

Substance abuse treatment duration for Medicaid versus commercial clients in an HMO

Presentation to
the Oregon Health Research & Evaluation Collaborative
February 14, 2006

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We gratefully acknowledge funding from NIDA and NIAAA.

*We gratefully acknowledge assistance in data access and support from
Oregon DHS – Department of Substance Abuse Services and OMAP.*

Background

- Systems such as HMOs that combine substance abuse treatment (SA) and primary care may provide clinical, economic, and social benefits
- Duration of SA treatment is closely linked to positive treatment outcomes
- Risk for premature termination of SA treatment may be particularly high for Medicaid clients

Previous Studies

- 3 studies of treatment outcomes for Medicaid compared to privately insured clients in managed care organizations:
- Green et al. (2002)
 - Medicaid status negatively associated with treatment completion for men
- Ettner et al. (2003)
 - Medicaid clients had similar or better outcomes
- Walters et al. (2002)
 - Medicaid clients ended treatment sooner
 - Health plan enrollment not significantly related to retention in treatment

Research Questions

- What is the relationship between Medicaid enrollment and SA treatment initiation and duration of SA treatment in an HMO?
- Does length of enrollment in the HMO affect SA treatment initiation and duration?

Context

- Many Medicaid clients enrolled in private managed care organizations (MCOs)
- Some experts concerned that private MCOs may not meet the needs of Medicaid clients with SA problems

Oregon Medicaid Program

- During study period, most Oregon Medicaid clients enrolled in private commercial MCOs
- State pays MCO single capitated rate for physical health and substance abuse services (excluding residential treatment)
- In 1994, OHP expanded eligibility to include the working poor

Study Design

- Observational study uses secondary data on public and privately enrolled members of Kaiser Permanente Northwest (KPNW)
- Parent study included all Medicaid KPNW members who received care in the specialty SA program between 1/1/96 and 1/31/97 (N=1304)
- Study matched (age, gender) Medicaid members with privately insured comparison group
- All subjects followed for up to 3 years after initial contact with SA treatment program

Sample

- Subsample included all adult study subjects assessed and recommended for SA treatment
 - Ages 19–64
- Medicaid Group: N=641
- Commercial Group: N=474

Data

- HMO addiction medicine assessment interviews
 - Clinical characteristics
 - Demographics and social characteristics
- KPNW administrative databases
 - Treatment initiation and duration of treatment
 - Length of HMO enrollment
 - Insurance coverage information
- State data on Medicaid eligibility for all KPNW Medicaid clients who had received SA treatment

Variables

- Dependent variables
 - SA treatment initiation
 - 1 or more SA treatment visits within 14 days of treatment recommendation
 - Duration of SA treatment
 - Days in tx after initiation until subject ended tx, disenrolled from HMO, died, or reached end of study period
- Other key variables
 - Medicaid vs. commercial indicator
 - Treatment completion
 - 90 days in treatment with no more than 30 days between visits

Propensity Scores

- Used a non-equivalent group design
 - Groups have significant differences on covariates that can bias estimates of group effects
- Created propensity scores using methods from D'Agostino (1998) and Rosenbaum & Rubin (1985)
- Calculated individual propensity scores using logistic regression with demographic, social, and clinical variables
- Compared differences in Medicaid and commercial groups on covariates before and after propensity score adjustment

Overview of Analyses

- Treatment initiation
 - Logistic regression
 - Adjusted for propensity score
 - Covariates included Medicaid status, HMO enrollment
- Treatment duration
 - Competing risks framework with Cox proportional hazards models stratified on propensity score
- Reasons for loss of Medicaid eligibility
 - Descriptive statistics on most common reasons for loss of Medicaid eligibility in HMO members treated for SA
- SAS Proc MI for missing data on covariates

Analysis of Treatment Duration

- Competing risks framework with Cox proportional hazards models stratified on propensity score
- Examination of multiple mechanisms that might influence length of time in SA treatment
 - Drop out of treatment, remain eligible for HMO
 - Lost HMO eligibility, ended SA treatment prematurely

(These two risks may depend on Medicaid status.)



Results

Key Features of the Study Sample

- Treatment recommendations similar for both groups
- Medicaid clients had more:
 - Prior SA treatment
 - Lifetime Suicide Attempts
 - Domestic Violence
 - Forced Sex
 - Arrests
 - Illicit Drug Use
- Demographic differences were significant
 - Gender, age, ethnicity, education, marital status

Unadjusted Differences in Outcomes

Medicaid SA clients were:

- Less likely to initiate SA treatment (*significant*)
- Less likely to complete treatment (*not significant*)
- Have fewer days in treatment (*not significant*)

Propensity Score Results

Post propensity score adjustment comparisons indicate:

- Few remaining differences
- Level of education, and history of suicide attempt remained significantly different
- Later variables included in multivariate analyses

(Detailed results in handout)

Treatment Initiation

Logistic regression indicated:

- Medicaid status not significantly related to initiation
- Longer HMO eligibility **significantly increased** odds of initiation

(Detailed results in handout)

Treatment Duration

Results from competing risks proportional hazard models showed:

- Chances of terminating treatment were not significantly related to Medicaid status
- Lifetime enrollment in HMO was not significantly related to termination
- Education level was not significantly related to termination
- History of suicide attempt was significantly related to termination

(Detailed results in handout)

Reasons for HMO Disenrollment

- Loss of Medicaid eligibility (58%)
- Switched to fee for service (21%)
- Switched to other HMO (4%)
- Other (18%)

Conclusions

- After adjustment for confounding factors, Medicaid status not significantly related to measures of treatment initiation or duration
- Primary reason for health plan disenrollment was loss of Medicaid coverage
- State policies that encourage continuity of health system affiliation and reduce barriers to continuous Medicaid eligibility should help to maximize the chances that Medicaid enrollees with SA obtain needed SA services

Limitations

- Observational study
- Follow-up data on subjects leaving Oregon Medicaid program not available
- Generalizability to other states may be limited due to Oregon-specific expansion groups
- Some persons who lost HMO eligibility possibly continued treatment with alternative community providers

References

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Related Research

- Understanding cost-shifting from private to public sector
- Improving capitation payment for persons with SA problems

Center for Health Research

- Created in 1964, Kaiser Permanente's Center for Health Research/Northwest and Hawaii (CHR) is a professionally independent, non-profit research institute whose mission is to improve individual health and inform health policy.
- Currently, over 300 employees provide administrative, analytical, computer, recruitment, publication, and other support services to CHR's more than 32 investigators
- Our annual budget was \$30 million in 2003, with nearly 81 percent of the CHR's budget coming from federal grants and contracts (primarily NIH investigator initiated awards). Another 9 percent came from grants from private foundations and from contracts with pharmaceutical companies. The remaining 10 percent came from an annual support grant from Kaiser Foundation Hospitals' program of Direct Community Benefit Investment.