WHO/HFS/CAS/C/03.74
Distr.: LIMITED
ENGLISH ONLY

WORLD HEALTH ORGANIZATION

MEETING OF WHO COLLABORATING CENTRES FOR THE FAMILY OF INTERNATIONAL CLASSIFICATIONS

Cologne, Germany
19-25 October 2003

Title: ICECI submission to the WHO-FIC

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Purpose: decision

Recommendations: to discuss the report in the Family Development Committee and to decide about the status of the ICECI as a related member of the WHO-FIC

Abstract:

A paper entitled "Submission for recognition of the International Classification of External Causes of Injury (ICECI) as a Related Classification within the WHO Family of International Classifications" was presented to the HOC meeting in Brisbane 14-19th October 2002 (document WHO/GPE/CAS/02.74). The HOC meeting agreed that the ICECI be accepted as an alpha version of a related WHO-FIC classification for testing. However, ICECI does not replace chapter XLX or XX of ICD-10 (page 2, Executive summary, document WHO/HFS/CAS/02.100). The ICECI extended working group met April 15, 2003 in Paris and discussed the situation and further developments of the ICECI. A report of the meeting and an updated paper on ICECI coordination and maintenance was prepared and presented to the Family Development Committee during its meeting April 2003 in Leiden. The FDC welcomed the decision of the ICECI group about custodianship and the report to the HOC meeting in October 2003. The committee recommended to clarify the issue of ownership and to submit ICECI according to the recent WHO-FIC Protocol.
A lot of progress has been made and will be reported (alpha- and beta-status issues) in order to enable the meeting to decide about the status of the ICECI as a related WHO-FIC member. In a separate paper (ICECI technical update) to be presented by James Harrison (Australia) information will be provided concerning updating of ICECI, progress on automated indexing and ICD-ICECI linkage.

Introduction

The aim of this paper is to inform about the progress made concerning the International Classification of External Causes of Injuries (ICECI).Following the discussions and conclusions in the Brisbane meeting October 2002 and the conclusions of the FDC in Leiden last April 2003, this paper shows the progress and results relating to the principles mentioned in the updated document "The World Health Organization Family of International Classifications, current dd 1st May 2003 "for the alpha and beta phase. We hope this information to be welcomed as the right base for discussion and decision concerning the status of the ICECI and the relationship with the WHO-FIC. A separate paper presented by James Harrison will show some more technical details on update/revision, automated indexing and ICECI-ICD relationship.

Alpha phase

The place of the ICECI in the *WHO-FIC matrix* is to be seen as filling gaps in the cells of the column of "Environment and could be seen as related to the cells in the column of "Health condition/disease/problem" in addition to the ICD-10. The ICECI does not replace chapter XLX of the ICD-10 (because it includes external causes and not the injuries itself) or chapter XX (because ICECI is more detailed and can be seen as an extension). The relationship between ICECI and ICD-10 will be presented during the HOC meeting in Cologne October 2003 by James Harrison. The relationship with ICD-9 is already presented (see website: www.iceci.org).

The *purpose* of the classification is to enable researchers and prevention practitioners define more precisely the domain of injuries they are studying, answer questions on the circumstances of injuries and provide more detailed information about specific accident categories like home and leisure accidents or traffic accidents (see also the introduction to the classification in annex 1 to this paper).

The key *definitions* are presented in the glossary of the classification, see annex 2 to this paper.

The *technical qualities* have been tested and the actual version is the result of improvements based on the testing procedures. The classification has a hierarchical and multi-axial structure. Categories are exhaustive and mutually exclusive. The level of detail meets the needs in practice as shown in the review and field testing procedures by users in different settings and regions of the world.

The classification has been developed by a group of international experts including WHO representatives. This group, now named "ICECI Coordination and Maintenance Group", is still responsible for the *custodianship* and the intellectual ownership of the classification. The CMG meets annually. A small group of three persons act as the executive committee: Marijke de Kleijn (chair/secretariat, NL), James Harrison (coordinator update and revision, AU) and Saakje Mulder (coordinator of user support, NL). The executive committee meets regularly by telephone and twice a year in face-to-face meetings. More details on governance are to be found in annex 3 to this paper. Suggestions about the relationship with the WHO-FIC centres and WHJO-FIC committees are very welcome.

The process of maintaining and updating is described in annex 3. In the review and testing procedures representatives of all regions of the world have been involved.

Beta phase

The easy *accessibility* of the classification is guaranteed by offering the full document in English through internet (webpage: www.iceci.org). For interested visitors it is possible to receive a version with track changes compared to the former version.A French version is on its way and a Spanish version is still under discussion. A kind of training version is being developed, James Harrison will report about this issue.

The members of the group are *financially supported* by their organizations. No financial problem is foreseen sofar.

The *applicability* of the classification is tested for several setting, in different regions of the world and by several methods.

Testing ICECI

ICECI was tested to provide initial empirical evidence of the performance of ICECI as an instrument for injury surveillance. ICECI was tested in five different ways:

1 Coding of case scenarios
2 Review by experts
3 Field testing in Emergency Department settings
4 Translations
5 Current use

The elements that were taken into account when testing are: completeness, clarity, relevance, criterion validity, inter-observer reliability, intra-observer reliability, collection and coding process, resource consumption, acceptability. Both the data dictionary and the glossary were subject to testing. Participants could only participate voluntarily, since no funding was available. This fact alone shows the relevance of ICECI in the field of injury surveillance, epidemiology and prevention. Reports on the case scenario testing, the review by experts and the field test are published.

Ad 1 Case scenarios

The objective was to use a test set of 100 case summaries to measure criterion validity and inter-observer reliability among volunteers knowledgeable about health coding. A gold standard was compiled by a reference group. A total of 27 organisations (39 individuals) has completed this part of the testing. Based on this phase, all lists of codes were reviewed and expanded, especially more guidelines and more examples were included.

Ad 2 Review by experts

Based on their personal experience in injury surveillance and epidemiology, reviewers were asked to closely examine the data dictionary and the glossary and complete a structured questionnaire. 27 individuals (19 organisations in 8 countries) participated in the review process. The review resulted in specific recommendations on improving case inclusion and exclusion criteria, data elements, and the glossary.

Ad 3 Field testing in Emergency Department settings

Coders at Emergency Departments (ED) were asked to use ICECI for coding injury cases in a ED setting. Based on this experience, the coders were asked to complete a structured questionnaire. In total 35 individuals participated in the coding (13 organisations in 7 countries). This resulted in several recommendations that were included in the next version of ICECI and in the organisation around ICECI, such as maintenance.

Table Countries where the participants of coding case scenarios, field test and review resided:

Country	Review	Case scenarios	Field testing
Region of America			
Canada	15	7	3
USA	1	2	-
European Region			
Switzerland	3	2	-
United Kingdom	-	3	-
Greece	2	4	-
Norway	1	1	7
Western Pacific Region			
Australia	2	10	-
New Zealand	1	2	-
Hongkong	-	-	1
Vietnam	-	-	12
Africa			
South Africa	-	2	-
Uganda	-	-	3
Kenya	-	-	2
Egypt	-	-	1
Eastern Pacific region			
Trinidad	-	1	-
Southeast Asia Region			
Thailand	1	1	-
India	1	1	6
Israel	-	2	-
Total	27	38	35

Ad 4 Translations

ICECI was translated into French, first by Canadian French speakers and a full check was conducted by a group of French speaking Europeans in the filed of injuries. This translation led to a number of recommendations for improving the clarity of ICECI. These suggestions have been included in the most recent version of ICECI. A translation into Spanish in underway.

Ad 5 Current use

Despite the fact that ICECI is not (yet) fully acknowledged as a member of the WHO Family of International Classifications and no active promotion was applied for ICECI, ICECI is currently being used in several settings in several countries. This leads to questions and improvements of ICECI. The current use of ICECI shows that it serves a real need in injury data collection.

ICECI has already been the basis for a couple of derivatives:

- a short version of ICECI developed by CDC in the USA for recording at Emergency Departments.
- a version to be used for less resourced countries (published by WHO)
- the coding manual for injury patients attending the ED in Europe (paid by the European Commission).
- Minimum Data Sets on Injuries in Europe to be used for different health care settings and different levels of objectives (paid by the European Commission).

Discussion is going on using ICECI as a basis for recording burn injuries by the International Society of Burn Injuries and for spinal cord injuries

Some examples of more (planned) ad-hoc use of ICECI:

- Coding of the sports module National Health Interview Survey in the USA
- Violence data collection in three member States of the European Union
- Basis for an Electronic Medical Record in Indonesia
- Data collection at EDs in Oxfordshire in the United Kingdom
- A research project in Perth
- Recording personal accidents by an insurance company in Italy

Another illustration: a search for ICECI at the Internet in Google leads to 869 results.

Conclusion

The results of testing ICECI leads to the conclusions that:

- ICECI is standard suitable for international comparisons,
- ICECI is valid for the purpose for which it has been developed,
- ICECI is accepted internationally,
- ICECI is reliable for the purpose for which it has been developed. It is possible to code reliably and consistently, and

- ICECI is easy to use, unambiguous and well presented.

Furthermore our conclusion is that:

- ICECI fits into the matrix of WHO-FIC and
- meets the criteria presented in the WHO-FIC protocol.

For these reasons we recommend:

- to discuss this paper in the Family Development Committee and
- to propose to the HOC meeting to accept the ICECI as a related member of the WHO-FIC.

References

ICECI Coordination and Development Group.
International Classification of External Causes of Injuries (ICECI) version 1.1a.
Consumer Safety Institute, Amsterdam and AIHW National Surveillance Unit, Adelaide, 2003 (website: www.iceci.org)

Bloemhoff A, Mulder S.
Testing ICECI: Review and Field Testing.
Consumer Safety Institute, Amsterdam, 2003

Steenkamp M, Harrison J E.
ICECI: Case Scenario Testing.
Australian Institute of health and Welfare, Canberra, 2000

Annexes

1 Introduction to ICECI version 1.1a pp 1-9

2 Glossary of ICECI version 1.1a pp 263-283

3 ICECI Coordination and maintenance, paper April 15, 2003

4 ICECI Registration Form

Annex 1 Introduction to ICECI version 1.1a pp 1-9

Part A: Introduction

Background

Traditionally, injury data have been represented using the external cause codes of the International Classification of Diseases (ICD). For more than two decades, experts have argued that the ICD codes lack the scope and specificity needed to effectively inform injury prevention and control activities. As a result of these debates, injury professionals around the world—under the auspices of the World Health Organization—have worked to develop an improved tool for capturing injury data.

This tool is the International Classification of External Causes of Injury (ICECI). Based on best practices of injury surveillance and on international consensus about how external causes may be described, ICECI helps researchers and prevention practitioners to:

- define more precisely the domain of injuries they are studying;
- answer questions on the circumstances of the injuries; and
- provide more detailed information about specific accident categories, like home and leisure accidents or traffic accidents.

A draft of ICECI was tested in 1999. During this testing phase, 39 experts from 27 organisations in 13 countries coded case scenarios,[1] several international experts in the field of (a subset of) injuries reviewed the codes, and 60 experts from 30 organisations in 14 countries conducted actual field tests.[2] In addition, parts of ICECI were tested in the USA[3] and Europe.[4] Feedback resulting from the testing activities was incorporated into the first version of ICECI (ICECI-1). That version is presented here.

Some taxonomic irregularities of version 1.0 of the data dictionary came to light during indexing. These were brought to the attention of the ICECI development group late in April 2002. A proposal for a project to undertake taxonomic review and refinement was approved by the meeting of the group in Montréal, in May 2002. The project commenced soon afterwards and finished in September 2002. The chief investigators were James Harrison (AIHW National Injury Surveillance Unit, Adelaide, Australia) and Kerry Innes (National Centre for Classification in Health, Sydney, Australia) and the principal project officer was Michelle Bramley. Version 1.1 incorporates the changes arising from this project. Note that this minor revision was limited to changes required to improve technical compliance of the ICECI data dictionary with taxonomic principles, and to enable completion of indexing.

Relationship between ICECI-1 and ICD-10

ICECI can optimally be used as a companion to ICD-10,[5] allowing for more detailed data capture in emergency departments, clinics, and in-patient hospital settings; in ad hoc studies and surveys; and possibly in mortality registration systems.

Making ICECI comparable with ICD-10 external codes (Chapter XX) presented several challenges. However, such comparability was highly desirable. Therefore, the international experts who developed ICECI decided that comparability between ICD-10 and ICECI would be achieved at the level of the matrix developed by the Centers for Disease Control and Prevention in the US.[6] This matrix is a recommended framework for injury mortality data and serves as a standard for the uniform tabulation and analysis of injury mortality data classified by ICD. Mechanism (or cause) and Intent of injury are the two key elements of the matrix. The framework is based on international agreement and is intended to report injury events in such a way that the results are valuable for injury prevention.

Data coded to either ICECI or ICD-10 Chapter XX can be reported in accordance with the matrix. The version of the matrix available during development of ICECI 1.0 is based on ICD-9 (see Appendix 1). A version in terms of ICD-10 has been published more recently (www.cdc.gov/nchs/about/otheract/ice/matrix10.htm).

For comparability with ICD-10, when working with transport injury data classified using ICECI, use the Intent data element, if necessary, to identify and exclude intentional injury events and those of undetermined intent.

Guide for use

Pick and choose structure

ICECI is a “pick and choose” multi-axial classification system. As such, it proposes a series of recommended data elements that can be used to collect information about a variety of external cause related topics at varying levels of detail (see Appendix 2). This means that the number of data elements and modules, as well as the level of detail to be recorded for each data element or module, can be selected to meet local needs and resources.

There is hierarchy in the ICECI code sets, meaning that codes on a more detailed level can be aggregated to a lesser level of detail. This hierarchical structure, along with the multi-axial quality, ensures consistency of all applications at the basic level.

Core set of data elements

Comparability with the injury matrix mentioned previously is possible with a limited number of data elements from the core set of data elements. The two data elements that are minimally required for compatibility with the matrix are Intent and Mechanism of Injury. Comparability with the matrix is possible if the first level of Intent and the second level of the short version of Mechanism of Injury are recorded. For complete information about the data elements required for comparability with the injury matrix, please see the section on Mechanism of Injury.

If the user wants to distinguish between the main types of injury events, the minimally required data set is: Intent, Place of Occurrence, Activity when Injured, and Mechanism of Injury, each coded at the first level.

Modules

In addition to the data elements that are applicable to a wide range of injury topics, ICECI includes several modules—clusters of data elements about specific subjects. These modules can be used as stand-alone items, but they can also be used in combination with the basic data elements. If a module is relevant for a specific code set of a data element, it is noted in the text.

Code designations for modules and data elements

The code designations for the modules and data elements provide unique identifiers for the elements in the ICECI system.

Module	Item title	Code
Core		C
	Intent	C1
	Mechanism of injury	C2
	Mechanism of injury - short version	M1
	Object/substance producing injury	C3
	Place of occurrence	C4
	Activity when injured	C5
	Alcohol use	C6
	Psychoactive drug or substance use	C7
Transport		T
	Mode of transport	T1
	Role of the injured person	T2
	Counterpart	T3
	Type of transport injury event	T4
Violence		V
	Proximal risk factors for intentional self-harm	V1
	Previous suicide attempt	V2
	Perpetrator/victim relationship	V3
	Sex of perpetrator	V4
	Context of assault	V5
	Type of legal intervention	V6
	Type of conflict	V7
Place		P
	Indoor/outdoor	P1
	Part of building or grounds	P2
	Type of home	P3
	Resident of home	P4
	Type of medical service area	P5
	Type of school	P6
	Inside/outside city limits	P7
Sports		S
	Type of sport/exercise activity	S1
	Phase of activity	S2
	Personal countermeasures	S3

	Environmental countermeasures	S4
Occupational		O
	Economic activity	O1
	Occupation	O2

Glossary

Many of the terms used in the data dictionary appear in the glossary. The definitions found in the glossary should help eliminate confusion about terms and aid users in accurately coding information.

Underlying cause

The guiding rules are explicitly mentioned in the text of the data elements. In general, these rules follow the ICD coding rules. An important general guideline for ICECI, based on ICD, is to code the "underlying" cause instead of the "direct" cause. More information about this guidance can be found in the relevant sections of the data elements.

Data collection

ICECI is a classification system of which elements can be used to set up a registration system. Depending on the objectives and setting of the registration system, data elements from ICECI need to be completed with items that are necessary for actual data recording.

For coding information about injury circumstances as part of a registration system that provides data useful for monitoring and evaluating injury prevention activities, a brief narrative can be useful to supplement data captured by ICECI. This narrative can provide further details about who was involved, what happened, when it happened, and where and how the injury occurred to further characterise the injury event.

Update of information

Website

The ICECI website was launched in mid 2001 at www.iceci.org. This website contains the most recent versions of the data elements, updates about testing and the comparability with ICD-10, contact information for key persons working on ICECI, developments concerning derivatives of ICECI, relevant background information about ICECI, availability of translations, and relevant links.

Please send questions and suggestions (especially those concerning improvement of ICECI) to

iceci@consafe.nl

Contact persons

Through the general e-mail address and the internet site, you can also contact directly members of the ICECI Technical Group, all of whom have specific responsibilities concerning ICECI:

- Saakje Mulder (overall co-ordination)

- Anneke Bloemhoff (data elements Place of Occurrence, Activity when Injured, Alcohol Use, and Drug Use; Occupational module; Place module; glossary)
- Julie Gilchrist and Lee Annest (Sports module)
- James Harrison (comparability with ICD)
- Yvette Holder (data element Intent; Violence module)
- Susan Mackenzie (Transport module)
- Malinda Steenkamp (data elements Mechanism of Injury and Object/Substance Producing Injury)

Status of the data elements/modules

ICECI will undergo continuous development, as practical experience leads to recommendations for improvements and adjustments in coding and guidelines. Each data element and module has its own stage of development. The current status is:

Data elements

Intent	tested in 1999, taxonomic review in 2002
Mechanism of Injury	tested in 1999, taxonomic review in 2002
Object/Substance	tested in 1999, taxonomic review in 2002
Place of Occurrence	tested in 1999, taxonomic review in 2002
Activity when Injured	tested in 1999, taxonomic review in 2002
Alcohol Use	tested in 1999
Psychoactive Drug Use	tested in 1999

Modules

Violence	tested in 1999
Transport	tested in 1999, taxonomic review in 2002
Place	tested in 1999
Sports	not yet tested
Occupational	not yet tested (based on standard international classifications)

References

1 Steenkamp M, Harrison JE. ICECI: Case Scenario Testing. AIHW INJCAT 32. Canberra: Australian Institute of Health and Welfare, 2000.

2 Bloemhoff A, Mulder S. Testing ICECI: Review and Field testing. Amsterdam: Consumer Safety Institute; 2000.

3 Annest JL, Pogostin CL. CDC's Short Version of the ICECI: International Classification of External Causes of Injuries: A pilot test. Atlanta: Centers for Disease Control and Prevention; 2000.

4 Hoyinck SG, Bloemhoff A, Mulder S, Dekker R. Development of Minimum Data Sets on Injuries in the Framework of the Injury Prevention Programme of the European Commission. Amsterdam: Consumer Safety Institute; in press.

5 WHO, World Health Organization. International Statistical Classification of Diseases and Related Health Problems: Tenth Revision: Volume 1, tabular list (ICD-10). Geneva: World Health Organization; 1992.

6 McLoughlin E, Annest JL, Fingerhut L, et al. Recommended framework for presenting injury mortality data. MMWR. Centers for Disease Control and Prevention. 46 (no. RR-14): 1N32, 1997.

Appendix 1: Injury matrix (ICD-9 codes)

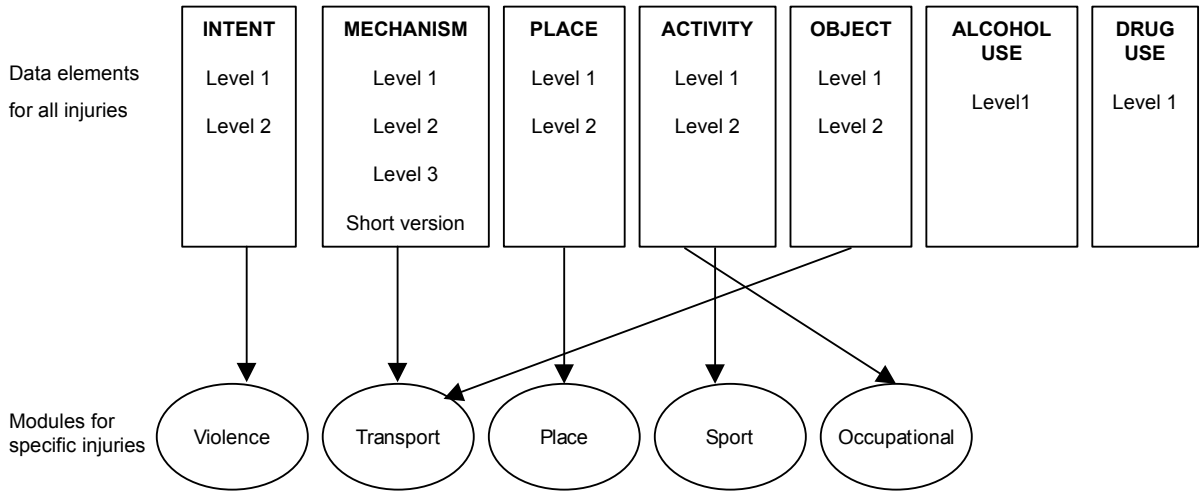
Mechanism/ cause	***Manner/intent***				
	Unintentional	***Suicide***	***Homicide***	***Undetermined***	***Other****
Cut/pierce	E920.0-.9	E956	E966	E986	E974
Drowning/ submersion	E830.0-.9, E832.0-.9, E910.0-.9	E954	E964	E984	--
Fall	E880.0-E886.9, E888	E957.0-.9	E968.1	E987.0-.9	--
Fire/burn	E890.0-E899, E924.0-.9	E958.1, .2, .7	E961; E968.0, .3	E988.1, .2, .7	--
Fire/flame	*E890.0-E899*	*E958.1*	*E968.0*	*E988.1*	--
Hot object/ substance	*E924.0-.9*	*E958.2, .7*	*E961, E968.3*	*E988.2, .7*	--
Firearm	E922.0-.3, .8-.9	E955.0-.4	E965.0-.4	E985.0-.4	E970
Machinery	E919.0-.9	--	--	--	--
MV traffic[t]	E810-E819 (.0-.9[§])	E958.5	E968.5	E988.5	--
Occupant	*E810-E819 (.0,.1)*	--	--	--	--
Motorcyclist	*E810-E819 (.2, .3)*	--	--	--	--
Pedal cyclist	*E810-E819 (.6)*	--	--	--	--
Pedestrian	*E810-E819 (.7)*	--	--	--	--
Unspecified	*E810-E819 (.9)*	--	--	--	--
Pedal cyclist, other	E800-E807 (.3); E820-E825 (.6); E826.1, .9; E827-E829 (.1)	--	--	--	--
Pedestrian, other	E800-E807 (.2), E820-E825 (.7), E826-E829 (.0)	--	--	--	--
Transport, other	E800-E807 (.0, .1, .8,.9) E820-E825 (.0-.5,.8,.9), E826.2-.8, E827-E829 (.2-.9), E831.0-.9, E833.0-E845.9	E958.6	--	E988.6	--
Natural/ environmental	E900.0-E909, E928.0-.2	E958.3	--	E988.3	--
Bites and stings	*E905.0-.6, .9; E906.0-.4,* ***.5****, .9*	--	--	--	--
Overexertion	E927	--	--	--	--
Poisoning	E850.0-E869.9	E950.0-E952.9	E962.0-.9	E980.0-E982.9	E972

Struck by, against	E916-E917.9	--	E960.0, E968.2	--	E973, E975
Suffocation	E911-E913.9	E953.0-.9	E963	E983.0-.9	--
Other specified, classifiable	E846-E848, E914-E915, E918, E921.0-.9, **E922.4,** E923.0-.9, E925.0-E926.9, E929.0-.5	E955.5, **.6**, .9; E958.0, .4	E960.1, E965.5-.9, E967.0-.9, E968.4, **.6**	E985.5, **.6**; E988.0, .4	E971, E978, E990-E994, E996, E997.0-.2
Other specified, not elsewhere classifiable	E928.8, E929.8	E958.8, E959	E968.8, E969	E988.8, E989	E977, E995, E997.8, E998, E999
Unspecified	E887, E928.9, E929.9	E958.9	E968.9	E988.9	E976, E997.9
All injury	E800-E869, E880-E929	E950-E959	E960-E969	E980-E989	E970-E978, E990-E999
Adverse effects	--	--	--	--	E870-E879, E930.0-E949.9
*Medical care***	--	--	--	--	E870-E879
Drugs[tt]	--	--	--	--	E930.0-E949.9
All external causes	--	--	--	--	E800-E999

NOTE: "--" represents categories in which no E codes are assigned.
*Includes legal intervention (E970-E978) and operations of war (E990-E999).
[t]Three fourth-digit codes (.4--"occupant of streetcar," .5--"rider of animal," and .8--"other specified person") are not separated because of the minimal number of deaths in these categories. However, because they are included in the overall "Motor Vehicle Traffic" category, the sum of these categories can be derived by subtraction.
[§]This parenthetical notation implies that the decimal should be applied to each individual three-digit E code in the grouping.
[¶]Adverse effects have been excluded from the "all injury" category but are included in the "all external causes" category.
**Includes a) adverse effects to patients during surgical and medical care and b) surgical and medical procedures as the cause of abnormal reactions or later complications without mention of negative events at the time of procedure.
[tt]Includes drugs and medicinal and biological substances causing adverse effects when used therapeutically.

Codes in bold are the only codes that are in ICD-9 CM but not in ICD-9.

Appendix 2: Structure of ICECI



Annex 2 Glossary of ICECI version 1.1a pp263-283

GLOSSARY OF TERMS

Status:
Tested 1999

Version:
1.0

Introduction:
ICECI is a tool for classifying circumstances and other characteristics of events (external causes) given the presence of an injury. Injury prevention and control is largely dependable upon understanding events and factors preceding injury.

Both intentional and unintentional injury events as well as complications of surgical and medical care are considered to be external causes. As a consequence our definition of injury includes the injuries resulting from any of these external causes.

Guide for use:
Terms in italics appear in the glossary.

Abrading = Rubbing
Injury caused by scraping or wearing away with pressure and friction, mainly by repeated back and forward movement of an object/substance over the surface of human skin or other tissue.
(Based on Manser & Thomson, 1995)

Accident
See Unintentional injury event.

Activity when injured
Data element which describes the type of activity the injured person was engaged in when the *injury* occurred.

Aircraft
Any device for transporting passengers or goods in the air.
(WHO, 1992)

Alcohol use
Data element which describes the suspicion or evidence of alcohol use preceding the *injury event* by the injured person and/or other persons involved in the *injury event*.

Amusement park
A commercially operated park with various devices for entertainment and booths for the sale of food and drink.
(Based on Merriam-Webster, 1977)

Assault
An act of fatal or non fatal *violence* where physical or other force is used with the intent to cause harm, *injury* or death to another person.

Automobile
See Car.

Being taken care of
Undergoing activities conducted by or at the direction of a health care professional or other care taker, eg. relative, parent.
Includes:
Health care activity
Being carried, moved or held
Being bathed

Blunt force

Any external force that produces a change in the speed or direction of a moving object or that causes a *stationary object* to move and that does not involve *piercing/penetrating force* or *machinery*.
(Based on Manser & Thomson, 1995)

Bus
A motor vehicle designed or adapted primarily for carrying 20 or more persons and requiring a special driver's licence.
(Based on WHO, 1992)
Excludes:
Minibus
Passenger van

Car = Automobile
A four-wheeled motor vehicle designed primarily for carrying up to 10 persons.
(WHO, 1992)

Classification
A system of concepts connected by generic relations.
(WCC, 1995)

Commercial area
Location being used at the time primarily for business-related activities that are non-industrial, non-recreational, non-cultural and not public, including buildings and adjacent grounds.

Complication of health care
Health care (including medical or surgical care) unintentionally leading to *injury*. This includes acts of omission as well as acts of commission.

Construction area
Location being used at the time primarily for building or demolition, including buildings and adjacent grounds.

Contact with foreign object
Contact between human tissue and an *object* not belonging where it is found, e.g. a piece of grit in the eye, a button found in the outer ear, etc.
(Based on Manser & Thomson, 1995)

Context of assault
Data element within the Violence Module which describes the circumstances surrounding the violent *injury event.*

Counterpart

Data element within the Transport Module which describes the other vehicle, *object*, person or animal (if any) with which the injured person, or the vehicle in which the injured person was *travelling*, collided.

Cycleway

That part of the *public highway* designed, improved and customarily used for *pedal cycle* traffic.

Direct mechanism

The *mechanism* that produced the physical harm.

Direct object

The *object/substance* that produced the physical harm.

Driver

An occupant of a transport vehicle who is operating it, intending to operate it, or has just finished operating it.
(Based on WHO, 1992)

Drowning

This is death following *submersion* or *immersion* and includes cases where death occurred after hospital admission. The term describes the outcome of an *injury event*.
(Bierens, 1996)

Economic activity

Data element within the Occupational Module which describes the type of industry or business in which the injured person was working at the time of *injury*.

Education

Activities that form part of a formal educational course or program of instruction provided by a *school*, college, university, adult education institution, etc.

Environmental countermeasures

Data element within the Sports Module which describes measures which exist in the competitive or recreational environment which are designed to protect against *injury*, ie. padded goal posts, barriers to separate participants from spectators or traffic.

External causes

Environmental events and circumstances identified as the cause of injury.
(Based on WHO, 1992)

Falling

To descend or drop by force of gravity, ie. a "nonsyncopal event not attributable to sustaining a violent blow, loss of consciousness, stroke or epileptic seizure" (Kellogg definition from: Leipzig et al. 1999). This includes falling on same level, falling from a height, falling on stairs etc. For guidance on how to determine the *height of a fall*, please see relevant definition.

Farm or other place of primary production

Any place of primary production that produces at least one of the following products intended for sale: crops, vegetables, horticultural specialities and nursery products, trees, fruit, nuts, animals and animal products, including buildings and adjacent grounds.

Farmhouse

A farmer's usual living quarters.

Fixed object = Stationary object

Inanimate *object* that is not in motion at the time of the *injury event*, with the exception of vehicles that are stopped in traffic.

Hanging

Compression of neck by rope, cloth, belt or another object (eg. bedrails) which is bearing whole or part of the weight of the hanging person.
Includes:
cases involving restriction of blood flow or spinal cord damage by similar mechanisms.

Heavy transport vehicle

A motor vehicle designed primarily for carrying property, meeting local criteria for classification as a heavy goods vehicle in terms of curbside weight (usually above 3500 kg), and requiring a special driver's licence.
(WHO, 1992)

Height of fall

The height of a fall is defined with respect to the vertical distance between the surface/object bearing (most) weight before and after the fall.

Examples:

A child standing on a bed falls to the floor.

The bed supports the weight of the child before the fall and the floor bears the weight after the fall. Thus the distance of the fall is the distance between the top of the bed and the floor

A child swinging on a monkey bar falls to the ground.

The monkey bar carries bears the child's weight before the fall and the ground surface the weight after the fall. Therefore the distance of the fall is the distance between the monkey bar and the ground

A person sitting on a bicycle falls to the ground.

> The bicycle seat carries most of the person's weight before the fall and the ground after the fall. The distance of the fall is the distance between the bicycle seat and the ground.

A person walking on a footpath, stumbles and falls to the ground.

> The ground carries most of the person’s weight before and after the fall. The fall is therefore a fall on the same level.

Home

A person’s usual residence including adjacent grounds.

Hut

An often small and temporary dwelling of a simple construction, built from cardboard, sail, fabric, wood etc.

(Based on Merriam-Webster, 1977)

ICD

Abbreviation for *International Statistical Classification of Diseases and Related Health Problems*.

Immersion

This is the involuntary entry of a person into a body of water. The term describes the circumstances of the *injury event*.

(Bierens, 1996)

Indoor/outdoor

Data element within the Place Module which describes whether the injured person was inside a building or in the open air when the *injury event* started.

Industrial area
Location designed primarily for, and being used at the time primarily for, manufacturing, mining, extraction and other industrial activities, including buildings and adjacent grounds.

Infant or child product
An *object/substance* made especially for the care and amusement of children.

Injury
A (suspected) bodily lesion resulting from acute overexposure to energy (this can be mechanical, thermal, electrical, chemical or radiant) interacting with the body in amounts or rates that exceed the threshold of physiological tolerance. In some case an injury results from an insufficiency of any of the vital elements. Acute poisonings and toxic effects, including overdoses of substances and wrong substances given or taken in error are included, as are adverse effects and *complications of therapeutic, surgical and medical care.* Psychological harm is excluded.
Note: the scope of this definition is in accordance with the scope of ICD-10 chapter XIX

Injury aetiology
Study of the causes of injuries.

Injury control
Efforts to prevent agents from reaching people in amounts or at rates that exceed human injury tolerance as well as measures to prevent or minimize complications or disability resulting from *injury*. Injury control thus includes *primary*, *secondary* and *tertiary prevention* strategies.
(Based on Sleet, 1991)

Injury event
An incident leading to *injury*.

Injury event prevention
See Primary prevention.

Injury prevention
See Secondary prevention.

Inside/outside city limits
Data element within the Place Module which describes the specific location—whether inside or outside city limits—where the injured person was when the *injury event* started.

Intent
Data element which describes the role of human purpose in the *injury event*.

Intentional injury event = Violence

A deliberate incident with the intent to cause harm, *injury* or death, where physical or other force was used (or threatened to be used) against oneself or another person and which lead to *injury*.

Intentional self-harm

Deliberate use of physical or other force against oneself, with the intent to cause harm, *injury* or death.

International Statistical Classification of Diseases and Related Health Problems (ICD)

The classification of specific conditions and groups of conditions determined by an internationally representative group of experts who advise the World Health Organization, which publishes the complete list in a periodically revised book.

Notes:

ICD-9, the 9th revision was published by WHO, 1977

ICD-10, the 10th revision was published by WHO, 1992

Land transport vehicle

A device primarily designed for, and being used at the time primarily for transporting persons or goods from one place to another on land.
(Based on WHO, 1992)

Legal intervention

Physical or other force used by police or other law-enforcing agents, including military on duty, in the course of arresting or attempting to arrest lawbreakers, suppressing disturbances, maintaining order, and other legal action.
Includes:
legal execution
Excludes:
citizen arrest

Leisure or play

Hobby and other activities undertaken mainly for pleasure and relaxation. May be passive (watching TV) or active (dancing at a party), undertaken alone (reading) or with other people (children playing 'hide and seek'), commercial (attending a 'fun park') or not (family picnic at a public park) and formally organised (day-trip) or not (a child 'just playing').

Light transport vehicle

A motor vehicle designed primarily for carrying property, (usually) having a maximum weight of 3500 kg. (Adapted from WHO, 1992)

Machinery

A device with moving parts, which is usually powered (by electricity, gas, steam, etc) and which is designed to perform a particular task.
(Based on Manser & Thomson, 1995)

Mechanical force
A force that concerns machines, ie. actions performed with or worked by *machinery*.
(Based on Manser & Thomson, 1995)

Mechanism of injury
Data element which describes the way in which the *injury* was sustained, ie. how the person was hurt.

Medical service area
Location designed primarily for, and being used at the time primarily for, providing health care, including buildings and adjacent grounds.

Mode of transport
Data element within the Transport Module which describes the means by which the injured person was travelling from one place to another.

Motorcycle rider
Any person riding on a motorcycle or in a sidecar or trailer attached to such a vehicle.
(WHO, 1992)

Motorhome
An automotive vehicle built on a bus or truck chassis and equipped as a self-contained travelling home.
(Based on Merriam-Webster, 1977)

Near drowning
This refers to survival after *submersion* or *immersion*. The term describes the outcome of an *injury event*.
(Bierens, 1996)

Non-traffic injury event
Any land transport vehicle incident occurring entirely in any place other than a *public highway* and resulting in *injury*.
(Based on WHO, 1992)

Object/substance producing injury
Data element which describes the matter, material or thing being involved in the *injury event*.

Occupation
Data element within the Occupational Module which describes the type of paid work the injured person was engaged in when the *injury event* took place.

Occupational accident
An unintentional *occupational injury event*.

Occupational injury event
Any incident taking place during the exercise of professional and paid activity and resulting in *injury*.
(Based on EHLASS, 1997)

Off-road vehicle
See Special all-terrain vehicle

Operations of war and civil conflict
Physical or other force used by one person against another person in the course of combat activities during war or civil conflict.

Paid work
Activity for which the person is paid or expects to be paid a salary, commission or other monetary income.

Parking area
Location open to the public as a matter of right or custom designed primarily for, and being used at the time primarily for storing *transport devices*.

Part of building or grounds
Data element within the Place Module which describes the specific part of the building or the specific part of the adjacent grounds where the injured person was when the *injury event* started.

Passenger
Any occupant of a transport vehicle or *pedestrian conveyance* other than the *driver* or operator.
(Based on WHO, 1992)
Excludes:
person travelling on outside of vehicle

Pedal cycle
Any land transport vehicle operated solely by pedals.
(WHO, 1992)

Includes:
Bicycle
Tricycle
Excludes:
motorized bicycle

Pedal cyclist

Any person riding on a *pedal cycle* or in a sidecar or trailer attached to such a vehicle.
(WHO, 1992)

Pedestrian

Any person involved in a *transport injury event* who was not at the time of the event riding in or on a motor vehicle, *pedal cycle*, railway train, *streetcar*, animal, animal-drawn or other vehicle, *watercraft*, or *aircraft*.
(Based on WHO, 1992)
Includes:
*person on fo*ot
user of a *pedestrian conveyance*

Pedestrian conveyance

Any non-motorized device used for *pedestrian* transport.
Includes:
baby carriage, perambulator
ice-skates
in-line skates, roller skates
push-cart
push-chair, stroller
scooter
skateboard
skis
sled
wheelchair (powered or not)

Perpetrator/victim relationship

Data element within the Violence Module which describes the relationship of the person committing the violent act to the injured person.

Personal countermeasures

Data element within the Sports Module which describes the equipment used by the participants to protect against *injury*.

Person on foot

A person on foot is a *pedestrian* who was not, at the time of the *injury event*, using a *pedestrian conveyance*.

Person on outside of vehicle
Any person being transported by a vehicle but not occupying the space normally reserved for the *driver* or passengers, or the space intended for the transport of property.
(WHO, 1992)
Includes person travelling on:
Bodywork
bumper [fender]
hanging on outside
roof (rack)
running-board
step

Phase of activity
Data element within the Sports Module which describes the phase of a *sport or exercise* activity during which the *injury event* occurred.

Pick-up truck = Van
A four- or six-wheeled motor vehicle designed primarily for carrying property, weighing less than the local limit for classification as a heavy goods vehicle, and not requiring a special driver's licence.
(WHO, 1992)

Piercing/penetrating force
A force that makes a hole in or through, that punctures, or forces a way through or into human tissue.
(Based on Manser & Thomson, 1995)

Place of occurrence
Data element which describes where the injured person was when the *injury event* started.

Playground
Area equipped with facilities for recreation by children.

Previous suicide attempt
Data element within the Violence Module which describes whether or not the injured person attempted suicide before.

Primary prevention = Injury event prevention
Measures seeking to prevent the occurrence of an *injury event* through eg. Education, enforcement and improvement of the environment.
(Based on WHO, 1984 and Avery, 1995)

Private parking area
Location explicitly not open to the public designed primarily for, and being used at the time primarily for, storing *transport devices*.

Private road
The entire width between the property lines (or other boundary lines) of land explicitly not open to the public for purposes of moving persons or property from one place to another.

Proximal risk factors for intentional self-harm
Data element within the Violence Module which describes the most recent crises that led to the self-harm incident.

Psychoactive drug or substance use
Data element which describes the suspicion or evidence of psychoactive drugs use (eg. opiates, cocaine, amphetamines, cannabinoids, sedatives, hypnotics) or other psychoactive substance use (eg. Hair spray, gasoline, glue) preceding the *injury event* by the injured person and/or other persons involved in the *injury event*.

Public highway = Trafficway, Street, Road
The entire width between the property lines (or other boundary lines) of land open to the public as a matter of right or custom for purposes of moving persons or property from one place to another.
(WHO, 1992)

Public transport area
Location designed primarily for, and being used at the time primarily for, receiving and discharging passengers and cargo of public *transport devices*.

Rail vehicle

Any device, with or without cars coupled to it, designed for traffic on a railway.
(WHO, 1992)
Includes:
interurban: electric car (operated chiefly on its own right of way not open to other traffic)
streetcar
railway train, any power [diesel] [electric] [steam]:
funicular
monorail or two rail
subterranean or elevated
other vehicle designed to run on a railway track
Excludes:
interurban electric cars [*streetcar*s] specified to be operating on a right-of-way that forms part of the *public highway* or *street*

Residential institution area

Establishment replacing a person's usual residence, including buildings and adjacent grounds.

Resident of home

Data element within the Place Module which describes the occupant of the *home* where the injured person was when the *injury event* started.

Road

See Public highway.

Roadway

That part of the *public highway* designed, improved and customarily used for vehicular traffic.
(WHO, 1992)

Role of the injured person

Data element within the Transport Module which describes how the injured person was involved with the specified *mode of transport* at the time of the *injury event*.

Rubbing

See Abrading.

School, educational area

Location designed primarily for, and being used at the time primarily for, *education* purposes, including buildings and adjacent grounds.

Secondary prevention = Injury prevention
Measures seeking to prevent *injury* or reduce the severity of *injury* through eg. the implementation of safety aids and acute care.
(Based on WHO, 1984 and Avery, 1995)

Sex of perpetrator
Data element within the Violence Module which describes the sex of the person who inflicted the *injury*.

Sidewalk
That part of the *public highway* designed, improved and customarily used for *pedestrian* traffic.

Special all-terrain vehicle = Off-road vehicle
A motor vehicle of special design to enable it to negotiate rough or soft terrain or snow. Examples of special design are high construction, special wheels and tires, tracks, and support on a cushion of air.
(WHO, 1992)
Includes:
hovercraft on land or swamp
snowmobile
Excludes: hovercraft on open water—see *Watercraft**

Special vehicle mainly used in construction
A motor vehicle designed specifically for use in the construction (and demolition) of roads, buildings and other structures.
(WHO, 1992)
Includes:
Bulldozer
Digger
dump truck
earth-leveller
mechanical shovel
road-roller

Special vehicle mainly used in industry

A motor vehicle designed primarily for use within the buildings and premises of industrial or commercial establishments.
(WHO, 1992)
Includes:
battery-powered airport passenger vehicle
battery-powered truck (baggage) (mail)
coal-car in mine
forklift (truck)
logging car
self-propelled truck, industrial
station baggage truck (powered)
tram, truck or tub (powered) in mine or quarry

Special vehicle mainly used in agriculture

A motor vehicle designed specifically for use in farming and agriculture (horticulture), for example to work the land, tend and harvest crops and transport materials on the farm.
(WHO, 1992)
Includes:
combine harvester
self-propelled farm machinery
tractor (and trailer)

Sports accident

An unintentional *sport injury event*.

Sports injury event

Any incident taking place while participating in *sports and exercise*-related activities and resulting in *injury*.

Sports and athletics area

Location designed primarily for, and being used at the time primarily for, *sports and exercise* or athletics, including buildings and adjacent grounds.

Sports and exercise

Physical activity with a described functional purpose eg. competition, practicing for competition, improving physical health. This includes practice and training activities, as well as pre-event (eg. taping, dressing), warm-up, competition, cool-down and post-event (eg. showering, dressing). Travel to and from the event or activity is not included.
(Based on WHO, 1992)

Stationary object

See Fixed object.

Strangling
The application of pressure to the throat of a person.

Street
See Public highway.

Streetcar
A device designed and used primarily for transporting persons within a municipality, running on rails, usually subject to normal traffic control signals, and operated principally on a right-of-way that forms part of the *roadway*. A trailer being towed by a streetcar is considered a part of the streetcar.
(WHO, 1992)
Includes:
interurban electric car or streetcar, when specified to be operating on a street or public highway*
tram (car)
trolley (car)

Submersion
This is if a person comes to lie under the surface of a body of water. Submersion can happen after a period of *immersion*. The term describes the circumstances of an *injury event*.
(Bierens, 1996)

Tertiary prevention
Measures seeking to prevent or minimize any complications of and disability from *injury* eg. advanced trauma care, life support and rehabilitation.
(Based on WHO, 1984 and Avery, 1995)

Thermal mechanism
Mechanism involving extreme heat or cold, from either natural or human-created sources.

Three-wheeled motor vehicle

A motorised tricycle designed primarily for on-road use.
(WHO, 1992)
Includes:
motor-driven tricycle
motorized rickshaw
three-wheeled motor car
Excludes:
motorcycle with sidecar
special all-terrain vehicle

Traffic accident

An unintentional *traffic injury event*.

Traffic injury event

Any *land transport vehicle* incident occurring on the *public highway* [ie. Originating on, terminating on, or involving a vehicle partially on the highway] and resulting in *injury*. A *land transport vehicle* incident is assumed to have occurred on the *public highway* unless another place is specified, except in the case of incidents involving only *off-road motor vehicles*, which are classified as *non-traffic injury events* unless the contrary is stated.
(Based on WHO, 1992)

Trafficway

See Public highway.

Transport accident

An unintentional transport injury event.

Transport area

Location designed primarily for, and being used at the time primarily for, conveying persons or goods from one place to another.

Transport device

A device designed primarily for, and being used at the time primarily for, conveying persons or goods from one place to another.
(WHO, 1992)

Transport injury event

Any incident involving a *transport device* and resulting in *injury*.
(Based on WHO, 1992)

Travelling

To go from one place to another by any means of transport or as a *pedestrian*.

Two-wheeled motor vehicle
A motorized transport device with two wheels, one or two riding saddles and sometimes with a third wheel for the support of a sidecar. The sidecar is considered part of the two-wheeled motor vehicle.
(WHO, 1992)

Type of conflict
Data element within the Violence Module which describes the type of war or civil conflict underway when the injury occurred.

Type of home
Data element within the Place Module which describes the kind of *home* where the injured person was when the *injury event* started.

Type of medical service area
Data element within the Place Module which describes the kind of *medical service area* where the injured person was when the *injury event* started.

Type of legal intervention
Data element within the Violence Module which describes the type of legal intervention during which a person was injured.

Type of school
Data element within the Place Module which describes the kind of *school or educational area* where the injured person was when the *injury event* started.

Type of sport/exercise activity
Data element within the Sports Module which describes the type of *sport or exercise* activity in which the injured person was participating at the time of the i*njury event*.

Type of transport injury event
Data element within the Transport Module which describes the general nature of the *transport injury event* and, for a land transport event, where it occurred.

Underlying mechanism
The *mechanism* involved at the start of the *injury event*

Underlying object/substance
The *object/substance* involved at the start of the *injury event*.

Undetermined intent
Available information is insufficient to make a distinction between unintentional injury event, intentional self-harm, assault or other violence.
(Based on WHO, 1992)

Unintentional injury event = Accident
An unforeseen incident, where the intent to cause harm, *injury* or death was absent, but which resulted in *injury.*

Unpaid work
Activity for which another paid worker could be hired.

Van
See Pick-up truck.

Vehicle occupant
A *driver* or *passenger* in a transport vehicle.

Violence
See Intentional injury event.

Vital activity
Basic activities necessary for life, for example sleeping, eating and getting dressed.

Watercraft
Any device for transporting passengers or goods on water.
(WHO, 1992)
hovercraft not otherwise specified

Work-related activity
Paid work and *unpaid work*.

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Annex 3 ICECI Coordination and Maintenance, paper April 15, 2003

INTERNATIONAL CLASSIFICATION OF EXTERNAL CAUSES OF INJURY (ICECI)

A Related Classification (alpha status) in the WHO Family of International Classifications

ICECI Coordination and Maintenance

Reference: ICECI-CMG-2003-1

Current from 15 April 2003

Lapses unless renewed by the ICECI Coordination and Maintenance group by 31 December 2005.

CMG Contact for this paper: M. de Kleijn (chairperson, CMG executive group; WHO-FIC-NL)

1. Introduction and Background

Mechanisms for the use, maintenance and updating of the ICECI have become necessary as it undergoes transition from a development project to an operational tool, and as it becomes established as a Related Classification in the WHO International Family of Classifications. This need was recognised by participants in the development of the ICECI, including the ICECI Working Group.

An earlier version of this paper was written by James Harrison and Saakje Mulder, who distributed it as a discussion paper in September 2002. The paper was distributed again as one of the papers for the 15 April 2003 meeting of the ICECI Extended Working Group (Paris). The paper was discussed, updated (particularly with reference to changed secretariat arrangements) and approved by that meeting.

The paper builds on discussion at the April 2001 and May 2002 ICECI meetings, and on the paper on this topic which formed Annex 2 of the papers for the May 2002 ICECI meeting. It focuses on two aspects of coordination and maintenance: governance and revision.

2. Governance

ICECI is a shared endeavour for the common good, developed by a largely informal process in which willingness and opportunity to volunteer time and expertise were the main factors determining participation.

It is desirable to maintain this collaborative spirit. However, the move from development of the ICECI system to its use in the field, and institutional arrangements such as its anticipated recognition as a *Related Classification* in the WHO Family of International Classifications (WHO-FIC), require formalisation of some aspects of the governance of the ICECI.

The fundamental questions were: Who is responsible for the custody, maintenance and development of the ICECI? What are the operational arrangements for this?

A commitment to put arrangements in place was a necessary part of the submission for recognition of the ICECI in the WHO-FIC. Well-defined arrangements will also be necessary for practical purposes, such as effective operation of a revision process.

Discussion at the April 2001 ICECI meeting foreshadowed the creation of a body called the *ICECI Coordination and Maintenance Group* when the ICECI joined the WHO-FIC. The role, operational arrangements and membership of this body have been specified as follows.

ICECI Coordination and Maintenance Group

The ICECI *Coordination and Maintenance Group* (ICECI CMG) succeeds and replaces the variously-named groups which have brought the ICECI to its present stage of development (ie Working Group on Injury Surveillance Methods, ICECI Technical Group, ICECI Development Group, etc). It is, in effect, a formalisation of these groups under a name more suited to the functions required from now on. This name was foreshadowed at the meeting in April 2001 and in Annex 2 of the papers for the meeting in May 2002.

- Purpose: to maintain and continue to develop the ICECI and to be its formal Custodian, as required under the proposed membership arrangements for the WHO-FIC.
- Secretariat: The Netherlands Collaborating Centre for the WHO Family of International Classifications (WHO-FIC-NL) through M. de Kleijn.
- Foundation Members:

  The foundation members include the individuals most extensively and directly involved in the development of ICECI version 1. They also include *ex officio* members to cement the key links between the ICECI and the WHO office. The Foundation Members provide the basis for developing sound ICECI governance arrangements. They are:
  - M. de Kleijn (in her capacity as representative of the WHO-FIC-NL)
  - the ICECI *contact persons* named in the introduction to ICECI 1.0 and 1.1 (S Mulder, A Bloemhoff, J Gilchrist, JL Annest, J Harrison, Y Holder, S Mackenzie, M Steenkamp). These eight people have deep knowledge of ICECI and its development, and have contributed extensively and directly to its development. If any these individuals ceases to have an active involvement in the coordination and maintenance of ICECI then the CMG may nominate another person with similar relevant expertise if this is assessed as necessary to the effective operation of the group
  - WHO-ICECI liaison: *ex officio* representatives of the WHO Departments responsible for the ICD and for Injuries and Violence Prevention (initially expected to be A l'Hours and M Peden or K McKee)
  - B Thélot (French edition; decision recorded in minutes of May 2002 ICECI meeting)
- Additional Members:

  Relevant organisations will be invited by the CMG to nominate additional members of the Group. Principles for choosing additional members are to:
  - Improve the global representativeness of ICECI governance;
  - Formalise connections between ICECI and the WHO Collaborating Centres on disease classification and injury surveillance; and
  - Develop connections with key international groups of developers and users of data on external causes of injury.

Based on these principles, the following invitations will be issued for the following nominations.

- A nominee of the Head of each WHO Collaborating Centre for the Classification of Diseases. (B Frimødt-Moller is expected to represent the Nordic WHO-FIC Collaborating Centre)
- A nominee of the chairpersons of WHO-FIC Committees (ie Family Development Committee, Update Reference Committee, etc.).
- A nominee of the Head of each WHO Collaborating Centre for Injury Surveillance.
- A nominee of the International Collaborative Effort on Injury Statistics (L Fingerhut)

Consideration will be given to also inviting nominations from the governing bodies of prominent international organisations representing users of statistical information on the external causes of injury.

- Operation: At least one face-to-face meeting of the CMG will be held each year (ie. an Annual General Meeting), with opportunity for members unable to attend in person to participate electronically. The annual meeting normally to be held in conjunction with a meeting of the International Collaborative Effort on Injury Statistics, or a World Conference on Injury Prevention, or another meeting which at least some members would normally attend. Standing items of business for the Group include: dissemination and use of ICECI; support for, and feedback from users; revision and updates; and WHO-FIC liaison. Except at the annual meeting, group business will normally be conducted via E-mail. Decisions will be by consensus where possible. Where consensus is not achieved, decisions will be by vote at the AGM, or by e-mail poll of Group members.[1] Costs of participation will normally be met by members, or their nominating organisations.
- A small executive group elected at annual meetings will facilitate day-to-day operation. Initial executive positions and incumbents are: Chairperson (M. de Kleijn, WHO-FIC-NL); Coordinator of User Support (S Mulder, CSI-NL; and Coordinator of Updates and Revision (J. Harrison, AIHW/NISU- AU).
- The ICECI CMG will undertake an internal review and evaluation of executive portfolios and other aspects of the governance of ICECI towards the second year of operation (ie late 2004/early 2005) for confirmation or alteration by the following meeting of the ICECI CMG (before the end of 2005). The arrangements in this paper will lapse after 31 December 2005 if not renewed or revised by that date.

3. Updates and Revision

Development and management of a process for updating and revising the ICECI is a key responsibility of its Custodian, the *ICECI Coordination and Maintenance Group.* The Group has the authority to specify the update and revision process, and can be expected to review and alter the initial model proposed here. Under this model:

- The *ICECI Coordination and Maintenance Group* will schedule, plan and oversee the review process. The *Group* may choose to delegate responsibility for parts of the process to particular Members or sub-groups.
- Revisions of two types will be undertaken:

[1] Process for polls: Minimum of two weeks notice of question requiring decision, sent by the Secretariat to the last e-mail address provided by each member. Outcome decided by majority of responses received by the Secretariat before the notified closing date and time of poll, provided a minimum number of responses is received (at least half of the Members polled). The Chairperson of the executive group is responsible for the poll process.

- *Minor* (eg. 1.1 to 1.2): Correction of errors, omissions, ambiguities, etc with minimal change to categories and codes. Minor revisions will be designed to be backwardly compatible with previous versions (within a major version) at a fine level of granularity. Changes in a minor revision might involve only some items or modules. Likely frequency: each one or two years.
- *Major* (eg. 1.2 to 2.0): As for minor, but could also include changes to the structure of items, and addition or removal of items, or modules of items. Further field experience with ICECI 1.1 is required before its first major review can be planned in any detail. Likely frequency: once or twice per decade.

- Input to revisions will be sought through routine and special means:
  - *Routine*: User queries, comments and advice are invited at any time via the ICECI web site and to members of the *ICECI Coordination and Maintenance Group.*
  - *Special*: Input will be sought actively as part of the process for major revisions. This will include consultation with, and via, WHO-FIC Centre Heads and the WHO office, and notification of groups and individuals likely to have an interest via relevant media (eg. announcements through subject area journals and web sites).
- Drafting and (where necessary) field testing of revised parts of the ICECI is likely to be undertaken in much the same way that it was initially developed. It will, in the main, rely on interested groups and individuals volunteering to undertake or participate in aspects of the work. In addition members, acting separately or together, might seek resources for ICECI update and revision work. New items or modules proposed for addition to the ICECI should normally be developed by their proponents to a stage suitable for use as a consultation draft before being accepted into the next following major revision process.
- Coordination with ICD: Changes either to ICECI, or to the ICD External Causes chapter, could affect the link between the two classification systems. In addition, revision of either system provides an opportunity to implement useful changes based on experience with the other, and for changes designed to improve comparability. Hence, development of the two systems should be coordinated and, where feasible, comparable. Proposed mechanisms for coordination are to:
  1. Include a nominee of the Department in the WHO office responsible for the ICD as a member of the *ICECI Coordination and Maintenance Group*.
  2. Invite the chairpersons of WHO-FIC Committees (of which the ICD Update Reference Committee is one) to nominate a member of that Committee to join the *ICECI Coordination and Maintenance Group.*
  3. Inform Heads of WHO-FIC Collaborating Centres of planned updates, and invite their input.
- Minor revisions will be approved and released by the *ICECI Coordination and Maintenance Group*:
  1. The manuscript for the revision will be submitted to Members with a recommendation that it be approved as the current version of ICECI from a specified date. A minimum period, agreed by Members, will be allowed for assessment of the minor revision.
  2. If the Group approves the minor revision, as submitted, then it will be placed on the ICECI web site, with notice of its date of effect. The minor revision will be announced widely. If not approved by Members, then further work will be undertaken prior to re-submission.

- Major revisions will also be developed and assessed by the *ICECI Coordination and Maintenance Group*: However, the greater ramifications of these potentially large changes require additional steps:
  1. A consultation draft of the major revision will be prepared and submitted to Members of the *ICECI Coordination and Maintenance Group* for endorsement.
  2. If endorsed, then the draft will be announced by the *Group* and made available for comment for a reasonable period (several months). Input will be sought actively from and through WHO-FIC Centre Heads and the WHO office, the ICD Update Reference Committee, and from other known interest groups.
  3. An amended draft of the revision, taking account of feedback, will then be put to Members of the *ICECI Coordination and Maintenance Group* for approval.
  4. If approved, the Major Revision will be placed on the ICECI web site, with notice of its date of effect. The revision will be announced widely, and will be the subject of a paper to the following annual meeting of WHO-FIC Centre Heads.
- Republication after revision: The ICECI will be re-published after each major and minor revision. Re-publication after a minor revision will normally be in electronic form only (eg. PDF files published on the ICECI web site, for down-loading and printing by users). Republication after a major revision will normally be in electronic form and on paper.

Annex 4

ICECI REGISTRATION FORM

TITLE	International Classification of External Causes of Injuries
PURPOSE/DEFINITION OF THE CLASSIFICATION	To enable classifying external causes of injuries. It is designed to help researchers and prevention practinioners to describe, measure and monitor the occurrence of injuries and to investigate their circumstances of occurrence using an internally agreed classification. Criteria were; a separate coding axis for each main concept, usefulness for injury prevention, useability in may types of settings (many parts of the world; emergency departments and other places where data are collected), comparability and complementarity with the ICD-10
CLASSIFICATION STRUCTURE	ICECI has a multi-axial and hierarchical structure: - core module including seven items (mechanism of injury, objects/substances producing injury, place of occurrence, activity when injuried, the role of human intent, use of alcohol, use of (other) psycho-active drugs) - and five additional modules to enable collection of additional data on special topics (violence, transport, place, sports, occupational injury)
REVISION STATUS	
Year first published	Consultation draft May 1998
Years between revisions	Period not specified
Year of last revision	2003
Latest revision number	1.1a
AVALABLE INDEXES	Traditional index (draft) available for almost 50% of the classification. An automated indexing system is in preparation.
AVAILABLE FORMATS	English: MS Word files and Pdf files
Languages	French: draft version Spanish: under discussion
CD-ROM	

TRAINING AND TRAINING MATERIALS	ICECI website: www.iceci.org Related WHO publication: Injury surveillance guidelines, Holder et al, 2001
RELATIONSHIPS WITH OTHER CLASSIFICATIONS Correspondence between revisions Correspondence with international, multinational, national classifications Relationships – conceptual, structural and other pertinent	ICD-10: ICECI has been developed as a related classification with respect to ICD-10 chapter XX; ICECI does not replace this chapter because it includes the external causes and not the injuries itself. The CDC recommended framework for presenting injury mortality data provides a bridge between the two classifications (MMWR 1997 46[RR-14] p32) . During the development of the ICECI reference was made to numerous classifications that deal with one or more aspects of the external causes of injury. The relationship of these with items in the ICECI version 1.1a rages from very close (eg the ICECI item Economic activity is derived directly from the UN International Standard Industrial Classification) to quite distant (eg the categories in the ICECI Objects/Substances item and the way that they are classified, was informed by reference to at least five national and international systems).
RELATIONSHIPS WITH OTHER TERMINOLOGIES	No formal relationships
CUSTODIAN Person or organisation with responsibility for maintenance and updating the classification	Custodianship and responsibility for maintenance and updating lies with an international group of experts: ICECI Coordination and Maintenance Group; a group of three persons act as the executive committee; contactperson Dr. Marijke W. de Kleijn – de Vrankrijker, e-mail: marijke.de.kleijn@rivm.nl
PROMOTER Person or organisation promoting the use of the classification	See above
INQUIRIES CONTACT	Dr. Marijke W. de Kleijn – de Vrankrijker, e-mail: marijke.de.kleijn@rivm.nl