



# DSHS | GA-U Clients and Mortality

REPORT 4.73 | A DSHS collaborative study

## Chemical Dependency Treatment Reduces Risk of Death by 30 Percent for GA-U Clients

Thomas Wickizer, PhD, MPH, Professor University of Washington  
 Barbara Lucenko, PhD, Senior Research Manager, DSHS Research and Data Analysis Division

*In collaboration with DSHS Health and Recovery Services Administration  
 Division of Alcohol and Substance Abuse*

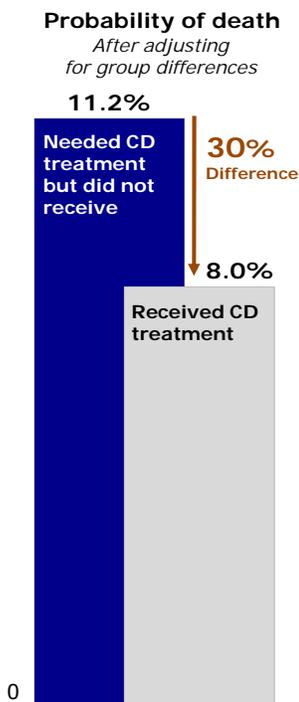
**T**HE GENERAL ASSISTANCE-UNEMPLOYABLE (GA-U) program represents an important safety net in Washington State. GA-U provides adults without dependents and who meet eligibility criteria access to medical care and cash benefits. Prior GA-U studies have documented positive outcomes of chemical dependency treatment with regard to Medicaid costs, employment and arrests (Wickizer et al. 2006; 2009 a, b).

No study to date of the GA-U client population has examined the effect of chemical dependency (CD) treatment on mortality. The current study was conducted to answer the following question: *Does chemical dependency treatment provided to GA-U clients reduce the risk of death?* The study uses data gathered for a prior GA-U study, supplemented by updated mortality data (see technical notes for description of study methods).

### Substance Abuse and Mortality

Information on cause of death was collected for this study for FY 1999 through FY 2005. The five leading causes of death (drug-related poisoning, coronary heart disease, lung cancer, cirrhosis/liver disease, and suicide) accounted for 35 percent of all deaths among the 57,363 GA-U clients. Risk of death was much higher for GA-U clients identified as: 1) having a documented alcohol or other drug (AOD) dependence or psychosis diagnosis (11 versus 5 percent); or 2) needing chemical dependency treatment as reflected by the presence of an AOD diagnosis, referral, or detoxification without further CD treatment (9 versus 6 percent).

#### Chemical Dependency Treatment and Mortality



#### Chemical Dependency Treatment Improves Mortality Outcomes for GA-U Clients

GA-U clients who entered treatment (inpatient, outpatient or methadone maintenance) in fiscal years 2000 or 2001 had significantly ( $p < .001$ ) lower (unadjusted and adjusted) mortality rates compared with GA-U clients who needed treatment but did not receive it.

As shown (left), the **adjusted mortality rate for GA-U clients receiving chemical dependency treatment was approximately 30 percent lower** (8 percent versus 11.2 percent) than the mortality rate of GA-U clients who needed chemical dependency treatment but did not receive it.

#### Conclusion

Prior research has shown chemical dependency treatment to be related to medical cost savings and to other outcomes (employment and criminal activity). Findings of this study indicate treatment is also associated with a reduced risk of mortality. GA-U clients represent a vulnerable population group. By supporting medical services and CD treatment for those clients in need of such services, GA-U provides an important safety net. The findings of this study indicate that chemical dependency treatment has an additional protective impact for GA-U clients, reducing risk of death by approximately 30 percent.

## TECHNICAL NOTES

**Study Population.** Individuals are eligible for GA-U if deemed unemployable for at least 90 days because of a physical or mental incapacity. The study population consists of 57,363 persons who had one or more months of GA-U eligibility during fiscal years 1999 through 2002 (July 1, 1998 through June 30, 2001). Of these clients, 6.5 percent (3,757) died during the period July 1, 1998 through December 31, 2005.

**Statistical Techniques.** The analysis compared GA-U clients who received chemical dependency treatment sometime during 2000 or 2001 (n = 5,591) with GA-U clients who needed treatment, as indicated by (1) having a documented AOD dependence or psychosis diagnosis, or (2) needing chemical dependency treatment as reflected by the presences of an AOD diagnosis, referral, or detoxification without further chemical dependency treatment (n = 6,108).

A general linear model was used to estimate the probability of death for the treatment group and the comparison group. Risk of death was adjusted for the following covariate factors:

- Gender
- Race (white versus non-white)
- Age in year 2000
- 1999 health risk score (pharmacy-based score)
- 1999 health risk score (diagnostic-based score)
- Documented mental health problem (yes/no), including diagnosis of:
  - Depression
  - Psychosis
  - Neurosis
  - Bipolar
  - Childhood mental health problem

### Most Common Causes of Death Among GA-U Clients

CAUSE	NUMBER of DEATHS
Drug-related poisoning.....	437
Coronary heart disease.....	326
Lung Cancer.....	225
Cirrhosis and Alcohol-Related Liver Disease.....	205
Suicide <i>Intentional self-harm/firearms, not poisoning</i> .....	119
Viral Hepatitis.....	89
Chronic Obstructive Lung Disease.....	84
Alcohol Dependence.....	49
Lab Findings not specified elsewhere.....	47
Breast cancer.....	43
Liver cancer.....	32
Pancreatic cancer.....	30
Cardiovascular Disease.....	30
Septicemia.....	25
Other unspecified events.....	21
Other forms of heart disease.....	18
Motor Vehicle Crash.....	18
Assault homicide discharge firearms.....	18
Pneumonia.....	18
Other infectious diseases.....	16
HIV.....	15
Stomach cancer.....	15
Ovarian cancer.....	15
Bladder cancer.....	15
Drug-Induced deaths.....	15

*NOTE: List includes only those causes with at least 15 deaths reported during the study period.*

Additional copies of this paper may be obtained from: <http://www.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@adh1.org](mailto:clearinghouse@adh1.org),  
or by writing to 6535 Fifth Place South, Seattle, Washington 98108-0243.

