

A high-contrast photograph of a broken wine glass. The glass is shattered, with several sharp fragments visible. A thick, dark red liquid, resembling blood or wine, is spilled from the broken bowl and splatters across the white background. The lighting is bright, creating sharp highlights and shadows on the glass and the liquid.

# ALCOHOL AND INJURY

## in Emergency Departments

Summary of the Report from the WHO  
Collaborative Study on Alcohol and Injuries



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**World Health  
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## WHY ARE ALCOHOL-RELATED INJURIES A CONCERN FOR WHO?

### Alcohol, injuries and disease burden

Worldwide there are approximately 5.2 million deaths from injuries every year and non-fatal injuries account for about one-tenth of the global burden of disease. Injuries may be divided into two categories: unintentional injuries, including road traffic injuries, drowning, burns, poisoning and falls; and intentional injuries, which result from deliberate acts of violence against oneself or others.

Alcohol is consumed by large proportions of adults in most countries around the world. Though not causing significant problems for most drinkers, alcohol use is associated with numerous negative consequences for the drinker and society at large. Globally alcohol causes 3.2% of all deaths or 1.8 million deaths annually and accounts for 4.0% of disease burden. Many of these deaths are the result of injuries caused by hazardous and harmful drinking. Of the total number of alcohol-attributable deaths, 32.0% are from unintentional injuries, and 13.7% are from intentional injuries. This means that about half of the deaths attributable to alcohol are from injuries.

The problem of alcohol-related injuries is particularly alarming in many low- and middle-income countries, where alcohol consumption is increasing, injury rates are extremely high, and appropriate public health policies have not yet been implemented. While there is little doubt that alcohol consumption is associated with injury occurrence, less is known about the level of risk at which various drinking patterns, quantities of alcohol consumed, or drinking situations place the individual at risk for accidental injury.



**Half of all alcohol-related deaths worldwide are the result of an injury.**

**Emergency rooms are important sites to collect information about the alcohol involvement in injuries. Unfortunately, few hospitals collect this information routinely.**

## **Alcohol and injuries in emergency departments**

The contribution of alcohol to injuries is particularly evident for patients presenting at hospital emergency rooms, as well as emergency departments not connected to hospitals. Some studies have estimated that 10–18% of injured patients attending emergency departments are alcohol-related cases. Thus, there is potential for brief interventions in such cases, since this might be the only medical care some of these patients receive. In order to determine how this can be done, assessment of alcohol intoxication and drinking before the injury occurred is an important step. The collection of accurate data on alcohol and injuries at hospitals is vital to an understanding of the nature and extent of the problem. Health professionals working in emergency departments should be aware of the extent to which harmful use of alcohol contributes to the health problems of their patients. To date, however, few emergency departments include the use of alcohol in their assessment of injured patients. This is in part due to the lack of appropriate tools that can be used in emergency settings to screen patients for their alcohol use and patterns of drinking.

## **Identification and recording the level of alcohol intoxication in health care settings**

The International Classification of Disease (ICD) system is a diagnostic and surveillance tool which enables national statistics to be compared in an international context. In the 10th revision of the ICD system, a new provision was made for recording the level of alcohol intoxication (based on blood alcohol concentration and observation/clinical judgment) in a patient - these are referred to as the Y90 and Y91 codes. If such a tool can be shown to be valid, reliable, and easy to use within emergency departments, it would provide an important component of an effective alcohol surveillance system. In the emergency room, it could facilitate the identification of risk factors for different types of alcohol-associated injuries, which in turn would allow policy makers to set appropriate priorities for intervention strategies to reduce alcohol related casualties.

**Y91 categories in ICD-10: Evidence of alcohol involvement determined by level of intoxication**

<b>Y91.0</b>	<b>Mild alcohol intoxication</b> Smell of alcohol on breath, slight behavioural disturbance in functions and responses, or slight difficulty in coordination
<b>Y91.1</b>	<b>Moderate alcohol intoxication</b> Smell of alcohol on breath, moderate behavioural disturbance in functions and responses, or moderate difficulty in coordination
<b>Y91.2</b>	<b>Severe alcohol intoxication</b> Severe disturbances in functions and responses, severe difficulty in coordination, or impaired ability to cooperate
<b>Y91.3</b>	<b>Very severe alcohol intoxication</b> Very severe disturbance in functions and responses, very severe difficulty in coordination, or loss of ability to cooperate
<b>Y91.4</b>	<b>Alcohol involvement, not otherwise specified</b> Suspected alcohol involvement

Research from hospital emergency departments also suggests that patients who consumed alcohol prior to their injury are more likely to be heavy drinkers and have had prior experience of alcohol-related problems. Furthermore, these patients are unlikely to access health care services apart from emergency departments. The collection of accurate data on drinking patterns of these patients would therefore be useful in determining whether emergency departments can be used as intervention points for these hard to reach population groups.



Collecting accurate information on the drinking patterns of injured patients would be useful to determine interventions for hard to reach population groups.

## WHO COLLABORATIVE STUDY ON ALCOHOL AND INJURIES

### Description of the project

In view of public health importance of alcohol-related injuries and limited data on the extent and role of alcohol involvement in non-fatal injuries reported to emergency departments, particularly in developing countries, the WHO Collaborative Study on Alcohol and Injuries was initiated and implemented by the World Health Organization. This study is the first international attempt of such a scale to quantify the role of alcohol in injured persons from several different countries using the same methodology.

### Objectives of the Study

- To document the proportion of victims of non-fatal injuries with alcohol intoxication in a probability sample of emergency room patients at each site.
- To examine the context in which drinking had occurred prior to the injury and other drinking variables (amount, type of beverage, etc.) in different cultural settings.
- To collect information on the association of patterns of drinking with injuries.
- To test in different societies the ability of emergency room staff to assess and record the degree of alcohol intoxication of injured patients using ICD-10 Y91 coding.
- To develop and pilot the materials to assist emergency departments staff in assessing and coding the degree of alcohol intoxication.
- To explore the ways in which alcohol assessments/measurements could be worked into routine

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