

**M001**  
**Chronic Disease Services**  
 Department of Health and Mental Hygiene

***Operating Budget Data***

(\$ in Thousands)

	<b>FY 06</b>	<b>FY 07</b>	<b>FY 08</b>	<b>FY 07-08</b>	<b>% Change</b>
	<b><u>Actual</u></b>	<b><u>Working</u></b>	<b><u>Allowance</u></b>	<b><u>Change</u></b>	<b><u>Prior Year</u></b>
General Fund	\$36,853	\$38,977	\$38,987	\$10	
Special Fund	4,400	5,468	4,806	-662	-12.1%
Reimbursable Fund	590	474	451	-23	-4.9%
<b>Total Funds</b>	<b>\$41,843</b>	<b>\$44,919</b>	<b>\$44,244</b>	<b>-\$675</b>	<b>-1.5%</b>

- The allowance is \$0.7 million less than the fiscal 2007 working appropriation, a decrease of 1.5%. The decline is largely due to a \$0.5 million decrease in pharmaceutical costs driven by a change in renal medications and a \$0.3 million decrease in personnel expense. The decrease in personnel expense is the result of a one-time savings in retiree health insurance costs.
- Adjusting for the one-time savings, the proposed budget exceeds the adjusted fiscal 2007 working appropriation by approximately \$0.8 million, or 1.9%.

***Personnel Data***

	<b>FY 06</b>	<b>FY 07</b>	<b>FY 08</b>	<b>FY 07-08</b>
	<b><u>Actual</u></b>	<b><u>Working</u></b>	<b><u>Allowance</u></b>	<b><u>Change</u></b>
Regular Positions	569.80	568.30	568.30	0.00
Contractual FTEs	18.45	21.57	19.23	-2.34
<b>Total Personnel</b>	<b>588.25</b>	<b>589.87</b>	<b>587.53</b>	<b>-2.34</b>

***Vacancy Data: Regular Positions***

Turnover, Excluding New Positions	26.99	4.75%
Positions Vacant as of 12/31/06	51.00	8.97%

- In fiscal 2007, 1.5 food service positions were abolished as part of a Department of Health and Mental Hygiene initiative to reduce costs in this area.

Note: Numbers may not sum to total due to rounding.

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- The projected fiscal 2008 turnover rate of 4.75% is 4.22 percentage points lower than the current vacancy rate of 8.97%. To achieve this turnover rate in fiscal 2008, it will be necessary to maintain 27 vacancies. Currently the department has 51 vacancies, of which 2 have been vacant for longer than 12 months.

## ***Analysis in Brief***

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### **Major Trends**

***Medication Error Rates Consistently Lower Than Internally Established Benchmarks:*** Between fiscal 2004 and 2006, the medication error rate at the hospitals has remained well below the internal historical benchmark rates of 12.8 and 6.9 errors per 1,000 patient care days (PCD) at Western Maryland Hospital Center (WMHC) and Deer’s Head Hospital Center (DHHC) respectively. Additionally, the error rates have remained relatively stable at each institution over the past three years.

***Fall Rates Remain Lower Than Internal and National Benchmarks:*** Over the past three years, the fall rate at WMHC and DHHC has remained significantly below the national benchmark range of 11.0 to 24.9 falls per 1,000 PCD.

### **Recommended Actions**

1. Concur with Governor’s allowance.

### **Updates**

***Renal Dialysis Cost Recovery’s Decrease:*** Cost recoveries at both centers are projected to continue to decrease in fiscal 2008 due to costs rising faster than third party payer reimbursements and an increase in the number of chronic hospital inpatients receiving dialysis treatments.

**M001**  
**Chronic Disease Services**  
**Department of Health and Mental Hygiene**

## ***Operating Budget Analysis***

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### **Program Description**

The State's two chronic hospital centers, Western Maryland Hospital Center (WMHC) and Deer's Head Hospital Center (DHHC), provide specialized services for those in need of complex medical management, comprehensive rehabilitation, long-term care, or dialysis. Specifically, both centers provide:

- chronic care and treatment to patients requiring rehabilitation at a level greater than that available at a nursing home;
- long-term nursing home care for patients no longer in need of hospital-level care but unable to function in traditional nursing homes; and
- inpatient and outpatient renal dialysis services.

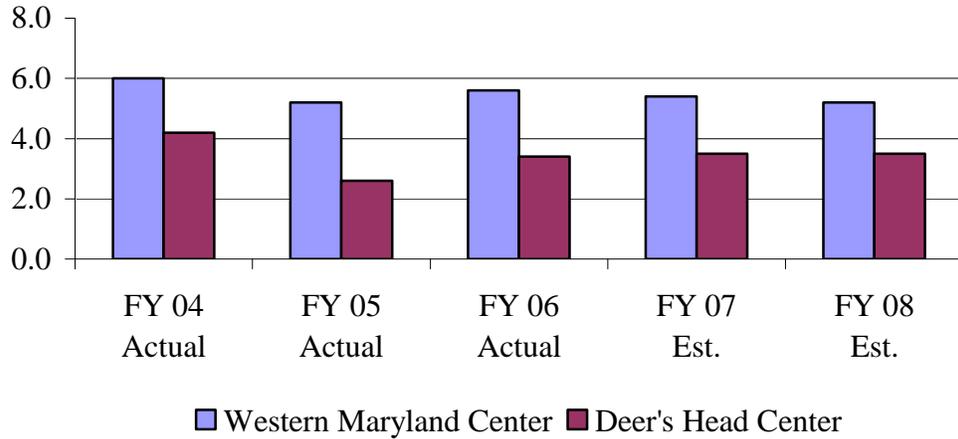
### **Performance Analysis: Managing for Results**

**Exhibit 1** shows the medication error rate per 1,000 patient care days (PCD) at WMHC and DHHC. A medication error is defined as any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in control of the health care professional, patient, or consumer. According to the Food and Drug Administration, medication error rates cause at least one death every day and injure approximately 1.3 million people annually in the United States. Between fiscal 2004 and 2006, the medication error rate at both hospitals has remained well below the internal historical benchmarks of 12.8 and 6.9 errors per 1,000 PCD at WMHC and DHHC respectively. Additionally, the error rate at both hospitals has not fluctuated significantly since fiscal 2004.

Due to different patient populations, reporting methods, definitions, and cultures, a universally accepted national standard for medication error rates does not exist. For this reason, the goal at both hospitals is to show an internal decline in the medication error rates over time. Between fiscal 2004 and 2006, both centers have successfully reduced their medication error rates.

Although the reporting methods and definition of a medication error are the same at both centers, the patient populations are very different. The higher medication error rates at WMHC are due to more chronic hospital patients and fewer nursing home patients as compared to DHHC. Chronic hospital patients are typically sicker and require more medications, which naturally leads to more opportunities for errors.

**Exhibit 1  
Medication Error Rate  
Per 1,000 Patient Care Days**



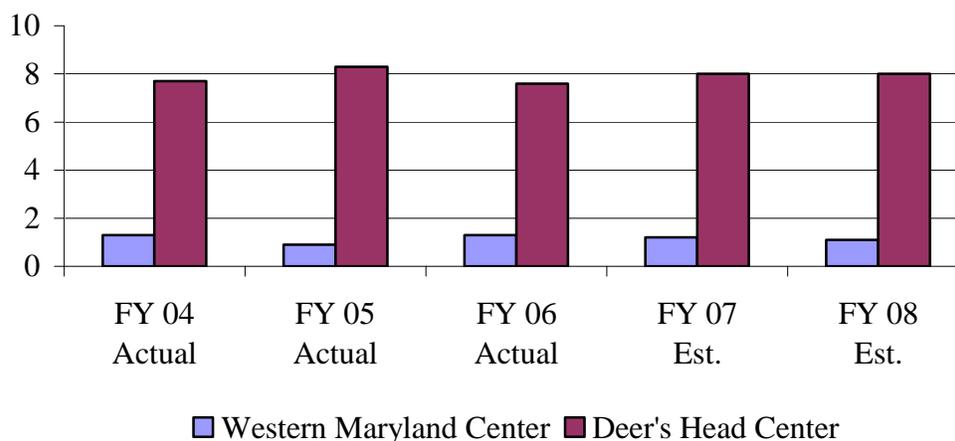
	<b>FY 04</b> <b><u>Actual</u></b>	<b>FY 05</b> <b><u>Actual</u></b>	<b>FY 06</b> <b><u>Actual</u></b>	<b>FY 07</b> <b><u>Est.</u></b>	<b>FY 08</b> <b><u>Est.</u></b>
Western Maryland Center	6.0	5.2	5.6	5.4	5.2
Deer's Head Center	4.2	2.6	3.4	3.5	3.5

Source: Department of Health and Mental Hygiene

To maintain a culture of safety, medication errors are reviewed monthly at WMHC and quarterly at DHHC to identify trends and to improve processes and procedures. Additionally, nurses are audited annually through direct observation to determine compliance with medication delivery policies.

**Exhibit 2** shows the fall rate per 1,000 PCD at WMHC and DHHC. A “fall” is defined as anytime a patient hits the floor, from any height, for any reason. Nurses assess patients for fall potential on admission and at established intervals using a fall assessment tool. The tool assists staff to determine fall potential and to initiate fall prevention interventions. Fall precautions include using bed and wheelchair alarms, adjusting bed heights, establishing a clutter free environment, and placing a falling leaf sign outside of a patient’s room as a reminder to the staff. As shown in Exhibit 2, between fiscal 2004 and 2006, the fall rate at WMHC has remained well below the internal historical rate of 4.8 falls per 1,000 PCD. At DHHC, the fall rate approximated the internal historical benchmark of 8.0 falls per 1,000 PCD in each of the last three fiscal years. The higher fall rates at DHHC are due to a difference in reporting requirements and a higher number of ambulatory patients. Although no universally accepted national benchmark exists for fall rates, a range of between 11.0 to 24.9 falls per 1,000 PCD is generally accepted. The fall rate at both hospitals remains well below this range. To reduce fall rates, patient safety is discussed at regular intervals or immediately if a patient demonstrates a change in condition.

**Exhibit 2  
Patient Fall Rate  
Per 1,000 Patient Care Days**



	<b>FY 04</b> <b><u>Actual</u></b>	<b>FY 05</b> <b><u>Actual</u></b>	<b>FY 06</b> <b><u>Actual</u></b>	<b>FY 07</b> <b><u>Est.</u></b>	<b>FY 08</b> <b><u>Est.</u></b>
Western Maryland Center	1.3	0.9	1.3	1.2	1.1
Deer's Head Center	7.7	8.3	7.6	8.0	8.0

Source: Department of Health and Mental Hygiene

**Governor's Proposed Budget**

The fiscal 2008 allowance is \$0.7 million less than the fiscal 2007 working appropriation, a decrease of 1.5%. The decrease is primarily due to lower personnel costs as a result of one-time retiree health insurance savings and reduced pharmaceutical and medical supply costs. If not for the one-time savings, the allowance would exceed the fiscal 2007 working appropriation by approximately \$0.8 million, or 1.9%. Changes to the budget are detailed in **Exhibit 3**.

**Exhibit 3**  
**Governors Proposed Budget**  
**DHMH – Chronic Disease Services**  
**(\$ in Thousands)**

<b>How Much It Grows:</b>	<b>General Fund</b>	<b>Special Fund</b>	<b>Reimb. Fund</b>	<b>Total</b>
2007 Working Appropriation	\$38,977	\$5,468	\$474	\$44,919
2008 Governor's Allowance	<u>38,987</u>	<u>4,806</u>	<u>451</u>	<u>44,244</u>
Amount Change	\$10	-\$662	-\$23	-\$675
Percent Change		-12.1%	-4.9%	-1.5%

**Where It Goes:**

**Personnel Expenses**

Increments and other compensation .....	\$577
Contribution to employee retirement system.....	433
Increase in overtime earnings .....	105
Turnover adjustments .....	31
Health insurance costs decline due to one-time savings.....	-1,075
Workers' compensation premium assessment .....	-116
Other changes including a shift in workforce to newer employees .....	-264

**Other Changes**

Medical care costs, including physician and pharmacy services .....	130
Replacement of medical equipment including centrifuges, a blood gas machine, ventilators, bariatric equipment, and dialysis equipment.....	107
Refurbished lab equipment .....	57
Installation of compressed air, oxygen, and vacuum outlets .....	45
Agency nursing and medical care, based on fiscal 2006 actual expenditures .....	45
Food expenses, based on fiscal 2006 per capita costs .....	26
Other administrative changes .....	23
Pharmaceutical and medical supply costs .....	-466
Prior year equipment purchases .....	-173
Anticipated reduction in utilities .....	-125
Transfer of donated funds to the Deer's Head Center Foundation.....	-35

**Total** **-\$675**

Note: Numbers may not sum to total due to rounding.

## **Personnel Expenses**

Although the staffing level has not changed from fiscal 2007, personnel costs are increasing by \$1.2 million (excluding retiree health insurance spending). The increase is largely attributable to a \$0.6 million increase in increments and a \$0.4 million increase in employee retirement contributions.

## **Operating Expenses**

Operating expenses, excluding personnel costs, decrease \$0.4 million in the fiscal 2008 allowance. The decrease in the budget is primarily due to lower pharmaceutical costs and a projected decline in utility expense. Significant changes are discussed below.

The cost of medical care, including physician and pharmacy services, is expected to increase \$0.1 million at the centers. The majority of the increase is related to pharmacy services, including pharmacists and drugs that are purchased through a contract. The pharmaceutical allowance is based on drug costs in April and May 2006, plus inflation, to reflect the impact of the Medicare Part D prescription drug benefit that took effect January 1, 2006.

Kidney dialysis drugs, as well as some drugs used in the hospital and nursing home, are purchased through private vendors rather than the pharmacy contract to ensure a readily available supply. Based on fiscal 2006 actual expenses and medical inflation, these costs are projected to decrease \$0.5 million in fiscal 2008. The decrease is mainly attributable to the substitution of a common drug used to treat kidney dialysis patients at Deer's Head Center with a similar but more cost effective medication. These drugs are not covered under Medicare Part D.

Equipment expenses increase \$0.1 million in fiscal 2008, due to the replacement of existing equipment and the purchase of several new pieces of equipment. Equipment purchases include diagnostic lab equipment, eliminating the need to use an outside lab for some services, and the installation of compressed air outlets at Deer's Head Center. Currently, the hospital has no compressed air outlets. These outlets increase safety by reducing the need to use free standing high pressure oxygen tanks. Other equipment purchases include the replacement of 11 personal computers, 27 televisions, a freezer, and a wheelchair washer at Deer's Head Center. These equipment costs, which total \$0.3 million, are offset by \$0.2 million in prior year equipment purchases.

Donated funds decrease \$34,932 due to the transfer of the funds to the Deer's Head Center Foundation. The transfer is the result of a July 2005 Office of Legislative Audits recommendation to consult with legal counsel on how to properly account for the funds. The Attorney General recommended transferring the money into the custody of the Deer's Head Center Foundation.

## **New General Fund Revenue Source**

DHHC has an agreement in principle with the United States Veterans Affairs Administration to provide medical services to veterans on the Eastern Shore. Currently, there are two Veterans Administration (VA) medical centers in the State, one in Baltimore and one in Perry Point. At this

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time veterans on the Eastern Shore have to travel to one of the two VA medical centers to receive medical care. This agreement allows veterans to receive medical services at DHHC. The budget assumes \$0.6 million in general fund revenue for reimbursement of services provided to the veterans. These additional services add \$0.1 million to the budget primarily in the areas of pharmaceuticals, medical supplies, and food costs.

## ***Recommended Actions***

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1. Concur with Governor's allowance.

## Updates

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### 1. Renal Dialysis Cost Recovery's Decrease

The renal dialysis units at Western Maryland Hospital Center and Deer's Head Hospital Center are supported with general funds and collections from patients and third-party payers. The percent of expenses recovered is influenced by many factors including the number of treatments provided, patient acuity, patient case mix (outpatients vs. inpatients), drug costs, and third-party reimbursement rates. **Exhibit 4** shows the fluctuations in revenues and expenditures since fiscal 2004.

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**Exhibit 4**  
**Renal Dialysis Costs and Revenues**  
**Fiscal 2004-2008**

	<u>2004 Actual</u>	<u>2005 Actual</u>	<u>2006 Actual</u>	<u>2007 Est.</u>	<u>2008 Est.</u>
<b>Western Maryland Center</b>					
Special Funds	\$575,829	\$526,117	\$407,974	\$664,743	\$514,752
General Funds	158,829	223,612	601,249	191,281	430,818
<b>Total</b>	<b>\$734,658</b>	<b>\$749,729</b>	<b>\$1,009,223<sup>1</sup></b>	<b>\$856,024</b>	<b>\$945,570</b>
Percentage Recovered	78%	70%	40%	78%	54%
<b>Deer's Head Center</b>					
Special Funds	\$4,421,656	\$3,903,334	\$3,138,000	\$3,906,622	\$3,207,453
General Funds	219,677	961,877	1,118,026	1,156,856	1,193,455
<b>Total</b>	<b>\$4,641,333</b>	<b>\$4,865,211</b>	<b>\$4,256,026</b>	<b>\$5,063,478</b>	<b>\$4,400,908<sup>2</sup></b>
Percentage Recovered	95%	80%	74%	77%	73%

<sup>(1)</sup> Fiscal 2006 cost appears higher due to the inclusion of 1.5 additional staff and 14 months of drug costs.

<sup>(2)</sup> Fiscal 2008 Deer's Head Center drug costs are projected to be lower due to the substitution of a common drug used to treat kidney dialysis patients with a similar but more cost effective medication.

Source: Department of Health and Mental Hygiene

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Losses experienced by the two facilities are primarily the result of costs rising faster than Medicare and Medicaid reimbursement rates, particularly for hospital services. Additionally, both centers are seeing an increase in the number of chronic hospital inpatients requiring dialysis. This is likely due to an aging population and a higher prevalence of obesity in our society. The dialysis units, however, cannot bill directly for treatments provided to chronic hospital inpatients due to the hospitals' federal all-inclusive rates. The hospital bills the third-party payers directly, and the reimbursement is deposited into the general fund. The portion of the reimbursement that is

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attributable to the dialysis treatment is returned to the dialysis unit as special funds. However, these rates are lower than the rates the dialysis unit bills for outpatient services. Therefore, inpatient billing is not as lucrative as billing for outpatient services.

The combination of costs rising faster than third-party payer reimbursements and an increase in the number of chronic hospital inpatients receiving dialysis treatments reduced cost recoveries at both centers in fiscal 2005. In fiscal 2006, cost recoveries at Deer's Head Center decreased due to the same factors that influenced fiscal 2005. At Western Maryland Center, cost recoveries decreased substantially in fiscal 2006 due to the addition of 1.5 full-time equivalent positions and the inclusion of 14 months of drug costs. Deficits incurred in prior years, pushed forward two additional months of drug expenses. Although cost recoveries appear to rebound in fiscal 2007, the department believes special funds may be overstated. In fiscal 2008, cost recoveries at both hospitals are projected to decrease due to the same factors that influenced fiscal 2005 and 2006.

## ***Current and Prior Year Budgets***

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### **Current and Prior Year Budgets Chronic Disease Services (\$ in Thousands)**

	<b><u>General Fund</u></b>	<b><u>Special Fund</u></b>	<b><u>Federal Fund</u></b>	<b><u>Reimb. Fund</u></b>	<b><u>Total</u></b>
<b>Fiscal 2006</b>					
Legislative Appropriation	\$35,338	\$5,138	\$0	\$577	\$41,053
Deficiency Appropriation	0	0	0	0	0
Budget Amendments	1,515	25	0	14	1,554
Cost Containment	0	0	0	0	0
Reversions and Cancellations	0	-763	0	0	-763
<b>Actual Expenditures</b>	<b>\$36,853</b>	<b>\$4,400</b>	<b>\$0</b>	<b>\$590</b>	<b>\$41,843</b>
<b>Fiscal 2007</b>					
Legislative Appropriation	\$37,922	\$5,426	\$0	\$474	\$43,822
Budget Amendments	1,055	42	0	0	1,097
<b>Working Appropriation</b>	<b>\$38,977</b>	<b>\$5,468</b>	<b>\$0</b>	<b>\$474</b>	<b>\$44,919</b>

Note: Numbers may not sum to total due to rounding.

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## **Fiscal 2006**

In fiscal 2006, the budget for Chronic Disease Services closed out at \$41.8 million, which is almost \$0.8 million more than the legislative appropriation.

The general fund appropriation increased \$1.5 million. Of that amount, \$0.7 million reflects the transfer of funds from the Department of Budget and Management (DBM) to Western Maryland Hospital Center to support health insurance costs. Funds were further increased \$0.4 million at Western Maryland Hospital Center to replace equipment and to fund increased natural gas costs; and \$0.2 million at Deer's Head Center to support building repairs and higher energy costs. Funds were again increased \$0.2 million at Western Maryland Center and \$0.1 million at Deer's Head Center to recognize the fiscal 2006 cost-of-living (COLA) adjustment. Additionally, funds were increased \$0.2 million at Deer's Head Center and decreased \$0.3 million at Western Maryland Center to reflect the realignment of health insurance funds among departmental units.

Western Maryland Hospital Center's special fund appropriation increased by \$25,144 due to higher food expense associated with preparing meals for hospital patients. Funds were cancelled because the appropriation for renal dialysis at both centers exceeded collections.

Western Maryland Hospital Center received \$13,831 in reimbursable funds from the Maryland Emergency Management Agency to cover Hurricane Katrina-related overtime expenditures.

## **Fiscal 2007**

The Chronic Disease Services working appropriation for fiscal 2007 is \$1.1 million higher than the legislative appropriation. General funds increased \$1.0 million reflecting the 2006 COLA (\$0.6 million), increased utilities rates (\$0.3 million), and the reallocation of the Annual Salary Review adjustment budgeted within DBM (\$0.1 million). The salary adjustments will mostly fund shift differentials for licensed practical nurses, direct care assistants, and registered nurses.

The special fund appropriation increased \$41,961 representing the hospitals share of the fiscal 2006 COLA originally budgeted in DBM.

## ***Audit Findings***

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### **Western Maryland Hospital Center**

Audit Period for Last Audit:	August 18, 2003 – June 4, 2006
Issue Date:	December 2006
Number of Findings:	6
Number of Repeat Findings:	2
% of Repeat Findings:	33%
Rating: (if applicable)	n/a

***Finding 1:*** Adequate internal controls were not established over materials and supplies.

***Finding 2:*** Pharmaceutical invoices were paid without adequate verification of the items received and the costs charged.

***Finding 3:*** Western Maryland Center’s fundraising activities did not comply with the Department of Health and Mental Hygiene’s policies.

***Finding 4:*** Adequate controls were not established over patient funds.

***Finding 5:*** Western Maryland Center was not performing an independent accounting of prenumbered receipt forms.

***Finding 6:*** Western Maryland Center did not always obtain competitive bids when procuring goods and services, as required by the State Procurement Regulations.

\*Bold denotes item repeated in full or part from preceding audit report.

**Object/Fund Difference Report  
DHMH – Chronic Disease Services**

<u>Object/Fund</u>	<u>FY06 Actual</u>	<u>FY07 Working Appropriation</u>	<u>FY08 Allowance</u>	<u>FY07 - FY08 Amount Change</u>	<u>Percent Change</u>
<b>Positions</b>					
01 Regular	569.80	568.30	568.30	0	0%
02 Contractual	18.45	21.57	19.23	-2.34	-10.8%
<b>Total Positions</b>	<b>588.25</b>	<b>589.87</b>	<b>587.53</b>	<b>-2.34</b>	<b>-0.4%</b>
<b>Objects</b>					
01 Salaries and Wages	\$ 29,642,773	\$ 32,277,911	\$ 31,968,648	-\$ 309,263	-1.0%
02 Technical and Spec Fees	842,453	853,827	835,746	-18,081	-2.1%
03 Communication	118,489	132,804	117,939	-14,865	-11.2%
04 Travel	24,516	22,806	23,997	1,191	5.2%
06 Fuel and Utilities	1,265,985	1,515,186	1,396,005	-119,181	-7.9%
07 Motor Vehicles	58,597	45,957	43,941	-2,016	-4.4%
08 Contractual Services	2,792,366	2,424,701	2,572,293	147,592	6.1%
09 Supplies and Materials	6,318,297	7,186,342	6,759,946	-426,396	-5.9%
10 Equipment - Replacement	499,821	146,668	173,536	26,868	18.3%
11 Equipment - Additional	144,319	153,161	210,015	56,854	37.1%
12 Grants, Subsidies, and Contributions	32,701	69,769	34,837	-34,932	-50.1%
13 Fixed Charges	102,529	89,802	106,649	16,847	18.8%
<b>Total Objects</b>	<b>\$ 41,842,846</b>	<b>\$ 44,918,934</b>	<b>\$ 44,243,552</b>	<b>-\$ 675,382</b>	<b>-1.5%</b>
<b>Funds</b>					
01 General Fund	\$ 36,852,719	\$ 38,977,246	\$ 38,986,952	\$ 9,706	0%
03 Special Fund	4,399,718	5,467,769	4,805,726	-662,043	-12.1%
09 Reimbursable Fund	590,409	473,919	450,874	-23,045	-4.9%
<b>Total Funds</b>	<b>\$ 41,842,846</b>	<b>\$ 44,918,934</b>	<b>\$ 44,243,552</b>	<b>-\$ 675,382</b>	<b>-1.5%</b>

Note: The fiscal 2007 appropriation does not include deficiencies, and the fiscal 2008 allowance does not reflect contingent reductions.

**Fiscal Summary  
DHMH – Chronic Disease Services**

<u>Program/Unit</u>	<u>FY06 Actual</u>	<u>FY07 Wrk Approp</u>	<u>FY08 Allowance</u>	<u>Change</u>	<u>FY07 - FY08 % Change</u>
01 Services and Institutional Operations	\$ 20,852,581	\$ 22,164,539	\$ 21,995,686	-\$ 168,853	-0.8%
01 Services and Institutional Operations	20,990,265	22,754,395	22,247,866	-506,529	-2.2%
<b>Total Expenditures</b>	<b>\$ 41,842,846</b>	<b>\$ 44,918,934</b>	<b>\$ 44,243,552</b>	<b>-\$ 675,382</b>	<b>-1.5%</b>
General Fund	\$ 36,852,719	\$ 38,977,246	\$ 38,986,952	\$ 9,706	0%
Special Fund	4,399,718	5,467,769	4,805,726	-662,043	-12.1%
<b>Total Appropriations</b>	<b>\$ 41,252,437</b>	<b>\$ 44,445,015</b>	<b>\$ 43,792,678</b>	<b>-\$ 652,337</b>	<b>-1.5%</b>
Reimbursable Fund	\$ 590,409	\$ 473,919	\$ 450,874	-\$ 23,045	-4.9%
<b>Total Funds</b>	<b>\$ 41,842,846</b>	<b>\$ 44,918,934</b>	<b>\$ 44,243,552</b>	<b>-\$ 675,382</b>	<b>-1.5%</b>

Note: The fiscal 2007 appropriation does not include deficiencies, and the fiscal 2008 allowance does not reflect contingent reductions.