Harborview Medical Center
Substance Use Outcomes

Use of Alcohol and Other Drugs Declined Among
HMC Emergency Department Patients who Received
Brief Interventions for Substance Use Disorders
through WASBIRT

Six-Month Follow-up Survey for WASBIRT Participants from HMC
April 12, 2004 – March 31, 2006

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Harborview Medical Center (HMC) is one of nine hospitals in Washington State that agreed to participate in the Washington State Screening, Brief Intervention, Referral and Treatment (WASBIRT) Project which began in the spring of 2004. Through this project, chemical dependency counselors screen primarily emergency department patients for alcohol and drug use. Based on the patient’s level of risk for substance use disorders, the counselor provides brief interventions to anyone at moderate or high risk levels. They also refer patients with more serious disorders to brief therapy or more traditional forms of chemical dependency (CD) treatment.

To see whether brief interventions or additional counseling helps reduce patients’ levels of alcohol or other drug use, a sample of 839 out of 4,617 HMC patients with moderate or high risk for substance use disorders were selected randomly for a follow-up telephone interview six months later. Interviews were completed with 594 of the sample—a 72 percent response rate. Analyses were based on between 537 and 547 study participants with complete information on alcohol use, binge drinking, and drug use questions. (See Technical Notes.)

Alcohol and other drug use declined for patients who got at least a brief intervention.

HMC patients who received brief interventions through the WASBIRT Project as well as those who went on to receive additional forms of counseling for alcohol or other drug use have altered their substance use patterns significantly (p<.05). The following changes occurred:

- Number of days of drinking and other drug use declined.
- Abstinence from alcohol and other drug use increased.
- Binge drinking declined.

Among substance users who received at least a brief intervention, use reported in the six-month follow-up interview declined significantly compared to use reported at screening.

- 80% of 392 patients who drank alcohol reduced the number of days of drinking in the past 30 days, in part because over a third of them (36%) stopped drinking.
- Average days of drinking in the past 30 days declined from 13.0 to 6.1 days (p<.05).
- 84% of 267 patients who reported bingeing in the past 30 days reduced the number of heavy drinking days, with the average declining from 11.7 to 3.5 days (p<.05).
- 81% of 286 patients who reported drug use in the past 30 days reduced the number of days of use, in part because 44% of them stopped using drugs.
- Average days of drug use in the past 30 days declined from 13.6 to 7.1 days (p<.05).
**Alcohol Use Outcomes**

**Average days of alcohol use in the past 30 days declined significantly**

The average number of days of drinking in the last 30 days declined significantly:

- From 8.8 to 5.2 days (41% decrease) for 447 patients with a moderate or high risk for substance use disorders who received only a brief intervention.
- From 11.8 to 3.4 days (71% decrease) for 99 patients with a high risk for substance use disorders who received a brief intervention plus brief therapy or CD treatment.

* *p < .05*

**Abstinence from alcohol in the past 30 days increased significantly**

Abstinence from alcohol increased significantly:

- From 28% to 42% for 447 moderate or high risk patients who got a brief intervention (+50% increase).
- From 29% to 63% for 99 high risk patients who received a brief intervention plus brief therapy or CD treatment (+114% increase).

* *p < .05*

**Binge drinking in the past 30 days declined significantly in high risk groups**

Binge drinking was counted as having five or more drinks in one sitting in the last 30 days. Average days of binge drinking dropped significantly:

- From 5.2 to 2.2 days (58% decrease) for 441 moderate or high risk patients who received a brief intervention.
- From 8.7 to 1.7 days (81% decrease) for 96 high risk patients who received a brief intervention plus brief therapy or CD treatment.

* *p < .05*
Drug Use Outcomes

Average days of drug use in the past 30 days declined significantly

The average number of days of drug use in the past 30 days:

- Dropped from 6.9 to 4.3 days (37% decrease) for 449 moderate or high risk patients who received a brief intervention.
- Dropped from 8.0 to 3.4 days (57% decrease) for 98 high risk patients who received a brief intervention plus brief therapy or CD treatment.

*p < .05

Abstinence from drug use in the past 30 days increased significantly

Abstinence from drug use increased significantly:

- From 48% to 63% for 449 moderate or high risk patients who received a brief intervention (+30% increase).
- From 46% to 67% of 98 high risk patients who received a brief intervention plus brief therapy or CD treatment (+47% increase).

*p<.05

**TECHNICAL NOTES**

**Six-Month Follow-up Survey Procedures**

Out of the 4,617 HMC patients with moderate or high risks for substance use disorders, a sample of 839 patients was selected for the follow-up survey. Interviews were completed with 594 of the sample—a 72 percent response rate (excluding 13 people who died by the time the interview was due).

The number of participants included in specific analyses ranged from 537 to 547 depending on whether or not we had complete answers in the baseline and follow-up surveys on alcohol use, binge drinking, or drug use questions. Analyses exclude 43 cases (7%) because of inconsistencies between the person’s screening scores and the level of intervention received or because the person did not give permission for the use of administrative records that were used to determine who entered chemical dependency treatment.

Follow-up interviews were conducted at the Research and Data Analysis Division using standard survey techniques that included mailing of advance contact letters and multiple attempts to call hard-to-reach respondents. Contact information was gathered from the patient at baseline and augmented by administrative records to update contact information if the patient gave permission for this.
Measures of Substance Use Outcomes

Changes in alcohol and other drug use were based on a person’s answers on the baseline screening survey compared to answers on the six-month follow-up interview, using the following questions:

- During the past 30 days, how many days have you ...
  - Used any alcohol?
  - Had 5 or more drinks in one sitting? (This was used as a measure of binge drinking.)
  - Used any illegal drugs? (Use of illegal drugs included misuse of prescription drugs.)

Classification of Risk and Intervention Groups

Participants were divided into risk levels based on scores on the Alcohol Use Disorders Identification Test (AUDIT) and the Drug Abuse Screening Test (DAST). Risk level (low, moderate, or high) equaled the highest level of risk from AUDIT or DAST score, bingeing, or indicators of chemical dependency on the AUDIT. Two groups were formed: (1) moderate or high risk and received only a brief intervention and (2) high risk and received a brief intervention plus brief therapy, CD treatment, or both within 120 days of the brief intervention. The receipt of brief therapy or CD treatment was identified from WASBIRT records, Division of Alcohol and Substance Abuse’s treatment data (TARGET), or the Medicaid Management Information System for the 561 participants who gave permission for the use of administrative records.

<table>
<thead>
<tr>
<th>Average scores</th>
<th>Low Risk with Screen Only (not in follow-up)</th>
<th>Moderate or High Risk with Brief Intervention</th>
<th>High Risk with Brief Intervention Plus Brief Therapy or CD Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUDIT</td>
<td>1</td>
<td>14</td>
<td>20</td>
</tr>
<tr>
<td>DAST</td>
<td>0</td>
<td>3</td>
<td>5</td>
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</tbody>
</table>

Screening scores

<table>
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<tr>
<th>AUDIT - Female</th>
<th>AUDIT - Male</th>
<th>DAST</th>
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<tbody>
<tr>
<td>Less than 7</td>
<td>7 – 40</td>
<td>16 – 40</td>
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<tr>
<td>Less than 8</td>
<td>8 – 40</td>
<td>16 – 40</td>
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<tr>
<td>0</td>
<td>1 – 10</td>
<td>3 – 10</td>
</tr>
</tbody>
</table>

Additional criteria

- Binge drinking
- Alcohol dependence condition

Demographics

<table>
<thead>
<tr>
<th>Age Distribution</th>
<th>Gender</th>
<th>Race</th>
<th>Ethnicity*</th>
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</thead>
<tbody>
<tr>
<td>TOTAL = 551*</td>
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<tr>
<td>18-24 years</td>
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<td>10%</td>
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<td>22%</td>
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<td>24%</td>
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<td>26%</td>
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<td>42%</td>
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<td>25%</td>
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<td>19%</td>
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<td>11%</td>
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<td>8%</td>
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<tr>
<td>7%</td>
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</table>

69% were male

| Race & Health Services Administration, Center for Substance Abuse Treatment to the Office of the Governor.

Additional copies of this paper may be obtained from: http://www1.dshs.wa.gov/RDA/ or 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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* Race/ethnicity is shown for the total sample since the counts in some intervention categories are too small to distribute by race.
** Persons of Hispanic Origin are counted only under the “Hispanic” category.