

UNIVERSITY OF THE YEAR Classification of Disease System MILE 2020 Introduction to International University | School of of of of Of Glasgow | Computing Science

nttps://www.gla.ac.uk/schools/computing/staff/fanideligianni Lead of the Computing Technologies for Healthcare Theme fani.deligianni@glasgow.ac.uk **Lecturer (Assistant Professor)**

Dr. Fani Deligianni,

World Health Organisation (WHO)

Determinants

Biomedical and genetic factors

Health behaviours Socioeconomic factors

Environmental factors

Health and Wellbeing

Life expectancy and mortality
Subjective health
Functioning, disability
Illness, disease, injury

Interventions

Prevention and health promotion
Treatment and care Rehabilitation

Resources and
Systems
Human
Material

Financial

Research

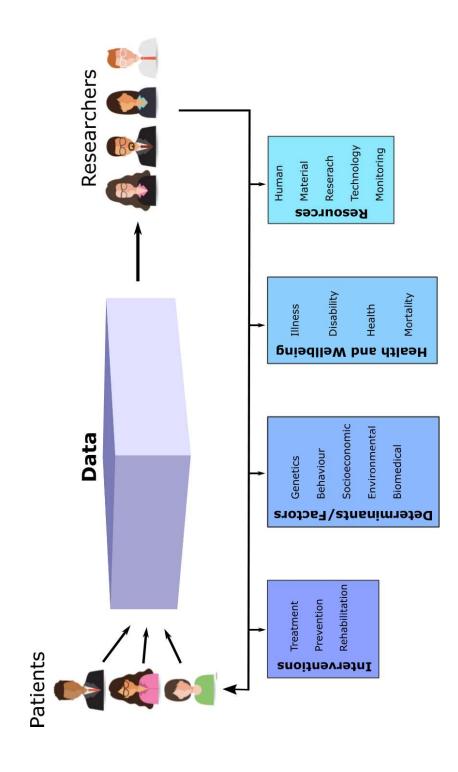
Evaluation Monitoring

Surveillance

Technology Other information



WHO - Data - Machine Learning





Family of Classifications

- International Statistical Classification of Diseases and Related Health Problems (ICD)
- International Classification of Functioning, Disability and Health (ICF)
- International Classification of Health Interventions (ICHI)



Usage of ICD

- Systematic Storage, retrieval and analysis of the data
- between hospitals in a national and international Comparison of morbidity and mortality data evel
- Comparison of morbidity and mortality data across time



Internationally Accepted

Develop reliable statistical systems:

- enable data derived from the classification to be of a standard suitable for international comparisons;
- are acceptable internationally
- are able to be used reliably; i.e. there is inter-rater reliability and test-retest reliability in coding using the classification, and
- are supported by instruction manuals, coding indexes, tabular lists, handbooks and training.

Applications of Classifications

Population Health/ Epidemiology

- Births
- Disability
- Diseases
- Risk factors

Clinical

- **Decision Support**
- Integration of care

Administration

Scheduling

Resources

- Billing
- Policy Making

Research

- Clinical Research
- Decision Support Systems
- Disease Pathways





WHO-FIC Schematic

Related Classifications

International Classification of Primary Care (ICPC)

Internal Classification of External Causes of Injury (ICECI)

The Anatomical, Therapeutic, Chemical (ATC) classification system with Defined Daily Doses

ISO 9999 Technical aids for persons with disabilities

Reference Classifications

International Classification of Disease (ICD)

International Classification of Functioning, Disability and Health (ICF) International
Classification of Health
and Interventions (ICHI)

Derived Classifications

International Classification of Diseases for Oncology, Third Edition (ICD-O-3)

The ICD-10 Classification of Mental and Behavioural Disorders

Application of the ICD to Dentistry and Stomatology, Third Edition (ICD-DA)

Application of the ICD to Neurology (ICD-10-NA) ICF Version for Children and Youth (ICF-CY)



Summary

- ICD is one of the oldest and most important classification in medicine
- ICD enables the optimal application of computer technology in the processing and retrieval of clinical information
- It is recognized internationally, which enables sound statistical comparison of data from different regions and different times.

References

- https://www.who.int/standards/classifications World Health Organisation - Classifications:
- National Center for Health Statistics Classification of Diseases, Functioning, and Disability http://www.cdc.gov/nchs/icd.htm
- Britanica International Classification of Diseases https://www.britannica.com/topic/International-Classification-of-Diseases