International Classification of Diseases

11th Revision

in Occupational Health

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Classifications and Terminologies
International Classification of Diseases (ICD)

Legally mandated health data standard* – in effect from January 2022 (mortality and morbidity)

Conceptual framework independent of language and culture

Integration of terminology and classification

End-to-end digital solution (API, tools, online and offline)

Up-to-date scientific knowledge

Comparable statistics – semantic interoperability - for 150 years

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*WHO Nomenclature Regulations 1967, WHO constitution, World Health Assembly (WHA 72 2019)
WHO core classifications

ICD
International Statistical Classification of Diseases and related health problems – diagnoses, injuries, findings, primary care

ICF
International Classification of Functioning, Disability and Health: Describes functional health status and social impact (bio-psycho-social model).

ICHI
Interventions for treatment, prevention and diagnostics: Medical, nursing, rehabilitation, laboratory, imaging, ultrasound, public health...
The WHO Family of International Classifications and Terminologies (WHO-FIC)

Terminology components
- Foundation of ICD, ICD and ICHI
- WHO INN (non proprietary names - medicaments)/ATC
- WHO Devices
- ICD-O - Histopathology (tumours)
- Anatomy
- Details of external causes
- Severity
- Infectious agents
- More...

Related Classifications, Terminologies, Standards
- ICNP (Nursing)
- ICPC (Family medicine aspects)
- Orphanet (Rare diseases)
- LOINC (Laboratory)

Other systems (OBO, HPO, MedDRA)

ATC/DDD (Medicament dosage use)
WHO-FIC
Information and Interoperability

Health Records
Surveillance
Death certificates

Diseases, health related conditions
Functioning, Disability
Health interventions (individual and public health)

Population Health
Births
Deaths
Diseases
Disability
Risk factors
SDG

Clinical
Decision Support
Integration of care
Outcome
Guidelines

Administration
Scheduling
Resources
Billing

Reporting
Cost
Needs
Outcome
Epidemiology
Research
ICD-11

Designed for Multiple Uses

- Cause of Death
- Clinical terms, records, surveillance occupational
- Casemix, costing, resources (DRG) & Cancer registration
- Patient safety & Drug safety & Device safety
- Primary care & Prevention & Research
- Functioning assessment
ICD-11 – more than diagnoses

Traditional Classes and Terminology

- Diagnoses
- Injuries
- Signs
- Symptoms
- Findings

Reasons for encounter or health status

- External causes of illness & death

Traditional medicine conditions

Functioning assessment – WHO-DAS2

Extension codes - Terminology

- Anatomy
- Laterality
- Infectious agents and AMR

- Histopathology (ICD-O)
- Chemicals and Medicaments (INN)
- Devices

- Mechanisms of harm (Safety)

- Activities
- Places
- Objects

e.g. devices: IMDRF Terminology embedded
ICD-11 – Clinical system

- Codes and URI*
- 17,000 statistical categories (codes)
- 80,000 entities
- 120,000 terms
- >1,600,000 terms with formalized postcoordination

URI* and code combinations

ICD-11 Foundation

*URI: Uniform Resource Identifier - IT

Statistical system used in clinical setting

14,000 categories
Separate text index
Separate rule base
Need terminology link
Outdated content
ICD-11 Digital

Tooling for use by humans
Modern ontology
Fully digital
Portable: offline & online

Tools for use by software
Application Programming Interface (API)
Software applications on all devices and OS
Easy to use

Type a diagnostic statement into the Coding Tool

e.g. **cancer of stomach**

The Coding Tool will find the best match

Training 30 minutes = 88% correct coding
Easy to use

Type a diagnostic statement into the Coding Tool

e.g. *occupational exposure*

The Coding Tool will find the match
Easy to use

Searching for codes after exposure to arsenic
Coding occupational diseases

All conditions of the ILO list of occupational diseases included in ICD-11

Some categories specifically with the label “occupational”

Other conditions can be flagged for occupational relevance, and all the context (paid, site, activity, functional impact) can be described
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A Patient’s Path
Person has problem with right olecranon – goes to doctor

**ICD-11** Code the worry of the patient

Data inform planning of prevention

Practitioner identifies olecranon bursitis

**ICD-11** Code reason for encounter - infection

Data inform resource planning and epidemiology

Severity increases and referral to secondary care, intervention indicated, relationship with work and details of occupational context identified

**ICD-11** Code reason for stay

Data inform resource planning, DRG, service availability, occupational protection and insurance

**ICHI** Code therapies

Rehabilitation and monitoring of fitness

**ICD-11** Monitoring fitness (WHODAS 2)

Data inform epidemiology, coding, service availability, reintegration and recompensation

**ICHI** Code diagnostic test

**ICF** Code full functioning detail
Participation

ICD empowers patients, care workers, clinicians, public health to participate in the design of the system that improves care and improves use of resources.
ICD-11 maintenance is a transparent public process

**Input**
- A proposal is submitted to the platform (evidence, rationale)

**Verification**
- **Structural aspects** (e.g. Ontology, Classification, Statistics)
- **Medical-scientific** (e.g. Scientific, Data)
- **Use cases** (e.g. Mortality, Morbidity, Functioning, Traditional medicine)

**Summary review**
- **Recommendation to:**
  - implement
  - implement with change
  - reject
  - more information necessary
Global Goods

Mandated by International Regulations

Improved and refined by

Global support, contributions and feedback

For comparable data, reliable easy use and interoperability

Webinars for introduction

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