

Show Me the Money: The Cost of Emergency Department Use by OHP Enrollees

Oregon Health Research and Evaluation Collaborative
February 13, 2007

Daniel A. Handel, MD, MPH
K. John McConnell, PhD, MS

OHSU Center for Policy Research in Emergency Medicine

Neal Wallace, PhD

Portland State University

Charles Gallia, PhD

Division of Medical Assistance Programs, State of Oregon

Outline

- Motivation
- Study population & methods
- Study results
- Implications

Motivation

- Common perception that OHP/Medicaid beneficiaries use the ED a lot
 - For “nonurgent” conditions?
- Presumption that these visits add substantially to the cost of OHP/Medicaid coverage

Motivation

- Policy responses have focused on curtailing ED use
 - E.g., “triage” fee under consideration in Oregon (OAR 410-125-0196)
 - Would have paid hospitals \$42 for visits not classified as “urgent”
 - Scuttled in December 2006
 - Federal Deficit Reduction Act allows co-payments for ED visits for Medicaid enrollees
- Do these policies make sense?

Goals of Study

- This study seeks to quantify potential savings from reduced ED use by Medicaid enrollees
- Specifically: we quantify absolute and percentage of total ED expenditures for OHP enrollees

Related research

- A flurry of research in the last 5 years on ED utilization
- Key findings
 - ED use is highest among individuals with poor health
 - Frequent use is usually temporary

Methods

- Retrospective data from 2002
 - DMAP Claims & enrollment
 - Fee-for-service/MCO encounter data
- Include all OHP enrollees who were not eligible for Medicare (“dual eligibles”)
- Pricing for managed care “encounter data” based on fee-for-service (FFS) average expenditures for each DRG/CPT

Methods

- We focused on any ED visit that does not result in hospital admission
- For each of these ED visits, defined “ED spending” sum of
 1. Payment to hospital for ED use
 2. Payment to emergency physician
 3. Payment to *any* other physician or service that occurs on the same day as ED visit
 - (mostly diagnostic/ancillary services)
- “Generous” estimation of ED expense
- Compare ED spending to total spending
 - “total” includes outpatient, inpatient, and pharmaceutical spending

Statistical approach

- Main emphasis on simple univariate estimates
 - Analysis by eligibility category
 - Children/CHIP
 - Pregnant Women
 - TANF
 - OHP Standard
 - OHP Other
 - FFS/MCO
 - Urban/rural
- Bootstrapping for 95% CI
- Multivariate analyses also conducted

Results

Study Population

- 586,316 OHP enrollees
- Average age
 - adults 29.2 years
 - children 8.4 years
- Ethnicity
 - Caucasian (78.3%), Hispanic (14.4%), African-American (2.5%), and Asian (1.6%)

Enrollment Characteristics

- Eligibility categories (PERCS)
 - Children (45%)
 - OHP Standard (33%)
 - TANF (10%)
 - Pregnant women (4%)
 - OHP "Other" (8%)
- MCO enrollment: 57%
- Enrolled 8.4 months on average

Show me the money



(Courtesy TriStar Pictures)

Monthly ED Expenditures Per OHP Enrollee

	<u>ED Expenditures</u>	<u>ED as % of Total Expenditures</u>
Overall	\$11.54 (11.42-11.65)	6.8% (6.7-6.9)

Monthly ED Expenditures by PERC

<u>Category</u>	<u>ED Expenditures</u>	<u>ED as % of Total Expenditures</u>
Children	\$6.30 (6.18-6.39)	9.3% (9.1-9.5)
Pregnant Women	\$11.06 (10.58-11.50)	3.7% (3.5-3.8)
TANF	\$17.94 (17.52-18.38)	9.0% (8.8-9.2)
Standard	\$16.26 (15.96-16.50)	7.6% (7.4-7.8)
Other	\$12.20 (11.87-12.54)	4.8% (4.7-5.0)

Monthly ED Expenditures Per OHP Enrollee

<u>Category</u>	<u>Average ED Costs</u>	<u>ED as % of Total Expenditures</u>
Managed-Care Organization	\$11.66 (11.50-11.79)	6.8% (6.7-6.9)
Fee-For-Service	\$11.36 (11.16-11.56)	6.8% (6.7-7.0)
Rural	\$11.40 (11.27-11.57)	6.7% (6.6-6.8)
Urban	\$11.69 (11.49-11.89)	7.0% (6.8-7.1)

Multivariate analyses

Variable	Children	Adults
Age	-\$0.07*	\$0.28*
Rural (v. Urban)	\$1.05*	-\$1.50*
Female	-\$0.51*	\$1.07*
FFS	-\$0.58*	\$0.07
Non-white	\$0.32	-\$1.69*
OHP TANF	-	\$3.14*
OHP Pregnant	-	\$0.07
OHP Standard	-	\$0.79*

Other key findings

- Approximately 35% of ED expenditures are for ancillary services (lab/x-ray)
 - 44% for hospital/ED facility
 - 21% for emergency physician
- Only 22% of enrollees use the ED in a given year
- Approximately 50% of ED spending can be attributed to < 4% of the population

Limitations

- Ignores costs of inpatient admissions
 - Other studies suggest that reducing ED use also reduces inpatient admissions
- No dual-eligibles
- Unable to determine if patients had PCP
- 2002 data

Implications

What savings are possible from reducing ED use?

- Our study suggests ED use accounts for approximately 7% of OHP/Medicaid spending
- Fairly stable across PERCs/FFS v. MCO/Urban vs. Rural
- How much can we reduce ED spending?

Estimates of ED responsiveness to co-payments

- Rand Health Insurance Experiment, 1970s: 14%
 - O'Grady et al., 1985, *NEJM*
- Kaiser Permanente, 1993: 15%
 - Selby et al., 1996, *NEJM*
- Kaiser Permanente, 2000: up to 23%
 - Hsu et al., 2006, *Health Serv Res*

These results are from privately insured population

- On the one hand, OHP/Medicaid enrollees might be *more* responsive to ED co-payments
 - Lower income, more price-sensitive
- On the other, they might be *less* responsive
 - Sicker
 - Less ability to force “collection” of ED co-payment
 - EMTALA – this is very hard to do

Savings from reducing ED use through co-payments

- Optimistic scenario: co-payments for ED would only reduce total spending by 2%
 - i.e., 25% reduction X 7% of total spending
- These savings might be offset
 - If patients delay care and are admitted for more expensive treatment
 - No evidence of this on the private side
 - Some evidence this happened with OHP Standard in 2003
 - If patients use primary care setting instead
 - If they require more administrative overhead

Collecting ED co-payments

- How does this work?
 - In certain institutions, patients undergo the EMTALA-required medical screening examination at triage
 - For those who are determined to have a non-emergent condition, they are presented with two options:
 - If insured, there standard co-pay if applicable prior to being seen
 - If not, they are requested to pay upfront a fixed amount prior to being seen
- Long-term outcomes of this method have not been published in a non-HMO population

There are other implications of Medicaid co-payments

- Act as “de facto” rate reduction
 - EMTALA – can’t turn away patients
- ED already subject to variable payment policies in some cases
 - “vomiting” -> denial
 - “vomiting with dehydration” -> payment
- ED acts as safety net
 - How sustainable if not reimbursed?

Is there a better way?

- Note that a small group of enrollees are responsible for the majority of ED expenditures
- Suggests a strong role for case management
- Improve quality, lower costs

Thank you...

...and questions?

Dan Handel

handeld@ohsu.edu

(503) 494-9587