



Information Management Division

# Oregon's Workers' Compensation System: Medical Payments by Provider Type and Service Category, 1999-2003

Department of Consumer & Business Services

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In 2005, the Oregon Department of Consumer and Business Services, Workers' Compensation Division (WCD) created the Medical Quality Initiative (MQI) to look at ways of controlling increasing medical and overall claim costs in Oregon's workers' compensation (WC) system while ensuring that injured workers have adequate access to quality health care that results in a high return-to-work rate. At the same time, the division wants to minimize disputes and litigation and reduce the administrative process of medical reporting of medical providers and insurance companies. The Information Management Division (IMD) worked with the WCD to provide data showing rates of change in the cost and utilization of medical services in Oregon's WC system. This research alert, one of several MQI alerts, examines how medical providers and medical service categories contribute to the overall growth in WC medical payments.

From 1999 to 2003, WC medical payments increased at an annual rate of 5.8 percent (Table 1). To determine what is driving WC medical payments growth, the relative contributions of various medical providers<sup>1</sup> and service categories were examined.

When segmented by the type of provider receiving the payments, all medical providers, except occupational therapists<sup>2</sup>, showed positive growth rates during 1999-2003. Payments to some medical providers grew at rates higher than the growth rate of total medical payments for all providers (in Table 1 these providers are shown in shaded areas). Individual growth rates higher than the growth rate of total medical payments indicate that these providers increased their shares of total medical payments between 1999 and 2003.

<sup>1</sup> Provider type definitions are based upon Bulletin 220 medical billing data reporting requirements (OAR 436-009-0030 - Appendix A - Provider Types).

<sup>2</sup> The negative annual growth rate for this provider indicates that its total payments declined during 1999-2003.

Medical payments to pharmacies had the highest growth rate of all other provider types (19.8 percent annually) for 1999-2003. Since the average share of pharmacy payments in total WC payments is relatively small (0.9 percent)<sup>3</sup>, it contributed only a small portion (3.2 percent) to the growth of total medical payments from 1999-2003 (Table 1).

Payments to medical doctors, physical therapists, radiologists, medical suppliers, and osteopaths also showed higher individual growth rates than the total growth rate of all medical payments for 1999-2003 (5.8 percent), meaning that their respective shares of total medical payments increased during 1999-2003. On the other hand, payments to hospital inpatient providers, chiropractors, occupational therapists, and remaining providers<sup>4</sup> grew at a lower rate than total medical payments for 1999-2003, indicating that their shares of total medical payments for these providers decreased during 1999-2003.

Medical doctors (MDs) had the largest share of total WC medical payments, an average of \$38 million annually (33.6 percent of total medical payments) for 1999-2003. MD payments grew 6 percent each year from 1999 to 2003 and have contributed the most to the total annual growth rate of medical payments (34.7 percent). The second-largest provider group contributing to the total annual growth of medical payments was hospital outpatient provider (26.3 percent), followed by hospital inpatient provider (9.6 percent). Together these three provider types were responsible for almost 71 percent of the growth in total medical payments from 1999-2003.

<sup>3</sup> A significant portion of pharmacy payments may be born by the injured worker prior to claim acceptance. Insurer reimbursements to workers are not reported to the department in medical billing data; therefore, the 0.9 percent share is an estimate. Other department models suggest that the actual share of all pharmacy payments is approximately 6 percent of accepted disabling claims (ADC) medical costs.

<sup>4</sup> All remaining Bulletin 220 provider types not included in Table 1.

Medical doctors charge most of their services under one of eight fee-schedule categories<sup>5</sup> (Table 2). Fee-schedule service categories contributing to MDs increasing share of medical payments include surgery, evaluation and management<sup>6</sup>, physical medicine, and laboratory and pathology (in Table 2 these service categories are shaded.) The growth rates of payments for these service categories were higher than the total growth rate of all MD payments (6 percent) for 1999-2003. On the other hand, anesthesia, radiology, Oregon Specific Codes (OSC)<sup>7</sup>, and medical services had a negative impact on the growth of MDs share of total medical payments for 1999-2003 (their individual growth rates were lower than the total growth rate of MD payments).

Other care providers also charge their services to one of the eight fee-schedule categories. Considering services delivered by all provider types (including MDs), the growth rates of payments for physical medicine, evaluation and management, and radiology service categories were higher than the growth rate of total medical payments for 1999-2003 (5.8 percent) (Table 3). Thus, the share of total medical payments for these service categories increased from 1999-2003. On the other hand, the shares of total medical payments for surgery, anesthesia, OSC, medical, and laboratory and pathology service categories decreased from 1999-2003. Surgery, anesthesia, and OSC service categories had lower individual growth rates than the growth rate of total medical payments for 1999-2003. Medical and laboratory and pathology service categories had negative growth rates, meaning that their share of total medical payments declined.

Among fee-schedule service categories, physical medicine services received the highest average annual payments, nearly \$18.2 million per year, which accounted for 15.7 percent of average WC medical payments. From 1999 to 2003, physical medicine payments grew at an average rate of 10.5 percent per year and contributed the highest share (27.8 percent) to the total annual growth rate of 5.8 percent.

When *broken down* by provider type, physical medicine payments to hospital outpatient providers, medical doctors, and remaining providers<sup>8</sup> grew at a higher rate than the total physical medicine payments for 1999-2003 thereby increasing their share to total physical medicine payments (shown as shaded areas in Table 4). At the same time, average annual payments to physical therapists and chiropractors grew, but did not keep pace with the average annual growth rate for all physical medicine payments. The share of physical medicine payments for these provider types decreased during 1999-2003. Occupational therapist payments did not show any growth, so their share of total physical medicine payments also decreased.

## Methodology

Medical billing data is reported to the Department of Consumer and Business Services according to Oregon Administrative Rules (OAR) 436-009-0030(10). A quality sample of data was selected from medical billing data to determine figures for payments by provider type and by service category. This sample is composed of insurers (notably SAIF and the Liberty Mutual group, along with other private insurers and self-insurers) that have reported billing data with a high degree of correlation (at least 90 percent) to the claim information system (CIS) and have consistently reported valid medical service and payment data.

This sample consists of claims with injuries occurring between Jan. 1, 1999 and Dec. 31, 2003. All services provided within one year (365 days) of the injury are used in the analysis. This time frame was chosen because a significant portion of services on a claim is provided in the first year. Furthermore, a one-year time frame allowed for the use of the most recent data available.

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<sup>5</sup> Medical fee schedule service categories are based upon Division 009 Rules regarding how medical provider payments are to be calculated (OAR 436-009-0040(4)).

<sup>6</sup> A portion of the increase in Evaluation and Management payments may be attributable to a 20 percent increase in the fee schedule conversion factor in July 2003.

<sup>7</sup> The negative annual growth rate for this service category indicates that its total payments declined from 1999-2003.

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<sup>8</sup> All remaining Bulletin 220 provider types not included in Table 3.

**Table 1. Contribution of medical providers to the overall growth in medical payments**

Provider type	1999-2003				
	Average annual total payments	Average share of total payments	Annual growth rate <sup>i</sup>	Average contribution to the total growth rate <sup>ii</sup>	Contribution trend <sup>iii</sup>
Medical doctor	\$38,738,252	33.6%	6.0%	34.7%	↑
Hospital outpatient	\$30,412,014	26.4%	5.8%	26.3%	- *
Remaining providers	\$13,606,573	11.8%	4.3%	8.7%	↓
Hospital inpatient	\$12,017,051	10.4%	5.4%	9.6%	↓
Physical therapist	\$9,121,378	7.9%	6.8%	9.3%	↑
Radiologist	\$4,698,525	4.1%	6.8%	4.8%	↑
Chiropractor	\$3,472,467	3.0%	3.2%	1.7%	↓
Pharmacy	\$1,090,813	0.9%	19.8%	3.2%	↑
Osteopathic physicians	\$815,377	0.7%	6.6%	0.8%	↑
Medical supplies	\$771,277	0.7%	8.3%	1.0%	↑
Occupational therapist	\$608,226	0.5%	-1.0%	-0.1% **	↓
<b>Total</b>	<b>\$115,351,953</b>	<b>100.0%</b>	<b>5.8%</b>	<b>100.0%</b>	

\* The individual growth rate of medical payments for this provider is the same as the total growth rate of medical payments for all providers

\*\* Negative sign indicates that the total payments for that provider declined from 1999-2003.

**Table 2. Contribution of medical doctor (MD) service categories to the overall growth in medical payments**

Service category		1999-2003				
		Average annual total payments	Average share of total payments	Annual growth rate <sup>i</sup>	Average contribution to the total growth rate <sup>ii</sup>	Contribution trend <sup>iii</sup>
Fee-schedule service categories	Surgery	\$13,440,876	34.7%	6.3%	36.8%	↑
	Evaluation and management	\$12,255,693	31.6%	8.2%	43.5%	↑
	Anesthesia	\$2,328,071	6.0%	4.2%	4.3%	↓
	Radiology	\$2,276,195	5.9%	2.9%	2.9%	↓
	Oregon specific codes	\$2,153,183	5.6%	-1.9%	-1.7% **	↓
	Medicine	\$1,884,202	4.9%	2.1%	1.7%	↓
	Physical medicine	\$1,726,700	4.5%	10.9%	8.1%	↑
	Laboratory and pathology	\$81,631	0.2%	9.8%	0.3%	↑
Non-fee-schedule service categories		\$2,591,701	6.7%	3.7%	4.2%	↓
<b>Total</b>		<b>\$38,738,252</b>	<b>100.0%</b>	<b>6.0%</b>	<b>100.0%</b>	

\*\* Negative sign indicates that the total payments for that service category declined from 1999-2003.

**Table 3. Contribution of service categories to the overall growth in medical payments**

Service category		1999-2003				
		Average annual total payments	Average share of total payments	Annual growth rate <sup>i</sup>	Average contribution to the total growth rate <sup>ii</sup>	Contribution trend <sup>iii</sup>
Fee-schedule service categories	Physical medicine	\$18,153,877	15.7%	10.5%	27.8%	↑
	Surgery	\$17,389,950	15.1%	5.3%	13.5%	↓
	Evaluation and management	\$17,330,388	15.0%	7.2%	18.2%	↑
	Radiology	\$14,472,462	12.5%	6.6%	13.9%	↑
	Medicine	\$5,821,458	5.0%	-3.8%	-3.2% **	↓
	Oregon specific codes	\$5,325,001	4.6%	3.1%	2.4%	↓
	Laboratory and pathology	\$5,293,086	4.6%	-8.8%	-6.8% **	↓
	Anesthesia	\$2,720,040	2.4%	4.1%	1.6%	↓
Non-fee-schedule service categories		\$28,845,689	25.0%	7.7%	32.4%	↑
<b>Total</b>		<b>\$115,351,953</b>	<b>100.0%</b>	<b>5.8%</b>	<b>100.0%</b>	

\*\* Negative sign indicates that the total payments for that service category declined over 1999-2003 period.

**Table 4. Contribution of physical medicine providers to the overall growth in medical payments**

Provider type	1999-2003				
	Average annual total payments	Average share of total payments	Annual growth rate <sup>i</sup>	Average contribution to the total growth rate <sup>ii</sup>	Contribution trend <sup>iii</sup>
Physical therapist	\$8,633,721	47.6%	7.1%	31.5%	↓
Hospital outpatient	\$4,913,222	27.1%	15.9%	40.2%	↑
Medical doctor	\$1,726,700	9.5%	10.9%	9.7%	↑
Remaining providers	\$1,183,790	6.5%	23.1%	14.1%	↑
Chiropractor	\$1,159,050	6.4%	8.2%	4.9%	↓
Occupational therapist	\$537,395	3.0%	-1.0%	-0.3%**	↓
<b>Total</b>	<b>\$18,153,877</b>	<b>100.0%</b>	<b>10.5%</b>	<b>100.0%</b>	

\*\* Negative sign indicates that the provider had a negative impact on the growth rate, which corresponds to the decrease in total payments for that provider, not just a decrease in share of total physical medicine payments.

- i The growth rate calculation uses the log-linear least squares method.
- ii The average contribution to the total annual growth rate is calculated as a product of average share in total payments and the annual growth rate, multiplied by one over the total annual growth rate so that the total growth equals 100 percent and the contributions of categories are expressed as fractions of 100 percent.
- iii This field shows the direction of the contribution by each category. If the annual growth rate of medical payments for the category is greater than the overall annual growth rate for all categories, the share of payments for that category increased from 1999-2003 and the direction of the contribution to the growth in medical payments is upward. If the annual growth rate of medical payments for the category is lower than the overall annual growth rate for all categories, the share of payments for that category decreased from 1999-2003 and the direction of the contribution to the growth in medical payments is downward.

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