Better Payment Policies for Quality of Care:

Fostering the Business Case for Quality Phase I – Medicaid Demonstrations

Final Report – Site Summaries
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UNC
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Project Background

CareOregon's quality enhancing initiative (QEI) was implemented through the *Business Case for Quality* (BCQ), a multi-site demonstration project designed by the Center for Health Care Strategies (CHCS) to test the existence of a business case for quality for Medicaid managed care organizations. Ten Medicaid managed care entities implemented pilot interventions that addressed a range of clinical conditions and intervention strategies. The interventions, launched in April 2004, were evaluated by a research team at the University of North Carolina at Chapel Hill. BCQ was funded by the Robert Wood Johnson Foundation (RWJF) and The Commonwealth Fund (CMWF).

Oregon

CareOregon

The Oregon Health Plan (OHP) is the Medicaid program for the state of Oregon. It administers Medicaid benefits through 14 Fully Capitated Health Plans (FCHP). Approximately 70% of Oregon Medicaid enrollees are in one of the FCHP managed care organizations, with CareOregon the largest of the 14 FCHPs, administering Medicaid benefits to 85,000 members.

CareOregon has a membership that is culturally and medically diverse. Their educational materials are translated into 12 languages. The majority of their population, 60%, lives in the urban Portland metropolitan area, while the remaining 40% is dispersed over 11 predominantly rural counties. Over three quarters of the membership is enrolled in categories for healthy poverty-level women and children (TANF, CHIP) while 23 % are in eligibility categories with a high proportion of individuals with complex and high risk chronic medical conditions (Old Age, Blind and Disabled, Children with Special Disabilities).

Reimbursement Model

CareOregon is capitated for coverage of all medical services including pharmaceuticals and chemical dependency services. Mental health services are separately managed by Mental Health Organizations, and risk for mental health drugs remains with the State. Capitation rates are the same statewide, and are actuarially created based on eligibility categories. If utilization decreases, CareOregon directly benefits from the resulting financial savings until the Oregon Health Plan adjusts the capitation rates.

Quality Enhancing Intervention

CareOregon has implemented CareSupport, an enhanced case management program designed to improve the quality of chronic care for high-risk members with multiple co-morbidities. The goal of this initiative is to build on a Chronic Care Model developed by Dr. Ed Wagner and to demonstrate improvements in quality and utilization that are transferable to other settings. The Chronic Care Model of evidence based, proactive and maximally informed care has been conceptualized as provider office-based, structured around a patient with a specific chronic disease and a single provider or provider team in a single practice setting. However, many of these high-risk complex patients have multiple chronic diseases and are seen in multiple specialty provider practices. Many are socially complex and have or need multiple non-medical providers such as caregivers, community out reach workers, and caseworkers -- who also play a key role in the failure or success of the medical management plan.

Prior to this initiative, CareOregon members entered case management predominantly as the result of a health care crisis, such as hospitalization(s), inability to access needed services, or through provider referral. The goal of the CareSupport program is to avoid those crises and their related morbidities and costs by identifying high-risk members early and proactively evaluating them for case management.

Enhanced case management is led by dedicated nurses, called CareSupport RNs. To assist in their efforts, a "Complex Care Patient Health Record" was created to present a global picture of the member's chronic disease co-morbidities, utilization history over time, treating providers, medication profile, and overall ACG estimated risk status. CareSupport RNs supplement this health plan data with the provider driven plan of care, social support information, and their case management plan and goals. These integrated records aim to provide a comprehensive map of the critical elements supporting the member's chronic care to guide the care management. CareSupport RNs are also supported by:

- *CareSupport rounds*: Medical Director rounds support standardization of clinical approach through case discussions and review of difficult cases.
- *Clinical guideline support*: Written guidelines are available for diabetes, CHF, COPD, asthma and depression.
- *Case load monitoring* to ensure RNs are utilized effectively.
- *Coordination with other medical management programs*: Many CareSupport enrollees are also appropriate for Pharmacy Case Management. The integrated "Complex Care Patient Health Record" is used for all medical management programs to allow coordination of effort and efficient use of resources.

Target Population

The CareSupport program targeted the 652 highest risk members as identified using two tools: Johns Hopkins Adjusted Clinical Group (ACG) High Risk Case Identification (HRCI) Scores between 0.5-1.0, and a health risk assessment tool administered via telephone to new members. The ACG system applies health plan administrative data to a validated health risk adjustment algorithm based on patterns of co-morbidity, age and gender, rather than a single chronic disease or past utilization. Among other outputs, the ACG system can identify individual plan members who are at highest risk of poor health outcomes and utilization of extraordinary healthcare resources.

Baseline Claims Findings

CareOregon enrolled 652 individuals in their QEI at the beginning of the baseline year. Due to attrition throughout the year, enrollment averaged 581 member months. Date of birth information was not available, and consequently we do not know the age range or the mean age of this population. Individual claim totals were examined for outliers, but none were removed. (**Appendix 7**)

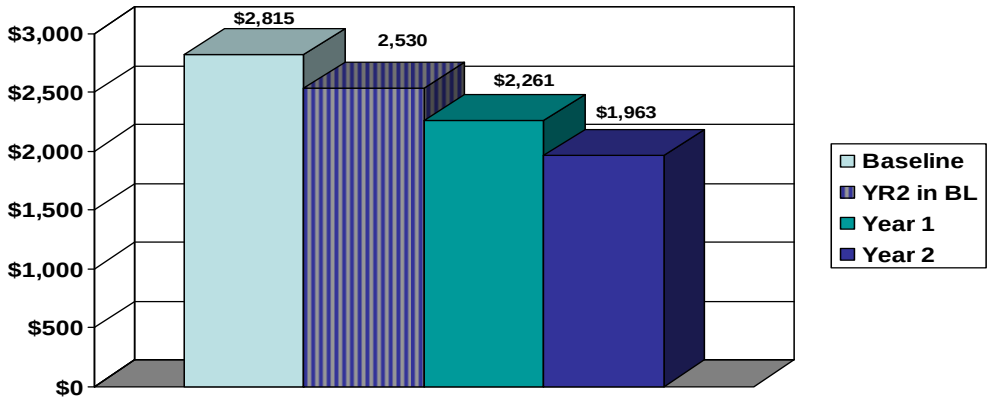
The average total PMPM payments for the members in the baseline year were $2,815 of which nearly half, $1,294 was for inpatient hospital care. The hospital admission rate was 1,373 admissions per 1000 persons and the day rate was 8,184 days per 1000 persons, for an average length of stay of 6.0 days. The second largest payment category was for prescription drugs, with an average PMPM payment of $481, and an average 78.9 prescriptions per person or approximately 6-7 maintenance drugs. This high number reflects the nature of this population with multiple chronic conditions. Payments for hospital outpatient care were the next largest payment, with $352 PMPM. Payments for office visits were $317, with an average visit rate of 14 visits per person. Emergency room visits averaged 3.5 per person, with an average payment of $89 PMPM. Payments for home care services were $205, for an average of 5.5 visits per persons[3]. (**Figure 7.2**, **Table 7.1**)

Table 7.1: Oregon Utilization Measures

Utilization	Baseline N=652	Year 1 N=546	Year 2 N=431	**BL in YR 2** N=410
Admissions/1000	1,373.4	9,46.6	709.1	1,124.6
Days/1000	8,183.6	5,144.1	3,482.0	3,102.5
Office visits per person	14.0	12.7	12.1	14.8
ER visits per person	3.5	2.4	2.0	3.6
Home visits per person	5.5	2.0	3.5	5.5
Prescriptions per person	78.9	87.0	90.1	85.2

[3] Home visits are measured by counting the number of days on which at least one home care service was delivered

Figure 7.1: Oregon PMPM Payment Totals (including Year 2 in Baseline cohort)

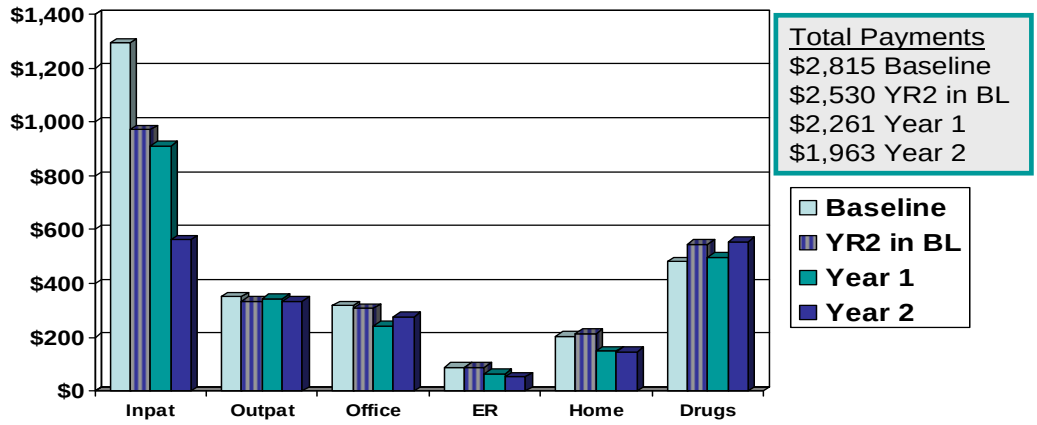


Year One and Two Claims Findings

During year one 106 persons were lost to follow-up, resulting in an average of 457 members in the QEI throughout the year. During year two, an additional 115 members were lost, for an average of 361 members in year two. Consequently, 34% of the original members were no longer in the QEI at the end of the project. (**Appendix 7)**

Total PMPM payments declined 19.6% in year one and 12.8% in year two, for a total two year decline of 29.8%. The most dramatic drop was for payment for hospital inpatient care, from $1,294 in the baseline year to only $564 in year two. The decline in payments is reflected in the drop in inpatient utilization measures: admissions per 1000 persons decreased from 1,373.4 to 709.1 admissions per 1000 persons and the hospital days dropped from 8,183.6 to 3,482.0 days per 1000 persons. By year two the QEI participants were hospitalized half as frequently as in the baseline year. Payments for office visits declined modestly, from an average of $317 PMPM to $277. The office visit rate also declined, from an average of 14.0 visits per person to 12.1 visits. Payments for home visits also decreased, from $205 to $147 PMPM, reflecting a decline in visits, from 5.5 to 3.5 per person. The only payment category that increased during the QEI timeline was for prescription drugs. The average number of prescriptions increased from 78.9 to 89.4 per person, with a corresponding payment increase from $481 to $566. (**Table 7.1, Figure 7.2**)

Figure 7.2: Oregon PMPM Payments by Category



Cohort Analysis

CareOregon chose not to add more eligible individuals to their QEI intervention cohort during the implementation period and instead chose to follow their original cohort. Since as many as a third was lost to follow-up, we conducted a secondary analysis of the baseline experience of the 410 individuals who were present for the three years. The total PMPM payment for this cohort was $2,530 in baseline, compared to the $2,815 PMPM for the 652 individuals. (**Figure 7.1**) This means that the individuals lost to follow-up were more costly than the ones who stayed. In spite of this, the reduction in PMPM payments for the 410 member cohort was an impressive 22.4% ($2,530 in baseline, $1,963 in year two)

Investment and Operating Expense

The investment cost made by CareOregon in the baseline year was $60,200 of which the largest expense was for a consultant, who essentially served in a staff role. Other expenditures were for a data analyst, system analyst, program manager and medical director. Operating expenses were $202,770 in year one and $285,620 in year two, primarily to fund personnel, including nurse case managers. (**Table 7.2**)

Table 7.2: Oregon Operating Costs

Costs	Baseline	Year 1	Year 2
Personnel	52,360	181,039	253,131
Office	2,420	4,989	8,906
Equipment	449	0	0
Other direct	0	0	0
Indirect	4,971	16,742	23,583
Total	$60,200	$202,770	$285,620

Return on Investment

Start up costs and ongoing operating expense totaled $526,288 for the three years, on a discounted basis. Claims cost decreased $2,946,825 in year one, and $3,476,952 in year two, for a total decrease of $6,423,766 on a discounted basis. Subtracting the investment cost, the net present value was $5,897,487 for a benefit cost ratio of 12.21. (**Table 7.3**)

Table 7.3: Oregon Return on Investment

	Baseline	Year 1	Year 2	Total
Investment in QEI				
Investment/Operational Costs	60,200	202,770	285,621	
Discounted Costs	60,200	196,864	269,225	526,288
Savings/Increases from QEI				
Utilization Savings		3,035,229	3,688,698	
Discounted Savings		2,946,825	3,476,952	6,423,776
ROI Metrics				
Benefit-Cost Ratio				+12.21
Net Present Value				$5,897,487 positive

APPENDIX 7

OR CareOregon(DUAL ELIGIBLES EXCLUDED)								
QEI- Multiple Co-Morbidities	QEI Start Date: : 12/01/04				Data Contact- Lauren Spitz-Moore			
Utilization and Membership	Members	Members in Claims	Average Member Months	Total Payments PMPM	Individual Average PMPM Low	Individual Average PMPM High		
Base:10/03-09/04	N=~650	652	581	$2,814	$16.69	$30,588		
Year 1: 10/04-09/05		540	457	$2,261	$1.21	$41,062		
Year 2:		410	361	$1,963	$0.30	$35,655		
Year2 in Baseline		410	361	$2,530	16.69	$22,743		
Utilization Measures by Category	Baseline		Year 1		Year 2		Y2 in Bl	
Admissions/1000	1,373.4		946.6		709.1		1124.6	
Days/1000	8,183.6		5,144.1		3482.0		3102.5	
Office visits/person	14.0		12.7		12.1		14.8	
ER visits/person	3.5		2.4		2.0		3.6	
Home visits/person	5.5		2.0		3.5		5.5	
Prescriptions/person	78.9		86.9		89.4		85.2	
PMPM Payments by Category	Baseline	%Tot	Year 1	%Tot	Year 2	%Tot	Y2 in BL	%Tot
Inpatient	$1,293.87	46	$910.87	$40.30	$563.67	28.7	971.13	38.4
LTC	23.49	0.8	$13.47	$0.60	$3.43	0.2	21.72	0.9
Outpatient	352.00	12.5	$344.60	$15.20	$332.95	17	332.96	13.2
Office	317.27	11.3	$242.53	$10.70	$276.60	14.1	307.29	12.1
ER	89.02	3.2	$65.16	$2.90	$52.03	2.6	88.19	3.5
Ambulance	47.83	1.7	$32.96	$1.50	$25.97	1.3	44.47	1.8
Home	204.75	7.3	$149.67	$6.60	$146.57	7.5	212.50	8.4
Pharmacy	480.92	17.1	$497.55	$22.00	$556.39	28.3	546.63	21.6
Other	5.66	0.2	$4.53	$0.20	$5.70	0.3	5.45	0.2
Total	$2,814.81		$2,261.34	100%	$1,963.31	100%	2530.34	