

ICD 11th revision

Member State Information Session Geneva, 14 May 2017



**World Health
Organization**

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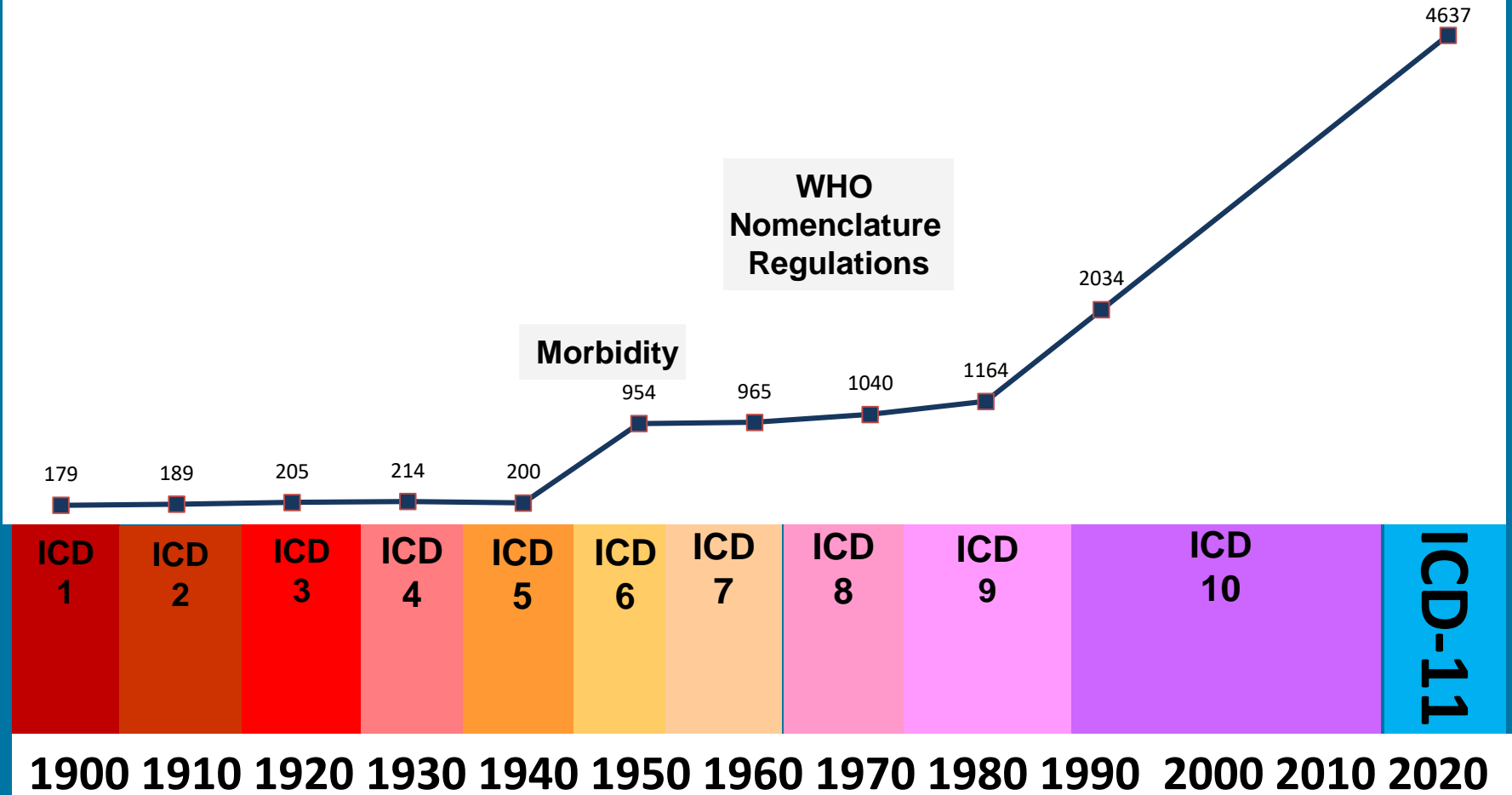
Needs and Uses: Mortality statistics



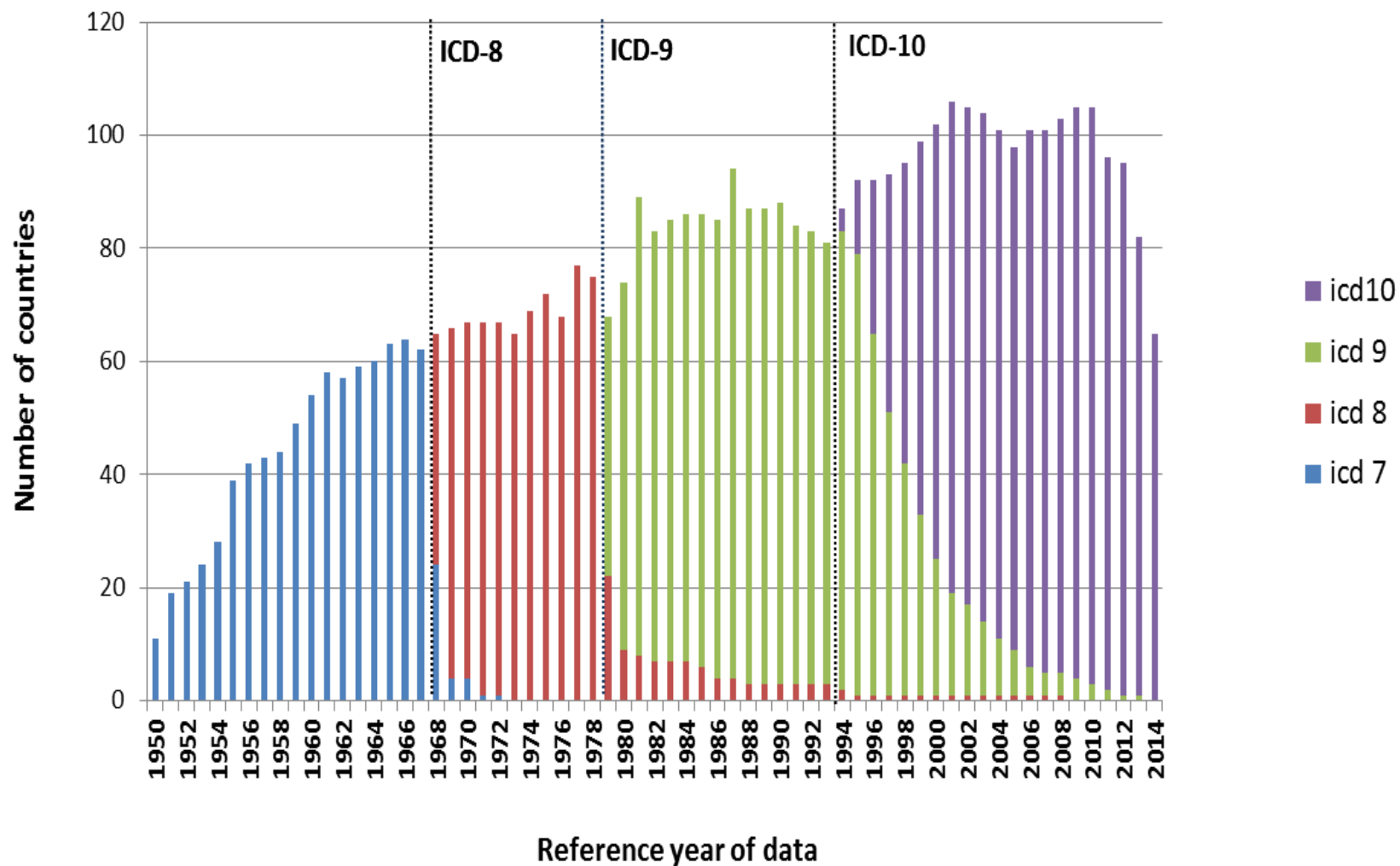
Mortality by age, sex, and cause of death is the foundation of public health, globally and in countries: comparable **mortality statistics** over time

Sustainable Development Goals (SDG) 2016-2030: nearly a dozen mortality by-cause targets and indicators (NCD, suicide, violence, environmentally related, maternal, etc.)

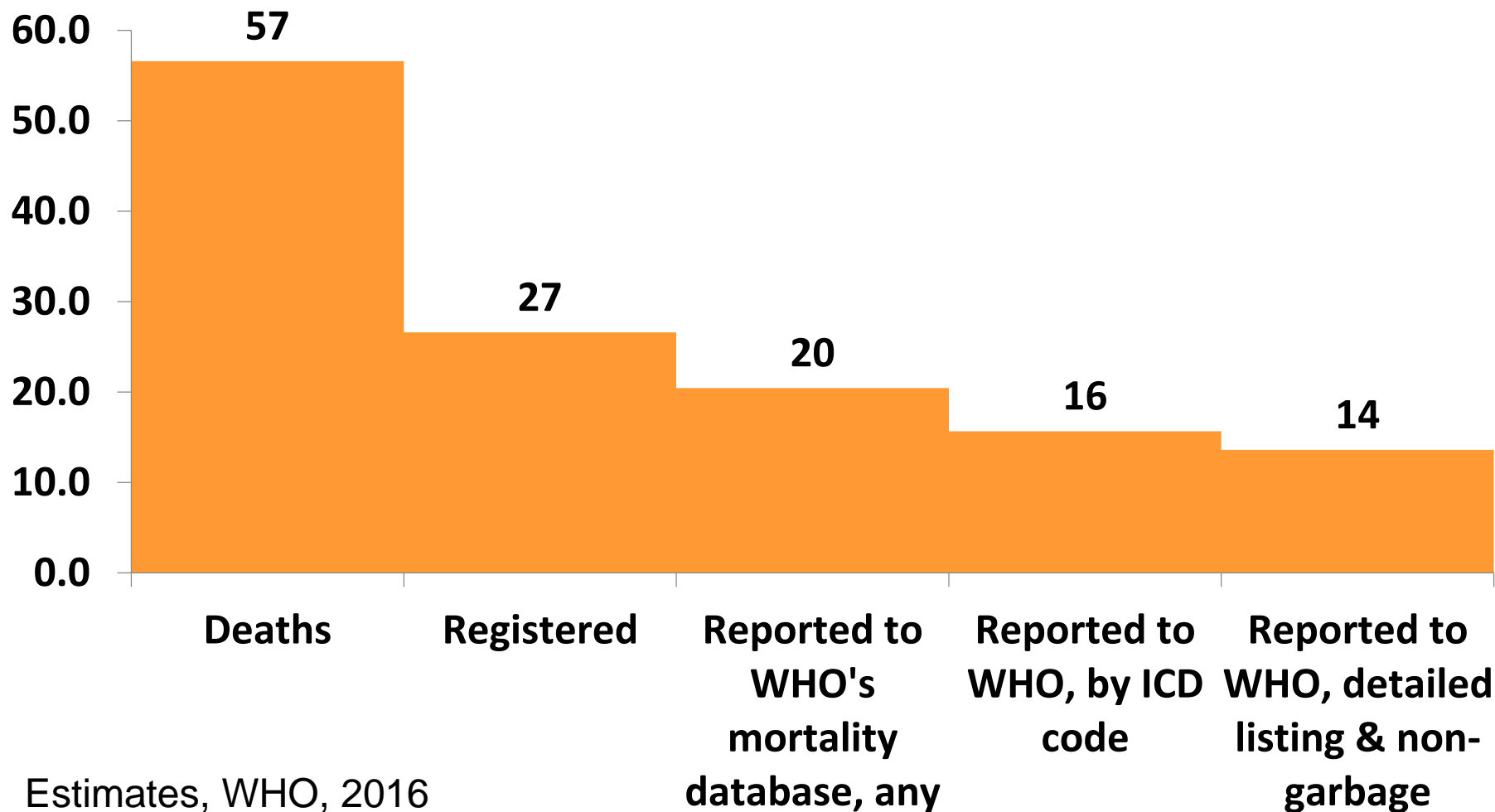
ICD- Number of codes by ICD revision



Trends in cause-of-death reporting by ICD revision



Global number of deaths by registration and reporting status to WHO



Needs and Uses: Morbidity Statistics



Morbidity statistics (incidence, prevalence, sequelae) are also an essential foundation for public health

Morbidity statistics are much less widely applied

- Fully implemented in 41 countries
- Partially implemented in 6 countries

Comparative morbidity statistics are often lacking

- based on special surveillance systems, with limitations (e.g. HIV, TB, cancer)

Need for simplified lists and tools

Other needs and uses of ICD

Administrative tool

- Used for reimbursement and resource allocation in significant number of countries;
- National clinical modifications in almost 30 countries

Clinical research

Monitoring specific areas

- Health care quality and safety: health-care associated adverse events including AMR
- Primary care
- Surveillance and identification of reportable events

ICD-10 in 2018

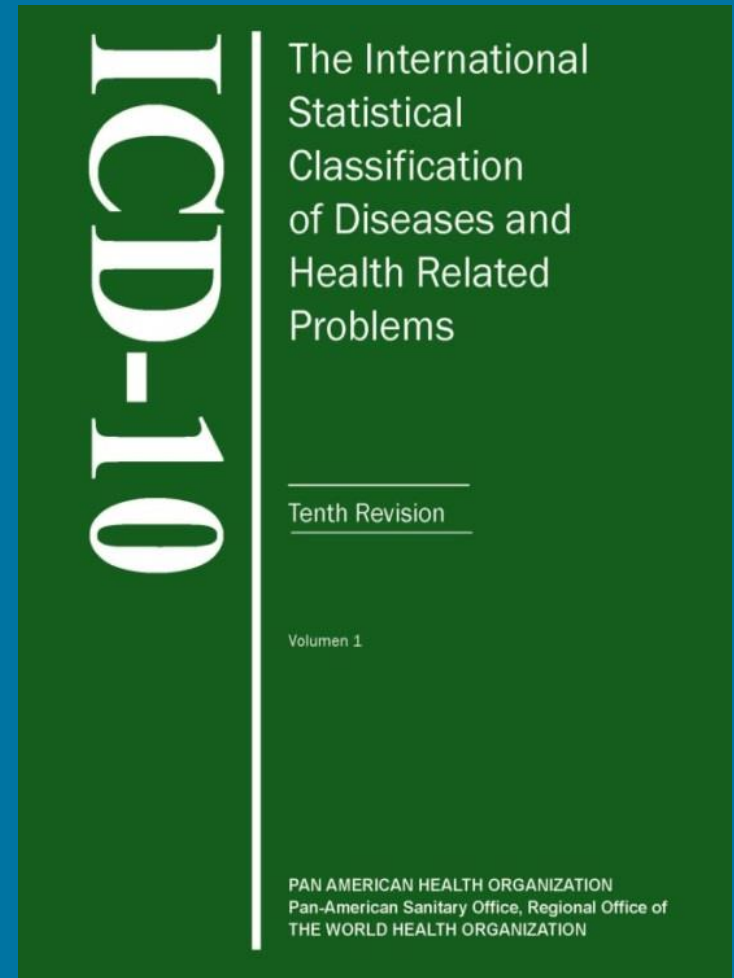


Translated into **43** languages

Used in over **100** countries,
including more than 2 dozen
modifications

Basis for global cause-specific
mortality statistics

But now >25 years old



ICD-11: Revision Impetus

- Capture advances in health science and medical practice
- Make better use of the digital revolution
- Better address multiple topics; e.g. quality & safety, traditional medicine, etc.
- Address persistent major gaps in basic use for mortality statistics
- Improve morbidity statistics
- Easier use
- Manage national clinical modifications in more effective manner
- Improve integration of other classifications and terminologies
- Improve comparability of translations

Better integration with other classifications

OTHER REFERENCE Classifications

International Classification of Functioning, Disability, & Health

International Classification of Health Interventions

RELATED Classifications

International Classification of Primary Care (ICPC)

International Classification of External Causes of Injury (ICECI)

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

ISO 9999 Technical aids for persons with disabilities – Classification and Terminology

ICD-11

A central blue circle containing the text 'ICD-11' is surrounded by six blue arrows pointing outwards towards different boxes. Three arrows point to the left (towards 'OTHER REFERENCE Classifications' and 'RELATED Classifications'), one points to the top right (towards 'DERIVED Classifications'), and two point to the bottom right (towards 'Terminologies').

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 International Classification of Diseases to Dentistry and Stomatology, 3rd Ed.(ICD-DA)

Application of the International Classification of Diseases to Neurology (ICD-10-NA)

ICF, Children & Youth Version (ICF -CY)

Terminologies

e.g. SNOMED-CT

ICD-11: the revision process



Largest revision enterprise ever

Internet platform for inputs and collaborative authoring platform (iCAT)

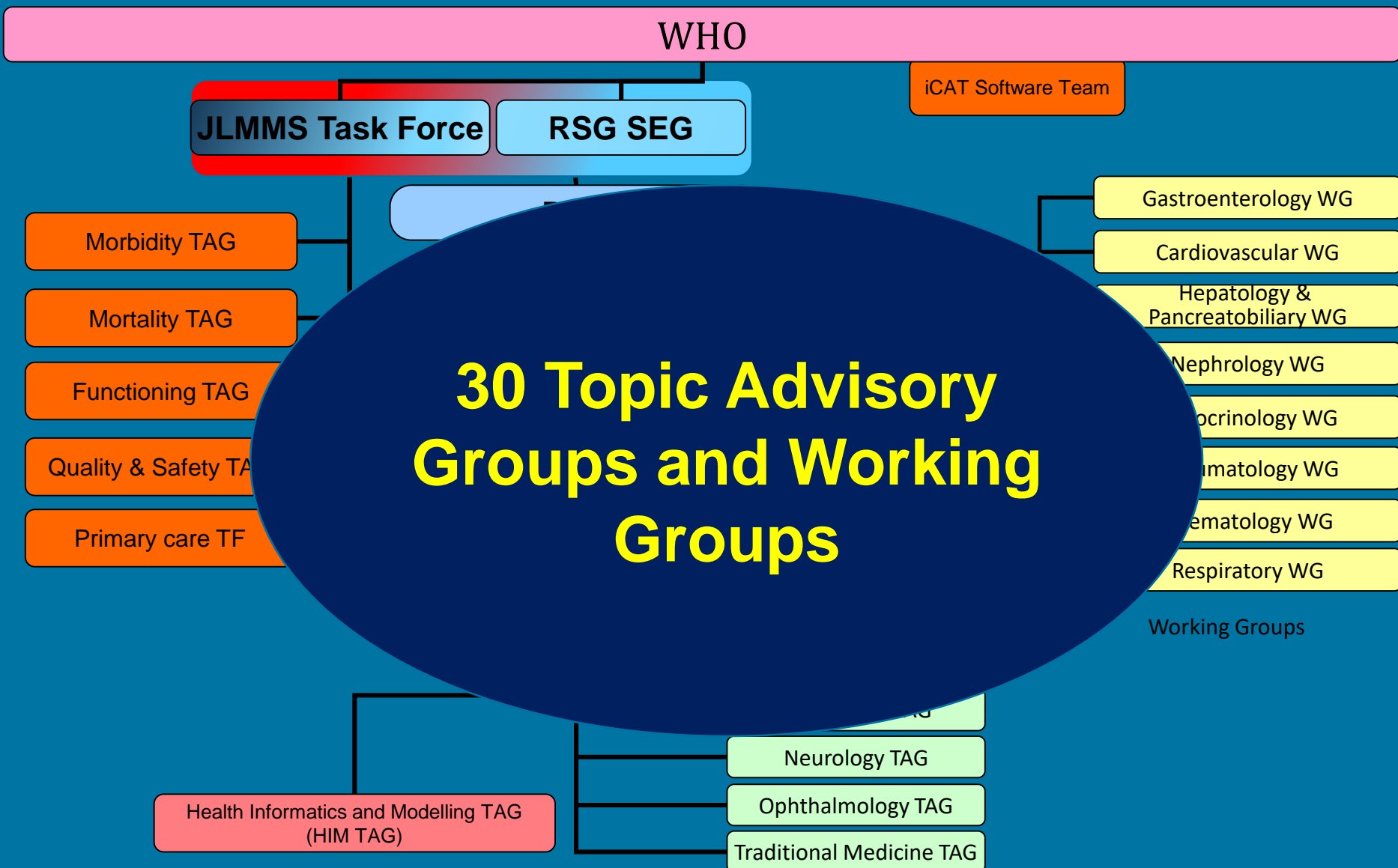
Hundreds of scientists / clinicians have contributed

More than 90 countries have been involved in production, reviews, testing or commenting

**More than
10000 proposals
received**

**All processed*
(2 pending feedback)**

ICD Revision: Web of Topic Advisory Groups (TAGs) and Working Groups (WG)



ICD- 11: what's new?

Foundation Component



**54,000
entities**

Entities can be **diseases, disorders, injuries, external causes, signs and symptoms, or reasons for encounter**

Each entity is described by **13 properties**, such as body structure, manifestation properties, causal properties, etc.

ICD -11: what's new



Tabular Lists

Fit for a particular purpose: reporting mortality, morbidity, or other uses

Entities of the foundation become categories that are *Jointly Exhaustive* and *Mutually Exclusive* of each other

New methods

- Precoordination and stem codes
- Post-coordination (optional extension codes)
- Sanctioning rules
- Multiple parenting
- Linearizations

New Contents – 27 Chapters

In several instance, new chapters:

- Disorders of the Immune system
- Dis. of blood & blood forming organs
- Conditions related to Sexual Health
- Sleep-wake disorders
- Traditional medicine
- Extension codes

New and improved tools

- Coding tools
- Browsing tools
- Translation tools
- Mapping tool
- Proposal tool

ICD Revision Process



External review in 2015

Phase 1: until 2015: extensive clinical inputs from TAGs and methodological work to meet the many uses

Phase 2: from April 2015 to present: focus on mortality and morbidity statistics (MMS)

Phase 3: from now until May 2019: preparations for implementation version

Phase 4: thereafter: Maintenance

ICD-11: WHO Executive Board, 139th session

Geneva 30-31 May 2016



Positive feedback on increased focus, use of technology, and inclusion of traditional medicine

Commitment to testing

Expressed need for materials for implementation

ICD-11 2016 version for Member State comment (10/2016)

Version for implementation (June 2018)



Tokyo Revision Conference

12-14 October 2016



Organized by WHO, hosted by the WHO Collaborating Centre at the Ministry of Health, Labour and Welfare of Japan together with the Japan Hospital Association

More than 400 participants, including MOH representatives of 50 Member States, Collaborating Centres, technical experts, etc.

Opened by Dr Margaret Chan, Director General, WHO
Launch of the ICD-11 2016 version for Member State comment

Sessions focused on the advances and added value of ICD-11 with parallel sessions focused on specific contents (e.g. traditional medicine, women's and children's health, mental health)

ICD Revision conference (1)



Demand for data growing: data integration on the critical patient pathways for diagnosis, treatment, and outcome; ICD-11 provides opportunities to consider extended information opportunities including cluster coding and post-coordination (Australia)

Considering whether there would be an efficiency with ICD-11 in not having to maintain a national modification (Australia)

Continuity of mortality statistics critical: aims to find ways to minimize discontinuities (USA) by leveraging the new features of ICD-11 (e.g. cluster coding); concerns about added value for mortality statistics and the use of automated coding (IRIS) in European region (Netherlands)

ICD Revision conference (2)



Preparation for the transition: countries should prepare their national decision makers about ICD-11, that it is important that all levels of government are involved, and that the transition needs to be planned carefully with sufficient time to plan for this change (Australia, USA, Finland, Sweden); need for a broad implementation plan (Netherlands).

Importance of special attention for countries that have weak systems to support cause of death reporting, and also consider deaths without medical certification (Myanmar, Rwanda, Mozambique, Tanzania, Namibia and Nepal)

Collaborative work between ICD and SNOMED-CT is needed as electronic systems are increasingly used in health care settings (Kenya)

Open process



Invitation to Member States to participate

Online platform, open to proposals from anyone

Reviews

Member State Comments

Field testing

Statistical review

Second round of testing



Proposals

Search [Advanced Search] Browse Proposals Proposal List/Search Info

Filter: Mortality and Morbidity Statistics

Proposals Home

- 01 Certain infectious or parasitic diseases
- 02 Neoplasms
- 03 Diseases of the blood or blood-forming organs
- 04 Diseases of the immune system
- 05 Endocrine, nutritional or metabolic diseases
- 06 Mental, behavioural or neurodevelopmental disorders
- 07 Sleep-wake disorders
- 08 Diseases of the nervous system
- 09 Diseases of the visual system
- 10 Diseases of the ear or mastoid process
- 11 Diseases of the circulatory system
 - Neoplasms of the circulatory system
 - Developmental anomalies of the circulatory system
 - Hypertensive diseases

Deadline information for proposals:

- Deadline in order to be considered for the frozen version March 2017 is 30 December 2016
- Deadline in order to be considered for the final version is 30 March 2017
- Comments by Member States and improvements arising as a part of the Quality Assurance mechanism will be included with deadlines later in 2017

☐ Show Proposals of descendant entities

Proposal List (attached to 'Diseases of the circulatory system')

Proposal	Author	Status
Add New Entity Proposal The Systemic Capillary Leak Syndrome (SCLS, or Clarkson's Disease) is a rare disease first described by Dr. Bayard Clarkson and colleagues back in 1966...	Arturo Porzecanski	Implemented
Add New Entity Proposal Insurance companies are refusing treatments for Lipedema since there is no ICD code. Often Lymphoedema is used as the closest code, but accepted treat...	Jim Daubenmire	Rejected
Complex Hierarchical Changes Proposal Is there a specific logic for the ordering of this chapter? Some things are grouped aetiologicaly, other anatomically and then there are left over s...	ICD-11 Review	Rejected

Create a New Proposal

- Content enhancement proposal
- Propose adding a new entity (as a child of the current)
- Propose deleting the current entity
- Propose complex hierarchical changes

Member State Comments 2017



General comments

- Need clinical utility and utility for causes of death
- Need statistical continuity

Use and implementation related comments

- Clarify use and updating of extension codes
- Publicize ICD-11 and prepare information materials
- Official release will allow time for translation and testing
- Have transition plans and files in place
- Clarify governance for updating and future maintenance
- Need links to SNOMED-CT
- Clarify use of code combinations

Detailed input

- Correct spelling of “Miller Fisher syndrome”
- Suggest renaming “Idiopathic interstitial pneumonia”

Statistical review and Joint Task Force 2018



Overall structure of ICD-11 was presented and reviewed,
chapter by chapter → ready to be released

- Some small corrections were suggested
- Need additional user guidance in some places

Updated mortality coding rules reviewed → ready to be used

- Improvements in wording suggested
- Some clarifications by Mortality Reference Group made
- Usage of code combinations for the underlying cause of death is desirable, but feasible only in some settings
- Multiple cause analysis relevant in aging populations is desirable, but feasible only in some settings

Regional meetings 2017/2018

(PAHO, ASIA-PACIFIC, EMRO, *AFRO*)



Comments:

- Easier use of classification
- Improved clinical detail
- Includes new diseases
- Easier to add new terms
- Generates more benefits than costs (survey AMRO/PAHO)
- Reduction of costs for printing and distribution
- Easier data processing

Field testing 2017/2018



More than 30 countries

Line coding, case coding, mortality coding

Results satisfactory – some issues with code combinations

Clear improvement in second round one year later, after user guidance was improved

Agreed Updating Cycle

Updating will be carried out at different levels with different frequencies. That will keep stability for mortality while allowing quicker updates for morbidity use.

- 10 years - Mortality and morbidity rules
- 5 years - Updates that impact on international reporting (the 4- and character structure of the stem codes)
- 1 year - Updates at a more detailed level
- 1 year - Additions to the index or extension codes

Examples of problems solved with ICD-11



Antimicrobial resistance - essentially **missing** in ICD-10

HIV subdivisions - **outdated** detail in ICD-10

Simplified Diabetes coding

Skin cancer - melanoma types missing – basalioma **missing** in ICD-10

Valve diseases - **outdated** structure, need by valve, less rheumatic

Postprocedural conditions - **clarify** when use 19 and when not for postprocedural

Cancers with histopathology – ICD-O for cancer registries embedded

External causes – **better coding** traffic accidents

ICD-11 IT friendly



Web services – full functionality available in the software of choice

Online services – everyone can use ICD without any local software

Offline services – all functionality available on a local computer with updates when internet is available

Output files – formats include CSV, Excel, ClaML, and others as necessary

Print version – Real paper version gives the look and feel of the past

ICD-11 – Implementation Package



- Advocacy materials
- Training materials
- Quick guide
- Maps from and to ICD-10 (transition tables)
- Training and test platform
- Translation tools
- Reference Guide
(formerly “Volume 2”)
- URIs for detailed recording (*e.g. rare diseases*)
- Available in many formats:
online, files web services

Process of agreeing and adopting ICD-11



Step 1 was the formulation of ICD-11 over the past several years, with input from **international working groups** with more than 300 specialists from over 270 institutions in 55 countries of all regions.

- This included clinical specialty NGOs, research institutions, centres nationally responsible for maintenance of ICD, and international data analysts of other departments of WHO, contributors to WHO reporting and treatment of diagnostic standards, and others.
- In addition, there is the proposal platform where anyone can propose changes (based on documented evidence), discuss proposals and monitor processing of proposals. (so far, some 10000 have been processed)

Step 2 invited **comments from Member States, technical consultations in regions and field trials.** *(added another 40 countries to the process)*

- All input has been received and processed - the majority incorporated, following consultation with the Medical Scientific Advisory Committee for ICD and the Joint Task Force for ICD-11. This task force is composed of specialists from different countries that work with ICD and are aware of the needs in coding and analysis for mortality and morbidity.
- Morbidity includes epidemiology, casemix, and primary care. In primary care we collaborate closely with WONCA.

Process of agreeing and adopting ICD-11 (2)



Step 3 will be the release of the version for implementation in **June**.

- **Feedback from start of preparations for implementation** by Member States will serve to improve user guidance. From this June release on, the classification is stable, and the set of categories is considered complete. A release of such a version was not possible earlier, because the input received from testing and Member States needed to be incorporated.

Step 4 will see a summary report that is submitted to the EB 144, January 2019.

- The report will be based on the outcomes of the statistical meeting this April, the Joint Task Force for the ICD-11 revision meeting and the meeting of the Classifications and Statistics Advisory Committee that will also support WHO in the future maintenance of ICD, and the other classifications of the family.
- Based on the report the EB would recommend ICD-11 submission to the Health Assembly for adoption.

Step 5 is submission of ICD-11 through the EB to the World Health Assembly in May 2019 to come into effect on 1 January 2022

ICD-11 Development releases

2010 / 10	Alpha release
2015 / 10	Beta 1 release
2016 / 10	Beta for Member State comment
2017 / 04	Beta for field testing
2017 / 11	Beta for mortality testing
2018 / 02	Beta for second round of testing
2018 / 04	Beta for statistical review
2018 / 06	Version for preparation of implementation

Updated scientific content

Improved usability

- Less training (use coding tool)
- More clinical detail – code combinations

Improved incorporation in electronic environments

Linkage to other relevant classifications and terminologies

Improve comparability of translations

Implementation package

Way forward

Maintenance and updates

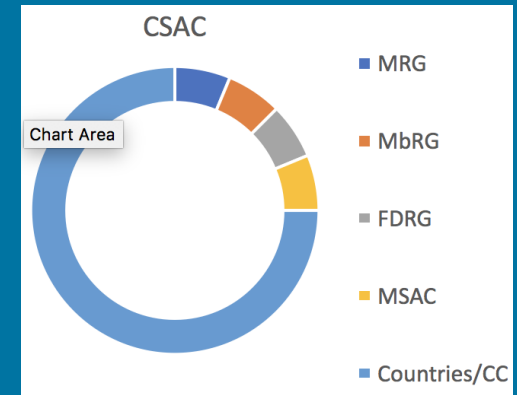
- Governance – WHO-FIC Network

Development of new tools

- e.g. mobile coding
- Ongoing crosswalks, i.e. SNOMED-CT

Country support

- Workshops and integration of tooling



Classifications and Statistics
Advisory Committee (CSAC)

ICD-11

icd.who.int



With participation by

Albania	Chile	Estonia	Indonesia	Lao	Nepal	Republic of Korea	Sweden
Algeria	China	Ethiopia	Iran	Latvia	Netherlands	Russian Federation	Switzerland
Argentina	Colombia	Fiji	Iraq	Lebanon	New Zealand	Rwanda	Syria
Australia	Congo	Finland	Ireland	Libya	Nicaragua	Saudi Arabia	Tanzania
Austria	Costa Rica	France	Israel	Lithuania	Nigeria	Serbia	Thailand
Bangladesh	Cuba	Germany	Italy	Malawi	Norway	Singapore	Trinidad and Tobago
Belgium	Czech Republic	Ghana	Jamaica	Malaysia	Oman	Slovakia	Tunisia
Bolivia	Denmark	Guatemala	Japan	Mauritius	Panama	Slovenia	Turkey
Botswana	Dominican Republic	Guyana	Jordan	Mexico	Paraguay	South Africa	Turkmenistan
Brazil	Ecuador	Honduras	Kenia	Mozambique	Peru	Spain	Uganda
Cambodia	Egypt	Hungary	Kenya	Myanmar	Philippines	Sri Lanka	United Kingdom
Canada	El Salvador	India	Kuwait	Namibia	Poland	Surinam	USA
							Zambia