Medical Assistance Costs Declined Among Emergency Department Patients who Received Brief Interventions for Substance Use Disorders through WASBIRT

Medicaid-Only Aged, Blind or Disabled, April 2004-December 2005

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Costs to the Medical Assistance Program were examined for aged, blind or disabled Medicaid clients who received at least a brief intervention through the Washington State Screening, Brief Intervention, Referral and Treatment (WASBIRT) Program between April 2004 and December 2005. The WASBIRT Program was implemented in nine large hospitals in the state, primarily among Emergency Department patients. Chemical dependency professionals screened 27,805 patients by the end of December 2005 and provided at least a brief intervention to 53% of these patients. Of all patients screened, 85% gave permission for the use of administrative records for analyses of the effectiveness of the WASBIRT Program.

Analyses focused on patients whose medical care was covered by Medicaid through the aged, blind or disabled programs. Comparisons were drawn between 1,110 of these clients who received at least a brief intervention through WASBIRT and 22,926 Medicaid-only clients in these programs who were 18 to 64 years old, were treated in an Emergency Department in the same period, and lived in one of the six participating counties (Clark, King, Pierce, Snohomish, Thurston, or Yakima). Changes in medical costs after an Emergency Department visit were examined using two-stage, propensity-score adjusted regression models.

Total medical costs and inpatient costs declined more for Medicaid-only aged, blind or disabled clients who got at least a brief intervention for substance use disorders than for similar clients who did not.

- The reduction in total medical costs after receiving the brief intervention ranged from −$157 per member per month (pmpm) (p<.05) based on a regression model in which the propensity score was used as a weighting factor to −$202 pmpm (p=.10) based on a model in which the propensity score was used as a covariate.
- Most of the reduction in medical costs was due to a decline in inpatient hospital costs ranging from −$115 pmpm (p=.05) to −$178 pmpm (p=.10).
- Outpatient Emergency Department costs increased for the group that received an intervention relative to those who did not by +$35 (p<.05) to +$36 pmpm (p<.05).

Overall reductions in total Medicaid costs could amount to as much as $1.9 to $2.4 million a year given the range of estimated reductions in medical costs found in these preliminary results. These figures are based on the assumption that about 1,000 Medicaid clients would be likely to receive a brief intervention annually at the current rate of screening patients in the nine hospitals participating in the WASBIRT Project. These results are preliminary but will be updated periodically as more clients are screened by the project. The evaluation of this project will continue through September 2008, the end of the federal cooperative agreement that funds WASBIRT. Future analyses will examine the stability of the cost outcomes over time.

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1 Clients who were eligible for both Medicaid and Medicare coverage (i.e., dual eligible) were excluded from analyses.

2 The first stage regression model produces the propensity score which represents the estimated likelihood that a Medicaid patient in the comparison group would receive a brief intervention based on his or her background characteristics relative to the characteristics of those who received an intervention. In the second stage regression equation, the propensity score is employed either as a weighting factor or as a covariate. Results from both models are shown in order to provide a potential range of cost reduction estimates.
Criteria for Level of Intervention

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<th>BI Only*</th>
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*BI may also be given if the AUDIT score falls below 7 for females or 8 for males if there is evidence of binge drinking based on AUDIT questions, the patient has used alcohol 6 hours before an injury, the patient requests help, or the counselor identifies some other reason for offering a brief intervention (e.g., underage drinking).

References


Additional copies of this paper may be obtained from: [http://www1.dshs.wa.gov/RDA/](http://www1.dshs.wa.gov/RDA/) or [http://www1.dshs.wa.gov/dasa/](http://www1.dshs.wa.gov/dasa/) or through the Washington State Alcohol|Drug Clearinghouse by calling 1-800-662-9111 or 206-725-9696 (within Seattle or outside Washington State), by e-mailing clearinghouse@adhl.org, or by writing to 6535 Fifth Place South, Seattle, Washington 98108-0243.

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