BIO

- Kathy Jacobs is a graduate from MSU College of Technology in Great Falls from the HIT program. She earned RHIT credentialing October 1996 from AHIMA.
- Over the 28 years in HIM, Kathy began in 1997 as a Medical Payment Specialist for Montana State Fund. In 1998 she moved to Missoula to begin working at Saint Patrick Hospital. During employment of 10 years at St Patrick Hospital, she abstracted data for both Atlas and the International Heart Institute data bases. She later moved into coding, specializing in Radiology and Interventional procedures charts.
- In 2009, Kathy began working remote in outpatient coding in for Med Quist then at HCCS. Since 2011, she had been a VARIS employee which in 2024 VARIS was acquired by Machinify. Her positions have been an APC auditor, Sr APC Auditor, Assistant Manager and currently a Client Specialist Leader at Machinify.
- Kathy has been serving as coding roundtable chair for MHIMA.
- Kathy and husband Chuck, live in Turah with their 4 border collies: Kate, Lacey Mae, Rose and Eli.

ICD-11 Overview

Kathy Jacobs

CODING ROUNDTABLE

MAY8 2025

World Health Organization (WHO) ICD-11 MMS web-based tools

WHO-FIC Foundation

ICD-11 for Mortality and Morbidity Statistics

ICD-11 Coding Tool Mortality and Morbidity Statistics (MMS)

ICD 11 FACTS

ICD 11 was accepted on May 25, 2019, by the 194 countries — member states — that make up WHO.

Countries could begin reporting health data using ICD-11 on Jan. 1, 2022, according to the timeline set by the World Health Organization (WHO).

When and how the United States will implement ICD-11 remains to be seen..

Purpose / Organization/ Design

Identify	Identify the components and key features of the International Classification of Diseases, 11th Revision for Mortality and Morbidity Statistics (ICD-11 MMS)
Compare	Compare the ICD-11 MMS structure and organization to ICD-10-CM
Look	Look at the architecture of ICD-11
See	See how this new architecture makes ICD-11 more useful for computer processing

Intro to ICD-11

Purpose of ICD-11-MMS

Intended uses and benefits of ICD-11 MMS

Recognize new terms and abbreviations introduced with ICD-11 and understand the definition of these new terms

Purpose of the ICD Classification- Statical Classification

"the purpose if ICD is to allow the **systematic** recording, analysis, interpretation and comparison of **mortality and morbidity data** collected in different countries or regions and at different times."

World Health Organization(WHO)

A classification is "an exhaustive set of **mutually** exclusive categories to aggregate data at a pre-prescribed level of specialization for a **specific purpose**"

International Organization for Standardization (ISO)

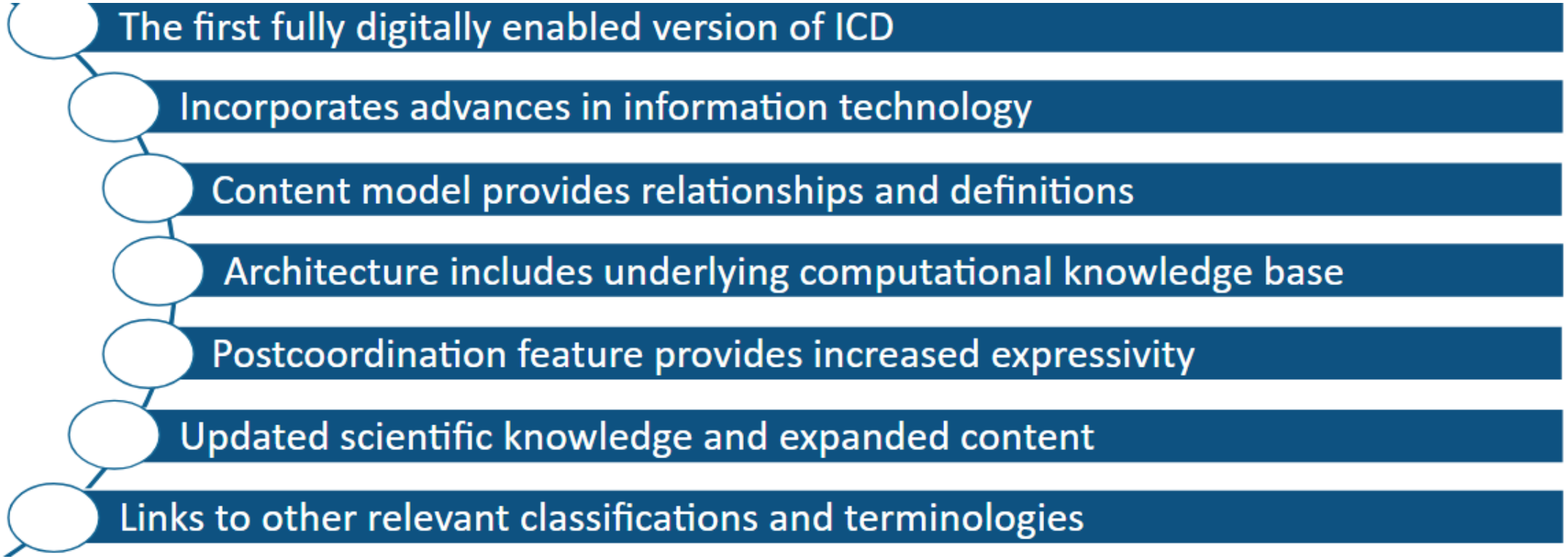
Morbidity Statistics
Reimbursement
Case mix
Resourse allocation
Measure prevalence or burden of disease
Disease registeries
Specific surveillance
Functional assessment
Quality and patient safety

Mortality Statistics
Report cause of death
Medical research
Monitor public Health
Identify population health trends
Evaluate health interventions

Other Statistics
Medical research
Epidemiology
prediction
Prevention
Clinical guidelines
Clinical decision support
Semantic interoperability

Intended uses of ICD-11 MMS

Designed to address the needs of a broad range of use



Benefits of ICD-11 MMS

Definitions

URI- Uniform resource identifier. A unique character string that identifies a entity in the ICD-11 foundation. Example URI of ICD-11 entity “acute pharyngitis” *http://id.who.int/icd/entity/1791890273*

Linearization- a subset of the ICD 11-Foundation Component that is fit for a particular purpose, essentially a classification derived from the common Foundation.

Entity-a term used to describe an individual item in the ICD-11 Foundation

Parents-a hierarchy term and is one step directly above a child and considered its superior.

Stem codes-ICD-11 MMS codes that can be used alone. Stem codes differ from category codes. Category codes are used to identify/label a group of codes in ICD. Stem codes are reportable codes that can stand alone.

Definitions continued

Extension code -additional ICD-11 to reflect information that can be added to a stem code to report more detail.

I. Are not used alone; must be added to a stem code
II. Not all extension codes can be used with every stem code
III. Extension codes can never appear in the first position in a code cluster

Syntax (& and /) -general term used to refer to a set of rules for arranging words, phrases or punctuation indicating which codes belong together.

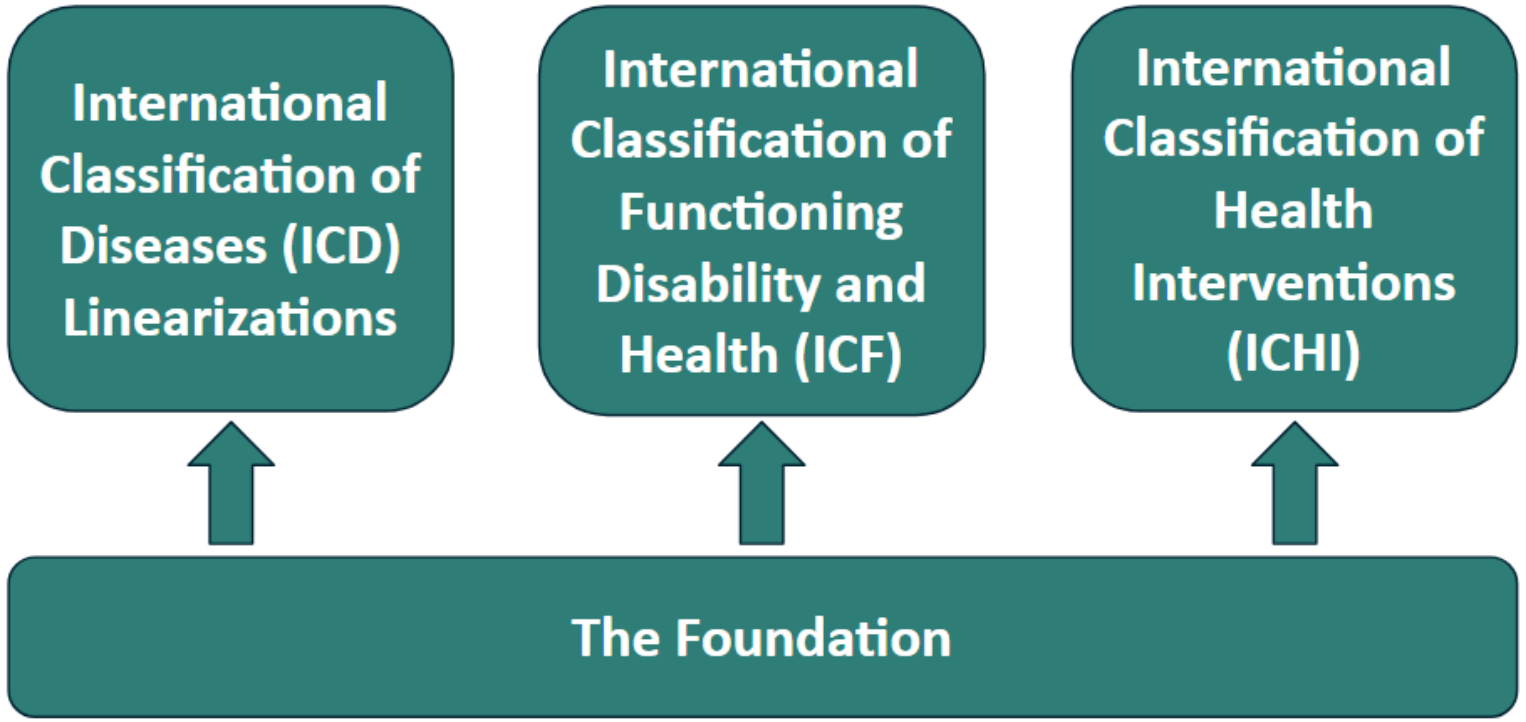
I. Ampersand (&) used to link extension codes with a stem code
II. Forward slash (/) used to link a stem code with a stem code

WHO-FIC, ICHI and ICF

WHO-FIC -Who Family of the International Classifications and Terminologies includes the International Statical Classification of Diseases and Related Health Problems (ICD), the Internationals Classification of Functioning, Disability and Health (ICF), and the International Classification of Health Interventions (ICHI). These Reference Classifications serve as the global standards for health data, clinical documentation and statical aggregation.

ICHI- International Classification of Health Interventions which covers interventions carried out by a broad range of providers across health systems and includes interventions such as diagnostic, medical, surgical, mental health, primary care, allied health, functioning support, rehab., traditional medicine and public health.

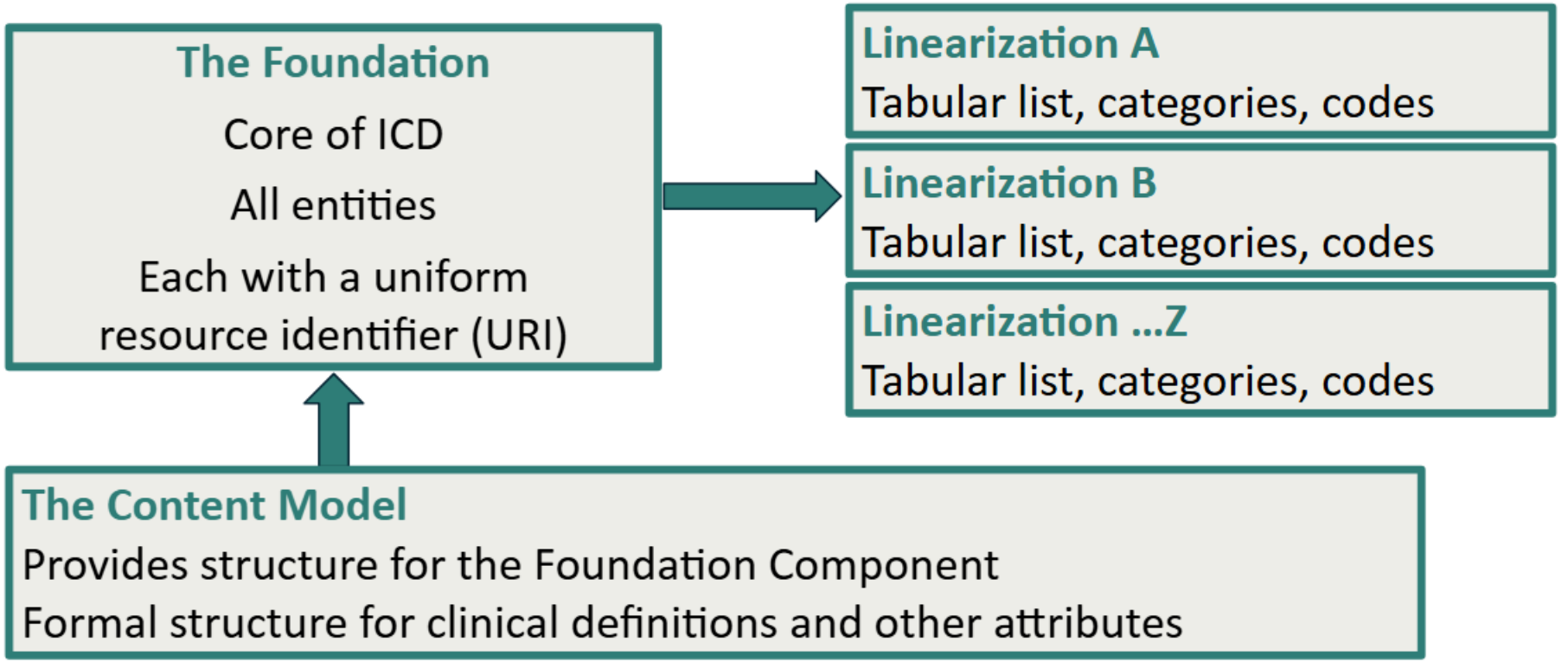
ICF- Internationals Classification of Functioning, Disability and Health is a classification of health and health-related domains. ICF is the WHO framework for measuring health and disability at both individual and population levels.


International Classification of Diseases (ICD) Linearizations
International Classification of Functioning Disability and Health (ICF)
International Classification of Health Interventions (ICHI)
The Foundation

Architecture of ICD 11

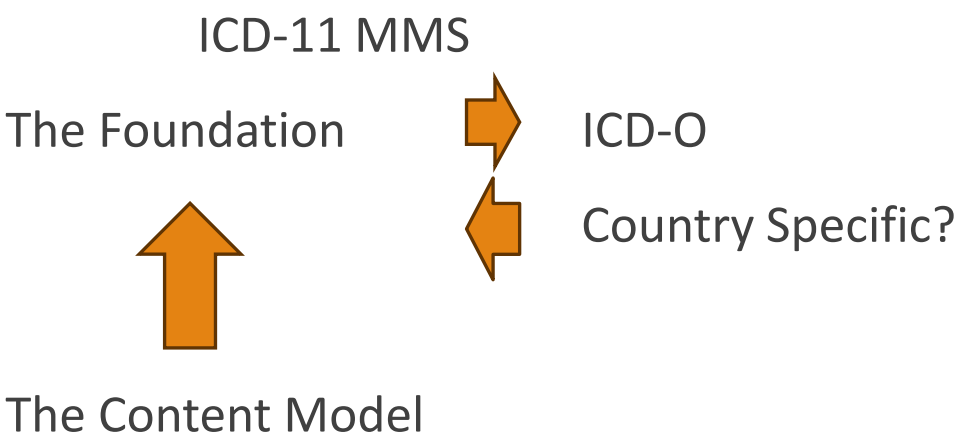
Three Components of ICD 11

- Foundation
- Content Model
- Linearization's


The Foundation
Core of ICD
All entities
Each with a uniform resource identifier (URI)
Linearization A
Tabular list, categories, codes
Linearization B
Tabular list, categories, codes
Linearization …Z
Tabular list, categories, codes
The Content Model
Provides structure for the Foundation Component
Formal structure for clinical definitions and other attributes

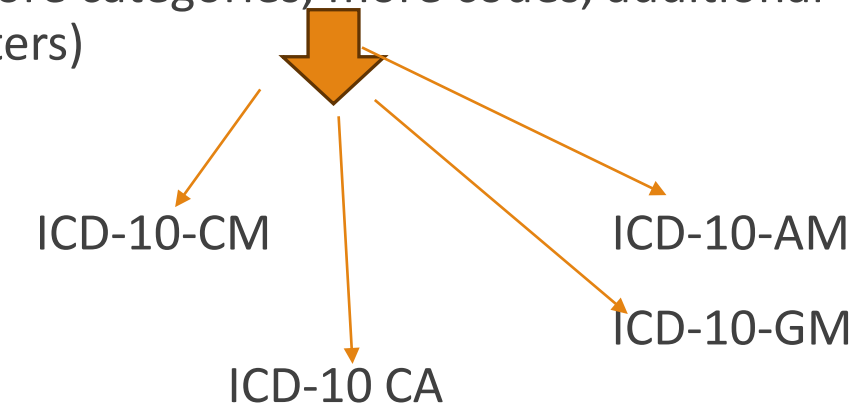
Comparison of ICD Architecture

WHO's ICD-11 Architecture (A knowledge base to create lists of codes)



Who ICD-10 Architecture (A list of codes)

Country-Specific Modifications (expanded list with more categories, more codes, additional characters)



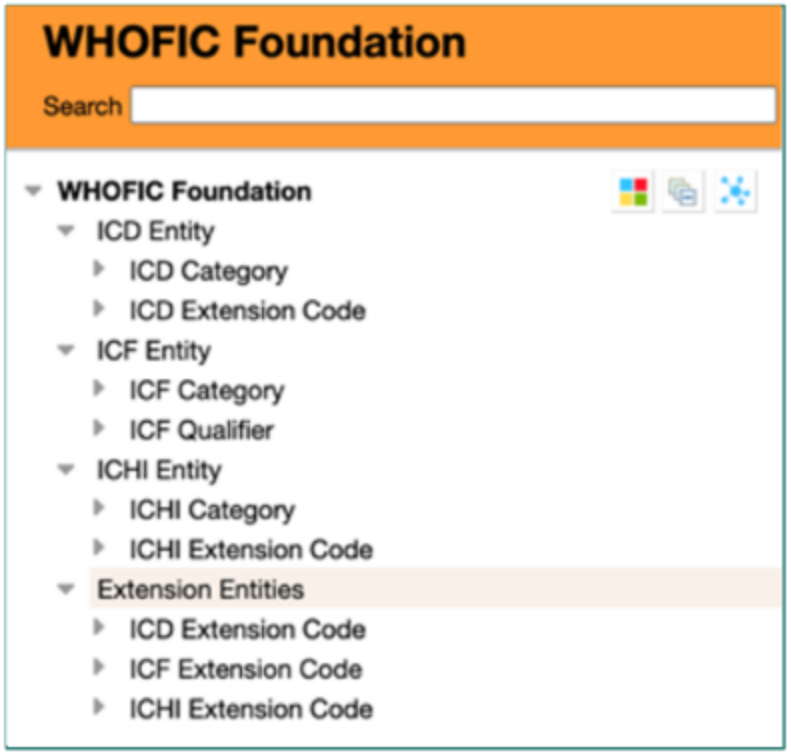
The Foundation

Core of ICD

All entities

Each with a uniform resource identifier (URI)

- Underlying core structural layer
- Data source for
  - All entities and their Uniform Resource Identifiers (URI)
  - All WHO-FIC Classifications
    - ICD, ICF, ICHI
  - Building a linearization
    - Examples: ICD-11 MMS, ICD-O
  - Creating the Tabular and Index lists
    - Organizing in categories
    - Assigning codes
    - Identifying singular parenting
    - Listing synonyms



https://icd.who.int/dev11

The Content Model

Provides structure for the Foundation Component

Formal structure for clinical definitions and other attributes

The Content Model

The framework the defines each ICD entity

Presents the background knowledge that computerization will need

Main properties in the Content Model

- ICD concept title
- Hierarchy, type and use
- Text definitions
- Index and exclusion terms
- Clinical descriptions

All content itself housed within the Foundation

Relationships	Definition of Disease and Disease Properties	Importance
• Multiple parent/ child in the Foundation • Single parent selected for a linearization	• Short description (max of 100 words describing what's always true) • Detailed description (labeled: "additional information" that is common or typical, but may not always be true)	• Provides users with clear insight regarding the intended meaning • Provides semantics (meaning, knowledge) that computers need • Guide translators, coders, and users of coded data • Enhance comparability, consistency, interpretation of

Content Model


Linearization A
Tabular list, categories, codes
Linearization B
Tabular list, categories, codes
Linearization …Z
Tabular list, categories, codes

Linearization's

Entities from the foundation chosen and organized in categories to serve a specific purpose

Single hierarchy

- Single parent selected for each entity
- Entities become categories and codes are assigned
- Residual codes (NOS, NEC) are added

Examples of linearization of ICD-11

- ICD-11 MMS –Most like ICD-10 CM
- ICD-0
- Primary Care
- Dermatology, neurology, ophthalmology specialty.

Hope that the linearization components will avoid the need for varying national modification for morbidity coding.

Summary

ICD-11 is one of three reference classifications included in the WHO Family of International Classifications (Who-FIC)

ICD-11 architecture includes 3 core components

- Foundation which is the database with all ICD entities
- Content Model which provides structure and organization to entities
- Linearization's that are purpose specific chosen entities from the foundation organized in categories and assigned codes

Architecture of ICD-11 is computer processable due to unique digitally design

Websites

ICD-11 for Mortality and Morbidity Statistics

https://icd.who.int/browse/2024-01/mms/en

ICD-11 Coding Tool

https://icd.who.int/ct/icd11_mms/en/release

WHO-FIC Maintenance Platform

https://icd.who.int/dev11#/

Thank you for attending