

Multnomah County Correction Health Services Overview FY2001-06

Report #013-07

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Budget Evaluation Office

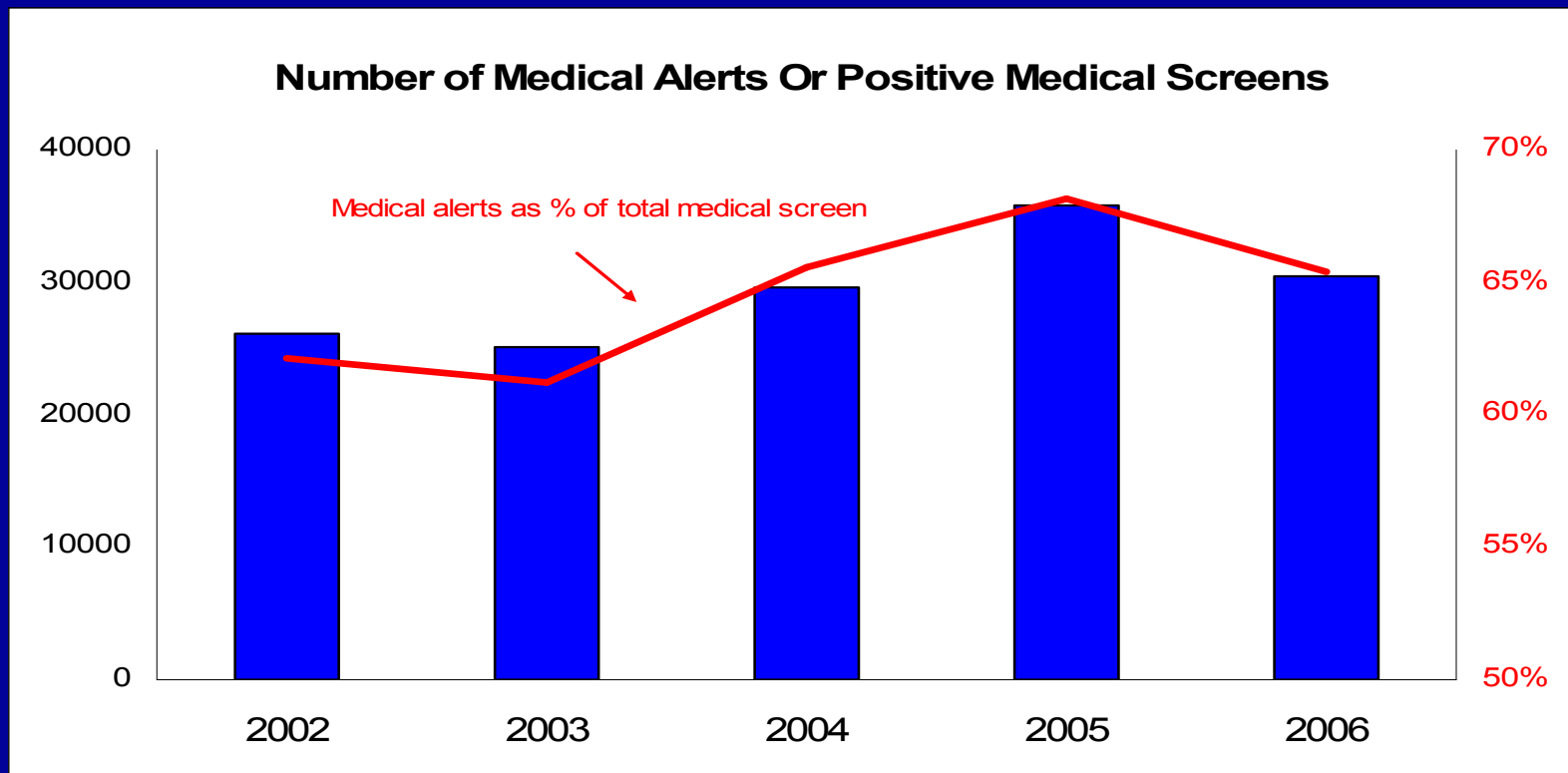
March 2007

Correction Health Services: Medical Screen, Medical Services Request, and Outside Appointments/Transports

FY2001 – FY2006

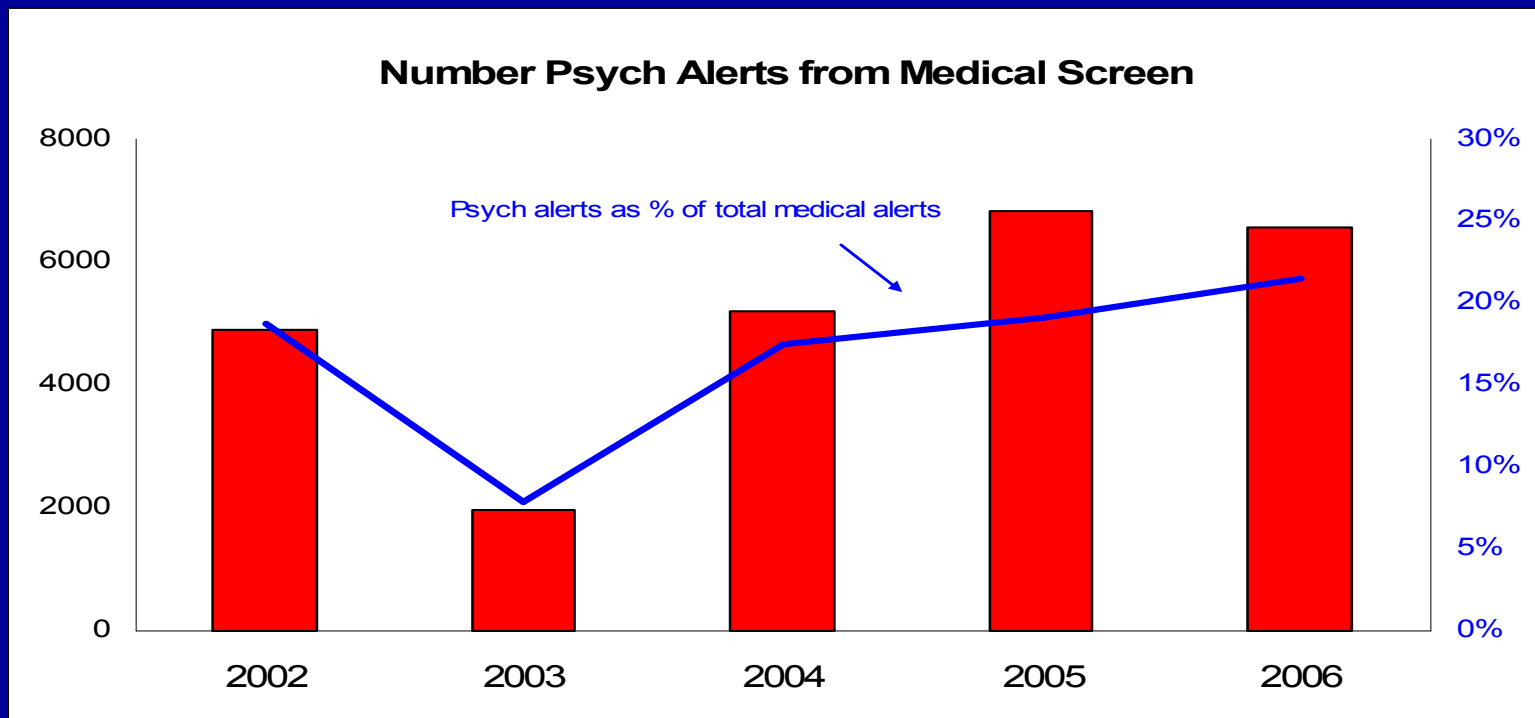
Medical Alerts From Health Screen

- Both the number of positive medical screens and medical alerts as percent of all cases screened increased from 2003 to 2005. It slightly fell back in FY2006 after FY2005's peak.
- In FY2005, a total of 35,766 medical alerts were reported. It accounts for 68% of all medical screens conducted in a year.



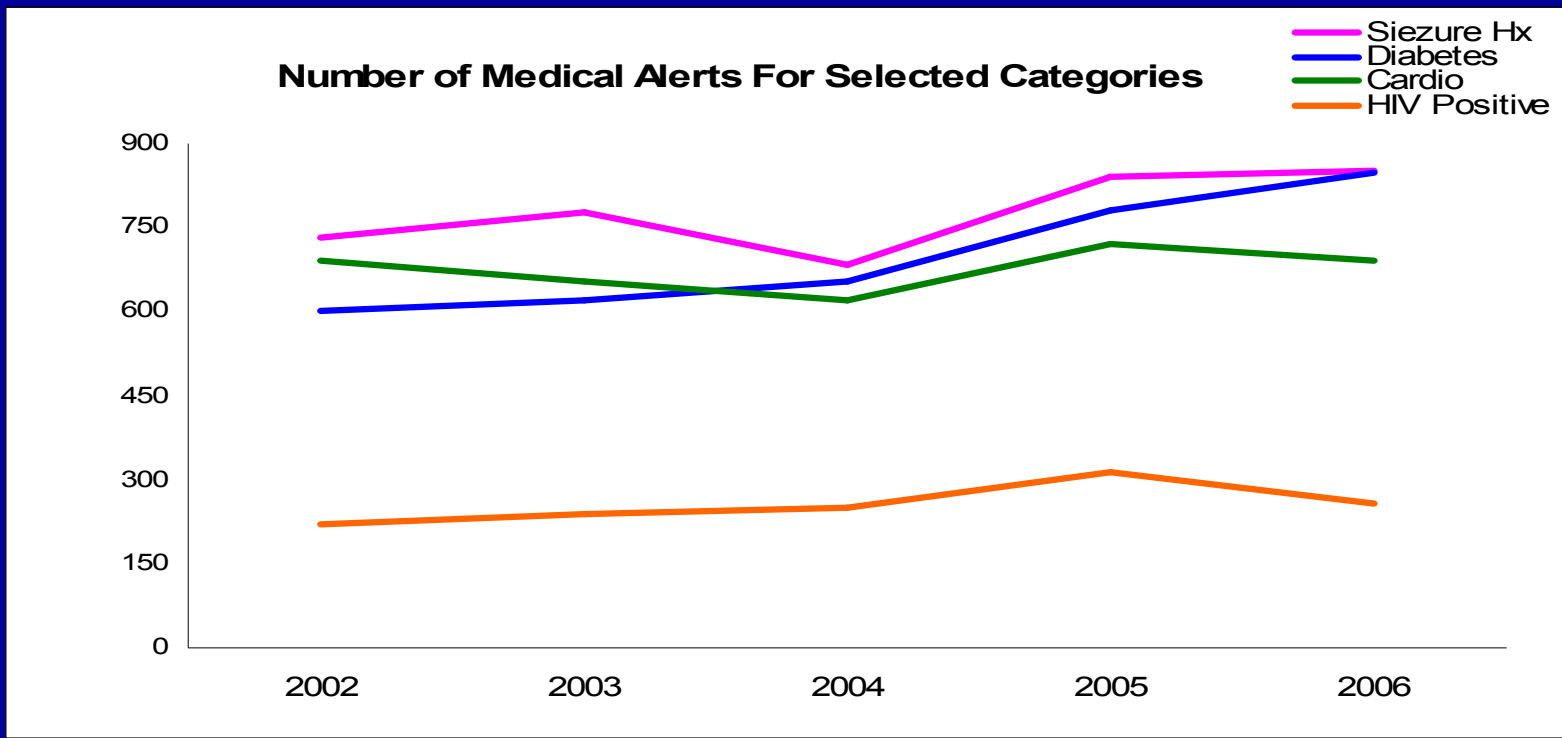
Psych Alerts Identified from Health Screen

- The percentage of psych alerts is up since FY2004. Of all medical conditions identified, about 1 in 5 suggested mental health or psych problems.
- In FY2006, 6571 psych alerts were issued, accounting for 21% of all positive medical screens.



Other Medical Conditions Identified

- Number of Diabetes cases increased steadily for the past five years.
- Number of Seizures fluctuated from year to year but not back down.
- No significant change in number of Cardio or HIV positive cases identified.



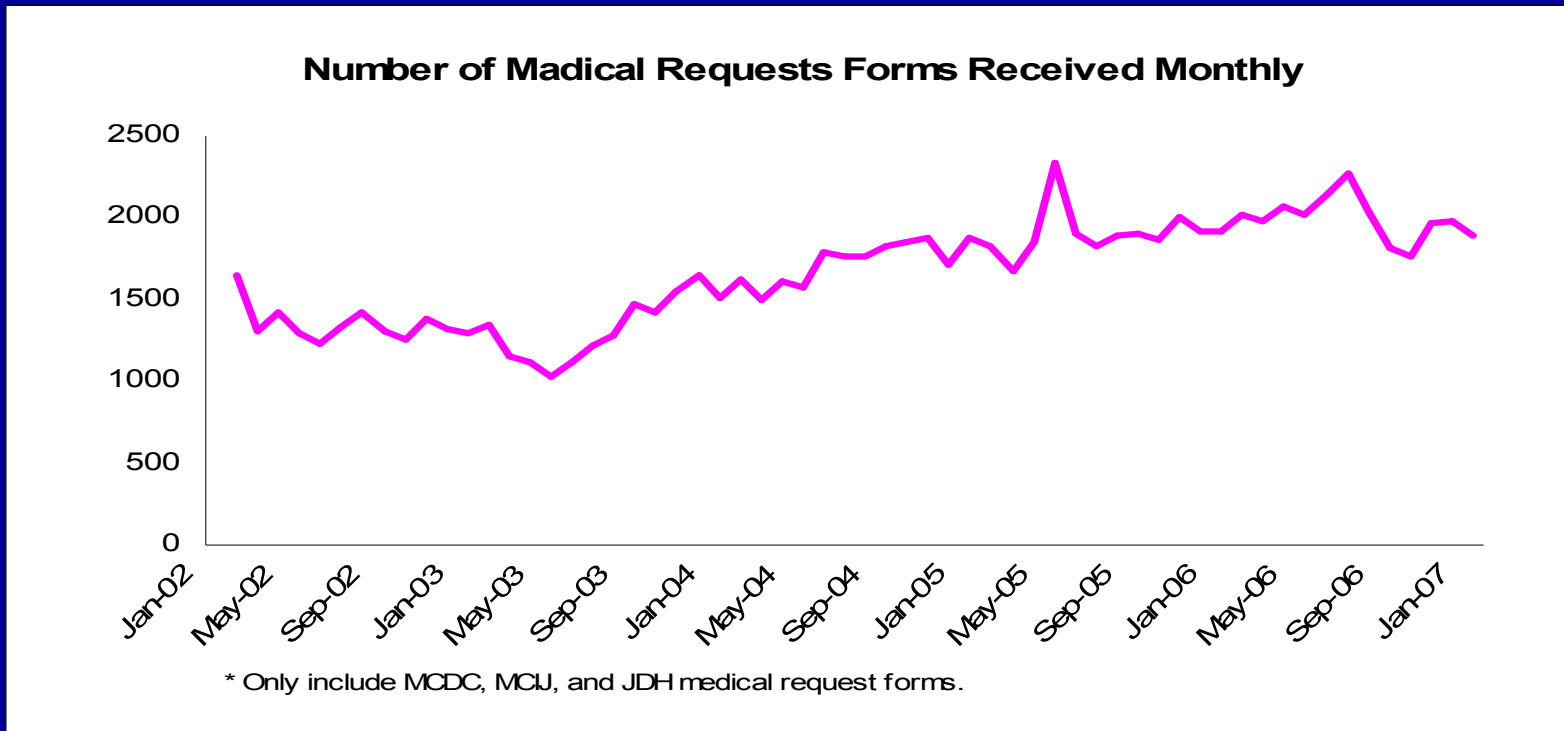
Medical/Mental Health Infirmiry Admission

- Number of new medical infirmiry admissions was the highest in 2005 and number of medical patient days was the highest in 2006.
- Number of mental health infirmiry admissions and number of patient days has held steady since 2003.
- Overall, infirmiry admissions and patient days show an upward trend.

	Medical Infirmiry		Mental Health Infirmiry	
Year	admission	patient day	admission	patient day
2001	863	6891	226	3536
2002	1014	7439	275	3405
2003	1021	7011	375	3862
2004	1196	7763	385	3836
2005	1256	7784	312	3570
2006	1071	7897	345	3782

Medical Request Forms Received

- The number of medical request forms (MRFs) has been showing an upward trend for the last five years.
- The increased MRFs were primarily from the adult facilities. The MRFs from JDH have been flat over the past five years.



Clinic Visits at County Correction Facilities

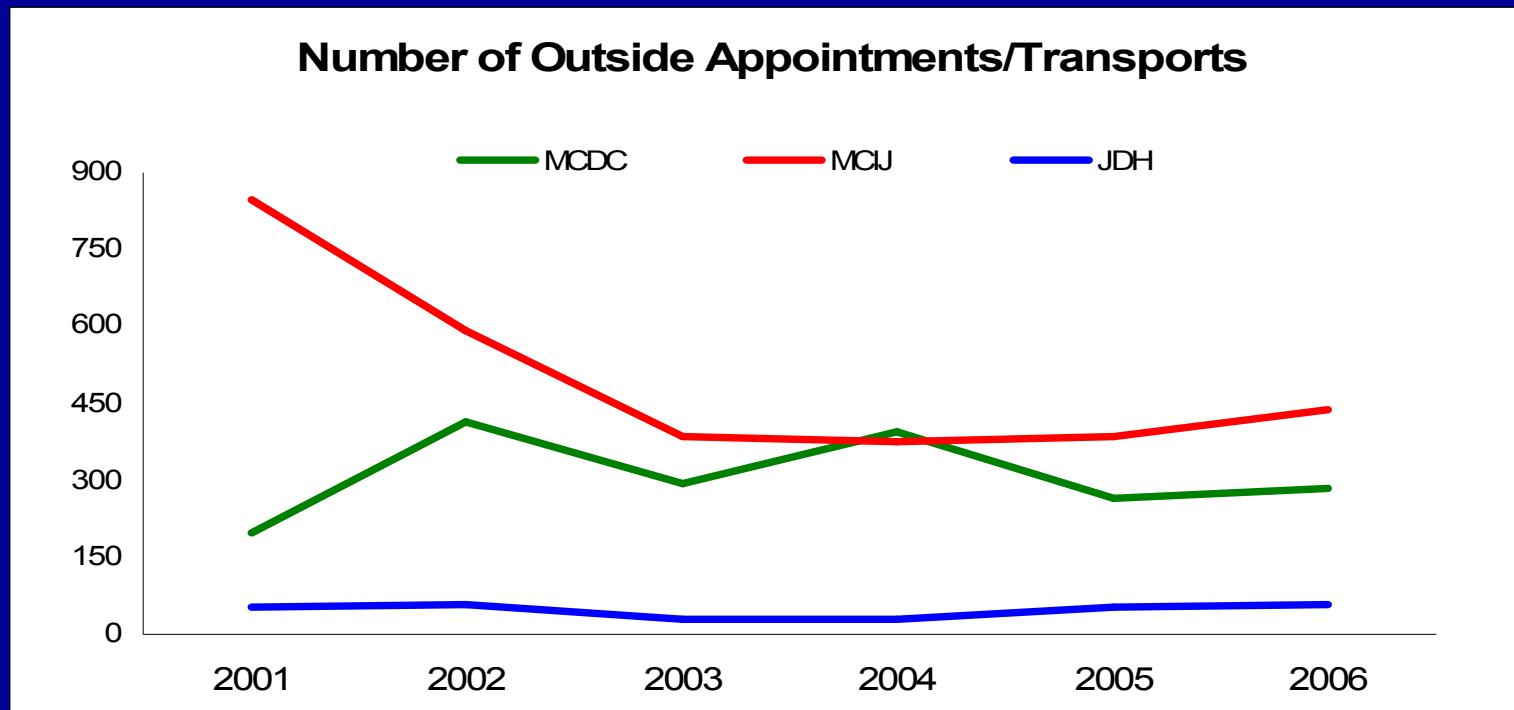
- Data reported in the following table include clinic visits conducted at MCDC, MCIJ, and JDH between 2004 and 2006.
- The total number of provider visits (MD, NP) in 2006 dropped 22% from the previous year. Ortho visits also decreased by 24%.
- Mental Health visits (CHN/MHC) slightly increased from Yr 2005 to Yr 2006 (4%). The increased visits mainly came from JDH. More visits could also be reflective of more accuracy in recording mental health visits recently.
- There wasn't much change in number of dental or OB/GYN visits.

Clinic Visits at County Correction Facilities (Year 2004-2006)				
Type of Visit	Yr 2004	Yr 2005	Yr 2006	Change from 2005 to 2006
Clinic Visits (providers)	8475	9774	7611	-2163
Dental Visits	1946	2285	2278	-7
Mental Health Visit*	N/A	2426	2526	100
OB/GYN Visits	249	252	244	-8
Ortho Visits	316	267	204	-63

* Mental Health visits was not well documented in 2004.

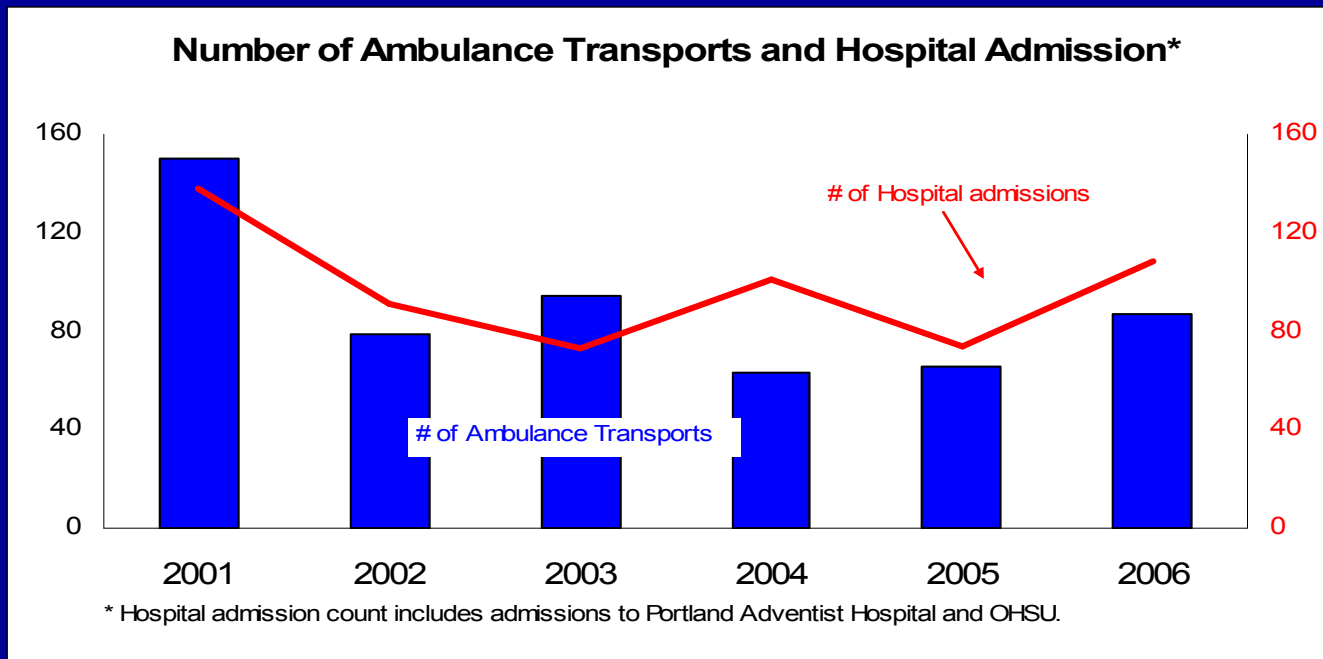
Outside Medical Appointments/Transports

- There was a 36% overall reduction in outside appointments or transports between 2001 and 2003. The number has been relatively stable since then.
- MCIJ's sharp decrease in utilizing the outside appointment/transport services during 2003 contributed to the overall reduction.



Ambulance Transports & Hospital Admissions

- The number of ambulance transports substantially decreased in 2002. The year of 2004 and 2005 had the lowest number of ambulance transports. However, there was a 31% increase in 2006 over the previous year.
- Hospital admissions increased significantly from 74 in 2005 to 108 in 2006. Yr 2006 admissions was the second highest over the past 6 years. Number of patient days at Portland Adventist Hospital also increased from 150 days in 2005 to 209 days in 2006.



Summary of Inmates Medical Services

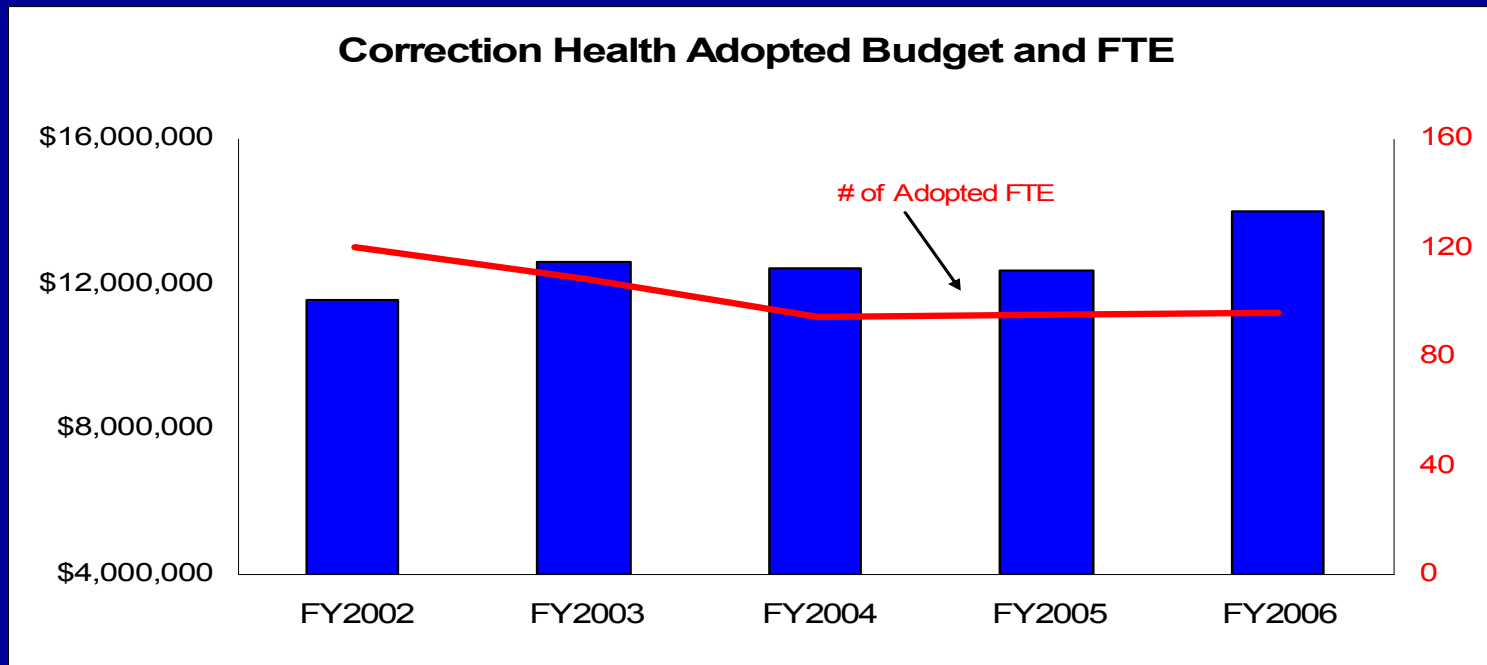
- Inmate medical needs have increased over the past five years, as suggested by the increasing in number of positive medical screens and number of medical request forms filled by the inmates. Medical and mental health infirmary admissions and patient days hold steady.
- The number of identified severe medical conditions such as Diabetes, Seizure, Cardio, and HIV positive either increased or maintained at similar level for the past five years.
- Outside appointment/transport and ambulance transports fell substantially around 2002 and 2003. But the trend was reversed in 2005, which showed an increase in ambulance transports and outside appointment from 2005.
- The number of Hospital admissions and Portland Adventist patient bed days showed a substantial increase in 2006 over 2005.
- In-house clinic visits data for the past three years indicate a cut-back of provider visits in 2006, reflecting FY2006 cuts in provider capacity, staff shortage, and program redesign.
- Yr 2006 also saw a significant decrease in number of TB screens or lab tests performed due to recent procedure change. Currently, every inmate will get screened but only identified high-risk inmates are targeted for testing.

Correction Health Adopted Budgets and Actual Expenses

FY2001 – FY2006

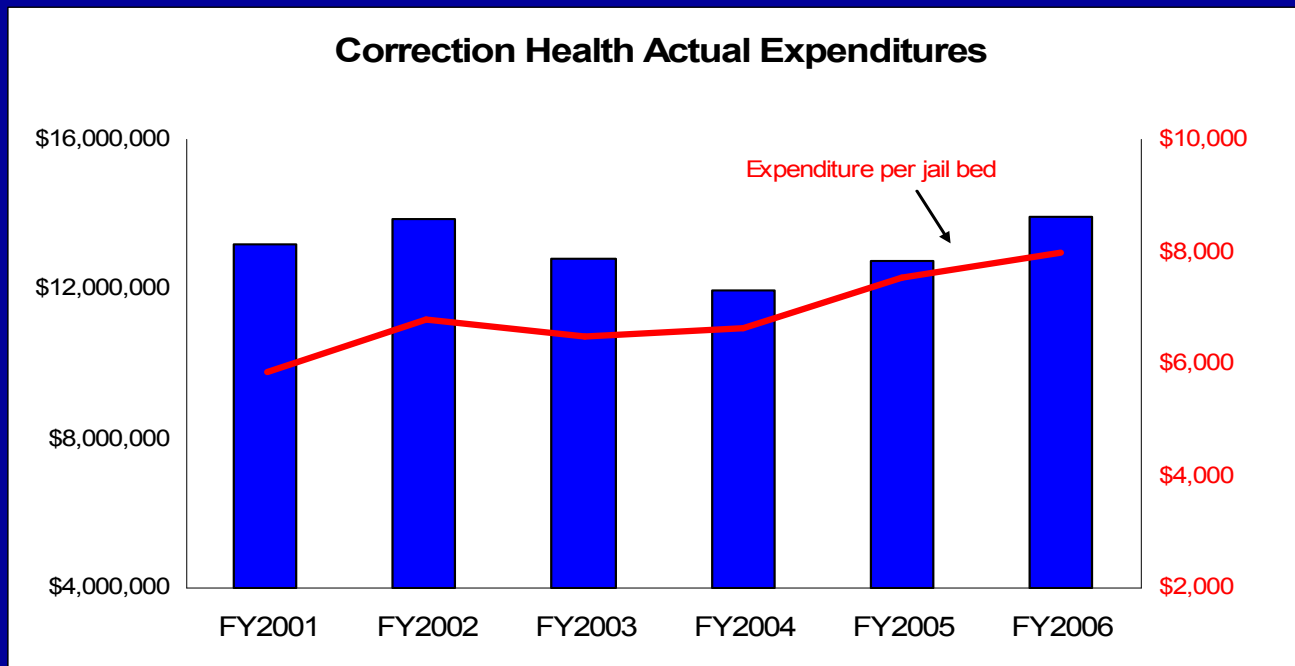
Correction Health Adopted Budget and FTE

- Correction Health adopted budgets were relatively flat between FY2002 and FY2005. It went up in FY2006 but got cut back in FY2007 to the prior FY2006 level.
- The adopted FTE experienced reduction between FY2002 and FY2004. It stabilized between FY2004 and FY2006. Another cutback occurred in FY2007(data not shown here), which funds a staffing level at approximately 70% of FY2002 budgeted FTE (from 120.2 FTE in FY02 to 82.3 FTE in FY07).



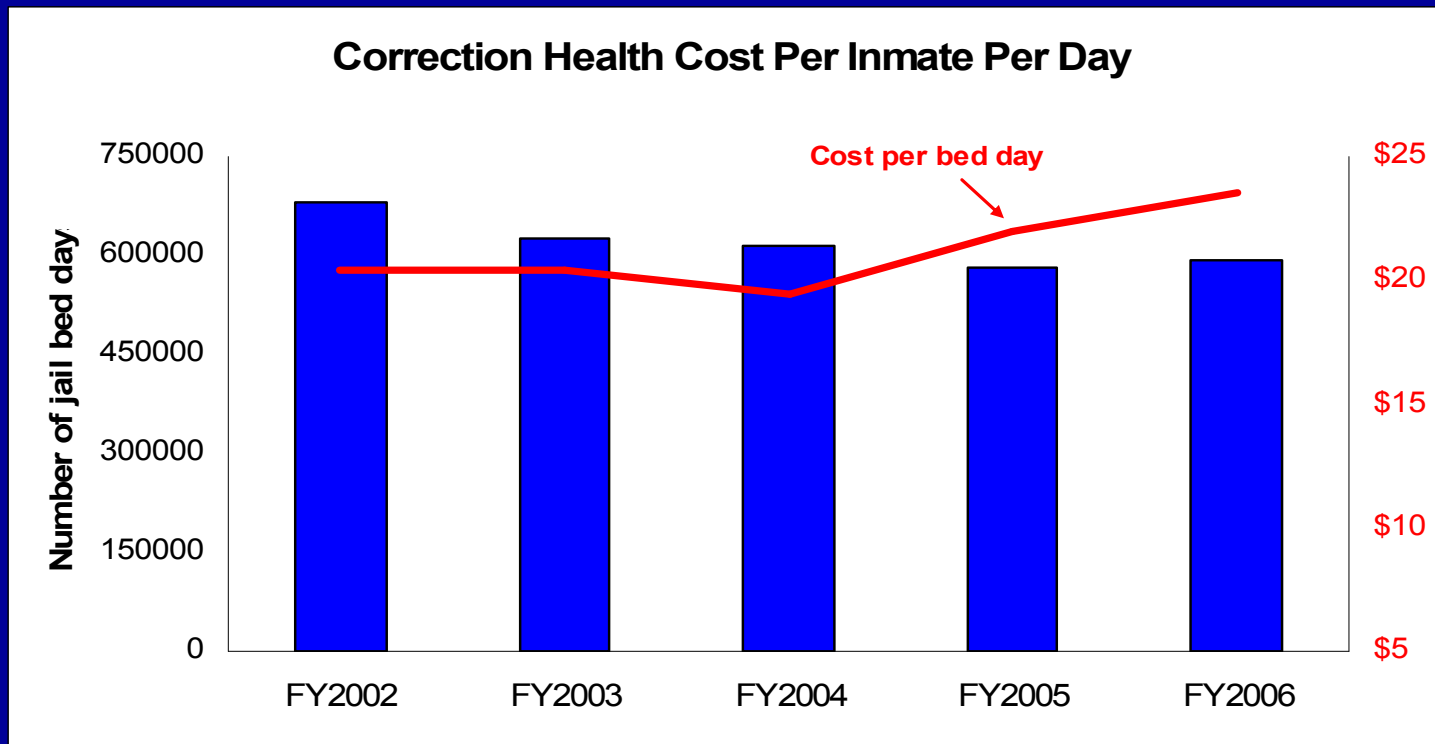
Actual Expense and Spending per Jail Bed

- Overall correction health actual expenditures started to fall in FY2003 but has been moving up since FY2004.
- If dividing the expense by average number of budgeted jail beds in a fiscal year (including jail beds at Juvenile Detention Center), expense per jail bed has been steadily increasing since FY2004.
- Estimated correction health spending on per jail bed basis increased 5.8% in FY2006 over FY2005.



Correction Health Cost Per Inmate Per Day*

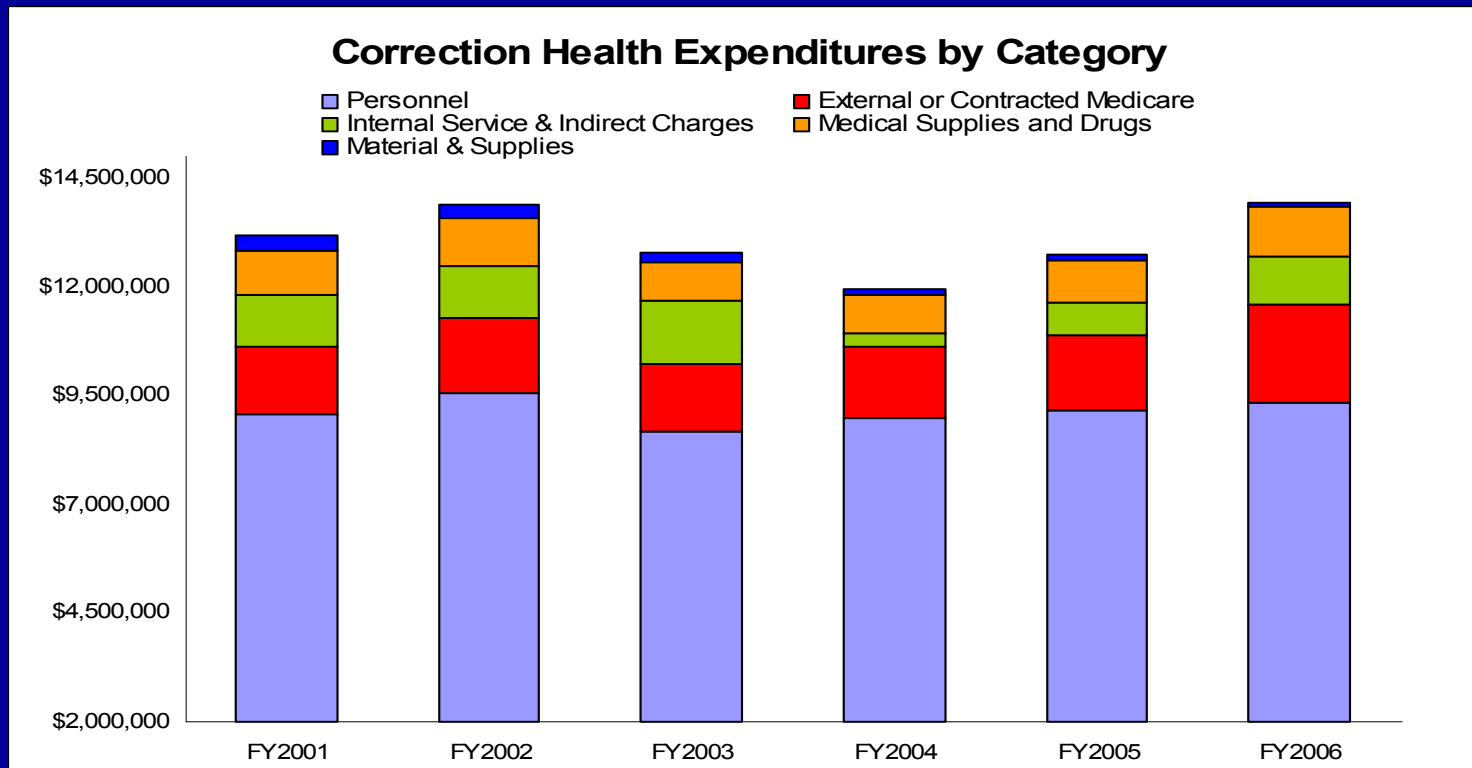
- If dividing the total expenditures by total number of jail bed days, the cost per inmate per day has been increasing since FY2004.
- Cost per inmate per day in FY2006 was \$23.51. It jumped 7.1% over the cost of FY2005.



* Does not include jail bed days at Juvenile Detention Center. Historic data for jail bed days at juvenile detention center were not available at this time. The cost per inmate per day should be lower if juvenile data were included. According to the Health Dept., the average correction health cost per bed day at JDH is \$17.95 for FY07 budget.

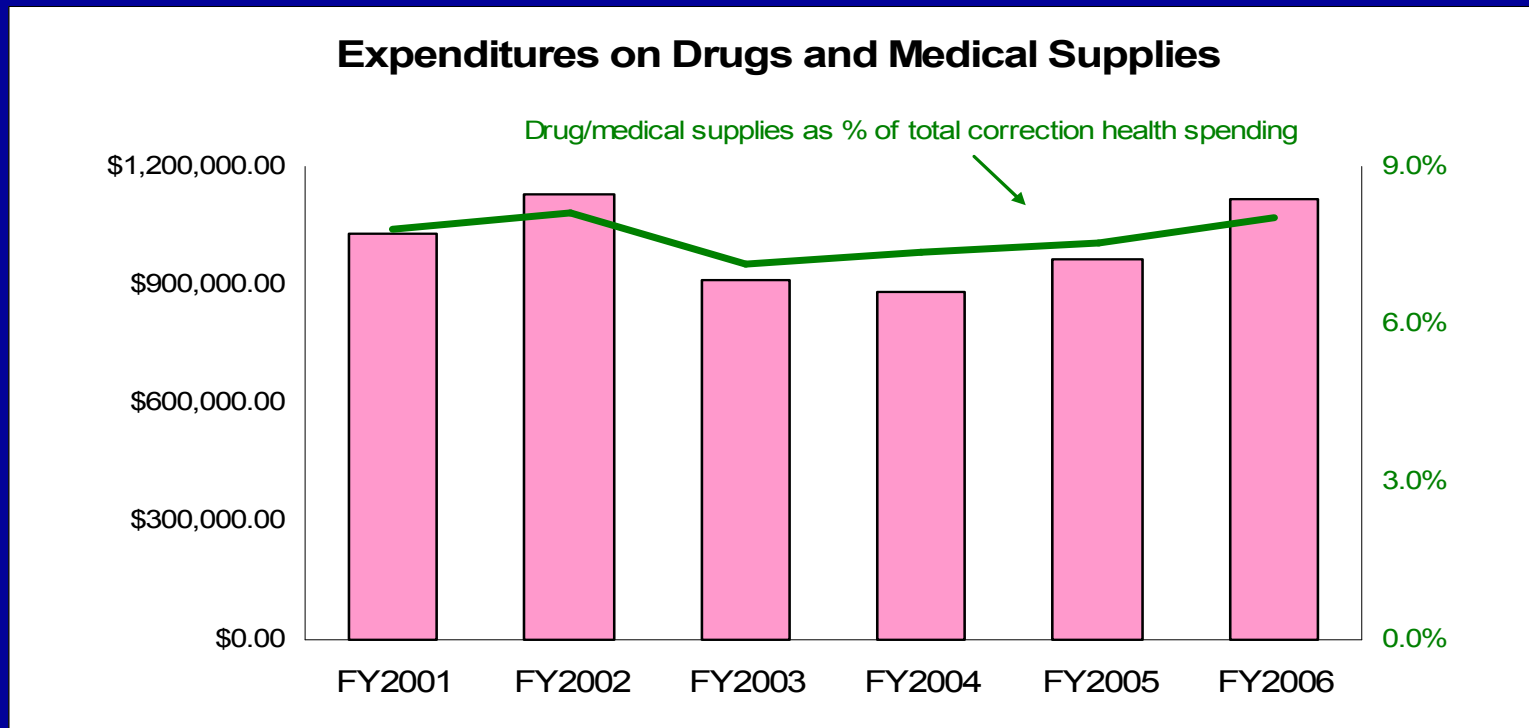
Actual Expenses by Category

- FY2004 had the highest percent of personnel spending (75.2%). Percent of personnel spending dropped to 67.2% in FY2006.
- There was a 29.7% increase in amount spent on external or contracted medical services in FY2006 over FY2005. Not much increase was found in medical supplies and drugs spending over the past six years.



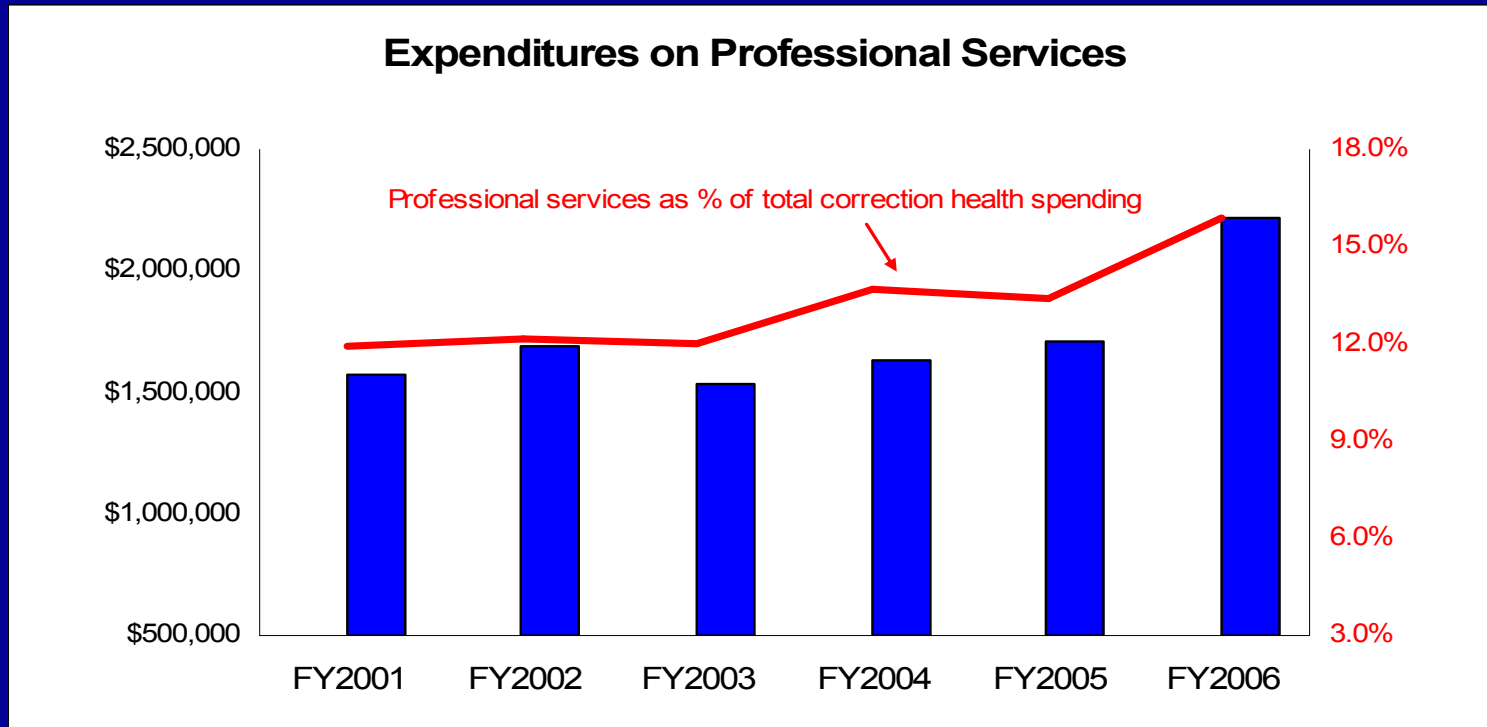
Spending on Drugs & Medical Supplies

- On average, between 7% and 8% of total Correction Health dollars were spent on drugs and medical supplies.
- The percent of funds spent on drugs and medical supplies has not changed significantly although it has been slightly creeping up since FY2003.



Spending on Professional Services

- FY2003 had the lowest of professional service expenses over the past five years. A sharp increase in amount of funds spent on professional services was observed in FY2006.
- Professional services as percent of total correction health expenditures increased from 11.9% in FY2001 to 15.9% in FY2006.



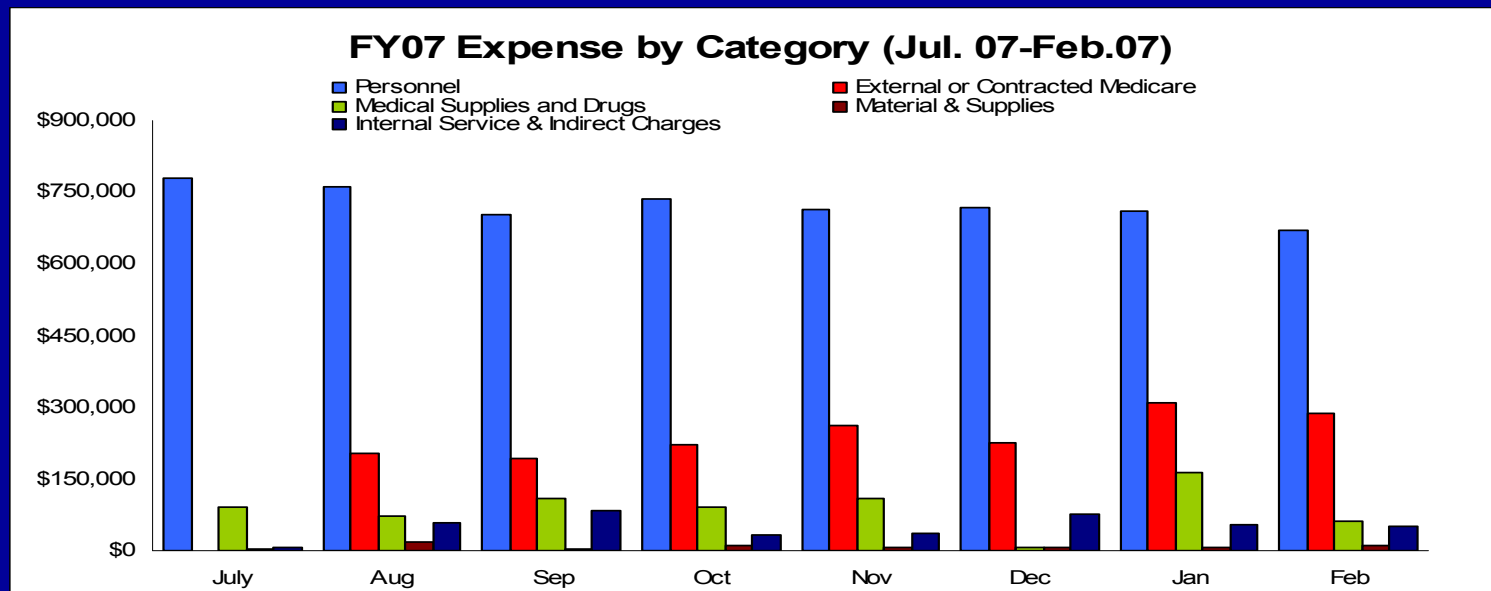
Example of FY06 Professional Services Spending*

- In FY2006, the County paid approximately \$2,216,639 for medical services provided by community providers.
- The top payees were Adventist Medical Group (37%), OHSU Medical Group/Hospital(25%), and Providence Portland (8%).
- Other health providers, such as Legacy Hospital, CEP Portland, FMC NE Portland, and American Medical also received payment ranged from \$40,000 to \$70,000 from the services.
- Based on available invoice data, it was estimated that the external cost related to diagnostic radiology was \$40,722, anesthesia was \$41,992, and dental services was \$16,912.

* Please treat this data with caution. These invoices were not paid out of SAP--they were paid through a third-party (UHN) and the payments are then entered into SAP via an upload from a file provided by the Health Department.

FY2007 Correction Health Expenditures

- From July to February 2007, the actual expenses were \$8,685,200.
- Professional or contracted medical services continue to grow. It accounts for 19.7% of total money spent so far, well beyond 15.9% reported in FY2006
- Spending on drugs and medical supplies also slightly increased from 8.0% in FY2006 to 8.2% of total expenditures during the first eight months of FY2007



Summary of Correction Health Expenditures

- Huge increase in external medical service cost over the past six years. External services costs as percent of total correction health expenditures increased from 11.9% in FY2001 to 19.7% for the first eight months of FY2007. Further examination of the driving forces behind jumps of external medical service cost in recent two years is needed.
- Relatively stable in medical supply and drug cost. It went up at a slow pace from 7.1% of total cost in FY2003 to 8.2% for the first eight months of FY2007.
- Although with continuous cuts in FTE, percent of budget spent on personnel has not shown substantial decrease. The data did suggest a shift from higher internal personnel cost and lower external profession services cost in FY2005 to a lower internal personnel cost and higher external profession service cost in FY2006.
- If dividing actual expenses by number of jail beds or number of bed days, both cost per jail bed and per jail bed day have shown noticeable increase since FY2004.

Characteristics of Top 52 High-Cost Professional Services Users

CY2005 - CY2006

Top Professional Service Costs Users for CY 2005-2006: Top Users

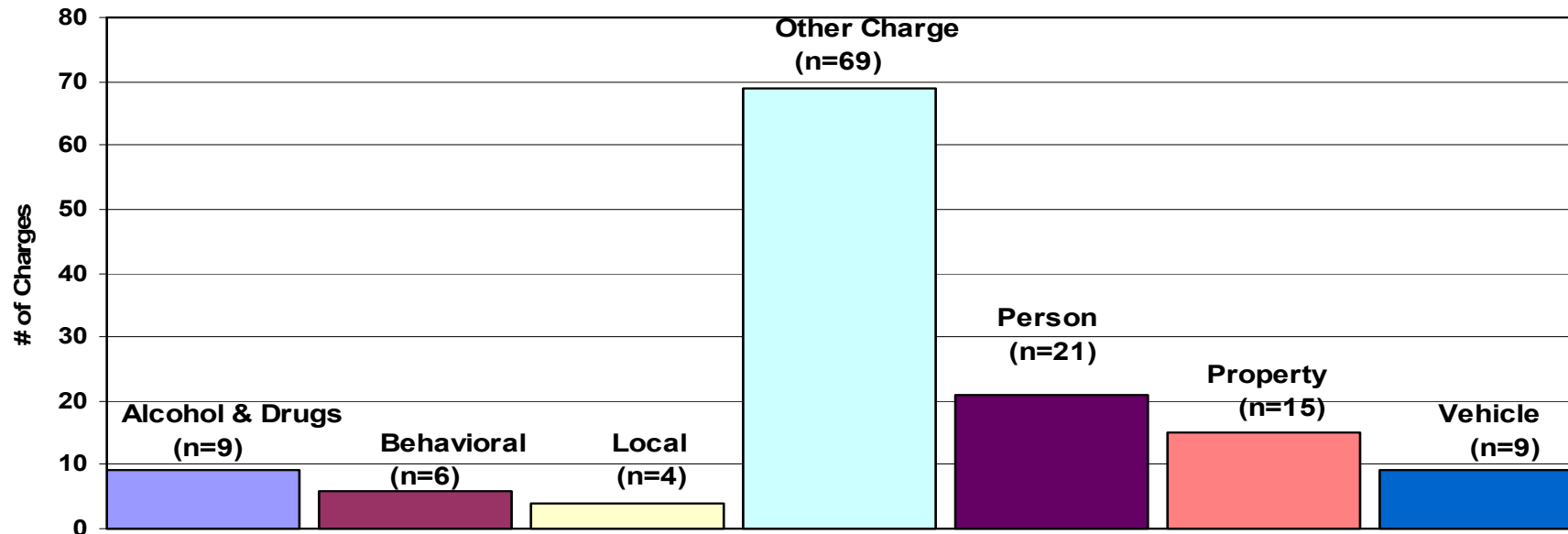
- The average Top User is older (41 years vs. 34 years), in jail more frequently (2.8 vs. 1.7 bookings) and for longer (72 days vs. 21 days) than the average person booked during this period.
- Six individuals, or 12% of the top users group, incurred 38% of the total professional services costs for the top users group.
- Fourteen individuals, or 27% of the top users group, occupied 42% of the total jail bed days for the top user group.

Professional Services Top User Characteristics CY05-06						
	Total Jail Bed Days CY05-06	Average Length of Stay per Custody (Days)	Average Number of Bookings	Average Age (Years)	Average Professional Services Costs (CY 05-06)	Total Professional Services Costs (CY 05-06)
Top Users Group (n=52)	9,677	72	2.8	41	\$26,445.64	\$1,295,836.17
Users w/ Professional Services Costs > \$50K (n=6)	1,350	75	3	40	\$74,545.68	\$492,432.90
Users w/ > 5 Custodies (n=10)	1,560	26	6	39	\$28,078.74	\$280,787.41
Users w/ ALS > 60 days (n=14)	4,122	184	1.6	42	\$26,572.63	\$372,016.83

Top Professional Service Costs Users for CY 2005-2006: Top Users

- 51% of the Top User group was booked for 'Other' type crime.
- 30% of 'Other' category crimes were from Parole Violations.
- 27% of 'Other' category crimes were County Holds.
- 23% of 'Other' category crimes were Post Prison Supervision violations

Top Users: Crime Type for CY 05-06



Top Professional Service Costs Users for CY 2005-2006: Top Users

- The group w/ professional services costs >\$50K represented 14% of total primary charges and 16% of county hold charges
- The group w/ >5 custodies represented 44% of total primary charges, 56% of post prison supervision violations, 42% of county holds, and 100% of burglary charges.
- The group with an ALS >60 days represented 16% of total primary charges, 65% of total assault and attempted murder charges, and over 90% of sex related charges.

Top Users: Primary Charges CY05-06							
	Total Primary Charge CY05-06	Parole Violation	Post Prison Supervision Violation	County Hold	DUII	Burglary 1	Unauthorized Use of a Motor Vehicle
Top Users Group (n=52)	133	21	16	19	7	6	6
Users w/ Professional Services Costs > \$50K (n=6)	18	1	x	3	1	x	x
Users w/ > 5 Custodies (n=10)	59	x	9	8	x	6	4
Users w/ ALS > 60 days (n=14)	22	x	1	5	1	x	x

Summary of Characteristics of Top Professional Service Costs Users for CY 2005-2006

- On average, this group commits more serious offenses, goes to jail more often, stays in jail longer than the typical person in jail.
- Individuals w/ a professional services charge over \$50K represented 16% of County Hold charges, stayed in jail slightly longer, and on average incurred professional services charges that are 280% greater than the group average.
- Individuals w/ > 5 custodies represented 44% of total primary charges for Top User group, had 56% of total PPSV charges, had a 60% shorter length of stay per custody, and on average incurred professional services charges slightly above the group average.
- Individuals w/ an average length of stay > 60 days represented 90% of total sex related charges, 65% of total assault and attempted murder charges, had a 250% longer stay per custody, and on average incurred professional service charges slightly above the group average.

Discussion: Why the rise of correction health cost?

Preliminary results from the past five years' data indicate that the County correction health cost per budgeted jail bed or per inmate per bed day is increasing. A literature review of correction health cost suggests that following reasons have contributed to the rising cost of correction health, especially the cost associated with external medical services:

- Rise in CPI (impact on staff/personnel cost)
- Inflation in the medical service industry (impact on external medical treatment cost)
- The general aging of the inmate population (increase inmate medical care needs)
- The increase in the number of inmates with severe medical conditions (increase hospital admission and bed days)

Over the past a few years, the inmates health treatment needs at County correction facilities have not shown declining as suggested by following evidences:

- # of bookings and housed inmates has not slowed down although average length of stay reduced
- # of medical request forms filed has increased
- No decrease in # of inmates who had major medical conditions such as HIV, Mental illness, Diabetes and Seizures
- # of ambulance transportations has increased since 2004
- Increase in # of inmates who were over 50 years old

Discussion: What policy questions we should ask?

The raising costs in County Correction Health mirror a national trend. Here are some exploratory questions based on the preliminary data we gathered:

- **How to mitigate increasing Professional Service charges?**
 - Mix of service providers: are there some medical conditions that can be cost effectively treated in house vs. out of house, and vice versa?
 - Are we paying market rate for these services? Can we negotiate rates comparable to Medicare/Medicaid rates?
 - Is it more cost-effective to develop in-house treatment capacities than extensively using community providers?
- **How do we balance public safety concern with cost containment effort?**
 - Can we handle the stream of offenders w/ mental illness differently?
 - Can we keep high cost individuals out of jail without jeopardizing the public safety?
 - Can we find ways to reduce custodies or shorten the number of bed days for those booked for 'Other' charges, such as other County holds and parole violations?
- **Topics for further investigation:**
 - How does lack of health insurance/preventative medical care in the general population effect the health of the inmate population?
 - Can we purchase insurance that protects us from high risk/high cost individuals with catastrophic injury/illness?

Data Sources and Limitations of Analysis

Data Sources:

- Correction Health and certain financial data were received from Health Department.
- Correction Health budget data were retrieved from SAP Database.

Limitations:

- Time and disclosure restrictions prevented collection of additional Corrections Health data.
- Only limited literature review of national correction health system and cost containment efforts were performed.
- Health costs per budgeted jail bed or per inmate bed day were only coarsely estimated. A more rigorous cost analysis is needed in the future.