Coding

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Participants Included Clinicians, Coders and Researchers

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Workshop Focus

The quality, reliability and comparability of injury and external cause coding at the international level

- A lot of input provided by participants with lively discussion and debate
- Summarized issues that need to be addressed to improve injury data collection, comparison, and analysis and emphasized several specific recommendations
- NOTE: Only two countries outside the U.S. were represented—Israel and the U.K. We need to become aware of coding issues in additional countries. The fact that data maybe collected for different reasons in different countries adds to the comparability problems with injury data across countries.

Method for eliciting discussion: The Co–Chairs developed an outline of talking points around 9 areas:

1. Agencies and personnel responsible for codes, coding, and injury data analysis
2. Sources of coded data
3. Centralization of coded data
4. Comparability of coded data
5. Coding injury diagnoses
6. External cause of injury coding
7. Use of coded data in injury research
8. Training and education
9. Anticipated outcomes and recommendations for next steps

Synthesis of the discussion on issues that need to be addressed to improve coding. These do not appear in any particular order.

1. Improve Communication

   There is insufficient communication between those involved with coding within a given country as well as with counterparts external to the country. Communication must occur across different levels:

   - those organizations that make the rules for coding
   - those who assign the codes
   - those who organize the data bases
   - those who use the data (researchers, health planners. state agencies)

   There is also a great need for understanding **the lengthy process** by which codes are developed and revised.

2. Crosswalks Between Coding Systems

The change from ICD 9 to ICD 10 is an extremely complex process. Crosswalks must be developed to bridge several different coding systems. The WHO will provide the crosswalk between ICD 9 and ICD 10. Should there be an ICD 10 CM version in the U.S., a crosswalk will also be needed between ICD 9 CM and ICD 10 CM. Similarly, a bridge is needed between ICD, NOMESCO, and other coding systems used for injury research.

3. Training

Training initiatives are a major need. A major educational campaign is required for coding the cause of injury within the ICD scheme.

A. Expand E–code training in medical record educational programs.

B. Teach clinicians documentation skills, questions to ask and what information to collect. Do not try to teach them E–coding. Rob Schwartz suggested a method to teach clinicians the information that is necessary to write down for later coding. That is, to use the WHO, WHAT, WHEN, WHERE, WHY and HOW questions used in journalism.

C. Teach researchers and other end users.

They need a better understanding of the individual codes themselves, the process of coding, and the rules. Example: For ICD 9, some countries only collect one diagnosis code. This has a lot of implications for users.

Where there are multiple codes, what sequencing rules are being followed? Users should not be analyzing only the first listed code. They must look beyond the first code.

4. Educational Materials

A major issue is the lack of sufficient educational materials for E–coding. There is considerably more information available on how to assign diagnosis codes than cause of injury codes.

A. Manuals targeted to three different audiences are needed—the coders, clinicians, and researchers and other users.

B. Data users need to understand coding steps and how they affect research and interpretation of data. This includes the steps in getting from documentation in the record to coding of data to reporting the data to interpretation of the data to publishing the data.

5. E–Code Guidelines

The lack of comprehensive guidelines for E–codes has been a major impediment to their use in the U.S. The NCHS is currently addressing this problem, but there is a need for other countries to have similar guidelines. Perhaps the U.S. can share the guidelines after they have been finalized and approved.

6. Standard Reporting Requirements for External Cause of Injury

Reporting requirements are not the same in the states that have mandated E–code reporting in the U.S. The requirements in other countries are unknown.

7. Multiple Codes

The existing rules and sequencing guidelines for multiple codes need to be widely disseminated. Most researchers and end users are not aware of such rules, nor of the implications of using only one code, nor of the definitions used in different countries for selection of the first listed diagnosis code.

8. Suggested Groupings of Codes for Users

   Using groups of related codes to represent particular injuries or causes of injuries is often done to make it easier to analyze data. Unfortunately, nearly every user seems to come up with their own notion of how to group codes making it nearly impossible to compare studies. In the U.S., this is especially important for comparability of state data.

9. Prompts For Cause of Injury

   Many different paper forms and computer formats are used in different settings (e.g., community health clinics, emergency departments, clinicians offices). A prompt to include the cause of injury would be a helpful reminder. A dedicated, labeled field for cause of injury could be very effective in increasing the use of E–codes for ICD coding.

10. Provision of Routine Feedback to Coders/Clinicians

    To enhance the quality of the data, mechanisms for providing feedback should be instituted in every setting. Newsletters., meetings and grand rounds for clinicians are examples of such mechanisms.

11. Other Incentives

    Additional incentives to improve and maintain the quality of coded data need to be developed.

12. Computer–Based Medical Records

    Although there will always be a need for people, there are some functions that a computer should be able to perform better than a person. For the future, computer–based medical records will improve comparability across countries.

Where Do We Go from Here

A number of excellent ideas were generated to begin the process of improving coding of injury at the international level and create a more collaborative spirit across countries.

- A series of instructional **manuals** for three different audiences should be developed. These could highlight similarities and differences in injury coding and sequencing rules and definitions in different countries.

- Although a structure for sharing coding definitions, process issues and rules across countries and across injury coding schemes exists (e.g., WHO, NCHS, others), a **forum** should be created to improve dissemination of the information.

- An international **directory** of coded data sources, different coding schemes (e.g., ICD, EHLASS, NOMESCO), who is in charge and who does what should be developed.

- Suggested standard **cause of injury groupings** should be developed to improve comparability across studies and countries. This is a project that the National Center for Injury Prevention and Control at the Centers for Disease Control in the U.S. is initiating during 1994.

- A **plan** is required to perform some **evaluation** of comparability of coding across countries. For example, coders in different countries would all be given the same raw data to code and then the results would be analyzed to detect differences in coding. This would also help to assess coding needs.

- Although it may be impossible to gain complete international consensus, **"practice models"** for injury surveillance, injury coding, and injury data analysis should be disseminated (e.g., Australia's efforts and lessons learned). This could be done on a small scale first with others persuaded to join in the effort.