

## Testing ICECI

Saakje Mulder,\* Anneke Bloemhoff\*\* and Malinda Steenkamp\*\*

\*Consumer Safety Institute, The Netherlands, Chair of the Testing Group

\*\*Consumer Safety Institute, The Netherlands, Member of the Testing Group

## Introduction

The WHO Working Group on Injury Surveillance Methodology has developed a draft International Classification of External Causes of Injury (ICECI). The first draft was released for consultation in May 1998. After the first consultation round a second draft of the data dictionary was released in January 1999. This second draft will be tested in 1999 in order to assess its properties as a means for obtaining valid, reliable and useful information about the circumstances in which injuries occur. The final version will be released in November 2000.

## Contents of ICECI

The data-elements included in ICECI:

- Intent
- Object or substance producing injury
- Place of occurrence
- Activity when injured
- Alcohol and drug use
- Violence module
  - Relationship between victim and perpetrator
  - Context of assault
  - Precipitating factors for suicide (attempt)
  - Type of legal intervention
- Transport module
  - Mode of transport
  - Counterpart
  - User
  - Context

## Organisation

We installed a Testing Group with international participations:

Lee Annest (John Horan, Dan Polluck, Robin Ikeda)

Saakje Mulder (chair)

Anneke Bloemhoff

Alberto Concha

Lois Fingerhut

James Harrison

Yvette Holder

Etienne Krug

CDC/NCIPC, USA

Netherlands

Netherlands

PAHO

NCHS, USA

Australia

CAREC

WHO

Johan Lund  
Susan Mackenzie  
Malinda Steenkamp

Norway  
Canada  
Australia

This group drafted a testing protocol. Because there is only a small budget the basic principle of this protocol is to be practical and to make use of existing knowledge, experience and willingness to participate in the testing on a voluntary basis. This does not mean that the testing will be less valuable. It will be set up in small parts, so that organisations or individuals can participate in only parts of the testing.

### **Aim of the testing**

The testing is aimed at three different aspects: validity, reliability and acceptability/feasibility. Each aspect is described below.

1. Validity:
  - completeness: completeness of coverage, missing codes, lack of discrimination in codes, potential for misuse of codes, level of detail, completeness of the instructions, completeness of the variable definitions and the glossary
  - clarity: clarity of codes, clarity of the instructions, clarity of the variable definitions and the glossary
  - relevance: relevance of the classification and the glossary to specific types of injuries
  - criterion validity: comparability of the coding of a study group with a 'gold standard' (made by reference group)
2. Reliability:
  - inter-observer reliability
  - intra-observer reliability
3. Acceptance/feasibility/utility:
  - resource consumption: identifying the size of administrative efforts and costs
  - collection and coding process: acceptability, feasibility
  - acceptability/utility of the variable and term definitions according to relevant international agencies and sectoral interests

### **Outline of the testing project**

To meet the aims, three parallel methods will be used in the testing:

1. Review of the ICECI:

Based on their personal experience in injury surveillance and epidemiology reviewers will be required to closely examine the data dictionary and the glossary and complete a structured questionnaire. This review questionnaire consists of general questions and questions concerning the parts of the classification and glossary to be reviewed. Reviewers may indicate which parts of the data dictionary and the glossary they will review.

2. Field testing in ED setting:

The main focus of the field testing is to test as much as possible in the setting for which ICECI is developed in particular, the Emergency Department (ED). (If ED-information is not available, data from a survey or from existing databases on injury surveillance data can be used.) ED coders will be required to use ICECI for coding injury cases in a ED setting. A coding form will be supplied. Based on this experience the coders will be required to complete a structured questionnaire with general questions and questions concerning the parts of the classification and glossary to be tested. ED coders may indicate which parts of the data dictionary and the glossary or which types of injuries they will test.

3. Coding case scenarios:

Based on their personal experience of coding cases by means of specialised injury data systems or general health classifications coding experts will be required to code approximately 40 case scenarios using ICECI. They will also be asked to provide information on matters relevant to analysis (e.g. place, level and type of experience with coding).

Combining the aims and the methods results in a matrix, as seen in Table 1.

Table 1: Matrix of testing aspects together with methods used

**Testing aspects x method**

	<b>Review</b>	<b>Field test</b>	<b>Case scenarios</b>
Completeness	x	x	x
Clarity	x	x	x
Relevance	x		
Criterion validity			x
Inter-observer reliability			x
Intra-observer reliability			x
Collection process		x	
Resource consumption		x	x
Acceptability/utility of definitions	x		

Organisations/individuals may choose in which of the three testing methods they will participate. The review and field testing questionnaires as well as the coded case scenarios will be analysed. The results of these three parts will be combined and used to improve the data dictionary and glossary and thus to develop a new version of the ICECI.

The persons/organisations who received the first draft of ICECI (about 140) were being regarded as potential participants. These experts received a short questionnaire. Questions were asked about willingness to participate, to which parts of the testing (review, case scenarios, field testing) and to which parts of the data-dictionary and glossary.