

A complex network graph with numerous nodes and edges, rendered in a light, faded style. The nodes are colored in shades of blue, orange, green, and purple, and are interconnected by thin grey lines. The graph is spread across the upper half of the slide.

ICD-API

Technical Briefing

An abstract graphic on the left side of the slide, featuring a dark blue background with a network of white and light blue nodes connected by thin white lines. The nodes are of varying sizes and are distributed across the left half of the image, creating a sense of connectivity and data flow.

ICD-API

Http based REST API

WHY API

Enable Functionality

- Not just ICD content, but also operations like searching, filtering, enhanced postcoordination features, Underlying cause of death detection, quality assurance, aggregation, etc.

Up to date

- Access multiple versions, multiple languages consistently

Automated Workflows

- Integrate and automate processes across systems, reducing manual effort.

Consistent Access and Use of the classifications:

- Ensure all users get the same version and capabilities, minimizing discrepancies.



ICD-API

- ICD-API (web services) allow other software to access the ICD content
- HTTP based REST API
 - Uses solid, proven underlying technology designed for the web
 - Benefit from the infrastructure and tools of the web.
- Easy to consume, technology independent
 - Can be consumed from any programming language or platform
- Available since 2018



ICD API is Multilingual

- **Multiple languages**
 - Supports language headers to provide different language versions.
 - 2026 release supports 20 languages. (15 ICD and 15 ICF)
 - 25 more languages in different levels of completion

An abstract graphic on the left side of the slide, featuring a dark blue background with a network of white and light blue nodes connected by thin white lines. The nodes are of varying sizes and are distributed across the left half of the image, creating a sense of depth and connectivity.

Multiple Versions

- ICD-11 Foundation / Linearizations such as MMS, ICF
- Different Releases can be accessed. (2026,2025,2024,...2018)

An abstract graphic on the left side of the slide, featuring a dark blue background with a network of white and light blue nodes connected by thin white lines, resembling a molecular structure or a data network.

Semantic Structure

- ICD-API uses JSON-LD
 - W3C standard for encoding linked data
- The schema adopts W3C SKOS Simple Knowledge Organization System with additions specific to the domain



Searching

Searching with the ICD-API

- Advanced search functionality (*powering the searching used in the WHO tools (ICD-11 Coding Tool, ICD-11 Browser)*)
 - Weighted results
 - Subset searching
 - Post-coordination combination results
 - Foundation search with classification aggregations
 - Multilingual

An abstract graphic on the left side of the slide, featuring a dark blue background with a network of white and light blue nodes connected by thin white lines. The nodes are of varying sizes and are distributed across the left half of the image, creating a sense of depth and connectivity.

Postcoordination Support

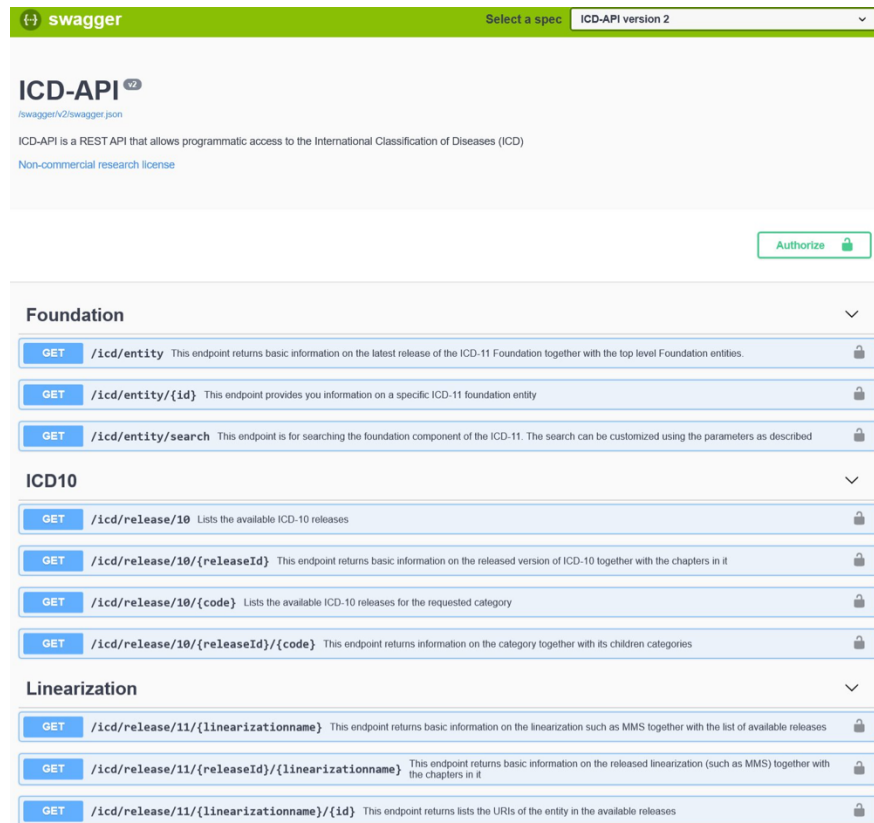
- Full access to post-coordination information
 - Which entity can be post-coordinated with which axes
 - Allowed value sets
 - Searching allowed value sets when postcoordinating

An abstract graphic on the left side of the slide, featuring a dark blue background with a network of white and light blue nodes connected by thin white lines, creating a complex, interconnected pattern.

Access

- Free access after registering via ICD-API Home page
<https://icd.who.int/icdapi>
- Supports OAUTH2 authentication client credentials access.

Open API (Swagger) Support



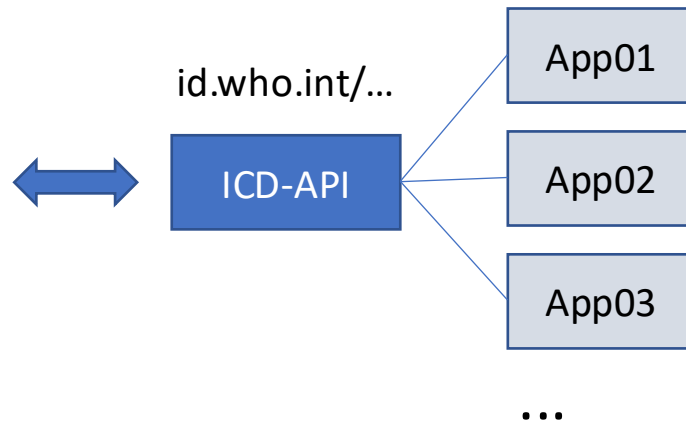
- Detailed API documentation in Open API (Swagger) format
- Allows trying out the API
- Supports Client code generation

<https://id.who.int/swagger>

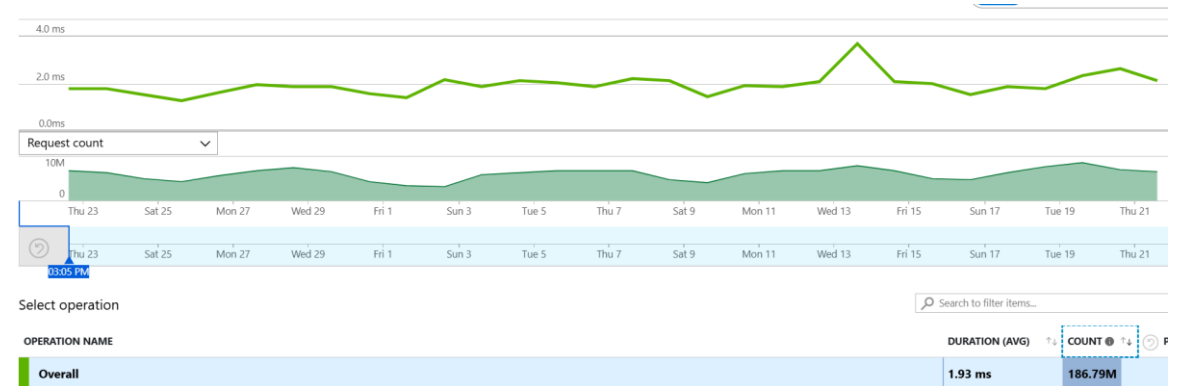
Cloud Infrastructure

- Deployed in the Microsoft Cloud (Azure)
 - Scalable vertically and horizontally
 - Increased availability with redundant deployments

187 million requests
last month



Performance



AVAILABILITY TEST		↑↓ AVAILABILITY ↑↓
Overall		100.00%

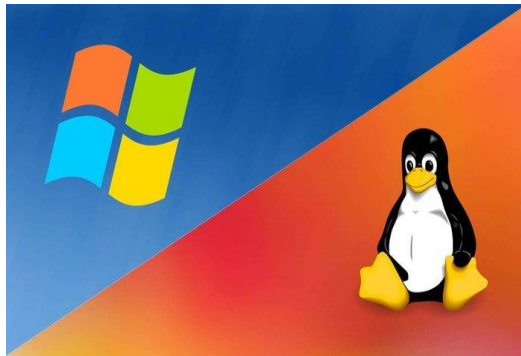
Local Deployments



Docker based deployment

- Very light weight docker images
- Supports multilingual versions
- Linux / Windows / Cloud

100K+ image
downloads in
DockerHub



Other local deployment options

- Windows service
- Linux systemd service

An abstract graphic on the left side of the slide, featuring a dark blue background with a network of white and light blue dots connected by thin white lines, resembling a molecular or data network structure.

FHIR Support -1

- FHIR Support added to ICD-API as a read-only service
- FHIR API root is at /fhir
 - <https://id.who.int/fhir> (in hosted API)

An abstract graphic on the left side of the slide featuring a dark blue background with a network of white and light blue nodes connected by thin white lines, creating a complex, interconnected pattern.

FHIR Support-2

- CodeSystems
 - Foundation
 - ICD-11 MMS
 - ICF
- Main Identifier for the CodeSystems are URIs
 - Foundation: Foundation URI
 - Linearizations (MMS, ICF) : Linearization URI
 - Lookup / Validate code could be performed with codes as well.

An abstract graphic on the left side of the slide, featuring a dark blue background with a network of white and light blue nodes connected by thin white lines. The nodes are of varying sizes and are distributed across the left half of the slide, creating a sense of connectivity and data flow.

FHIR Support-3

- ValueSets
 - ICD-11 Postcoordination scales are implemented as FHIR valuesets
- In our test system we have two versions of the classification 2025 and 2026
- In 3 languages English, French and Spanish
- Docker can be configured differently

An abstract graphic on the left side of the slide, featuring a dark blue background with a network of white and light blue nodes connected by thin white lines. The nodes are of varying sizes and are distributed across the left half of the image, creating a sense of depth and connectivity.

Embedded Classification Tools

Embedded Coding Tool
Embedded Browser

ICD-11 Browser

AR

لتصنيف-11 لإحصائيات الوفيات والمراضة (نسخة : 09/2020)

معلومات قوائم خاصة أداة الترميز تصفح [بحث متقدم]

التصنيف-11 - إحصائيات الوفيات والمراضة

01 بعض الأمراض المعدية (العدوانية) أو الطفيلية

التهابات المعدة والأمعاء أو القولون من منشأ غذائي

عدوى معوية جرثومية [بكتيرية]

1A00 الكوليرا

1A01 عدوى الأمعاء الناجمة عن ضمات أخرى.

1A02 حالات عدوى بالأمعاء ناجمة عن الشيفيلات

1A03 عدوى الأمعاء الناجمة عن الإشريكية القولونية

1A04 حالات التهاب الأمعاء ناجمة عن المظيئات الغسيرة (الكلوستريديوم ديفيسيل)

1A05 عدوى الأمعاء الناجمة عن اليرسينية الملهبة للأمعاء والقولون (يرسينية إنتيروكوليتيكا)

1A06 التهاب المعدة والأمعاء الناجم عن العطائف

1A07 الحمى التيفية

1A08 الحمى نظيرة التيفويد

1A09 عدوى ناجمة عن السلمونيلات الأخرى

1C10.1 داء الشقيبات البطنية

1A0Y عدوى أخرى جرثومية (بكتيرية) مُعْتَبَرة تصيب الأمعاء

1A0Z عدوى جرثومية (بكتيرية) تصيب الأمعاء، لم يتم تعيينها

التسمم الجرثومي المنقول بالغذاء

عدوى الأمعاء الفيروسية المنشأ

عدوى الأمعاء الناجمة عن الأوالي (البروتوزوا)

1A40 التهابات المعدة والأمعاء أو التهاب القولون بدون

Foundation URI : http://id.who.int/icd/entity/257068234

1A00 الكوليرا

عنصر أصلي

عدوى معوية جرثومية [بكتيرية]

إظهار جميع العناصر الأصلية الأعلى

المشتملات

متلازمة الكوليرا

الربط اللاحق

أضف تفاصيل الكوليرا

用于死因与疾病统计的ICD-11 (版本 : 09/2020)

查找 [高级查找]

浏览 编码工具 特殊视图 信息

Foundation URI : http://id.who.int/icd/entity/257068234

1A00 霍乱

父节点

细菌性肠道感染

显示所有上位词

包括术语

霍乱综合征

后组配

增加细节 霍乱

感染性病原体 (需要时, 使用附加编码)

XN7N1	霍乱弧菌
XN8P1	O1群霍乱弧菌, 霍乱生物型
XN62R	O1群霍乱弧菌, 埃尔托生物型

关联情况 (需要时, 使用附加编码)

查找

Foundation URI : http://id.who.int/icd/entity/257068234

1A00 Cholera

Parent

Bacterial intestinal infections

Inclusions

cholera syndrome

Postcoordination

Add detail to Cholera

Infectious agent (use additional code)

XN7N1	Vibrio cholerae
XN8P1	Vibrio cholerae
XN62R	Vibrio cholerae

Associated with (use additional code)

Search

版本说明

CIE-11 para estadísticas de mortalidad y morbilidad (Versión : 09/2020)

Buscar [Búsqueda avanzada] Navegación

CIE-11 - Estadísticas de morbilidad y mortalidad

01 Algunas enfermedades infecciosas o parasitarias

02 Neoplasias

03 Enfermedades de la sangre o de los órganos hematopoyéticos

04 Enfermedades del sistema inmunitario

05 Enfermedades endocrinas, nutricionales o metabólicas

06 Trastornos mentales, del comportamiento y del neurodesarrollo

07 Trastornos del ciclo de sueño y vigilia

08 Enfermedades del sistema nervioso

09 Enfermedades del aparato visual

10 Enfermedades del oído o de la apófisis mastoideas

CIE-11 para las estadísticas de mortalidad y morbilidad

Versión para preparar la puesta en función

Notas de la versión

- La estructura de códigos de la CIE-11
- El mecanismo de actualización es el [mantenimiento](#).

ICD-11 Coding Tool

ICD-11 Coding Tool

Mortality and Morbidity Statistics (MMS)
2020-09

Help

cholera

Guessing the word being typed...

Herramienta de codificación de la CIE-11

Estadísticas de mortalidad y morbilidad (EMM)
2020-09

Ay

colera



أداة الترميز في التصنيف-11

إحصائيات الـ
2020-09

الكوليرا

ترشيح

كلمات في لغة المقصد

فرز: درجة التوافق

1A00 الكوليرا*

اسم تم تعيينه بالكامل
Intestinal infection due to Vibrio cholerae [No translation available]

المُشتملات
متلازمة الكوليرا

مصطلحات متوافقة
الكوليرا الأسيوية
الكوليرا الوابائية
متلازمة الكوليرا
كوليرا غير O1
التهاب أمعاء ناجم عن الكوليرا الناجمة عن ضمات الكوليرا، من ذرات غير O1

الرابط اللاحق
الرابط اللاحق متوفر: انقر هنا لفتح المنصفح

1A00&XN8P1 كوليرا ناجمة عن ضمات الكوليرا O1 ، الضرب البيولوجي كوليرا

1A00&XN62R كوليرا ناجمة عن ضمات الكوليرا O1 ، الضرب البيولوجي الطور

Entidades destinatarias

Ordenar: Por coincidencia en la búsqueda

- 1A00** **Cólera**
- MB24.1** Ira
cólera
- 1A00&XN8P1** **Cólera** debido a Vibrio cholerae O1, cholerae biovar
- 1A00&XN62R** **Cólera** por Vibrio cholerae O1, biovar eltor
- MB24.C** Irritabilidad
propensión a la **cólera**
- QA08.0** Examen especial de detección de enfermedades infecciosas intestinales
Detección de **cólera**

fly nonmedicinal as to

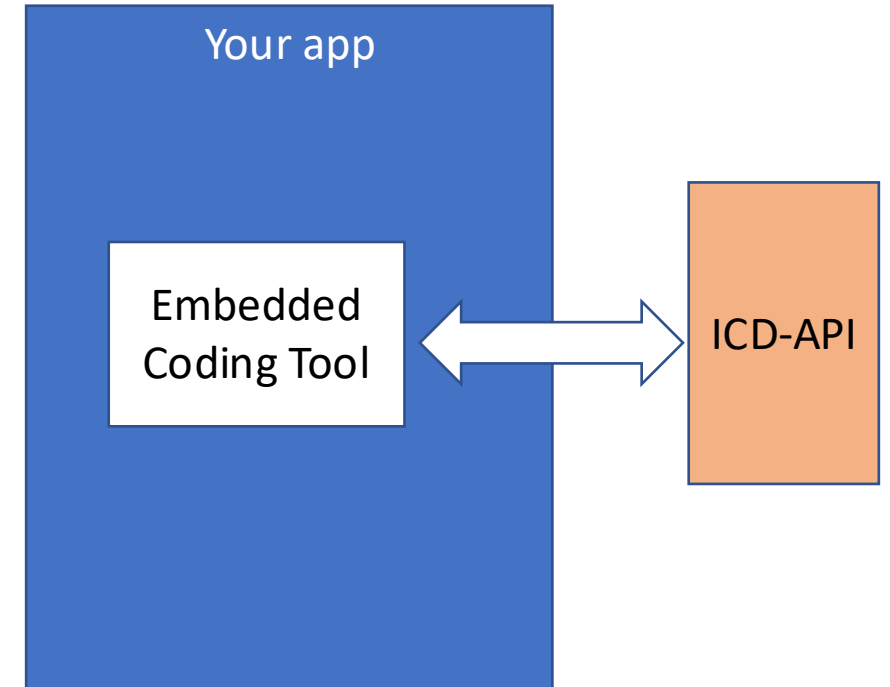
An abstract graphic on the left side of the slide featuring a dark blue background with a network of white and light blue nodes connected by thin white lines, creating a complex, interconnected pattern.

Coding with ICD-11

- Enables users to find the diagnosis they need, without being constrained by limited drop-down lists.
- **Leverages the detail in the ICD-11 foundation layer** to surface precise and clinically relevant concepts.
- Provides **richer, more nuanced coding through postcoordination**, while keeping the user experience simple
- Supports special **coding rules for maternal and perinatal cases**, guiding users when conditions must be coded differently in these contexts.

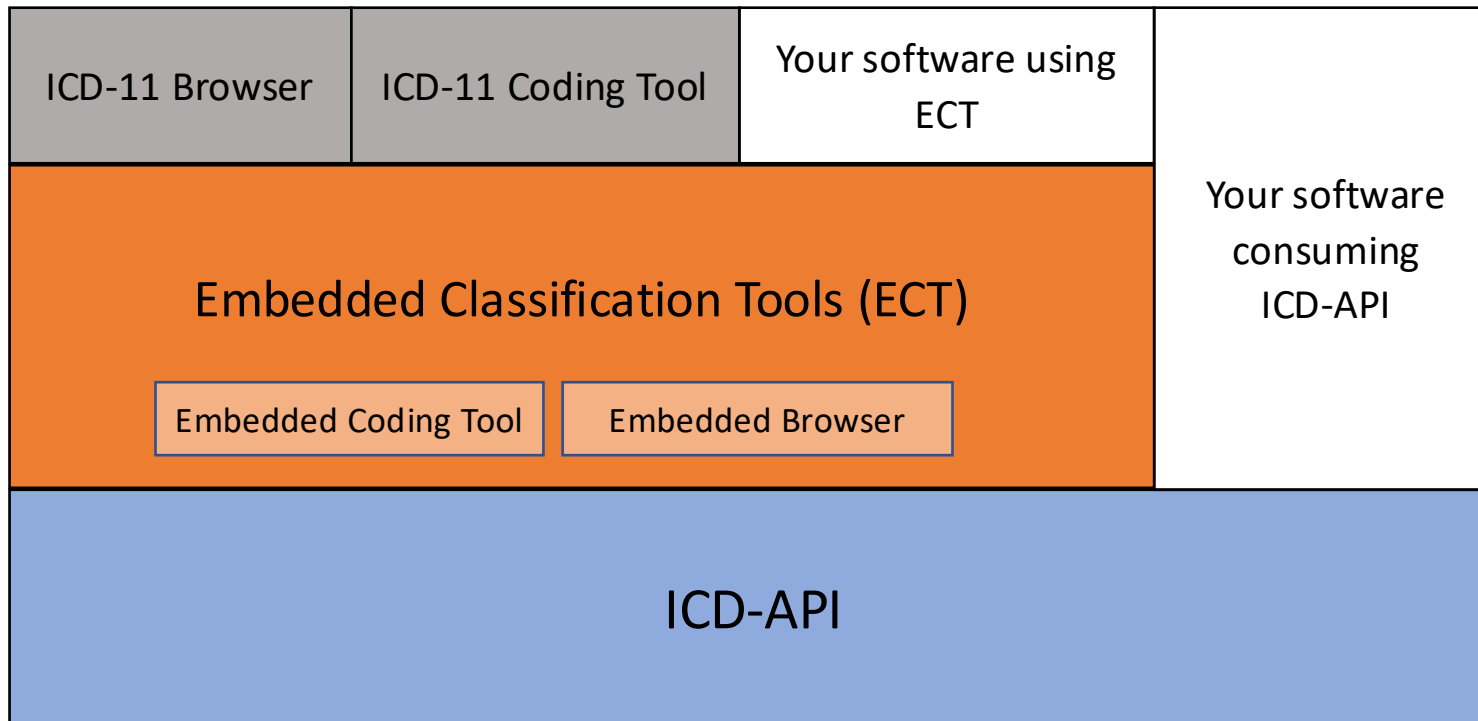
Embedded Classification Tools (ECT)

- javascript / HTML component that could be integrated into any web-based application
- Uses by ICD-API
- Any input field within your application could become a complete Coding Tool by simply decorating it with additional attributes
- Multilingual



Embedded Classification Tools (ECT)

- A set of web-based components that could be integrated into any web-based software.
 - Could use cloud deployed or locally deployed ICD-API



ECT Demo