ICE Meeting – April 2, 2001
 [No formal minutes were taken on April 3]

OPENING REMARKS (Ed Sondik, Director, NCHS, USA)

8th ICE meeting
- • Importance of international activities, comparing injury work across the world
- • All analysis work rests on data – ability to compare relies on comparable data
- • This meeting is designed to enable participants to concentrate on specific issues in working groups
- • Overview of agenda & introductions (Lois Fingerhut, Chair ICE, USA)

BRIEF REPORTS

ICECI (Saakje Mulder, The Netherlands)

ICECI Version 1.0 is finished
- • 1st round, future updates expected

Long history of ICECI
- • 2 decades of discussion about how to update ICD on injuries
- • ICECI could be incorporated into the ICD as "related classification"
- • Has been field tested

Hierarchical classification
- • "pick & choose" classification—can choose what aspect to classify on

Used as a reference
Has relation to ICD
- • ICECI & ICD-10 chapter XX can both be reported according to the matrix
- • Necessary to specify 1st level of intent, 2nd level of mechanism of injury, 1st level of place, intent, activity

Derivatives of ICECI
- • CDC's short version
- • Version for less resourced countries
- • Minimum data sets in Europe
- • Coroners in Australia
- • Injury Prevention Programme coding manual (former EHLASS)

ICECI – further development
- • Connection with ICD
- • Internet
- • Indexing
- • Translate into French, Spanish

- • Public relations
- • Additional elements
- • Testing

European Union (David Stone, Scotland)

Aim: forum for promoting discussion between ICE & EU on areas of mutual interest
EU injury prevention program being replaced by new structure & organization
- • Not sure yet what role for injury control in new public health program
- • Tentative ideas for sketching out future of collaboration between ICE & EU

Objectives of EU Group
- • Identify & prioritize areas of mutual interest to ICE & EU
- • Develop framework for discussion & collaboration
- • Propose an outline for a plan of action

Draft agenda for EU Group
- • Welcome & introductions—2 guests from EU to working group
- • Review relevant past ICE activities (ICECI project & others)
- • Review relevant EU activities
- • What next for collaboration under this uncertainty?
- • Need action plan

Diagnosis Matrix (Malka Avitzour, Israel & Ellen MacKenzie, USA)

Body Region by Nature of Injury – basic concepts
2 versions of matrix at the moment— working to pull them together into one matrix

Malka Avitzour (Israel):
Designed:
- • To present aggregated injury data
- • To facilitate data analysis
- • For selection of clinically meaningful diagnosis
- • With extra focus on spinal cord & vertebral injury

Distinction between definite TBI & possible TBI
Head injuries divided into 3 groups (CDC definition)
- • Definite
- • Possible
- • Head injury without Traumatic Brain Injury

Spinal cord vs. vertebral column injuries, vary by anatomic region
Loss of consciousness
Priority codes – injury to blood vessels
Extension of AIS to:
- • High incidence

- • Difference in health care facility utilization
- • Variability in outcome
- • Patho-anatomic subgroups

Ellen MacKenzie (USA):
Main difference between Israeli and US matrices is within head & spine codes
Many issues arose because US matrix originally developed at ICD 4-digit level (as opposed to 5th digit like Israeli matrix).

Body Region x Nature of Injury
- • Fractures exclude those associated with CNS—internal organs
- • Can't separate out all skull fractures—Israeli version can
- • Advantage of Israeli version may be attention to TBI
- • Need to choose a convention—one version of the matrix

Occupational Injury – Nancy Stout (USA)

Jan 1998 – started talking about comparing occupational fatality data between countries (USA, New Zealand, and Australia)
    Can we make the different data sets comparable?

May 1998 – Met again in Amsterdam
- • Came up w/method for harmonizing, standardizing the data—very complex
- • Each country has different case definitions & other subsets of data
- • Need lowest common denominator
  Examples:
  - o Does commuting to & from work count?
  - o Bystanders?
  - o Volunteer workers?
- • Also need to look at rates
  - o Find appropriate denominator data that would be harmonized

Have met several more times
- • Established one central data person as a repository
  - o This is the lead person for the data manipulation
- • Have published several papers,
- • Have learned
  - o Harmonizing data very complex
  - o Want to develop method for including additional countries
  - o One data person was key, face-to-face meetings were helpful
Paper published in March 2001 issue of injury prevention, others anticipated.

Issues: coding reliability

Need to 1st coordinate data. Then able to start looking at actual differences (not due to coding) and examine why differences exist among countries. Otherwise, comparisons are not meaningful.

Injury Indicators (Colin Cryer, UK)

To date, this group has been a loose confederation of people interested & this meeting is the 1st chance for this group to meet.

Aim:
To identify robust measures (indicators) of injury occurrence (fatal & non-fatal) that can be compared by person, place (including international), & time

Issues:
- • How to get meaningful measures?
- • What surrounds injury occurrence?
- • Indicators are not stable over time or across countries.
- • Certain indicators focus attention more on one level of injury (minor injury)
- • Need for robust case definition for indicators – need for criteria for an ideal indicator

Objectives:
- • Identify characteristics of ideal indicator
- • Agree on robust definition of a case that is the basis of each indicator
- • Identify problems that compromise the validity of each indicator
- • Analyze indicators currently in use, propose a set of reliable indicators which build on the work of other ICE groups
- • Test feasibility of generating proposed indicators

Scope proposed: focus initially on occurrence of injury and then later focus on burden of injury, exposure, and prevention

Multiple Cause of Death / Poisoning (Margaret Warner, USA)

Has been a focus since 1st symposium in 1994
- • International comparisons of all injury data
- • Cause specific studies

Focus: comparing multiple cause data between countries
- • Single diagnosis – choose main injury for comparisons
- • Coding differences

- • Diagnosis matrix

ICD-9 precedence list may not really reflect best classification of injury—cause of death
Nearly ½ injury deaths in USA, Scotland, Sweden, England & Wales coded "other" in precedence list
List does not accommodate poisoning
Countries rely on different codes to describe multiple injuries

ICD-10 precedence list – has been replaced by "General Principle" & "Selection Rules" which are less explicit

Poisoning:
- • Detail on agents not available in underlying cause, must use multiple cause data
- • ICD-10 even less specific about agent of poisoning
- • Defining main poisoning agent for international comparisons

Working Group:
- • Application of diagnosis matrix
- • Method for choosing main injury
- • Coding issues between countries
- • Make multiple cause of injury data more accessible

BREAKOUT GROUPS

European Union Group

How to take forward the collaboration between ICE & EU

OBJECTIVE 1:
Identify & prioritize areas of mutual interest to both ICE & EU

Review of relevant ICE activities:
- • Focus tends to be first on mortality and then turns to morbidity
- • Number of EU countries participating has expanded from 12 to 15
- • Definition & classification of injuries—ICECI
- • Framework for presenting data on mortality & morbidity
  - o expand use of this framework—would like to see all member states reporting their external cause data in terms of the matrix
- • Minimum data set
- • Specific projects, EURORISC, drowning, occupation injury, violence

Representative from EUROSTAT came to NCHS to talk about collaboration

Suggestions:
- • Examine the comparability of data and, if not comparable, understand exactly why not
- • Together define indicators & common definitions
- • Components of each more specific project can be worked on

New Public Health Program for EU
- • What has been done is not necessarily what *will be done* in future
- • As the new program is developed, it is possible to influence the process
- • Can require data from the member countries to be reported using ICECI codes Continue work of trying to find common language

What has EU been doing? How is it organized? Eurostat, European Commission
Background
Information Exchange concerning public health in EU:
- • EUPHIN – European Union Public Health Information Network
  - o HIEMS – Health Indicator Exchange Monitoring System (included in EUPHIN)
    - ▪ EHLID – European Home and Leisure Injury Database (included in HIEMS)
Raw data on home & leisure injuries in EHLID are aggregated in HIEMS
In the future, expert groups will advise new public health program

Collaboration
- • 2-way collaboration: issues started in Europe should be communicated to ICE and vice-versa
- • News should be spread around
- • European Commission can help share the information throughout Europe

How to do this?
- • Need some clearinghouse mechanism that will enable us to do this
- • Difficult because within Europe, different countries are doing different things
- • It is the same in U.S. with 50 states doing different things
- • Use internet? Website exists
- • The new public health program will most likely establish an expert group on injury
  - o In the current system, there is an injury group with a recognized coordinating function
  - o The current website is difficult to navigate and is somewhat restricted
  - o What is the mechanism for making a recommendation? Need a way not just to share information, but for putting into action a

recommendation (for example, wide-scale use of injury matrix developed by ICE)

- o   o   How do items get placed on the EC's agenda?
- o   o   Could ICE have a presence in terms of the expert group on injury?
- o   o   But, also other way around – want a way to inform ICE about issues they should be addressing

What is EUROSTAT? (Didier Dupre, Luxembourg)
European statistical office – department of the EC
(different from Department of Health Communication)

Aim: to organize the European statistical system

- •   •   Official network
- •   •   Deals with all types of statistics
- •   •   Began with initial data, economic, etc., but now handles more social information as well

What they have done:

- •   •   Work is based on framework previously defined (1989) that statistics should be collected
- •   •   Defines data that should be collected and organization of how to collect it
- •   •   Collects information on nearly all injuries, but not 100%

Main objective: provide something useful for prevention

- •   •   Detailed enough to be effective but not too complex
- •   •   Scope is not an injury program, rather cause-of-death & employment data

EUROSTAT potentially has a lot to offer in terms of experience, help, uniformity

Should EUROSTAT make recommendations?

There are currently different levels of standard-setting:

- ▪   EUROSTAT determines standard of collection
- ▪   Legislative component in each country determines standard of reporting

But situation will change with new public health program

- ▪   Each country will be required to report certain information, it will become compulsory
- ▪   Now in the decision making stage in terms of what will be required for countries report

At the very least, output from EUROSTAT could include some injury information like injury matrix

Issue: harmonization (of concepts, variables, classifications) does not completely ensure the same answers because different conditions/situations in different countries can still affect the information produced

OBJECTIVE 2:
Develop framework for collaboration/discussion between ICE & EU

Current suggestions:

- - Cross representation at meeting ICE people at EU meetings and EU people at ICE meetings
- - Internet – websites
- - European Regional Office of WHO
- - OECD, existing international organizations

Side question: what are the implications of collaboration between ICE & EU for other countries outside the EU (Latin America, other developing countries)?

Injury Indicators

Aim: to identify robust measures (indicators) of injury occurrence (fatal and non-fatal) that can be compared by person, place (including internationally) and time. (Place depends on your purpose—can be as broad as country, or more specific.)

Proposed criteria for a sound indicator:
1. Case definition: anatomical or physiological damage (rather than use of services, which is influenced by things like access to care)
2. The injury cases ascertained should be important (eg. in terms of disablement and/or threat-to-life)
3. Cases should be ascertained from routinely or easily collected data
4. The probability of a case being ascertained should be independent of extraneous factors
5. The indicator should capture all the events in universe that the indicator aims to reflect

Note:
Assuming that we are working with a set definition of injury
The proposed criteria are theoretical (ideal), there may not be an indicator anywhere that actually *meets* these criteria, but these are targets.

Questions/Suggestions

Indicators – how global? Could different subgroups have different indicators?

What about using an ISS or some severity index which is derived from anatomical criteria (AIS score) – essentially combining criteria 1 & 2?

How to count cases in a way that is stable – can be subdivided by external cause but, nonetheless, what criteria should be used?

How do #2, 3 & 4 not contradict each other, since in reality these usually interact?

Would #3 be better if it referred to the practicality of computing statistics from the data collected?

What about disability and impairment?

Abolish #3?
- • Routine collection or easy ascertainment may contradict *independence*
- • But need for ongoing information
- • Routine collection depends on things like insurance system (in USA)

Quality (4&5) vs. Usefulness (2&3)

#2 – what do we mean by important?
- • Important to whom? individual? society?
- • Importance depends on the user?
- • Will importance depend on the objective?
- • How is importance relevant? (If it is a sound indicator, would it not be important anyway?)
- • Good to have an injury indicator be important because used often by policy makers with less content knowledge in the area of injuries
- • Limiting before-hand to only important injuries precludes the possibility of the indicator *showing* what is important
  - ▪ Importance should emerge from the indicators
  - ▪ Indicators should reveal what is important
  - ▪ Might miss something important if we only include as indicators those injuries already believed to be important
- • What are the indicators to be used for? Add to #2 ? "…important *and relevant to the phenomenon*" – the importance may change depending on the purpose. Reword #2—important *to assess the objective* (objective must be well defined)

#4 gets at need for unbiased indicator, independent from socio-economic factors

How are we defining "indicator"?

New wording for #3? "practicality of developing a new or having an existing data collection system for computing relevant statistics"

#5 – does it need to include the whole universe or would an unbiased sample be OK? Change wording to say indicator should be *derived* from data that capture all events?

Should we be talking about an "optimal" indicator rather than "sound" indicator?

UPDATES

ICD-10 & ICD-10CM UPDATES

ICD-10 (Harry Rosenberg, USA)

Major changes for NCHS:
- • Implementing ICD-10
- • Changing standard population to the year 2000, replacing the year 1940
- • Implementing revised U.S. standard death certificate
- • Improving timeliness of statistics

Differences between ICD-9 and ICD-10
- • ICD-10 is more detailed than ICD-9
- • The coding changed to alpha-numeric system in ICD-10

Comparability studies – to measure effects of implementing new coding system
- • Have calculated comparability ratios (CR) with 1996 data for mortality – underlying causes (external, not nature of injury)
- • CR = Diagnoses under ICD-10 / Diagnoses under ICD-9
- • CR for accidents = 1.0305
  - o 3% increase
  - o Increase due in part to change in "Rule 3" (count pneumonia deaths if caused by an injury)
  - o Also changes for falls—do not count unspecified fracture
- • Leading causes of death – ranking the same for top 5 but some others in top 10 change rank

ICD-10CM (Donna Pickett)

ICD-9 to ICD-10 Bridge coding (Pnina Zadka)

BREAKOUT GROUPS

ICECI

Background
- • Up to ICD-5 – early development, combined injury/external cause classification
- • ICD-6 through ICD-10
  - o Separate injury & external cause
  - o Largely uni-axial

- • Multi-axial developments
    - o 1970s: NOMESCO, NISPP
        - ▪ Partly a response to limits of ICD external cause
        - ▪ Local/regional
        - ▪ (Not really comparable to ICD)

Design principle
- • Comparability with ICD-10 chapter XX
- • Meaning of "comparable"?
    - o Model 1: 1:1 at 3-character ICD-10
    - o Model 2: "important groups" -- Based on Recommended Framework for Presenting Injury Mortality Data
        - ▪ Injury sector opinion of "important"
        - ▪ Based on ICD
        - ▪ Published
    - o Feasible
    - o Acceptable to WHO/ICD

ICECI & ICD "Family" of classifications
- • ICECI to be a "Related Classification"
- • In development toward formal endorsement & publication by WHO

Complementary Roles
- • ICD-10 Chapter XX will continue to be the basis for coding official national statistics
- • ICECI has an emerging range of roles

Revisions
- • Both ICD-10 & ICECI will be revised
- • Revision allows:
    - o Transfer of useful aspects from one to other (both directions)
    - o Enhanced comparability
- • Potential elements of revision to Chapter XX
    - o Add categories to ? link via Framework
    - o Extend Place & Activity
    - o Further specification of incl./excl.
    - o Reference for form/wording of other proposed additions to Chapter XX

What will ICECI be used for?
- • As a tool, a guide to aid in achieving comparability in work on injury
- • It is not to replace ICD-10

UPDATES ON OTHER PROJECTS

Decade of the Bone and Joint (Ellen MacKenzie, USA)
- • Launched January 2000 to raise awareness of bone & joint diseases
- • Quantify burden of bone & joint disease & reduce the burden
- • Working group on musculoskeletal injury?
- • Reach out through listserve?

National Hospitalization Database update (Pnina Zadka, Israel)
Recommendations
- • Include more countries in survey
- • Study comparability of nature of injury coding

World Injury Conference (Lois Fingerhut, USA)
- • Next World Injury Conference (Montreal) May 12-15, 2002
- • Some time scheduled for ICE business meeting
- • Deadline for abstracts for papers will be in September