# The Kuwait ICD-11 experience
## Lessons learned

World Health Organization

**WHO ICD-11 implementation strategy and country experiences**

16 May 2022

WHO/HQ/DDI/DNA/CAT

# Kuwait ICD profile

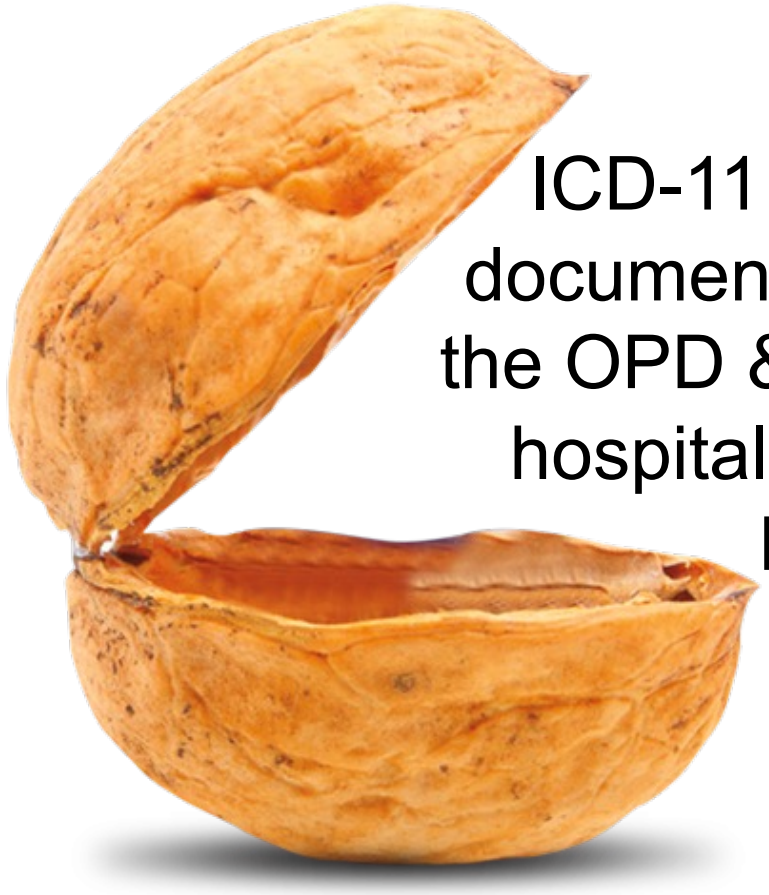
## Population
4.8 million

## MOH
main funder, provider & only regulator of healthcare

## Funding
Annual budgets (No DRG system)

## ICD-10
Since 1996 - coding discharge diagnoses, basis of national morbidity health statistics

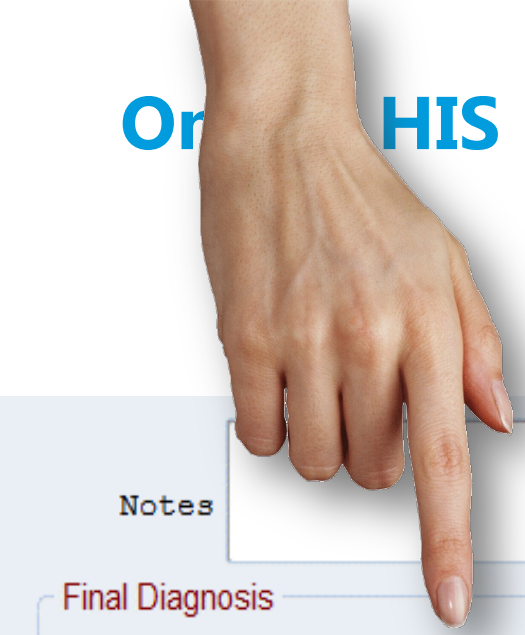
# Kuwait ICD-11 experience in a nutshell



ICD-11 was successfully implemented for documenting final diagnoses by physicians in the OPD & inpatient wards in the largest public hospital by installing the coding tool on the hospital information system

# Kuwait ICD-11 journey

# Or HIS user interface



Notes

ICD-11

Final Diagnosis

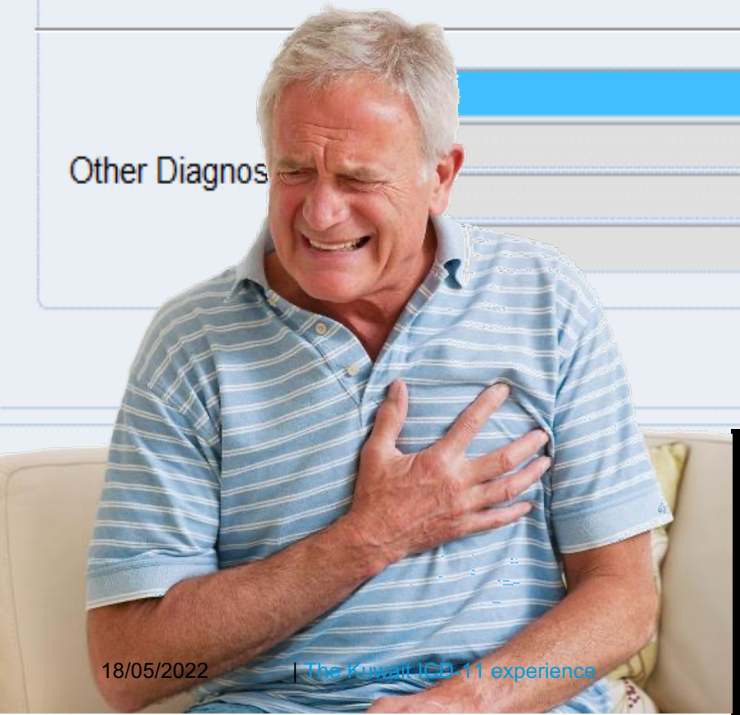
Principal Diagnosis STEMI X

Other Diagnos X X X X

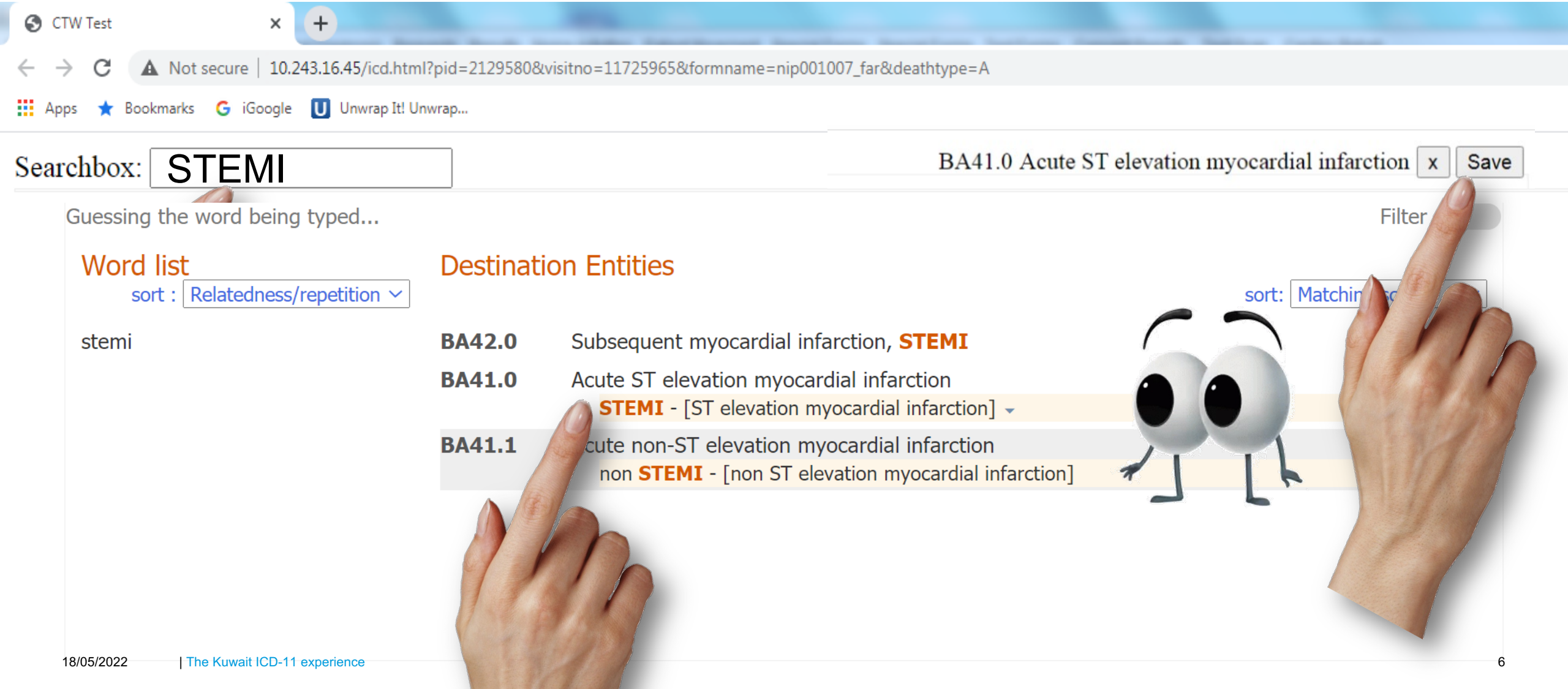
Dis. Unit .. C Discharge Doctor His Administrator

Print Discharge Report Discharge Summary

Exit



# On the HIS user interface



# On the HIS user interface

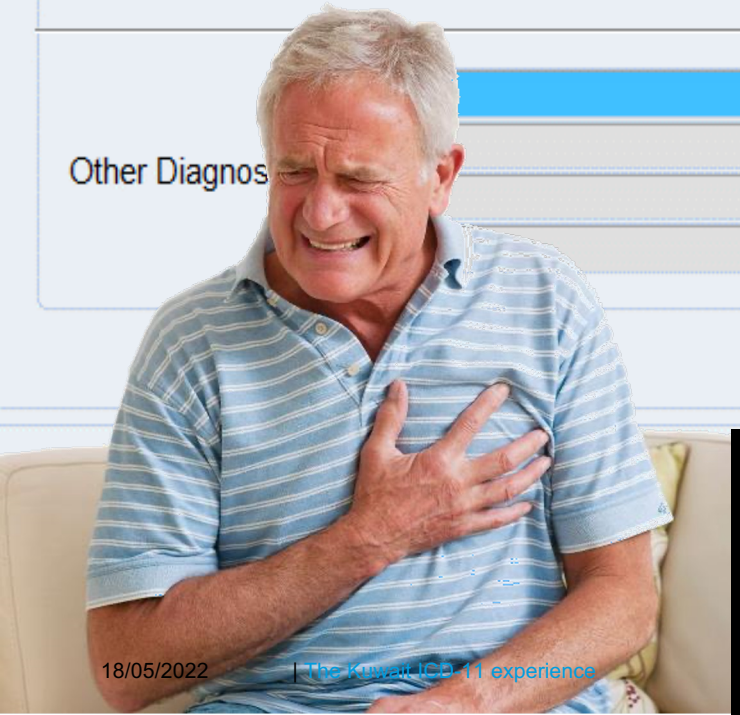
Notes

Final Diagnosis

Principal Diagnosis STEMI X Acute ST elevation myocardial infarction X

Other Diagnos X X X X X X X X

Dis. Unit .. C Discharge Doctor His Administrator



Print Discharge Report Discharge Summary

Exit

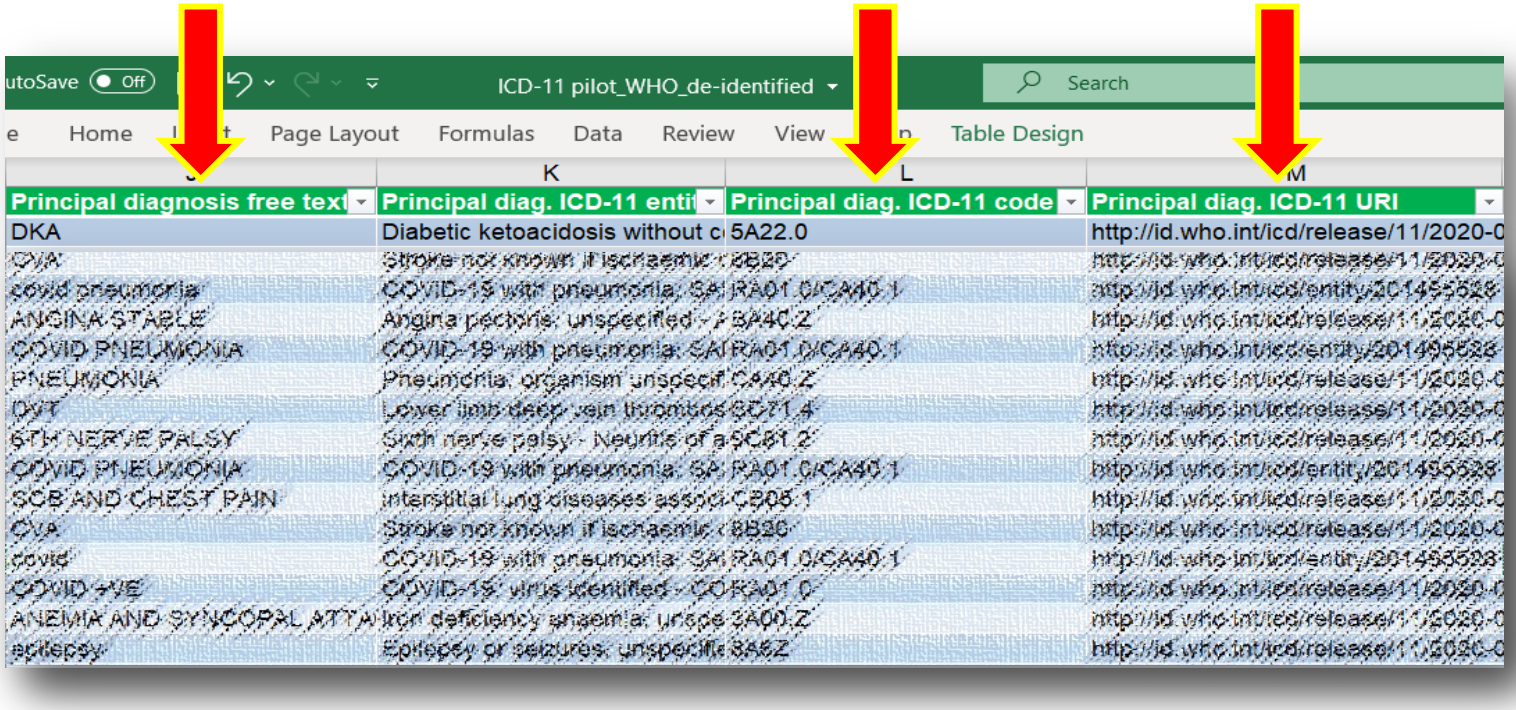
# In the database

Automatically captured

Free text diagnosis by Dr.

ICD-11 code

ICD-11 URI

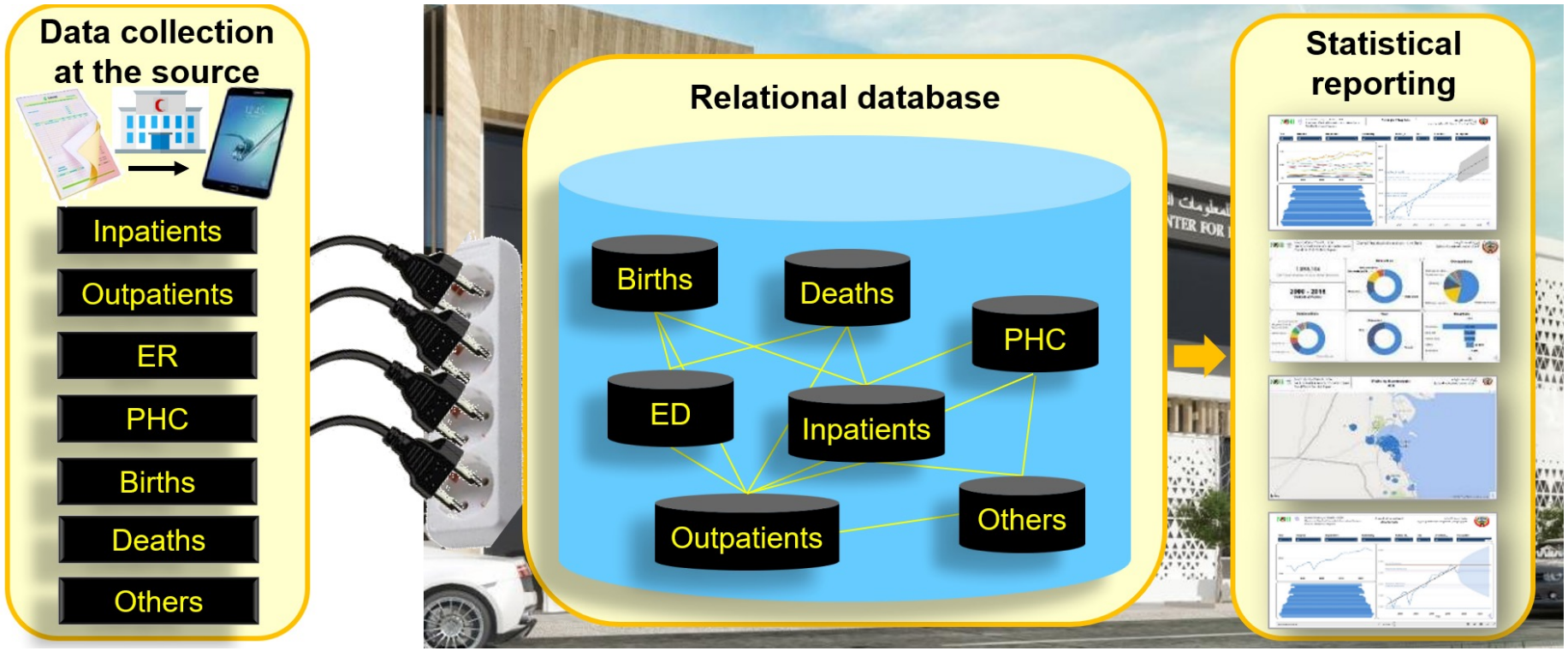



| Principal diagnosis free text | Principal diag. ICD-11 entity | Principal diag. ICD-11 code | Principal diag. ICD-11 URI |
|---|---|---|---|
| DKA | Diabetic ketoacidosis without c | 5A22.0 | http://id.who.int/icd/release/11/2020-0 |
| CVA | Stroke not known if ischaemic | 8B20 | http://id.who.int/icd/release/11/2020-0 |
| covid pneumonia | COVID-19 with pneumonia, SA | RA01.0/CA40.1 | http://id.who.int/icd/entity/2014555528 |
| ANGINA STABLE | Angina pectoris, unspecified | BA40.Z | http://id.who.int/icd/release/11/2020-0 |
| COVID PNEUMONIA | COVID-19 with pneumonia, SA | RA01.0/CA40.1 | http://id.who.int/icd/entity/2014555528 |
| PNEUMONIA | Pneumonia, organism unspecif | CA40.Z | http://id.who.int/icd/release/11/2020-0 |
| DVT | Lower limb deep vein thrombos | GC71.4 | http://id.who.int/icd/release/11/2020-0 |
| 6TH NERVE PALSY | Sixth nerve palsy | NC81.2 | http://id.who.int/icd/release/11/2020-0 |
| COVID PNEUMONIA | COVID-19 with pneumonia, SA | RA01.0/CA40.1 | http://id.who.int/icd/entity/2014555528 |
| SOB AND CHEST PAIN | Interstitial lung diseases assoc | CB05.1 | http://id.who.int/icd/release/11/2020-0 |
| CVA | Stroke not known if ischaemic | 8B20 | http://id.who.int/icd/release/11/2020-0 |
| covid | COVID-19 with pneumonia, SA | RA01.0/CA40.1 | http://id.who.int/icd/entity/2014555528 |
| COVID +VE | COVID-19, virus identified | RA01.0 | http://id.who.int/icd/release/11/2020-0 |
| ANEMIA AND SYNCOPAL ATTA | Iron deficiency anaemia, unspe | 3A00.Z | http://id.who.int/icd/release/11/2020-0 |
| epilepsy | Epilepsy or seizures, unspecifi | 8A6Z | http://id.who.int/icd/release/11/2020-0 |

# Facilitators

# National automation project

Moving from paper-based system for national reporting to an **electronic** one



# National automation project

Moving from paper-based system for national reporting to an **electronic** one

# National health system requirements

Need for a **DRG** system using WHO classifications

## National automation project

Moving from paper-based system for national reporting to an **electronic** one

## National health system requirements

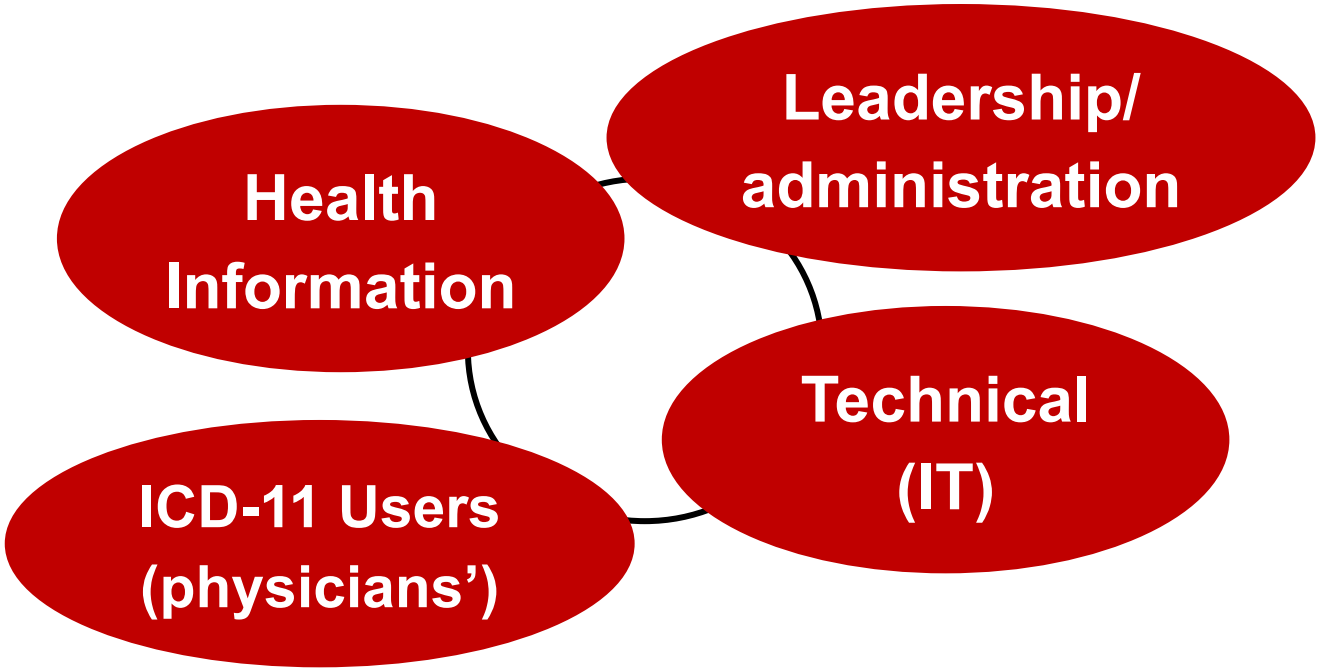
Need for a **DRG** system using WHO classifications

## National challenge

Lack of experienced qualified medical **coders**

# Leadership commitment and support

Benefit from leadership commitment to guarantee formal **approvals**, **resources**, and effective communication between different **stakeholders**



# Engaging stakeholders & effective communication

**Change management** process requires tailored stakeholder-specific messages for persuasion - the **readiness** phase

**Answer** the question "**What's in it for me?**" from stakeholder perspective

National Center for Health Information

- Health Information
- Leadership/ administration
- Technical (IT)
- ICD-11 Users (physicians')

# Engaging stakeholders & effective communication

**Change management** process requires tailored stakeholder-specific messages for persuasion - the **readiness** phase

Real-time reporting for **decision making**

**National Center for Health Information**

**Leadership/ administration**

Health Inform

echnical (IT)

ICD-1 (physic

Dr. Mohammed Al Rashidi
Director of Farwaniya Hospital

# Engaging stakeholders & effective communication

**Change management** process requires tailored stakeholder-specific messages for persuasion - the **readiness** phase

- user-friendly
**Google-like** search
- Rich synonyms & abbreviations

National Center for Health Information

Health Information

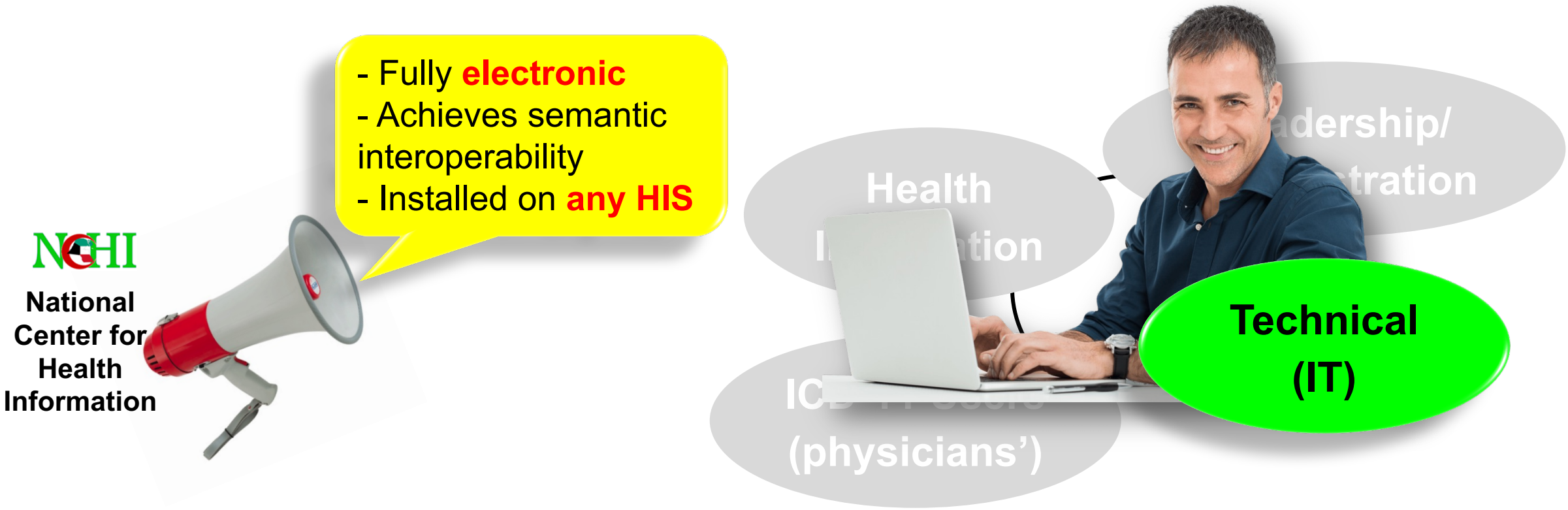
Leadership/ dministration

nical

**ICD-11 Users (physicians)**

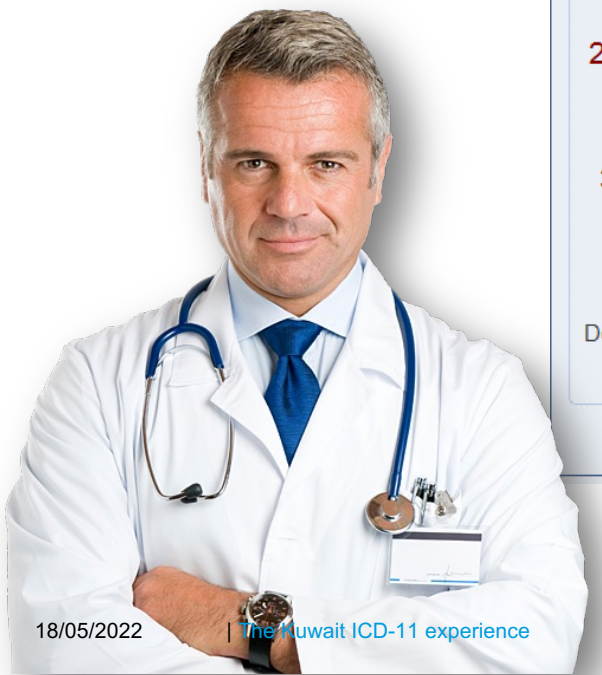
# Engaging stakeholders & effective communication

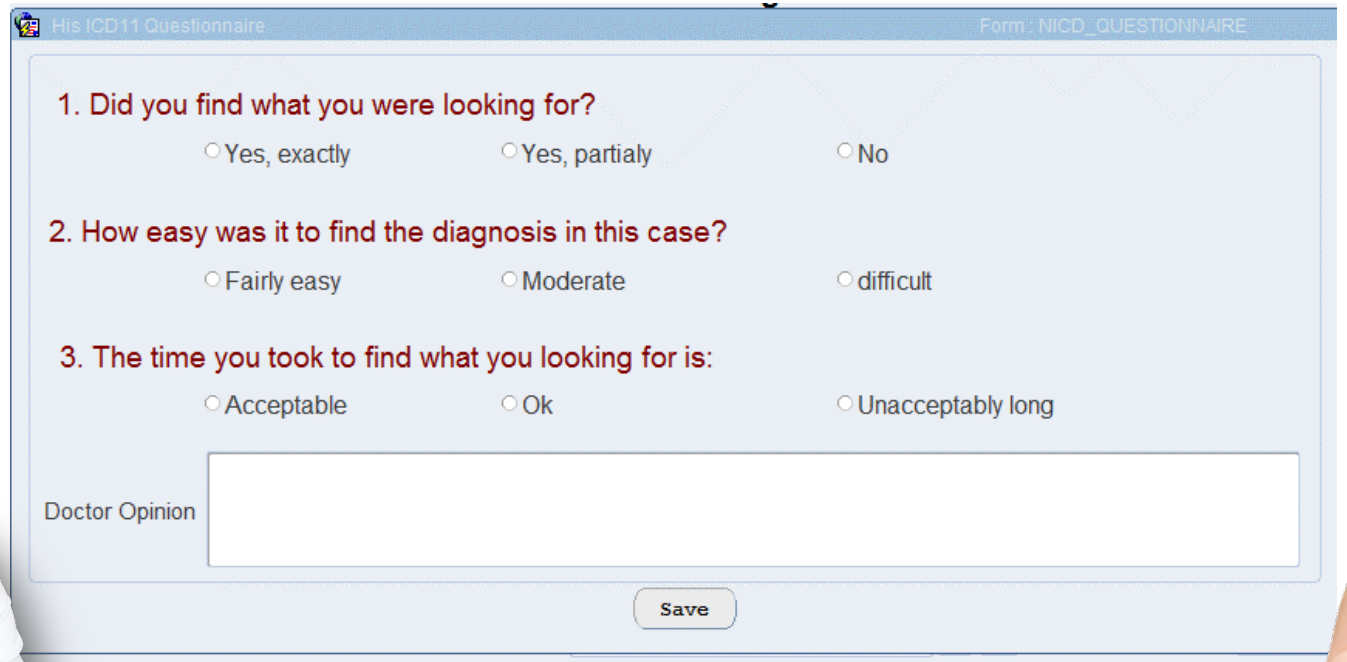
**Change management** process requires tailored stakeholder-specific messages for persuasion - the **readiness** phase



# Engaging stakeholders & effective communication

**Change management** process requires capturing the voice of the users (physicians) as they experiment with ICD-11- the **adoption** phase



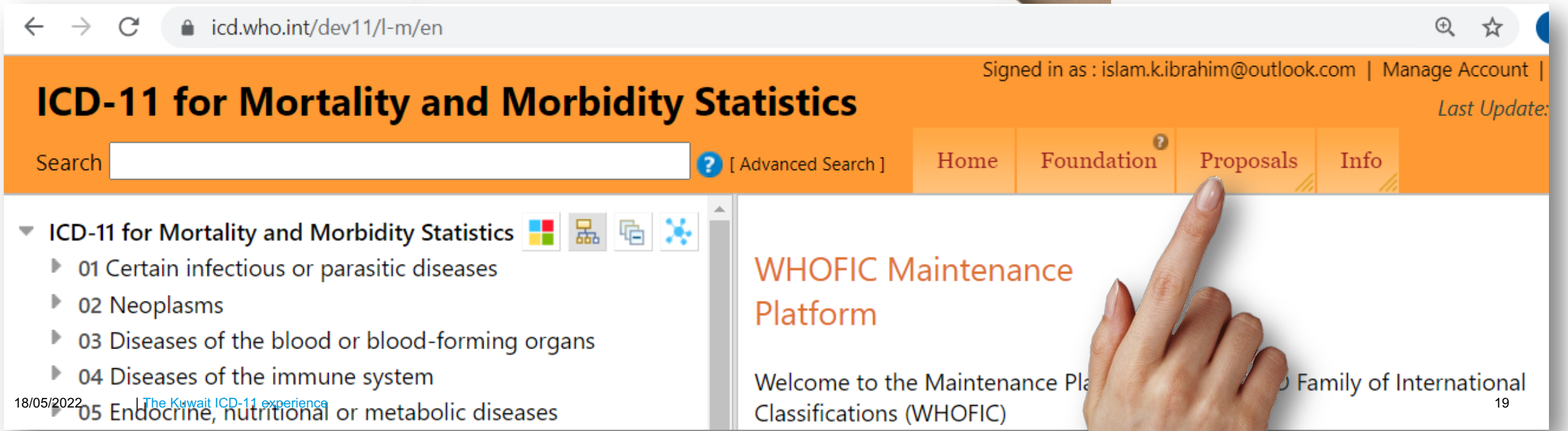



**Brief user-experience survey**

# Engaging stakeholders & effective communication

National Center for Health Information

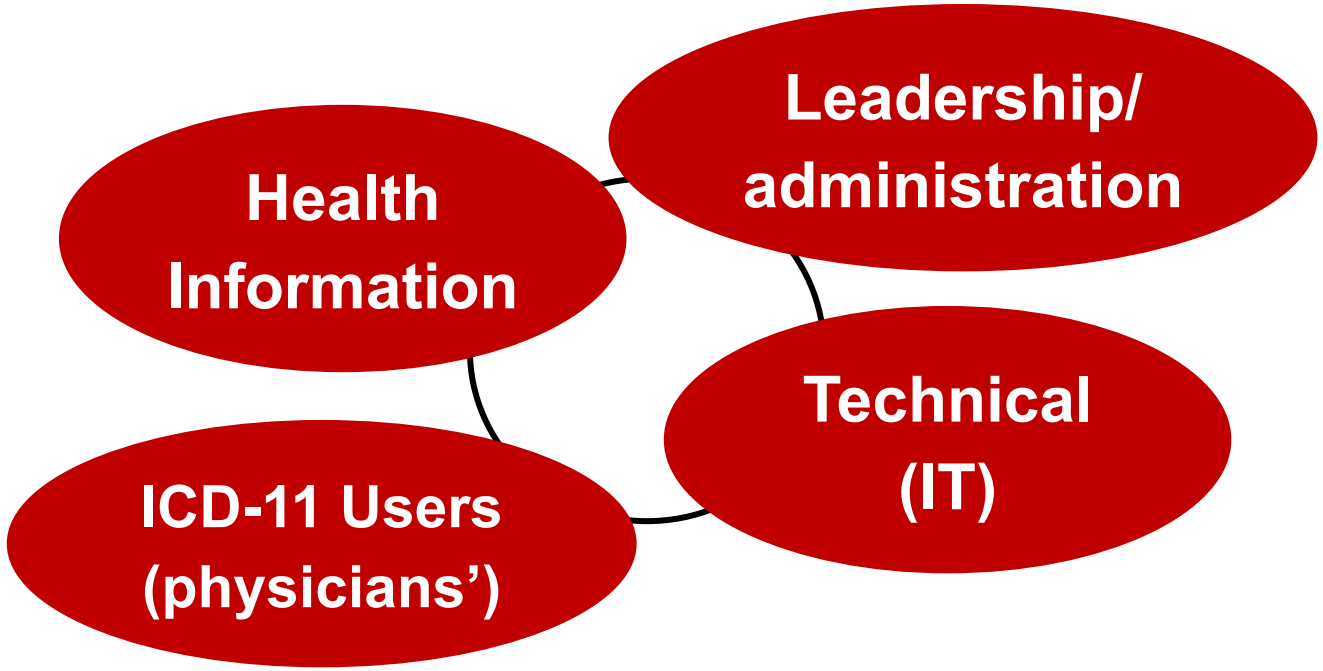
World Health Organization



# Team approach

- **Multidisciplinary** team involving representatives of all stakeholders
- Users (physicians) **accept change** when involved in making decisions

Familiar with local work environment & culture



# Training

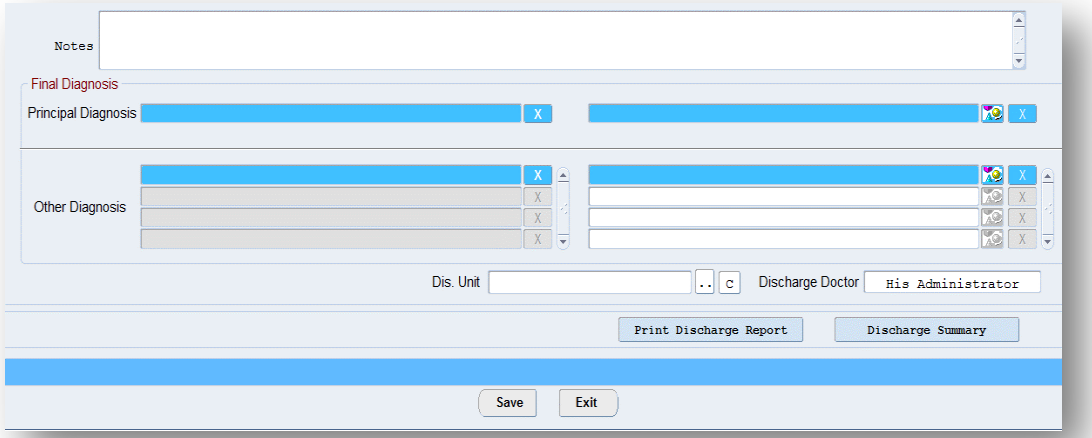
- Variable options to **access** (attend in person, watch video)
- **Short** duration

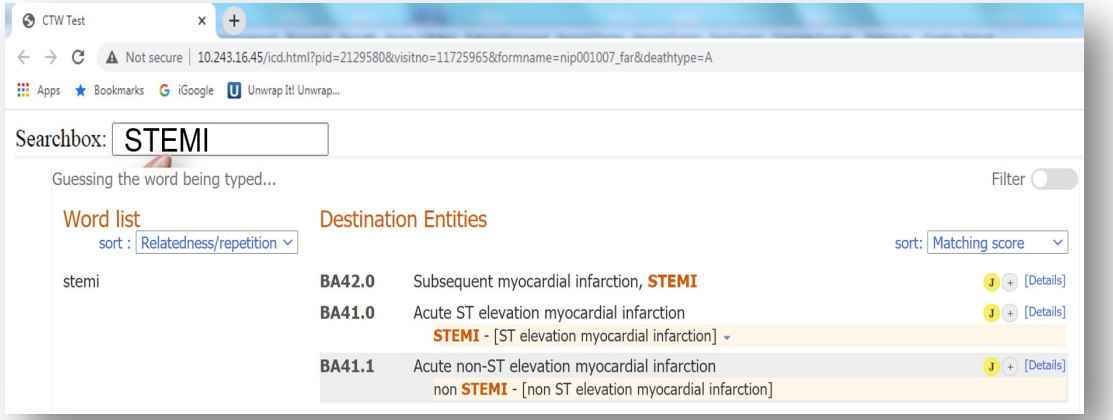
2 hrs including practical exercise

10 min ICD-11
+ 10 min Dx documentation

# Training

- Variable options to **access** (attend in person, watch video)
- **Short** duration
- Uses **screenshots** from own hospital HIS for familiarity




- Focus on changes made to their own HIS not on ICD-11 codes per se
- Reduced potential resistance to change by clinicians

# Training

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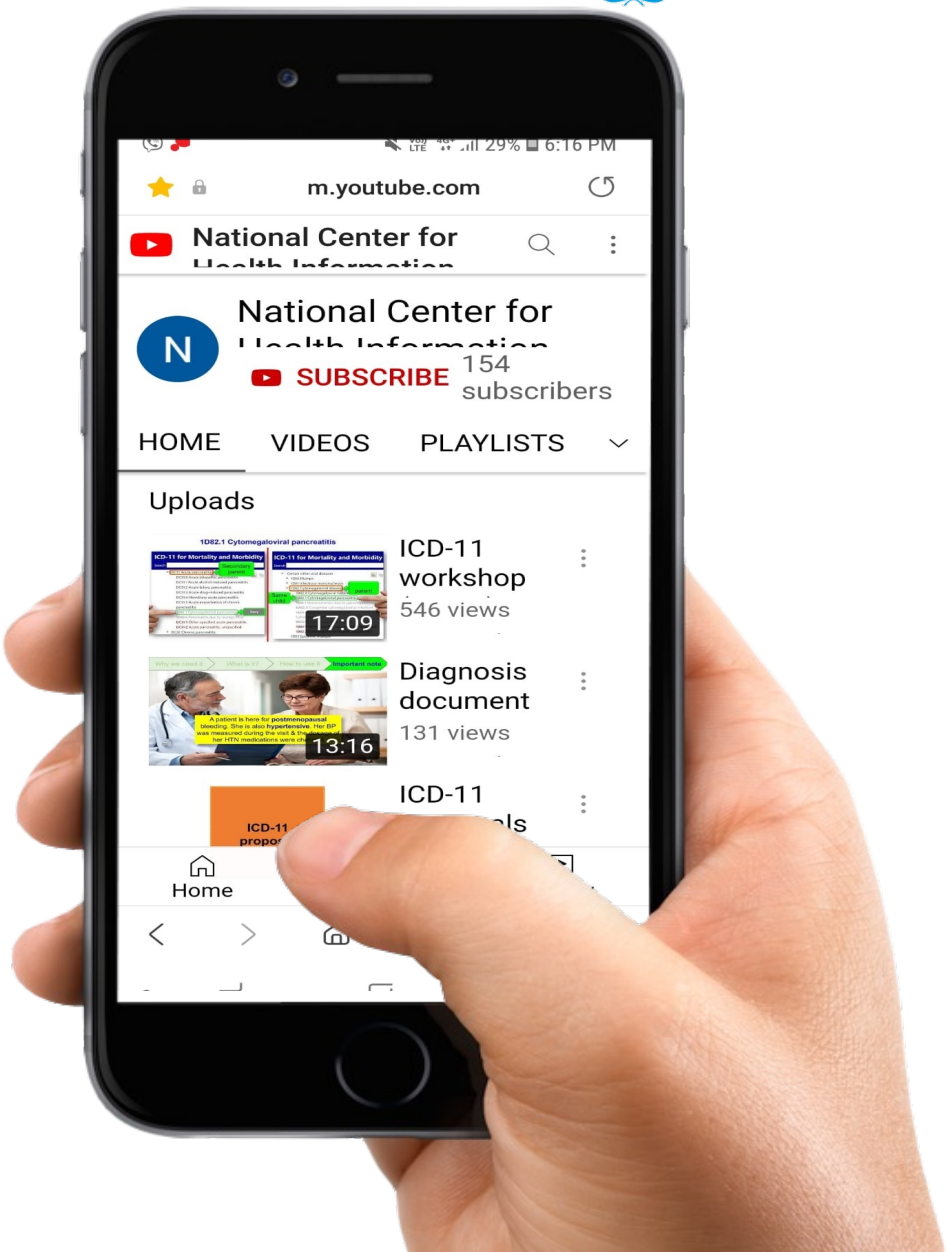
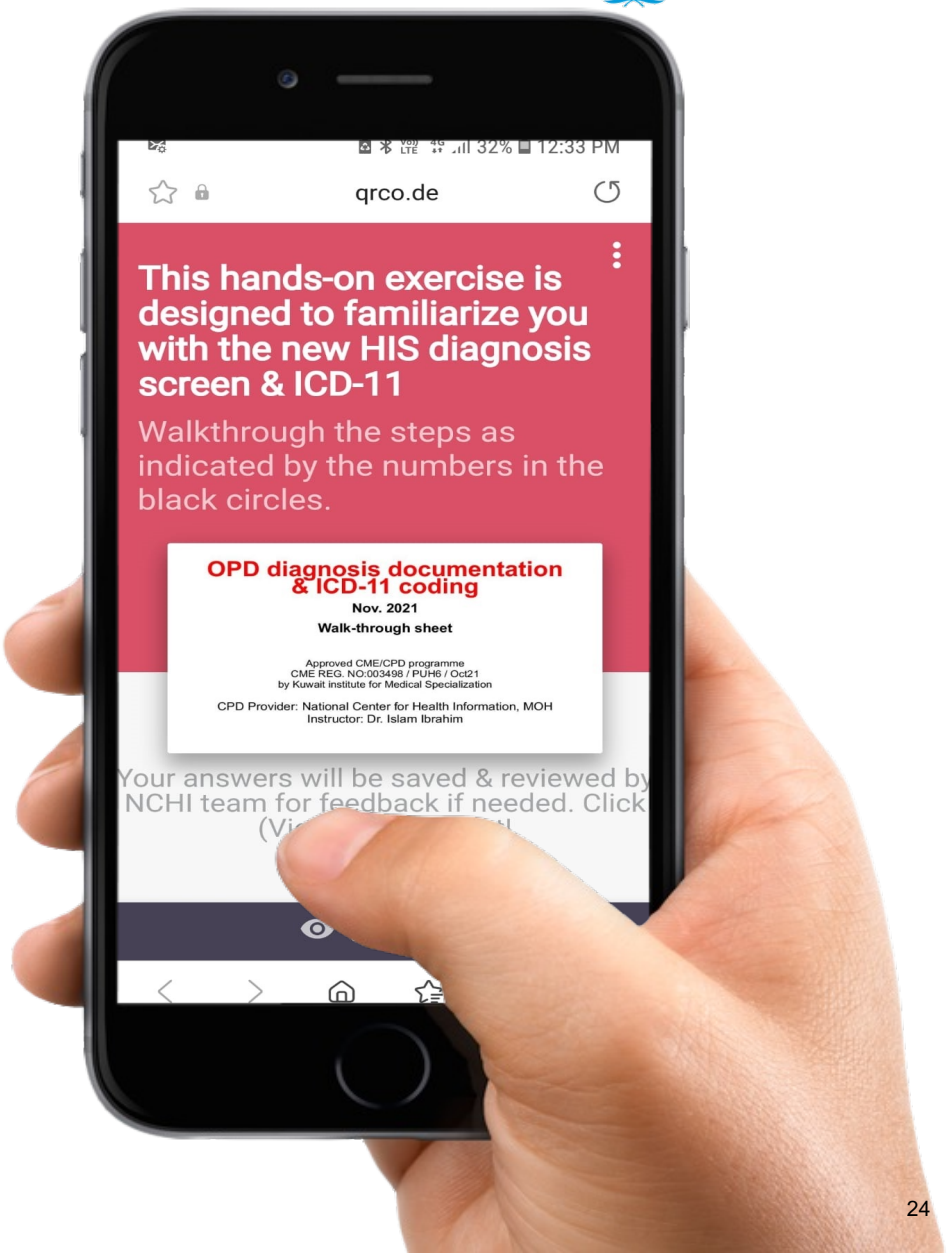
- Wide dissemination using **social media** (WhatsApp, YouTube)



# Training

- Variable options to **access** (attend in person, watch video)
- **Short** duration
- Uses **screenshots** from own hospital HIS for familiarity
- Wide dissemination using **social media** (WhatsApp, YouTube)
- **Hands-on** exercise (computer lab for pilot, virtual simulation for full implementation)



# Training

Invitation
NCHI
Diagnosis documentation: in-patients

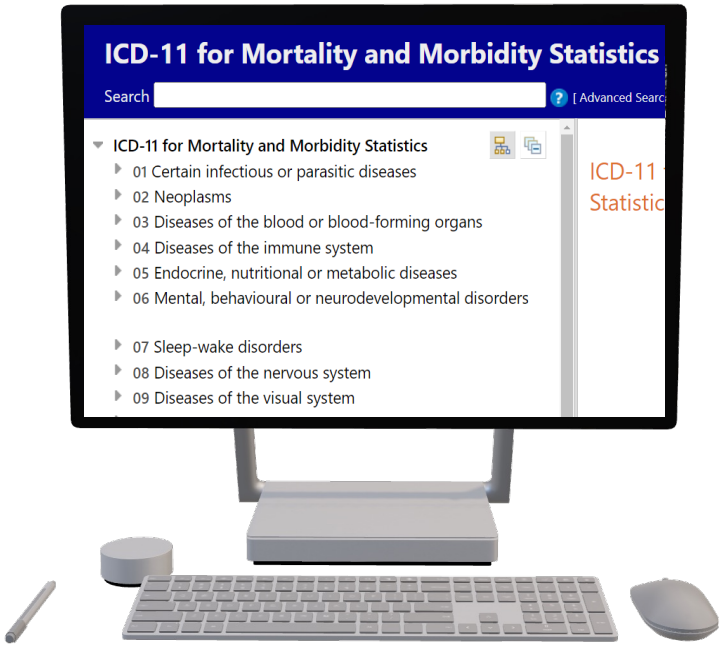
Invitation
NCHI
ICD-11 for Clinicians

# On-site support

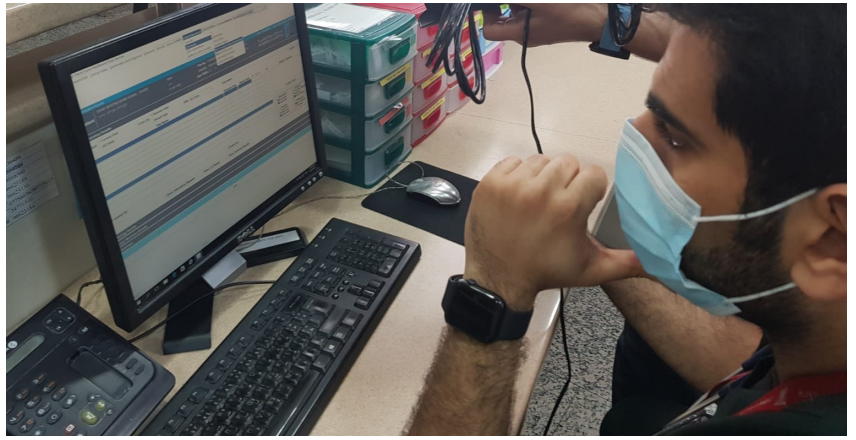
- During the pilot
- At the beginning of full-hospital implementation

**National Center for Health Information** → **ICD-11 support**

**Hospital IT team** → **IT support**




Daily rounds on all computer workstations

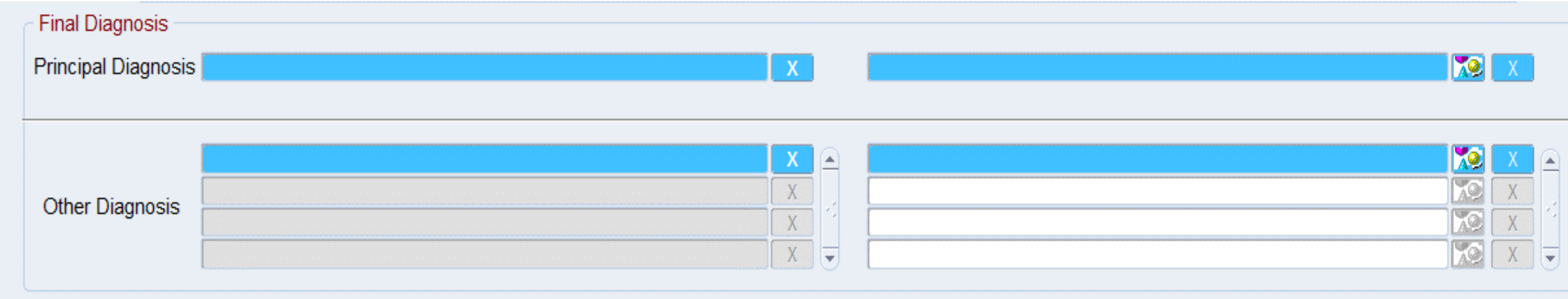


Phone numbers were available at the workstations to provide around-the-clock support

# Opportunity for future CDI

ICD-11 codes will only truly reflect the final diagnoses at discharge if the **correct diagnosis is documented** by the physician.

Implementing ICD-11 onto the system was a chance for NCHI to improve the final diagnosis screen by implementing a simple change, namely distinguishing between the **principal** diagnosis & **other** diagnoses.



# Challenges & other considerations

# Procedure coding and DRG systems

- Only Beta version of ICHI available
- No **ICHI** API yet
- Awaiting **DRG** system that uses both ICD-11 and ICHI

# Physicians as ICD-11 users

- Lack of interest in coding guidelines & insufficient time for training on **morbidity coding guidelines**
- In case of DRG system, experienced qualified coders are still required

- Fewer medical coders needed, as the code for each diagnosis is assigned automatically when the physician uses the ICD-11 coding tool to document the diagnosis
- Shift in HIM professionals' time & skills towards much needed roles, such as auditing and CDI

# Comparing pilot results between countries

- Should be treated with caution!
- Results from ICD-11 morbidity pilots will not only reflect ICD-11 as a classification but will also be confounded by the **prior quality of clinical documentation**

# IT issues

**IT problems** were promptly resolved
Otherwise, we risk **physician dissatisfaction** with the whole experience, as physicians may come to associate ICD-11 with HIS problems.

# Sharing the experience!

World Health Organization

مجلس الصحة لدول مجلس التعاون
Gulf Health Council

World Health Organization

المركز الوطني للمعلومات الصحية
NATIONAL HEALTH INFORMATION CENTER

المجلس الصحي السعودي
Saudi Health Council

ورشة عمل جاهزية تطبيق الترميز الطبي الدولي النسخة 11 في دول مجلس التعاون الخليجي

**Readiness to adopt ICD11 Implementation in GCC**

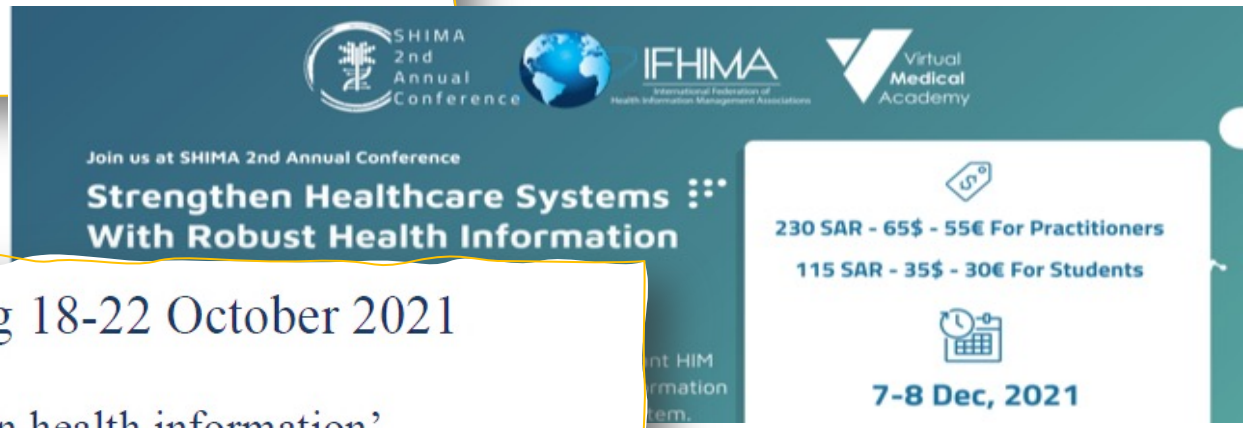
**lassification of Diseases 11th Revision implementation in countries, 7th -8th April 2021**

منظمة الصحة العالمية
المكتب الإقليمي لشرق المتوسط

World Health Organization
REGIONAL OFFICE FOR THE Eastern Mediterranean

**Promotion of International Classification of Diseases 11th Revision (ICD-11) and International Classification of Health Interventions (ICHI) in morbidity, mortality, and medical intervention registration system**

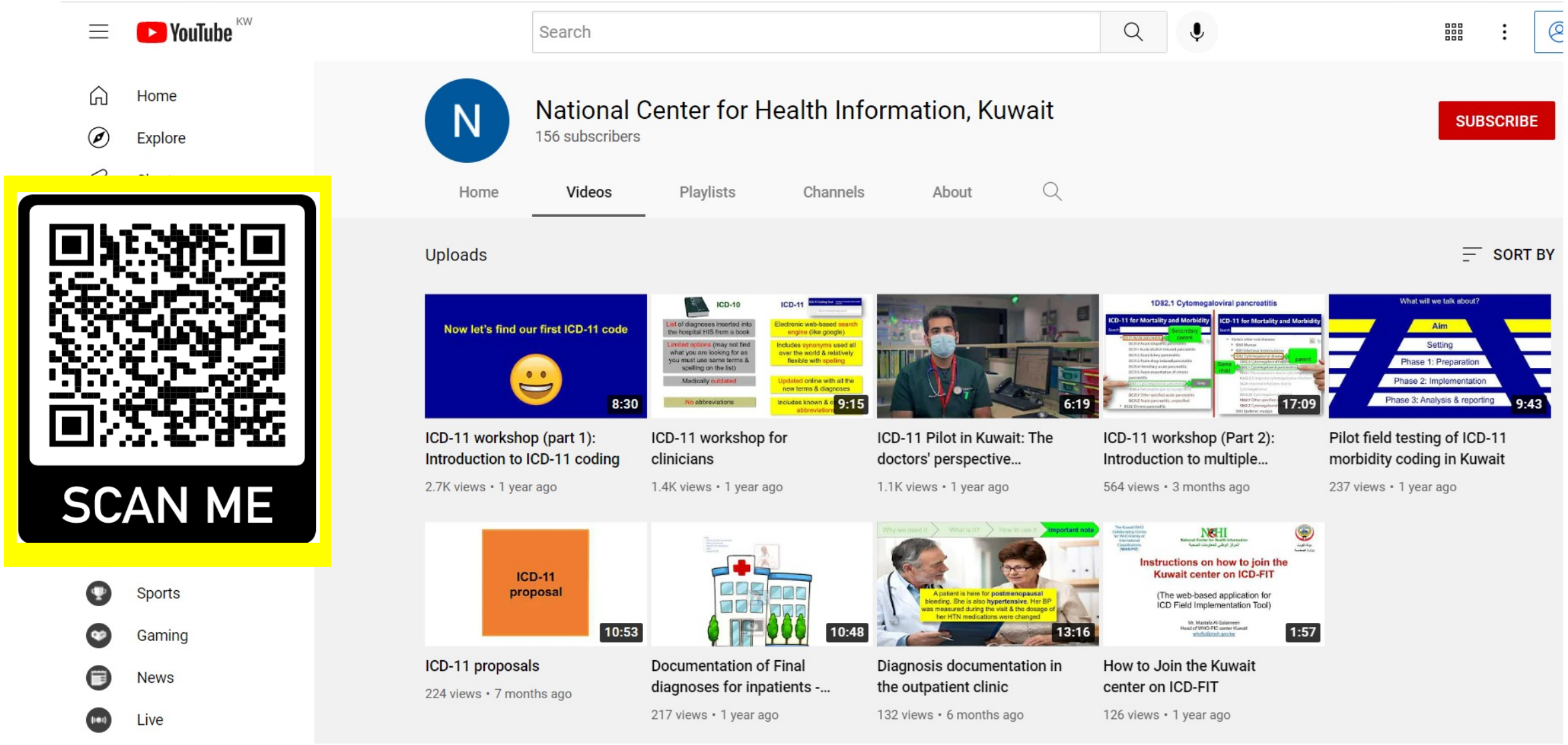
**Tentative** dates: 23 to 24 August 2021




WHO-FIC Annual Network Meeting 18-22 October 2021

'Unleashing the power of innovation in health information'

# Sharing the experience!



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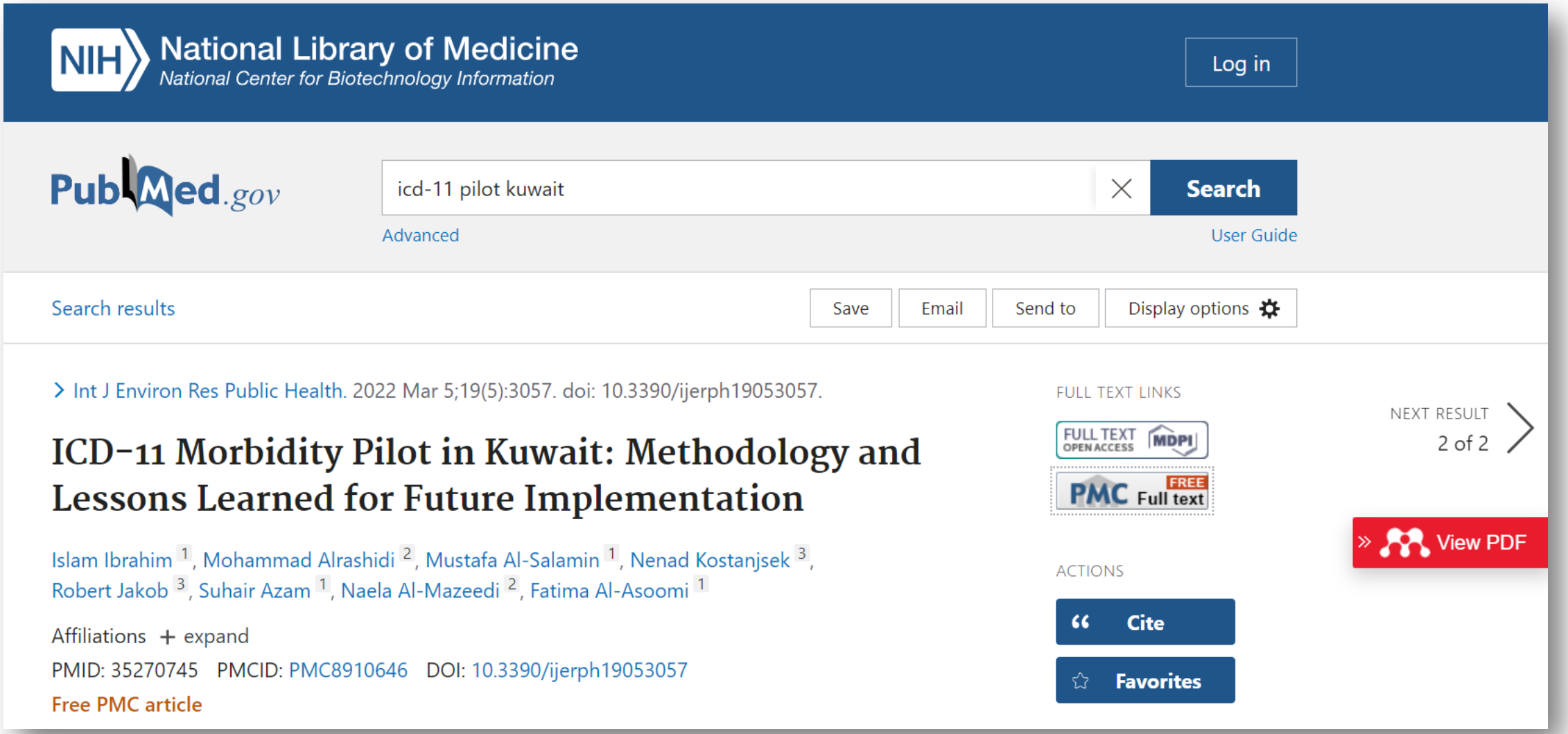

# Thank you

World Health Organization

Islam Ibrahim, National Center for Health Information, MOH, Kuwait