

Uses of Coded Clinical Data

Where it all Began

Collecting health information is nothing new – data on diseases have been recorded for hundreds of years. For example, in London, England, a “Weekly Bill of Mortality” was established in 1634.

The coding of diagnostic information began in the 1850’s, and focused on capturing information related to death. At that time, a classification known as “The International List of Causes of Death” was developed. The method of capturing mortality information was adopted by the International Statistical Institute in 1893. WHO took over the responsibility for the International Classification of Diseases (ICD) in 1948, and the classification was expanded to include morbidity (diseases and conditions affecting the patient). In 1967, the World Health Assembly adopted the use of the ICD, for use of mortality and morbidity statistics for all member states.

Worldwide, ICD is the international standard diagnostic classification for general epidemiological, health management and clinical uses. Coded data are used for the analysis of general health situations of population groups, and for monitoring of the incidence and prevalence of diseases and other health problems. Using coded data, analysts can study the characteristics and circumstances of individuals affected. The data can also be used for reimbursement applications, resource allocation, quality assessment and clinical guidelines. In addition, coded data provide the basis for the compilation of national mortality and morbidity statistics for WHO member states.

Uses of ICD Coded Data

Once collected, ICD coded data are used by various health care providers and decision makers, to monitor the health of individuals and populations, as well as contribute to the analysis of the health system.

Users may include:

- hospitals
- healthcare practitioners
- government
- professional associations
- researchers
- epidemiologists
- media
- students
- the general public

Some of the specific ways in which coded data are used include:

- disease trending by demographic group or geographic area
- disease registries
- cause-of-death statistics
- surveillance
- hospital utilization
- injury statistics
- evaluation of health care and public health interventions
- identifying types of health care services provided to specific patient groups
- determining the overall health of the population
- human resources issues related to the delivery of health care
- reimbursement strategies through insurance companies or government

- resource allocation based on homogeneous diagnostic groups (such as Diagnosis Related Groups – DRG's, or Case Mix Groups – CMG's)
- clinical and information governance

In addition, a myriad of other analyses are undertaken to assist in determining how the health system is functioning and performing, so that identified disease clusters or local health concerns may be addressed. For example, coded data are used in tracking incidence of complications of medical or surgical care, determining utilization of health care services and understanding the rates of morbidity or mortality relating to various health conditions.

Clinical Indicators developed and applied to coded clinical data, can track performance for analysis of patterns and outcomes of care. Many indicators are trended globally, including life expectancy, birth rates, hospital utilization and health spending per capita.

The most common members of the WHO Family of International Classifications utilized globally are:

- ICD International Statistical Classification of Diseases (reference classification)
- ICF International Classification of Functioning, Disability and Health (reference classification)

The ICD (currently in its tenth revision and referred to as ICD-10) and ICF, are maintained and updated by WHO and a network of WHO Family of International Classifications (WHO-FIC) Collaborating Centres.

Of note, ICD-11 is currently under development, and is scheduled to be approved by the World Health Assembly by 2015.

There are also classifications for particular specialties or population groups, such as the

ICD-O for oncology, and the ICF-CY for Children and Youth, derived from the reference classifications.

The WHO ongoing mission to expand and improve the collection of global information related to diseases and health conditions reflects the importance of working to improve the picture of the diseases affecting our populations, so that decision makers can act in a timely and efficient manner to provide care, and whenever possible, to prevent disease and injury.

This document has been produced by the *WHO Family of International Classifications Network* [<http://www.who.int/classifications/en/>].