advantage PSOs.

**MCO Financial Monitoring and Reporting:** 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>9</sup> The report also compares the performance of 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>10</sup>

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<sup>7</sup> *Calendar Year 2006 HealthChoice Rate Setting Work Plan*, February 23, 2005.

<sup>8</sup> *Calendar Year 2007 CommunityChoice Rate Setting Work Plan*, May 4, 2005.

<sup>9</sup> *Analysis of Calendar Year 2002 HFMR Data to Evaluate Differences in Cost of Medical Care among Maryland MCOs*, December 2004 (PowerPoint).

<sup>10</sup> *FY 2005 Capitation Payment Monitoring*. June 23, 2005, report to Audrey Richardson.

**Adult Primary Care Waiver:** Under this new waiver program, individuals eligible for the Maryland Pharmacy Assistance Program (MPAP) will be eligible to receive expanded primary care services. During FY 2005, the Center developed preliminary reimbursement rates for this program.

**Nursing Home Effort Study:** In FY 2005, the Center began a work measurement study of the time required to perform nursing services in nursing homes enrolled in the Maryland Medicaid program. The Center is measuring the amount of nursing time required by the six nursing personnel categories to provide nursing services to nursing home patients. This information will be used to establish Medicaid reimbursement rates. The Department is mandated by COMAR 10.09.10.11G(7)(a) to update time measurements for calculation of the FY 2006 reimbursement rates. The study will be completed in FY 2006.

**Nursing Home and PACE Rate Setting:** In FY 2005, the Center continued to develop Medicaid reimbursement rates for Maryland nursing homes and PACE.

## Long-Term Supports and Services

During FY 2005, the Center renamed and refocused the former long-term care unit. The new unit on long-term supports and services has been structured to better meet the emerging needs of the Department. Through this action, the Center has better positioned itself to take on responsibility for work related to the development and implementation of CommunityChoice and other initiatives addressing the needs of individuals dually eligible for Medicare and Medicaid. Activities in this area during FY 2005 are discussed below.

**Dual Eligibles:** Maryland has an estimated 70,000 dual eligibles. Very little is known about the demographics, health status, living arrangements, service utilization, and service needs of this population. It is particularly important to learn more about this population as the state embarks on launching CommunityChoice. The Center has linked Medicaid data (diagnoses and service use) to MDS data to begin to develop a picture of Medicaid nursing facility quality and other measures. Work is now underway to link these data to Medicare claims files for dual eligibles. These merged files will provide a vast resource for program and policy research, enabling the Center to track demographic, diagnostic, and utilization patterns for dual eligibles and nursing facility residents.

**Long-Term Care Management Report:** The Center prepared an annual report for the Department examining nursing home utilization and utilization of home- and community-based services under the Older Adult, Living at Home, and Autism waivers.<sup>11</sup> Particularly striking was the finding that while nursing home residents and days flattened in CY 2003 for nursing home residents over age 65, there was a significant increase in both the number of residents and the number of days for nursing home residents under age 65. These findings have important policy implications for CommunityChoice.

**CommunityChoice Development:** The Center researched and prepared a matrix of validated functional assessment instruments that could be used in setting capitation rates for CommunityChoice.<sup>12</sup> The Center also tracked the development of managed long-term care programs in other states, examining federal waiver authority, covered populations, enrollment, services provided, connection with Medicare, and rate-setting methodology.<sup>13</sup>

**Systems Transformation Grant Application:** The Center served as the Department's liaison in the development of this grant application to develop an electronic information, referral, and application portal for Marylanders of all ages and disabilities. The application was submitted by the Maryland Department of Aging in June 2005. The Center ensured that the eligibility system

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<sup>11</sup> *DHMH Long-Term Care Management Report: Utilization of Maryland Medicaid Nursing Home and Selected Home- and Community-Based Services in CY 2003*, vol. 2, January 2005.

<sup>12</sup> *Community-Based Care Assessment for Rate Setting*, May 2005.

<sup>13</sup> *Managed Long-Term Care Programs*, May 12, 2005.

proposed in the application was consistent with the goals of the Aging and Disability Resource Centers (ADRC) network.

## Data Warehouse and Web-Accessible Databases

The data warehoused by the Center provide the basis for much of the Center's research and analysis. The Center also has considerable expertise in website design and information architecture; web-accessible reporting, query, and tracking systems; and web-based surveys.

During FY 2005, the Center increased server capacity and strengthened the security of its data management systems in order to better serve the needs of the Department. This will enhance the Center's capabilities for data warehousing and web-based applications such as waiver tracking systems, on-line surveys, and the linked Medicare/Medicaid database now under development.

The Center's data warehouse functions are described below, along with the DSS 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. On a monthly basis, the Center receives—electronically from the Department—fee-for-service claims (medical, institutional, and pharmacy) and MMIS-eligibility and encounter data. Provider data is received and updated 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 2004. These data have been used for HealthChoice analyses, asthma and diabetes case counts and cost studies, neonatal 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 source of payment. 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 activities of daily living. The Center updates MDS data on a quarterly basis. The data were last updated in April 2005, with almost 47,000 observations and 649 variables.
- **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 individuals dually eligible for Medicare and Medicaid.



### Databases Developed and Maintained for the Department

- **EPSDT:** In FY 2005, 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 if providers are complying with program requirements and facilitates studies of inter-rater reliability.
- **REM:** The Center continued to maintain the REM database in FY 2005, reporting enrollment, utilization, and cost data to the Department. The Center also reported FY 2004 cost data for each REM enrollee to case management organizations.
- **Sentinel Birth Defects:** At the request of the Department, the Center began developmental work on a database on sentinel birth defects 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 accessibility to data on Medicaid program eligibility, enrollment, service utilization, and payments. The Center made a number of improvements to the DSS in FY 2005. Site navigation has been improved, resulting in easier data access. Static reports have been replaced with an ad hoc reporting system, with enhanced reporting capabilities for long-term care, MCO capitation, pharmacy, and physician data. A new waiver reporting system application has been added. The mapping capability has been enhanced and expanded. MCO capitation and Medicaid eligibility data are now being updated monthly. The Center created DSS training videos for use by Department staff and trained more than 75 Department staff in June 2005. Ninety-four Department staff members are currently registered to use DSS. The Center also developed and 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 DSS.

**Waiver Tracking Systems:** In FY 2005, the Center completed development of the Older Adult Waiver application tracking system. At any one time, about 2,800 people are receiving waiver services, and about 200 applications are processed each month. This web-based application 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 presented the tracking system at two national meetings during FY 2005: New Freedom Initiatives Conference: Building Sustainable Systems for Independence (March 1, 2005) and the 21<sup>st</sup> National Home- and Community-Based Services Waiver Conference (May 16, 2005). The Center is now developing a similar application tracking system for the Living at Home waiver that will be used by five agencies.

**Data Requests:** In FY 2005, 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 DHMH, FY 2005

- Beneficiaries transitioning from nursing homes to the Older Adults Waiver
- Cancer screening reports (mammography and colonoscopy)
- Discharges to nursing facilities and total discharges, by hospital, using HSCRC data
- Fee-for-service inpatient payments for medically needy adults
- For REM enrollees, report for MCOs on current fee-for-service providers who provide specialty services
- For REM enrollees, reports for case management agencies on costs
- Home health costs for recipients of nursing home services
- Hospital discharge reports
- MDS analysis of beneficiaries expressing a preference to leave the nursing home and others capable of transitioning to the community
- Nursing home acute care report
- Older Adults Waiver participants with prior nursing home stays
- Population cohorts for CommunityChoice
- Recipients continuously enrolled in HealthChoice for three years but used no services
- REM providers
- Trauma encounters

### Exhibit 2

#### External Data Requests, FY 2005

- **CAHPS®:** Data on adult and child Maryland Medical Assistance enrollees and primary care providers in the six 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.

## Special Needs and High-Cost Populations

At the request of the Department, the Center conducted a number of studies related to special needs and high-cost populations during FY 2005.

**EPSDT Inter-Rater Reliability:** The EPSDT program provides age-specific standards for preventive and primary care services for Medicaid-eligible children. To monitor compliance with program requirements, the state of Maryland commissions a team of nurses to conduct annual record reviews of a sample of certified providers. The Center carried out an inter-rater reliability evaluation to assess the consistency of nurses' ratings.<sup>14</sup>

**Substance Abuse and Mental Disorders:** The Center examined substance abuse and mental disorders among HealthChoice enrollees and found that the prevalence of mental illness with substance abuse disorders is quite high.<sup>15</sup> Furthermore, average annual health care costs for individuals with dual diagnoses are 51 percent higher than the costs for enrollees with a single diagnosis of substance abuse and 76 percent higher than the costs for enrollees with mental illness alone. These findings provide financial incentives for HealthChoice MCOs to design care management programs for this high-cost population.

**Mental Health Prescription Drug Utilization:** At the request of the Department, the Center conducted an analysis of mental health prescription drug use in Maryland in FY 2003 by eligibility group and age.<sup>16</sup> This analysis was required for the Substance Abuse and Mental Health Services Administration (SAMHSA) State Mental Health System Transformation Grant application prepared by Maryland's Mental Hygiene Administration. The Center's analysis found that about 139,000 enrollees in Maryland Medicaid and MPAP received psychotropic medications totaling \$139.7 million.

**Medicare Part D Prescription Drug Benefit:** The Center examined the impact of the Medicare Part D prescription drug benefit on enrollees in the MPAP and the Maryland Pharmacy Discount Program (MPDP).<sup>17</sup> The analysis suggested that an enrollee's expenditures are expected to decrease under Medicare Part D for MPAP; for MPDP, the cost to enrollees may increase or decrease, depending on income (which determines deductibles and co-payments) and the user's level of drug expenditures.

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<sup>14</sup> *EPSDT Inter-Rater Reliability Analysis 2004-05*, April 2005.

<sup>15</sup> *Substance Abuse and Mental Disorders among Maryland Medicaid Enrollees*, June 2005.

<sup>16</sup> *Mental Health Prescriptions in Medicaid and MPAP for FY 2003*, Memorandum to Amanda Folsom from Michael Abrams, May 25, 2005.

<sup>17</sup> *Pharmacy Data Request*, Memorandum to Tricia Roddy from Ann Volpel, February 4, 2005.

**Foster Care:** The Department wanted to know how many foster care children had gone three years without receiving any Medicaid services. The Center generated a database of all foster care children, removed those children in state-subsidized adoption who would be receiving care through their new guardians, and then generated a file of 635 children (6 percent) who had not used Medicaid services in the past three years.

**Special Needs Children Advisory Council:** This committee, charged with advising the Department on the administration and delivery of care for special needs children through HealthChoice, is staffed by the Center. The Center also conducts special studies for the Committee, such as the analysis of prescription drug usage by Medicaid enrollees aged 0-21 prepared in FY 2005.<sup>18</sup>

**Prince George's County Hospital/Dimensions Oversight Committee:** The Dimensions Oversight Committee was charged with recommending actions to address both the immediate financial crisis and the need for long-term systemic changes to Prince George's Hospital Center, Laurel Regional Hospital, and other affiliated facilities within Prince George's County, Maryland, operated by the Dimensions Health Corporation. On January 21, 2005, the Committee released its final report and recommendations.<sup>19</sup> At the request of the Department, the Center staffed the Dimensions Oversight Committee and managed this initiative. This included drafting a request for proposals and reviewing applications for a hospital "turn-around" financial consulting firm to be employed by the Dimensions Health Corporation; monitoring the work of the financial consulting firm; drafting the Committee's interim report; working with the Committee leadership to develop recommendations for state and county action needed to maintain a viable health system for Prince George's County; and drafting the Committee's final report.

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<sup>18</sup> *Drug Analysis for Medicaid Enrollees Age 0-21 Years*, Memorandum to Mary Mussman from Michael Abrams, Ann Volpel, and Nancy Svehla, June 8, 2005.

<sup>19</sup> *Dimensions Oversight Committee Final Report*, Morton I. Rapoport, M.D., Chairman, January 21, 2005.

## Selected Publications and Reports, FY 2005

1. *Analysis of Calendar Year 2002 HFMR Data to Evaluate Differences in Cost of Medical Care among Maryland MCOs*, December 2004 (PowerPoint).
2. Ann Volpel and John O'Brien, *Strategies for Assessing Health Plan Performance on Chronic Diseases: Selecting Performance Indicators and Applying Health-Based Risk Adjustment*, Center for Health Care Strategies, March 2005.
3. *Calendar Year 2007 CommunityChoice Rate Setting Work Plan*, May 4, 2005.
4. *Calendar Year 2006 HealthChoice Rate Setting Work Plan*, February 23, 2005.
5. *Community-Based Care Assessment for Rate Setting*, May 2005.
6. *DHMH Long-Term Care Management Report: Utilization of Maryland Medicaid Nursing Home and Selected Home- and Community-Based Services in CY 2003*, vol. 2, January 2005.
7. *Dimensions Oversight Committee Final Report*, Morton I. Rapoport, M.D., Chairman, January 21, 2005.
8. *Drug Analysis for Medicaid Enrollees Age 0-21 Years*, Memorandum to Mary Mussman from Michael Abrams, Ann Volpel, and Nancy Svehla, June 8, 2005.
9. *EPSDT Inter-Rater Reliability Analysis 2004-05*, April 2005.
10. Hamid Fakhraei, "Payments for Physician Services: An Analysis of Maryland Medicaid Reimbursement Rates," *International Journal of Healthcare Technology and Management*, 7(1/2), 2006 (in press).
11. *Encounter Data Validation Report CY 2003*, November 10, 2004.
12. *FY 2005 Capitation Payment Monitoring*. June 23, 2005 report to Audrey Richardson.
13. *HealthChoice Evaluation Update*, February 2005.
14. *Managed Long-Term Care Programs*, May 12, 2005.
15. "Management for Results Data," Memorandum to Amanda Folsom from Ann Volpel and David Idala, November 4, 2004.
16. *Mental Health Prescriptions in Medicaid and MPAP for FY 2003*, Memorandum to Amanda Folsom from Michael Abrams, May 25, 2005.

17. *Pharmacy Data Request*, Memorandum to Tricia Roddy from Ann Volpel, February 4, 2005.
18. *Substance Abuse and Mental Disorders among Maryland Medicaid Enrollees*, June 2005.
19. *The Maryland Current Population Survey Undercount Study*, June 2005 (PowerPoint).