



## **Mortality**

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**Aim** – to understand why there are differences in mortality rates in different countries, and in particular to consider whether these differences are real or are related to the reporting systems, or are a mixture of both.

We considered the opportunities for errors through the various stages in the reporting system, starting with the certification of a death, working through the practices for investigating and determining the nature of the injuries and the circumstances of the event, to the reporting of these findings to the national vital statistics agency, the subsequent coding of the information, and finally its dissemination and use (figure 1). We tried to get a handle on the scale and significance of any problems that we identified and considered how matters could be improved, and by whom.

To understand a country's mortality data, we felt it essential to know the nature of their reporting system. For example, is it compulsory to report a death? Are all age groups captured equally? Even with apparently high capture rates, are all conditions reported to same level? For international comparisons to be meaningful, we need to know the ins and outs of other systems or at least to have confidence in them. It is, therefore, essential to **report on the completeness and quality of data**.

A couple of general points that do not fit comfortably on figure 1:

- 1 – need to be aware of the "real" data collection systems in different countries. Not the official systems, but what actually happens.
- 2 – need to be sensitive to the effect of language. Anne Tursz mentioned the use of the "term" accident in France.
- 3 – need to be sensitive to cultural issues which lead to different national practices e.g., religious blocks on Post Mortems

What is influence on statistics?

A long discussion took place on the question of identifying injury-related deaths. This is important, as it triggers the investigation and reporting system. Doctors regard completing death certificate as a chore.

- need to understand why they are being asked what they are
- need to understand their public health role
- need to understand that they are contributing to policy development

### **Education Needed**

- initial training
- during professional examinations
- reinforcement through querying system for vital stats agency

### **Role of WHO**

- instructions on handbooks on completing death certificates.

Quality of investigations of external cause of death and injuries (Gib Parrish's presentation)

### **Need to Raise Standards Among MEs and Coroners (Internationally?)**

- may not get everyone to "gold" standard, but should seek uniformly good data
- further data from follow up studies and sampling
- islands of excellence, supplementing routine national data, and contributing to quality assessment.

### **MEs and Coroners Need to Be Working to Same Standards Internationally**

- model guidelines for MEs and Coroners
- Education of MEs and Coroners on their public health role

### **On Medical Front**

- need to be aware of what may be meant by term "autopsy"; is it verbal, or a full physical examination?
- "multiple" injuries unacceptable – poor medical description; improve through querying system.

### **Coding of External Causes and Injuries**

#### Amendment of records issues

- can account for significant variations
- after legal proceedings
- need to know if amendments are included and whether on a timely basis
- may not affect all groups equally, may be a particular problem in area of homicide
- may render different countries' statistics incompatible in certain areas
- national legal frameworks may be the cause of the failure to amend databases.

### **Need for International Coding Trial to Examine Differences**

- good model in field of diabetes
- circulate scenarios to difference countries' for coding
- be aware of translation problems

### **Ad Hoc National Coding Rules**

- exchange via WHO

Automated coding will help, but there is still need for manual validation and quality control

### **Quality Assessments of National Data**

- need to know the completeness of your own data to allow meaningful international comparisons
- can be done by using multiple sources of data and follow back studies, and cross-linking data as in the Oxford record linkage study
- note completeness of coverage in published statistics

### **Recommendations for the I.C.E.**

#### Education

- of doctors on death certification
- of medical examiners and coroners on their public health role

#### International projects

- descriptions of "real" systems
- comparative coding of external cause
- exchange of ad hoc, national coding rules
- development of model guidelines for MEs and Coroners

**Figure 1. Stages of the Reporting System and Related Issues:  
Injury data from the death certificate**

	<u>Key Issues</u>
Death	
Registration	<ul style="list-style-type: none"><li>- Coverage</li><li>- Capture rates</li></ul>
Injury related death?	<ul style="list-style-type: none"><li>- Education of doctors</li></ul>
Investigation of cause of injuries	<ul style="list-style-type: none"><li>- Raising standards</li><li>- International guidelines</li><li>- Education of ME/C</li><li>- Definition of an autopsy</li><li>- "Multiple" injuries</li></ul>
Coding of external cause and injuries	<ul style="list-style-type: none"><li>- Amendment of records</li><li>- International coding trials</li><li>- Exchange of ad hoc coding rules</li></ul>
Collation and publication of national data	<ul style="list-style-type: none"><li>- Quality assessment</li></ul>