

to: **Nora Leibowitz** date: **September 15, 2004**
from: **Sandi Hunt & Pete Davidson** subject: **Non-contracted DRG
Hospital Payment Amounts**

This memo describes the methods we used to develop non-contracted DRG hospital payment amounts and the methods to be used by health plans to determine their payment obligations to those hospitals. In general, for inpatient hospital services, payments will be determined based on a DRG payment amount with an additional provision for “outliers,” if applicable. For outpatient hospital services, payments will be determined based on the billed charges on the claim multiplied by the adjusted cost-to-charge ratio specific to each hospital. The remainder of this memo describes in more detail the development of the payment amounts and their application.

Inpatient Hospital Services

Non-contracted hospitals will be paid an amount based on the statewide average cost per discharge, adjusted for geographic differences in input costs, which is consistent with the funding built into the FFY 2005 capitation rates for inpatient hospital services provided in DRG hospitals. The required payment amount includes a hospital-specific base DRG payment, plus an additional outlier payment, if applicable. A hospitalization qualifies for an outlier payment if it meets the OMAP definition of an outlier claim.

Hospital-specific base DRG rates for FFY 2005 were calculated as follows:

- PwC determined the total billed charges and number of admissions for DRG hospitalizations of managed care enrollees for the July 1999 through June 2001 data period, excluding admissions submitted by MHOs;
- The billed charges for each hospitalization were multiplied by the cost-to-charge ratio used to develop the 2003-2005 per capita costs and capitation rates. The resulting value was used as the cost for each hospitalization. The total costs were divided by the number of admissions to determine the average cost per admission on a statewide basis;
- The statewide cost per admission was multiplied by the DRG Hospital Funding Factor of 0.72 and trended forward by the cost trend used in the per capita cost development. This results in an amount per admission consistent

with the funding included in the FFY 2005 capitation rates for inpatient services at DRG hospitals;

- A reduction of 1.94% was made to create a pool of funds for each health plan to make outlier payments. The estimated size of the outlier pool was made by modeling all data period admissions against the outlier determination and payment criteria, described in more detail below. An iterative process was employed to determine the statewide DRG base rate estimated to result in base DRG payments plus outlier payments equaling the total payments that would be made if an outlier pool was not created.
- The statewide average funding per admission, net of outlier funding, was divided by the weighted average geographic factor and the average DRG casemix index to derive the statewide average DRG base rate; and
- The hospital-specific DRG base rates were developed by multiplying the statewide average DRG base rate by the geographic factor for the region within which each hospital is classified by CMS.

The attached Exhibit 1 shows the development of the statewide and regional DRG base rates. Exhibit 2 shows the DRG base rates for each hospital.

To determine its base DRG payment obligation for a hospitalization, a health plan would perform the following operation:

- Start with the hospital-specific DRG base rate;
- Multiply by the appropriate DRG relative weight for the hospitalization; and
- Multiply by the non-contracting hospital adjustment of 0.925 to determine the base DRG payment obligation. The 0.925 adjustment factor is in compliance with the Non-Participating hospital payment rules.

The total payment amount for hospitalizations that meet the outlier criteria will be calculated by health plans as a combination of the base DRG payment amount described above and the outlier payment. Eligibility for outlier payment will be determined by the method employed by OMAP in the Fee-For-Service delivery system.ⁱ To determine whether a claim hits the outlier threshold, and if so, the payment obligation for the portion of the claim in excess of the threshold, a hospital-specific adjusted cost-to-charge ratio will be used. To develop the hospital-specific adjusted cost-to-charge ratios, the cost-to-charge ratios used in the development of the 2003-2005 per capita costs were adjusted to reflect differences between the cost trend used to develop the FFY 2005 capitation rates and the hospital-specific charge trend observed in the encounter data.

The methods for determining the adjusted hospital-specific cost-to-charge ratios were as follows:

- Hospital-specific charges per admission were calculated for each month of the period July 1999 through June 2003. Each DRG hospital with average monthly inpatient charges of \$1 million or more in the most recent 12 months of data was separately analyzed. Hospitals operating within hospital systems were aggregated, and all remaining hospitals were combined for analysis;
- Admissions with charges in excess of \$100,000 were truncated at \$100,000 for purposes of the trend analysis;
- Each hospital's DRG casemix index was calculated for each month of the data period, and the average charge per admission was divided by the casemix index in that month. This process ensures that changes in a hospital's casemix do not unduly influence the measurement of the change in charge per admission;
- Trends were estimated over the data period using regression analysis. Trends were measured over the period July 1999 through June 2003 since this period encompasses the data used to develop the 2003-2005 per capita costs and the FFY 2005 capitation rates, as well as the most currently available validated encounter data;
- The estimated trend, which reflects an annualized rate of change in casemix-adjusted charges per admission, was compared to the average annual cost trend of 3.03% used in the per capita cost and capitation rate development;
- Each hospital's cost-to-charge ratio was adjusted by multiplying the starting cost-to-charge ratio by the ratio of the cost and charge trend values, compounded from the midpoint of the data period to the midpoint of the contract period. For the FY 2005 rates, the trend adjustment is compounded for 4.75 years (July 2000 to April 2005). A further adjustment of 0.72 is applied to recognize the reduction in DRG hospital funding built into the FFY 2005 capitation rates.

Exhibit 3 shows the development of the hospital-specific adjusted cost-to-charge ratios.

The health plan's outlier payment obligation will be calculated as follows:

- The billed charges for the hospitalization are multiplied by the adjusted hospital-specific cost-to-charge ratio to determine the applied cost for the hospitalization;

- The outlier threshold amount is the greater of \$25,000 or 2.7 times the base payment amount for the DRG;
- If the applied cost is less than the outlier threshold, then no outlier payment is due to the hospital;
- If the applied cost is greater than the outlier threshold, then the outlier amount is equal to 50% of the difference between the applied cost and the outlier threshold;
- The outlier amount is then multiplied by the 0.925 non-contracting hospital adjustment to determine the outlier payment.

The health plan's total payment obligation for inpatient hospitalizations will be the following:

- The adjusted DRG base payment amount, plus
- The outlier payment amount, if applicable.

Examples of the calculation of the inpatient payment obligation are provided in the attached Exhibit 4.

Outpatient Hospital Services

For outpatient hospital services, payments will be determined based on the billed charges on the claim, multiplied by the adjusted cost-to-charge ratio specific to each hospital and the 0.925 non-participating hospital payment adjustment.

The methods for determining the adjusted hospital-specific cost-to-charge ratios for outpatient services are generally consistent with those used to determine the adjusted cost-to-charge ratios for inpatient services. More specifically, the method was as follows:

- Hospital-specific charges per visit were calculated for each month of the period July 1999 through June 2003. Each DRG hospital with average monthly outpatient charges of \$500,000 or more in the most recent 12 months of data was separately analyzed. Hospitals operating within hospital systems were aggregated, and all remaining hospitals were combined for analysis;
- Trends were estimated over the data period using regression analysis. Trends were measured over the period July 1999 through June 2003 since this period encompasses the data used to develop the 2003-2005 per capita costs and the FFY 2005 capitation rates, as well as the most currently available validated encounter data;

- The estimated trend, which reflects an annualized rate of change in charges per visit, was compared to the average annual cost trend of 3.20% used in the per capita cost and capitation rate development;
- Each hospital's cost-to-charge ratio was adjusted by multiplying the starting cost-to-charge ratio by the ratio of the cost and charge trend values, compounded from the midpoint of the data period to the midpoint of the contract period. For the FY 2005 rates, the trend adjustment is compounded for 4.75 years (July 2000 to April 2005). A further adjustment of 0.72 is applied to recognize the reduction in DRG hospital funding built into the FFY 2005 capitation rates.

Exhibit 5 shows the development of the hospital-specific adjusted cost-to-charge ratios for outpatient services.

To determine its payment obligation for an outpatient hospital claim, a health plan would perform the following operation:

- Start with the billed charges on the claim;
- Multiply by the hospital-specific adjusted cost-to-charge ratio; and
- Multiply by the non-contracting hospital adjustment of 0.925. The 0.925 adjustment factor is in compliance with the Non-Participating hospital payment rules.

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Please call Pete Davidson at 415/498-5636 or Sandi Hunt at 415/498-5365 if you have any questions regarding this memo.

ⁱ (8) Cost Outlier Payments:

- (a) Cost outlier payments are an additional payment made to in-state and contiguous hospitals for exceptionally costly services or exceptionally long lengths of stay provided to Title XIX and SF (State Facility) clients.
- (b) Effective for services beginning on or after July 1, 1991, the calculation to determine the cost outlier payment for all hospitals is as follows:
 - (A) Non-covered services (such as ambulance charges) are deducted from billed charges;
 - (B) The remaining billed charges are converted to hospital-specific costs using the hospital's cost-to-charge ratio derived from the most recent audited Medicare cost report and adjusted to the Medicaid case load;

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- (C) If the hospital's net costs as determined above are greater than 270 percent of the DRG payment for the admission and are greater than \$25,000, an additional cost outlier payment is made;
 - (D) Costs which exceed the threshold (\$25,000 or 270% of the DRG payment, whichever is greater) are reimbursed using the following formula:
 - (i) Billed charges less non-covered charges, times;
 - (ii) Hospital-specific cost-to-charge ratio, equals;
 - (iii) Net Costs, minus;
 - (iv) 270% of the DRG or \$25,000 (whichever is greater), equals;
 - (v) Outlier Costs, times;
 - (vi) Cost Outlier Percentage, (cost outlier percentage is 50%), equals;
 - (vii) Cost Outlier Payment.
 - (E) Third party reimbursements are deducted from the OMAP calculation of payable amount;

**Oregon Health Plan
Development of Non-Contracted DRG Hospital Conversion Factors
FY 2005**

Exhibit 1

Base Rates at 100% of Amount Funded in Managed Care Per Capita Costs

	A	B	C = A x (1 - B)	D	E = C / D	F	G	H = E / (F x G)
	Total Projected FY 2005 DRG Hospital Funding	Projected DRG Hospital Outlier Pool Based on Adjusted Cost to Charge Ratios	FY 2005 Base DRG Payments	July 1999 - June 2001 Discharges	FY 2005 Base DRG Funding per Discharge Net of Outlier Funding	Average Geographic Adjustment	Average DRG Casemix	Casemix Adjusted Statewide Base Rate Net of Outlier Funding
DRG Hospitals	\$ 308,485,260	1.94%	\$ 302,512,139	68,864	\$ 4,392.89	1.085	1.152	\$ 3,514.91
	I	J = H	K	L = J x K	M	N = L x M	O = I x N	
Hospital County	July 1999 - June 2001 Discharges	Casemix Adjusted Statewide Base Rate Net of Outlier Funding	CMS Geographic Factor	Geographic- adjusted Base Rate	Average DRG Casemix	Average Base DRG Payment per Discharge	Projected FY 2005 Base DRG Payments	
Benton	3,795	\$ 3,514.91	1.104	\$ 3,880.41	1.159	\$ 4,496.10	\$ 17,062,718	
Jackson	7,155	\$ 3,514.91	1.052	\$ 3,696.34	0.960	\$ 3,549.52	\$ 25,396,784	
Lane	16,021	\$ 3,514.91	1.100	\$ 3,865.49	1.069	\$ 4,133.17	\$ 66,217,458	
TriCounty	41,893	\$ 3,514.91	1.083	\$ 3,805.16	1.216	\$ 4,626.91	\$ 193,835,178	
	68,864	\$ 3,514.91	#REF!	#REF!	1.152	#REF!	\$ 302,512,139	

Note: Projected funding is developed by applying the cost to charge ratios used in the 2003 - 2005 Per Capita Cost Development, the DRG Hospital Funding Adjustment (0.72), and cost trend to the July 1999 - June 2001 encounter data.

**Oregon Health Plan
 Non-Contracted DRG Hospital Base Rates Net of Outlier Funding
 FY 2005**

Exhibit 2

Base Rates at 100% of Amount Funded in Managed Care Per Capita Costs

<u>Hospital Name</u>	<u>Provider Number</u>	<u>CMS Region</u>	<u>DRG Base Rate</u>
ADVENTIST MEDICAL CTR	022173	TriCounty	\$ 3,805.16
ALBANY GENERAL HOSPITAL	001404	Benton	\$ 3,880.41
BAY AREA DISTRICT HOSPITAL	015214	Lane	\$ 3,865.49
EASTMORELAND GENERAL HOSPITAL	112409	TriCounty	\$ 3,805.16
GOOD SAMARITAN HOSPITAL	072652	Benton	\$ 3,880.41
KAISER FOUNDATION HOSPITALS	101550	TriCounty	\$ 3,805.16
LEGACY EMANUEL HOSP HLTH CTR	046313	TriCounty	\$ 3,805.16
LEGACY GOOD SAM HOSP MED CTR	077404	TriCounty	\$ 3,805.16
LEGACY MERIDIAN PARK HOSPITAL	122499	TriCounty	\$ 3,805.16
LEGACY MT HOOD MED CTR	069526	TriCounty	\$ 3,805.16
MCKENZIE WILLAMETTE MEMORIAL	045450	Lane	\$ 3,865.49
MERCY MEDICAL CENTER INC	123109	Lane	\$ 3,865.49
MERLE WEST MEDICAL CENTER	152371	Jackson	\$ 3,696.34
OHSU HOSPITAL	041178	TriCounty	\$ 3,805.16
PROVIDENCE MEDFORD MEDICAL CTR	125935	Jackson	\$ 3,696.34
PROVIDENCE MILWAUKIE HOSPITAL	047134	TriCounty	\$ 3,805.16
PROVIDENCE PORTLAND MEDICAL	023981	TriCounty	\$ 3,805.16
ROGUE VALLEY MEMORIAL HOSP	012349	Jackson	\$ 3,696.34
SACRED HEART GENERAL HOSPITAL	054028	Lane	\$ 3,865.49
SALEM MEMORIAL HOSPITAL	047209	TriCounty	\$ 3,805.16
SOUTHERN OREGON MEDICAL CTR	173740	Jackson	\$ 3,696.34
ST CHARLES MEDICAL CENTER	047399	Lane	\$ 3,865.49
ST VINCENT HOSPITAL MED CTR	023023	TriCounty	\$ 3,805.16
THREE RIVERS COMM HOSPITAL	097808	Jackson	\$ 3,696.34
TUALITY COMMUNITY HOSPITAL	045716	TriCounty	\$ 3,805.16
WILLAMETTE FALLS COMM HOSPITAL	045963	TriCounty	\$ 3,805.16
WILLAMETTE VALLEY MEDICAL CTR	090452	TriCounty	\$ 3,805.16
WOODLAND PARK HOSPITAL	158768	TriCounty	\$ 3,805.16

**Oregon Health Plan
Development of Inpatient Adjusted Cost to Charge Ratios for
Non-Participating DRG Hospitals
Fiscal Year 2005**

Exhibit 3

Data Period Annualized Cost Trend	2.89% ¹
Projection Period Annualized Cost Trend	3.13% ¹
Composite Annualized Cost Trend	3.03% ²
Statewide Average DRG Hospital Annualized Charge Trend	7.46% ³
Trend Months	57 ⁴

Hospital Name	Estimated Average Charge Trend ³	Base CCRs Used in the 03-05 PCC Development ⁵	Adjusted Cost to Charge Ratios	
			With 0.72 DRG Hospital Funding Adjustment ⁶	With Charge Trend Adjustment ⁷
Adventist Medical Center	10.7%	55.3%	39.8%	28.3%
Albany General Hospital	4.1%	59.6%	42.9%	40.9%
Bay Area Hospital	10.5%	63.7%	45.9%	32.9%
Eastmoreland	4.1%	53.8%	38.7%	36.9%
Good Samaritan Hospital - Corvallis	11.2%	80.2%	57.8%	40.2%
Legacy Emanuel Hospital	8.6%	51.9%	37.4%	29.1%
Legacy Good Samaritan Hospital	8.6%	69.2%	49.8%	38.7%
Legacy Meridian Park	8.6%	61.4%	44.2%	34.4%
Legacy Mount Hood Hospital	8.6%	61.6%	44.3%	34.5%
McKenzie Willamette Memorial Hospital	4.1%	67.6%	48.7%	46.4%
McMinnville (see Willamette Valley)	4.1%	57.4%	41.3%	39.4%
Mercy Medical Center	15.5%	48.5%	34.9%	20.3%
Merle West Medical Center	4.1%	59.8%	43.1%	41.1%
OHSU	8.2%	75.0%	54.0%	42.9%
Providence Medford Medical Center	12.4%	61.4%	44.2%	29.2%
Providence Milwaukie Hospital	12.4%	65.6%	47.3%	31.3%
Providence Portland Medical Center	12.4%	58.7%	42.3%	28.0%
Providence St. Vincent Medical Cntr.	12.4%	54.8%	39.5%	26.1%
Rogue Valley Medical Center	4.1%	53.5%	38.5%	36.8%
Sacred Heart Hospital	1.8%	61.8%	44.5%	47.2%
Saint Charles Medical Center	15.9%	70.4%	50.7%	29.0%
Salem Memorial Hospital	11.4%	91.7%	66.0%	45.5%
Three Rivers Community Hospital	7.0%	55.3%	39.8%	33.3%
Tuality Healthcare	4.1%	58.6%	42.2%	40.3%
Willamette Falls Hospital	4.1%	61.3%	44.1%	42.1%
Woodland Park Hospital	4.1%	59.1%	42.5%	40.6%

- Notes:
- ¹ From 03-05 Per Capita Cost Development
 - ² Calculated based on the application of the Data Period trend for 24 months and the Projection Period trend for 33 months.
 - ³ Based on regression analysis of case mix adjusted charges per admission for the period 7/1/99 through 6/30/03. Charges per admission were capped at \$100,000. The statewide average charge trend is displayed for informational purposes only. Hospital-specific charge trends were calculated for hospitals that averaged at least \$1M in average months billed charges to FCHPs for the period 7/1/02 through 6/30/03. Charge data for all other hospitals (excluding Kaiser) were grouped together for the determination of average charge trends. Hospitals within the Legacy and Providence systems were also grouped together.
 - ⁴ The number of months from the midpoint of the Data Period (7/1/00) to the midpoint of the FY 05 Contract Period (4/1/05). The ratio of the Cost Trend to the Charge Trend is compounded over this period.
 - ⁵ From Hospital Settlement Reports
 - ⁶ These values represent the percentage of billed charges used in the calculation of the 03-05 Per Capita Costs.
 - ⁷ The determination of the cost of a hospital admission for non-participating hospitals will be determined using these adjusted cost to charge ratios.

**Oregon Health Plan
Sample Non-Par Hospital Payment Calculations
FY 2005**

Exhibit 4

	Example Payment Obligation Calculation		Notes
	With Outlier	Without Outlier	
1. Geographically adjusted base DRG rate (Tri County) *	\$3,805	\$3,805	PwC calculated, consistent with capitation funding
2. DRG Relative Weight - DRG 110	4.72	4.72	From OMAP FFS payment schedule
3. Base payment obligation before Non-par adjustment	\$17,961	\$17,961	= (1) x (2)
4. Eligible billed charges for hospitalization	\$150,000	\$120,000	Example
5. Adjustment for DRG Hospital Funding	0.72	0.72	Consistent with capitation funding
6. Hospital cost to charge ratio before adjustment	64.1%	64.1%	Sample uses the DRG hospital statewide average, actual varies by hospital
7. Hospital "cost" before trend adjustment **	\$64,033	\$51,226	=(4) x (5) x (6)
8. Estimated Charge Trend	7.46%	7.46%	Statewide average regression estimate, actual uses hospital-specific trends
9. Average annual cost trend in FY05 Capitation Rates	3.03%	3.03%	From 2003-2005 Per Capita Cost development
10. Aggregate excess of charge trend over cost trend***	22.1%	22.1%	= $[(1 + (8))^{4.75} / (1 + (9))^{4.75}] - 1$
11. Trend-adjusted cost to charge ratio	52.5%	52.5%	=(6) / [1 + (10)]
12. Applied hospital cost after trend adjustment	\$56,679	\$45,343	=(4) x (5) x (11)
13. Outlier threshold	\$48,494	\$48,494	=Maximum of (3) x 2.7 and \$25,000
14. Outlier payment obligation before Non-par adjustment	\$4,092	\$0	=Maximum[[(12) - (13)] x 50% and \$0]
15. Total Payment before Non-par adjustment	\$22,053	\$17,961	=(3) + (14)
16. Adjustment for Non-Par contract	0.925	0.925	Specified in rule
17. Total Payment	\$20,399	\$16,614	=(15) x (16)

* Adjusted for DRG Hospital Funding and projected outlier pool

** For information purposes only

*** Ratio in trend calculated from the midpoint of the data period to the midpoint of the contract period or 4 years, 9 months.

**Oregon Health Plan
Development of Outpatient Hospital Adjusted Cost to Charge Ratios for
Non-Participating DRG Hospitals
Fiscal Year 2005**

Exhibit 5

Data Period Annualized Cost Trend	3.29% ¹
Projection Period Annualized Cost Trend	3.13% ¹
Composite Annualized Cost Trend	3.20% ²
Statewide Average DRG Hospital Annualized Charge Trend	11.82% ³
Trend Months	57 ⁴

Hospital Name	Estimated Average Charge Trend ³	Base CCRs Used in the 03-05 PCC Development ⁵	Adjusted Cost to Charge Ratios	
			With 72% DRG Hospital Funding Adjustment ⁶	With Charge Trend Adjustment ⁷
Adventist Medical Center	12.5%	44.8%	32.3%	21.4%
Albany General Hospital	12.0%	57.5%	41.4%	28.1%
Bay Area Hospital	19.1%	59.6%	42.9%	21.7%
Eastmoreland	12.0%	60.6%	43.6%	29.6%
Good Samaritan Hospital - Corvallis	18.5%	68.2%	49.1%	25.5%
Legacy Emanuel Hospital	0.9%	57.0%	41.1%	45.8%
Legacy Good Samaritan Hospital	0.9%	56.3%	40.5%	45.2%
Legacy Meridian Park	0.9%	55.4%	39.9%	44.4%
Legacy Mount Hood Hospital	0.9%	50.3%	36.2%	40.4%
McKenzie Willamette Memorial Hospital	12.0%	64.4%	46.3%	31.4%
McMinnville (see Willamette Valley)	12.0%	42.2%	30.4%	20.6%
Mercy Medical Center	14.5%	45.2%	32.6%	19.9%
Merle West Medical Center	12.0%	54.5%	39.2%	26.6%
OHSU	25.7%	78.4%	56.4%	22.1%
Providence Medford Medical Center	8.1%	58.7%	42.3%	33.9%
Providence Milwaukie Hospital	8.1%	53.9%	38.8%	31.1%
Providence Portland Medical Center	8.1%	46.1%	33.2%	26.6%
Providence St. Vincent Medical Cntr.	8.1%	44.3%	31.9%	25.5%
Rogue Valley Medical Center	12.0%	82.3%	59.3%	40.2%
Sacred Heart Hospital	7.7%	52.3%	37.7%	30.8%
Saint Charles Medical Center	15.5%	77.3%	55.6%	32.6%
Salem Memorial Hospital	7.6%	69.2%	49.8%	40.9%
Three Rivers Community Hospital	10.1%	54.1%	39.0%	28.6%
Tuality Healthcare	12.0%	53.8%	38.8%	26.3%
Willamette Falls Hospital	12.0%	53.0%	38.2%	25.9%
Woodland Park Hospital	12.0%	37.4%	26.9%	18.2%

- Notes:
- ¹ From 03-05 Per Capita Cost Development
 - ² Calculated based on the application of the Data Period trend for 24 months and the Projection Period trend for 33 months.
 - ³ Based on regression analysis of charges per visit for the period 7/1/99 through 6/30/03. The statewide average charge trend is displayed for informational purposes only. Hospital-specific charge trends were calculated for hospitals that averaged at least \$500K in average months billed charges to FCHPs for the period 7/1/02 through 6/30/03. Charge data for all other hospitals (excluding Kaiser) were grouped together for the determination of average charge trends. Hospitals within the Legacy and Providence systems were also grouped together.
 - ⁴ The number of months from the midpoint of the Data Period (7/1/00) to the midpoint of the FY 05 Contract Period (4/1/05). The ratio of the Cost Trend to the Charge Trend is compounded over this period.
 - ⁵ From Hospital Settlement Reports
 - ⁶ These values represent the percentage of billed charges used in the calculation of the 03-05 Per Capita Costs.
 - ⁷ The determination of the cost of a OP hospital visit for non-participating hospitals will be determined using these adjusted cost to charge ratios.