Creating Patient-Centric Identity Management Solutions

Mr. Michael Stahl

HSG seminar unique health identification

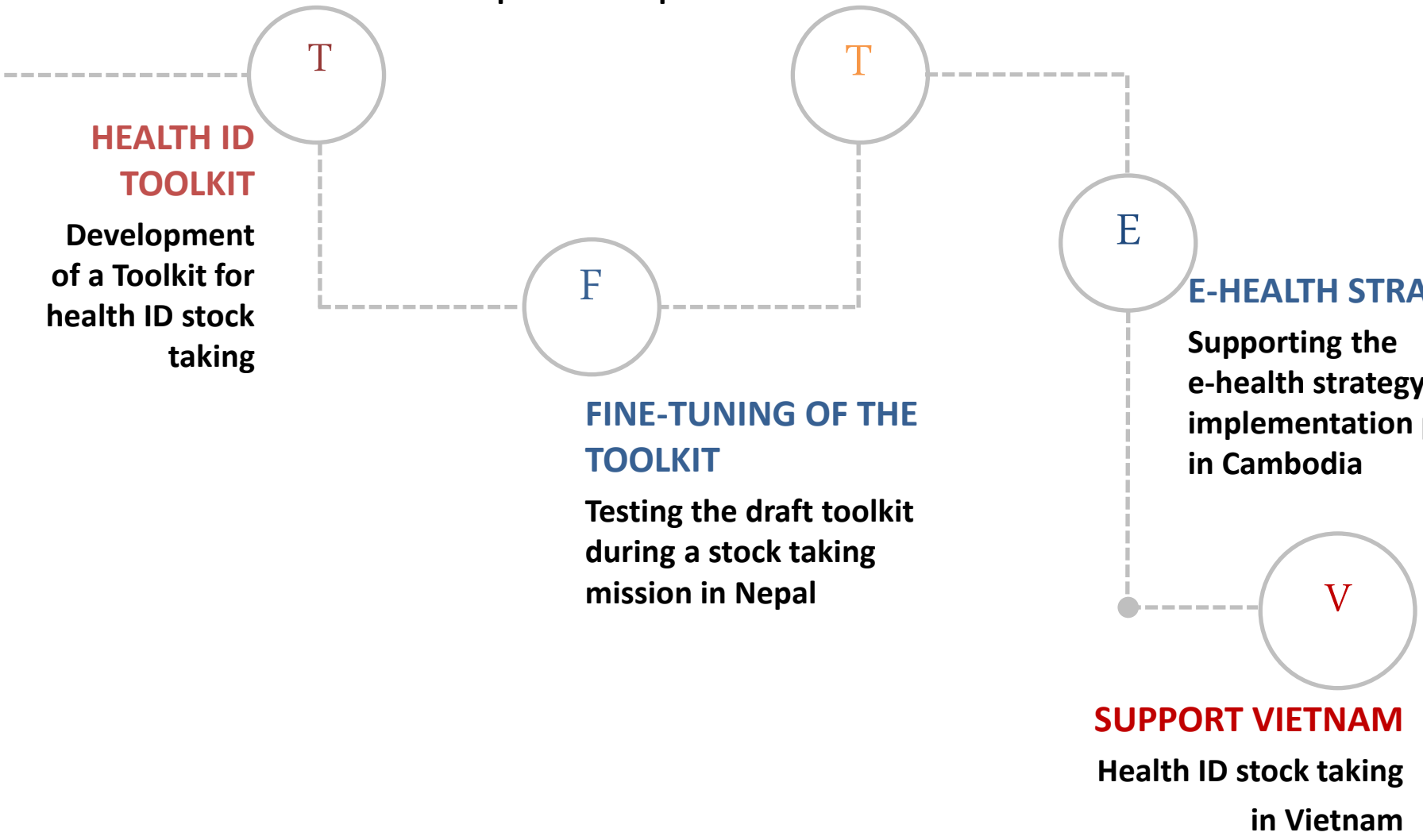
5th February,2018

ADB, Manila

Outline

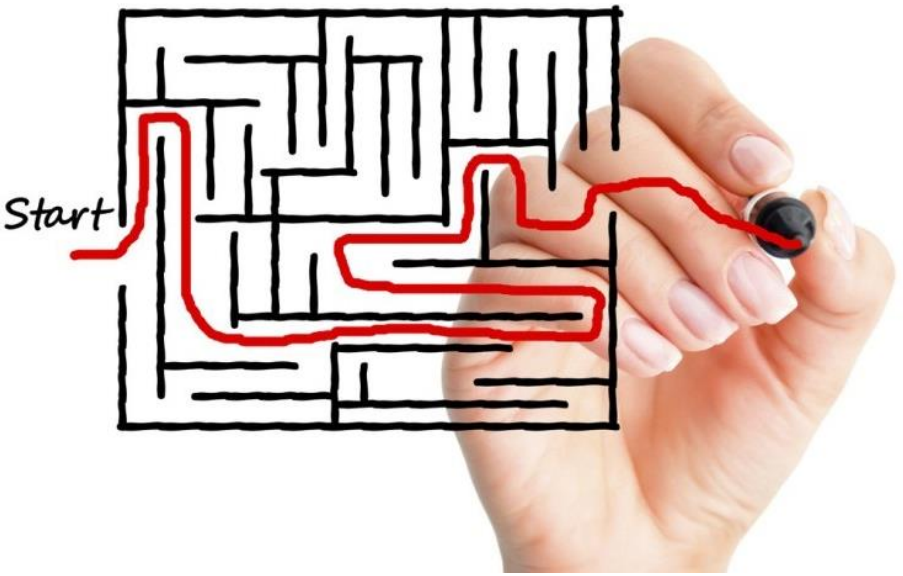
- **Activities and output under RECAP**
  (Results for Malaria Elimination and Control of Communicable Disease Threats in Asia and the Pacific)
- **General findings** from the ÌD mapping exercises
- **Methodology** of the ID mapping exercise
- **Scenarios** for setting up a **National Health ID**
- **Leapfrogging** to the latest digital health technology
- IT Infrastructure and **disaster respond**
- Linkage between digital health and **eGovernment**

What has been done under the RECAP Project?


TEST ENVIRONMENT FOR INTEROPERABILTY
Set up of CAMLAB to test open source products
T
HEALTH ID TOOLKIT
Development of a Toolkit for health ID stock taking
T
F
FINE-TUNING OF THE TOOLKIT
Testing the draft toolkit during a stock taking mission in Nepal
E
E-HEALTH STRATEGY
Supporting the e-health strategy and implementation plan in Cambodia
V
SUPPORT VIETNAM
Health ID stock taking in Vietnam

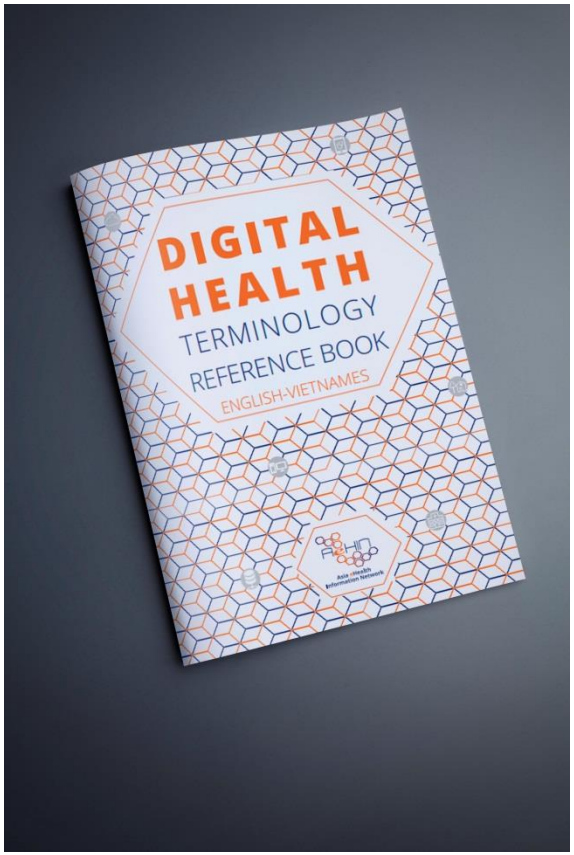
RECAP

KNOWLEDGE PRODUCTS



- Policy Brief on Health IDs
- Unique Health Identifier Mapping Toolkit
- Experiences from setting up OpenHIE products
- Draft brief on Unique Health Identifier Scenarios
- Terminology Booklet for eHealth (Khmer, Vietnamese, English)
- Digital Health Investment paper + tool


ADB BRIEFS
NO. 56
APRIL 2016
KEY POINTS
ON THE ROAD TO UNIVERSAL HEALTH COVERAGE: EVERY PERSON MATTERS
UNIQUE IDENTIFIERS FOR EVERY CITIZEN ARE KEY TO AN EFFECTIVE AND EQUITABLE HEALTH SYSTEM
Michael Stahl
Social Health Insurance and Information Technology System Design Consultant
Susann Bodo
Senior Social Development Specialist, Sustainable Development and Climate Change Department, Asian Development Bank
Lori Thomlit
Senior Information and Communication Technology Programme Specialist UNICEF
Jane Parry
Senior Public Health and Development Writer
Target audiences
ADB

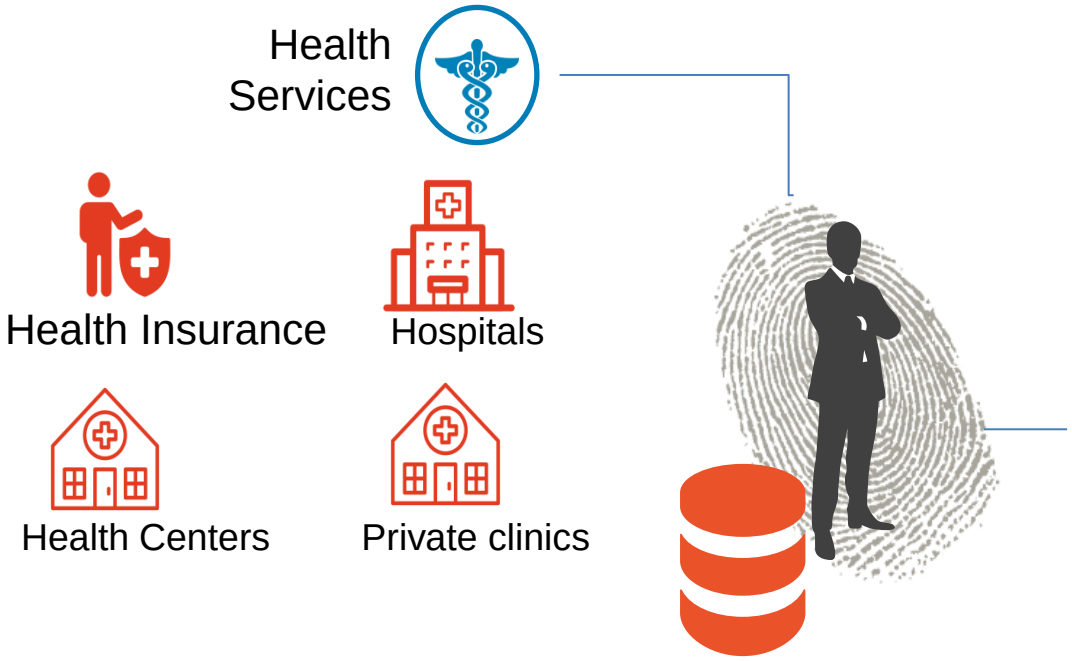

DIGITAL HEALTH
TERMINOLOGY
REFERENCE BOOK
ENGLISH-VIETNAMES


UNIQUE HEALTH ID
MAPPING TOOL
ADB

50 YEARS ADB

Investment in Identity Systems

Digital technology can improve patient centric care

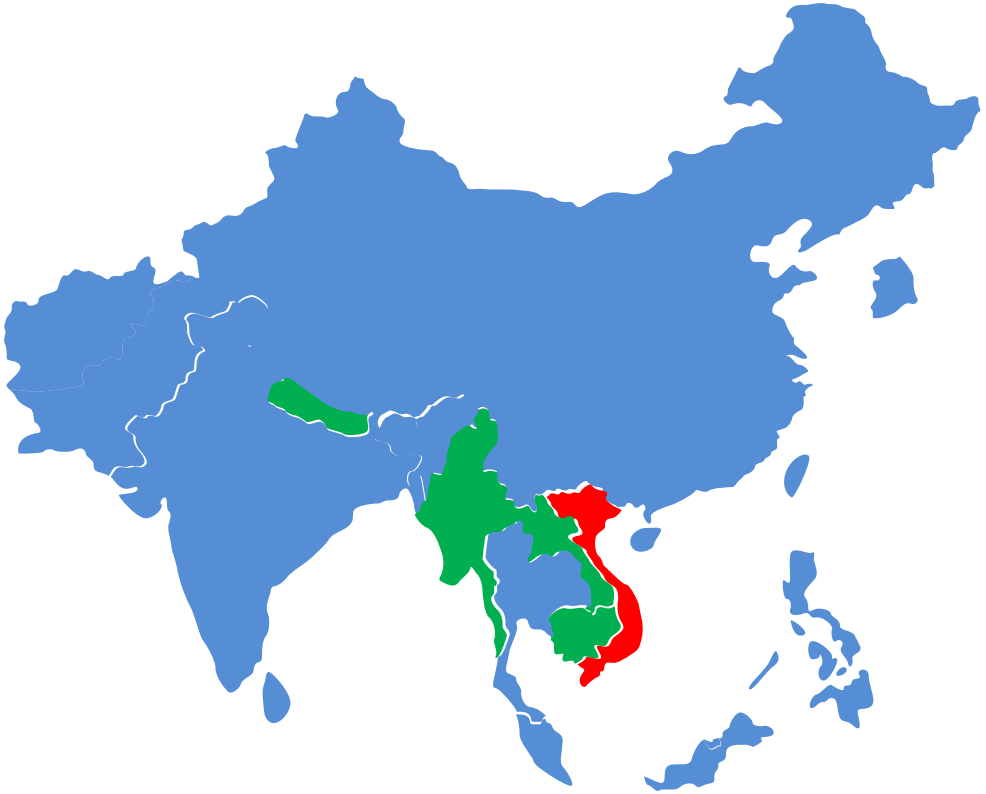


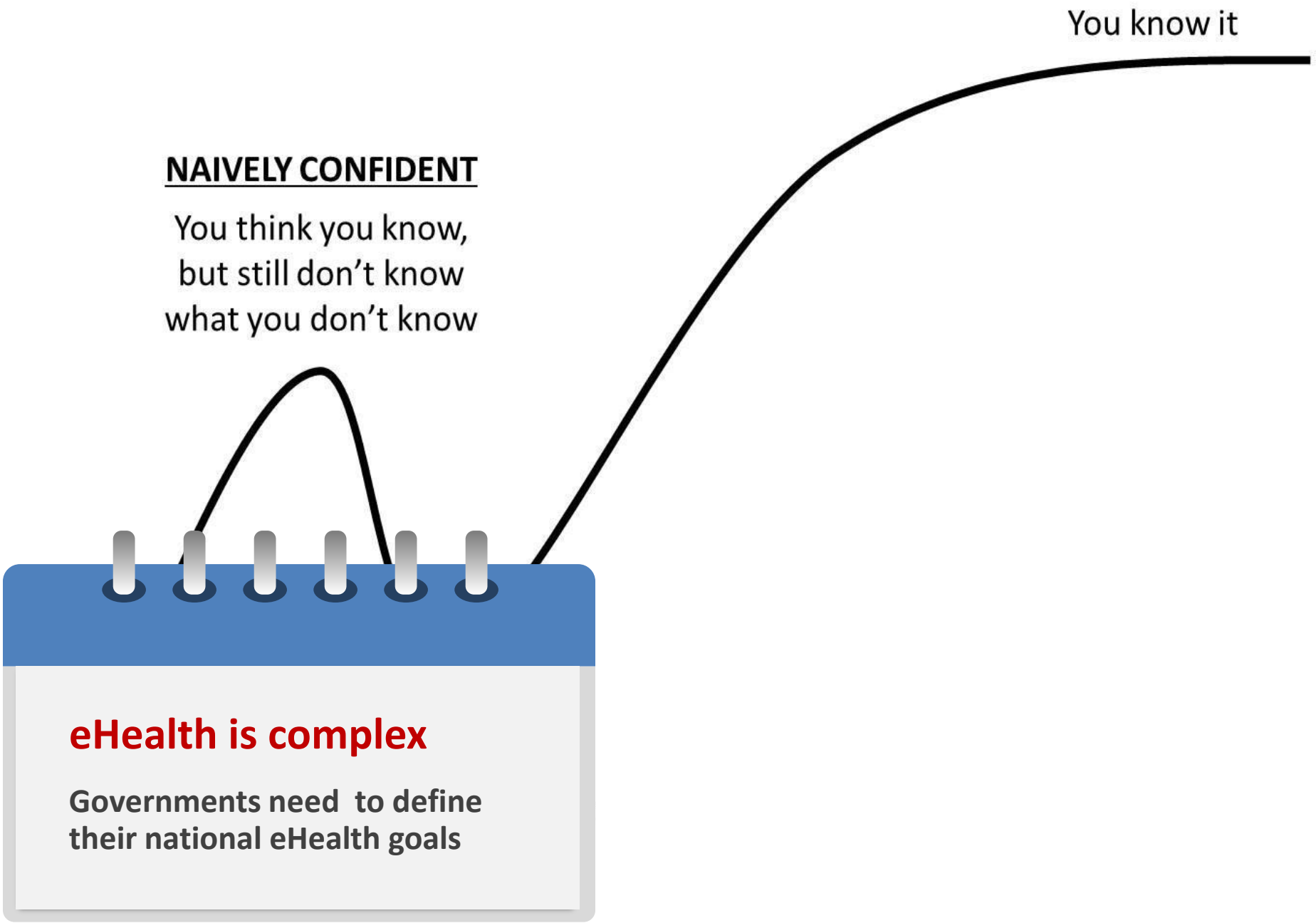
IDs allow the provision of the right health service to the right patient in a short time. It can lead to:

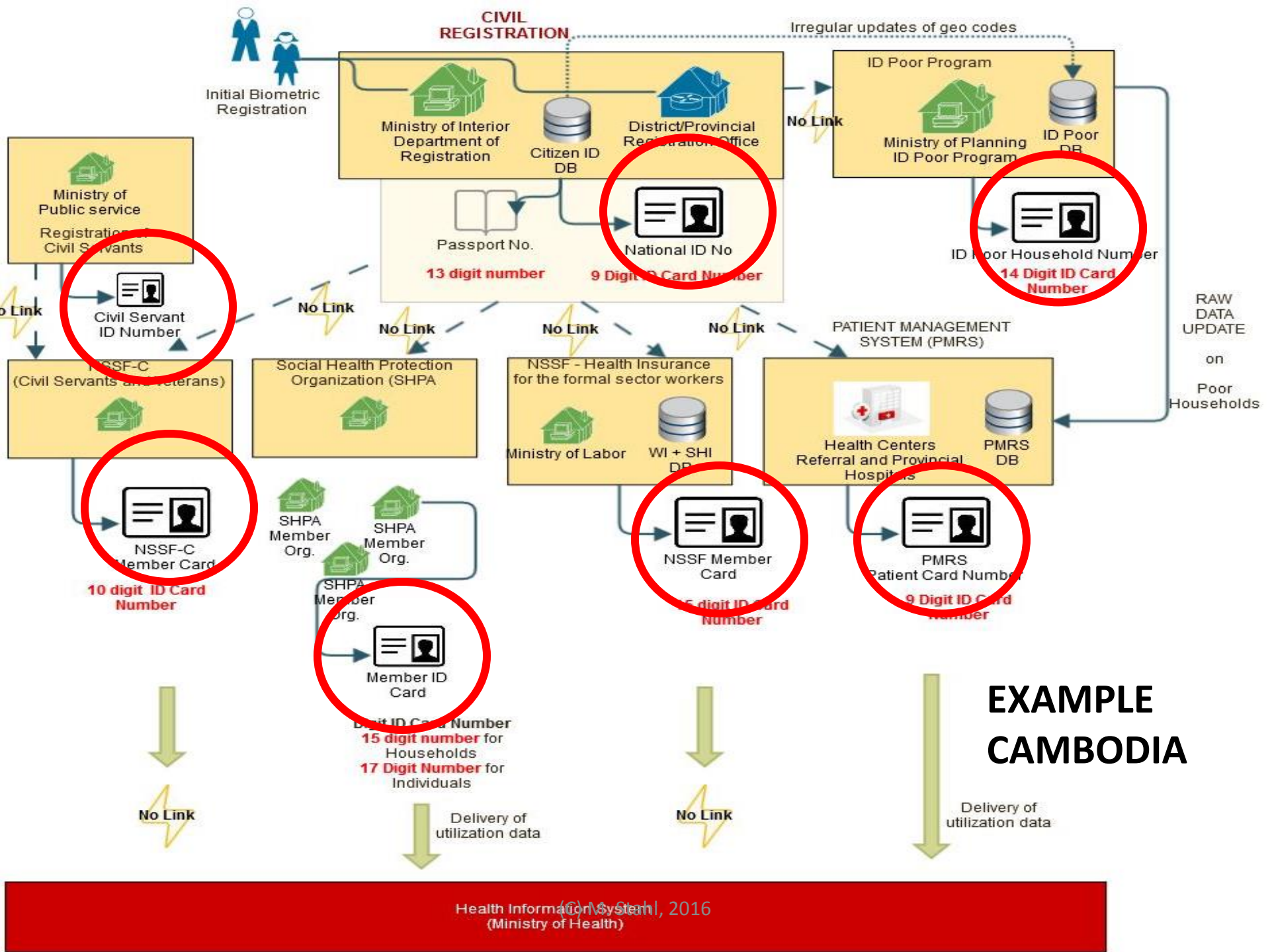
- less waiting time
- no double payments
- fast reimbursements
- less treatment errors
- enables patient engagement via mobile apps

Stock taking of existing Identification Mechanisms in different countries

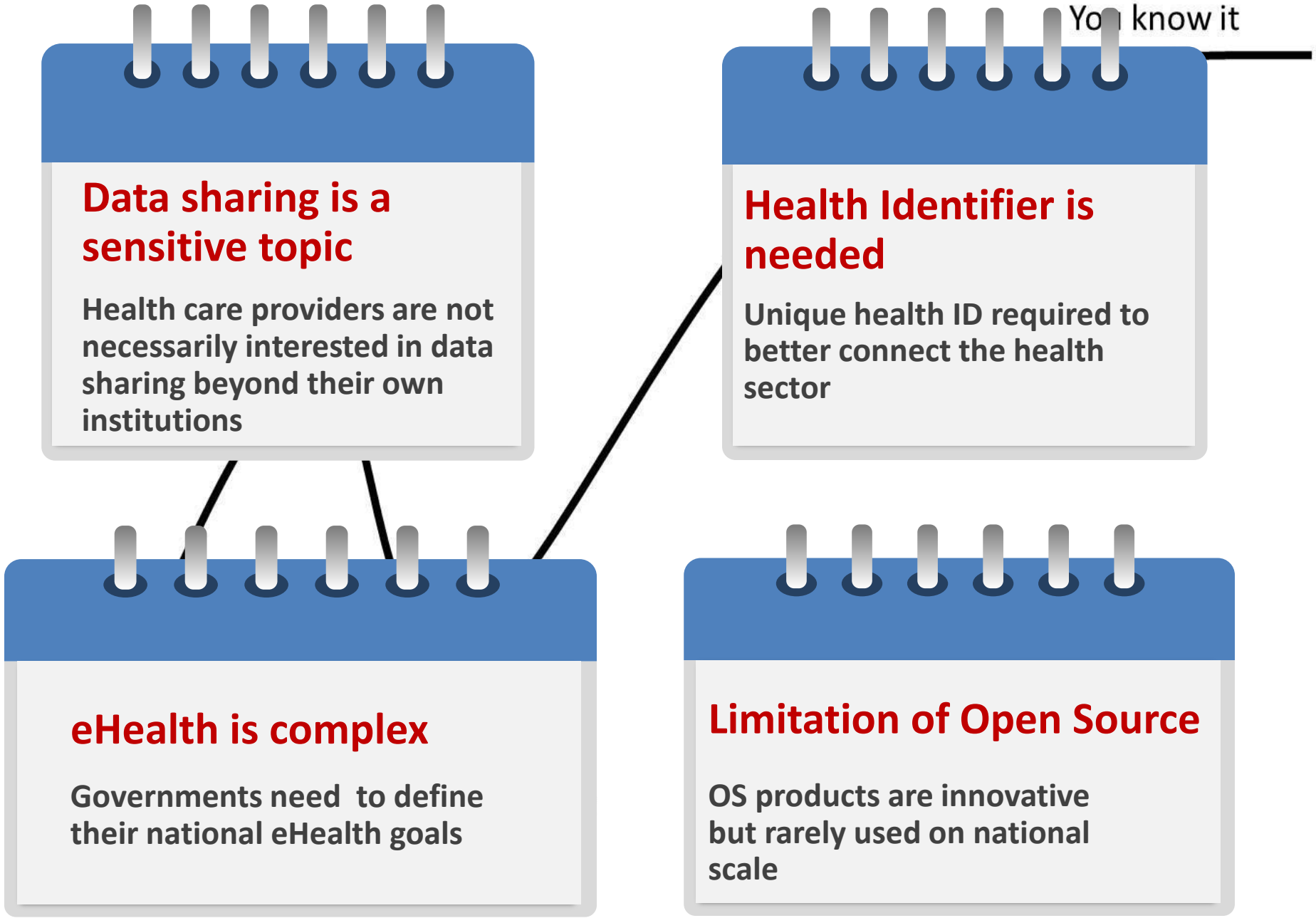
Findings from our work for better interoperability




You know it
NAIVELY CONFIDENT
You think you know,
but still don't know
what you don't know
eHealth is complex
Governments need to define
their national eHealth goals



Identification Silos - Laos


Yo know it
Data sharing is a sensitive topic
Health care providers are not necessarily interested in data sharing beyond their own institutions
Health Identifier is needed
Unique health ID required to better connect the health sector
eHealth is complex
Governments need to define their national eHealth goals
Limitation of Open Source
OS products are innovative but rarely used on national scale

Findings from the UNIQUE HEALTH ID ASSESSMENTS

1. No focus on IDs beyond the own organization
2. Dual registration: Manual & Digital
3. Identification and Authentication differs

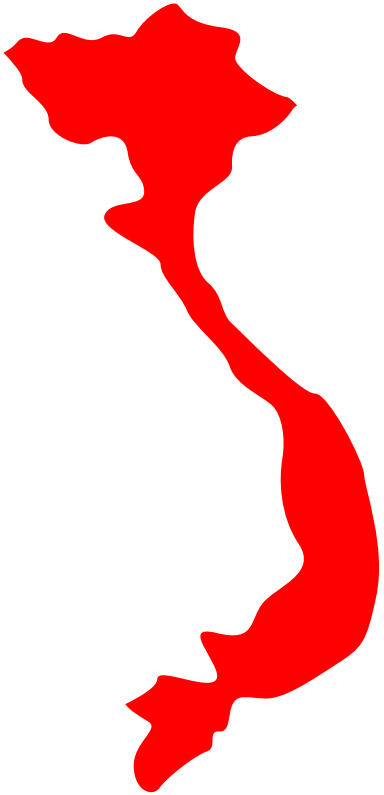
Data entry is **done for government** reporting requirements

Mapping of existing Identification Mechanisms in different countries

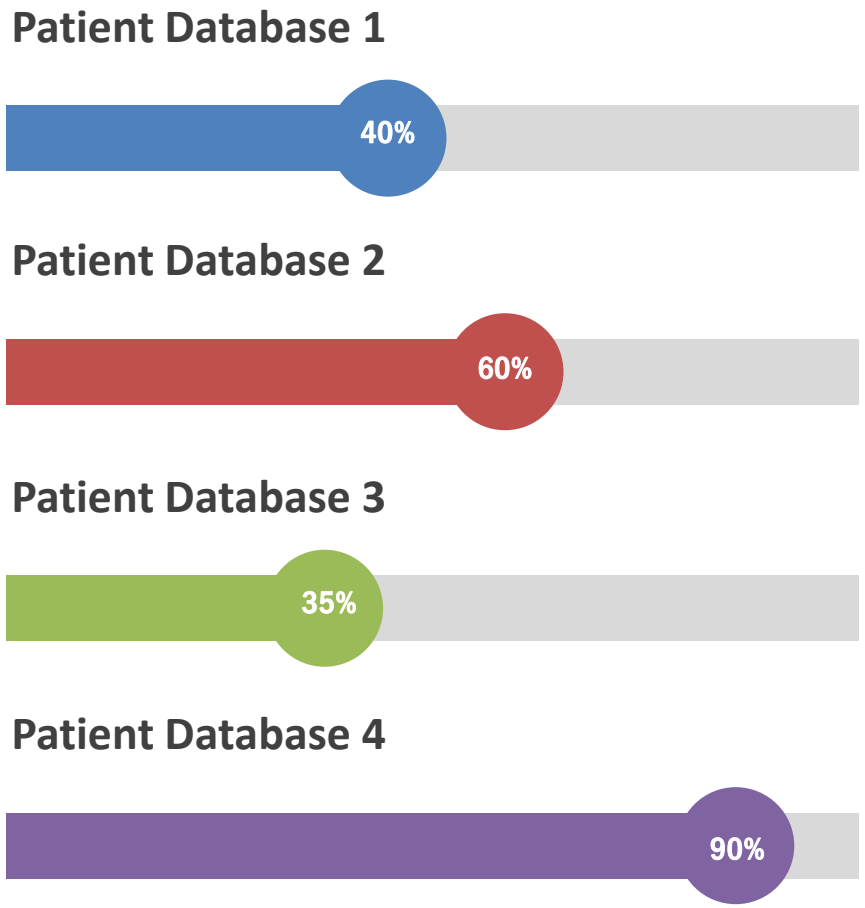
Methodology

Understand the ID landscape first

Which number is a "real unique number?

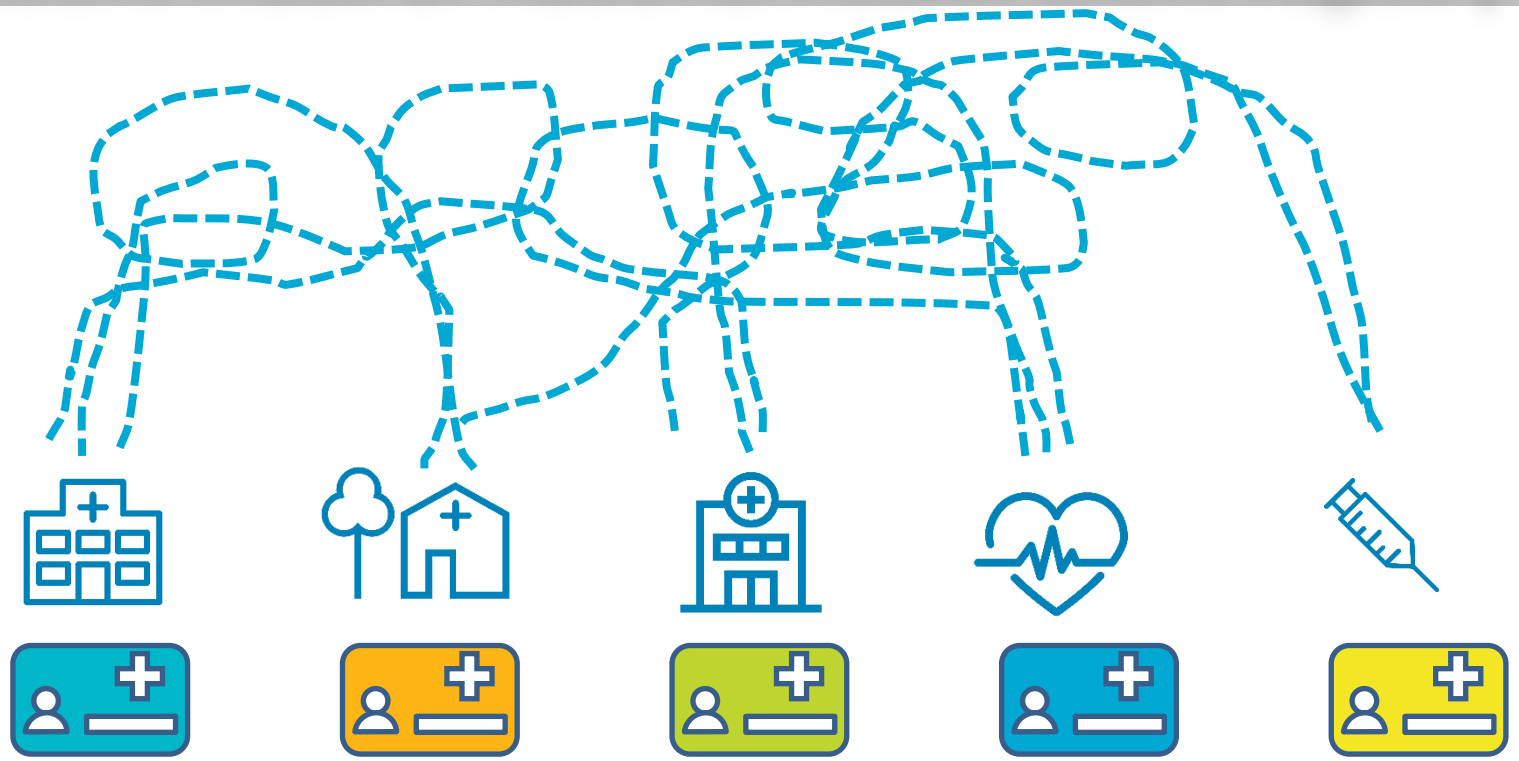


% of entire population registered?



Data Silos – Identification Silos

Multiple Health IDs **not linked** to a master patient index or national health client registry



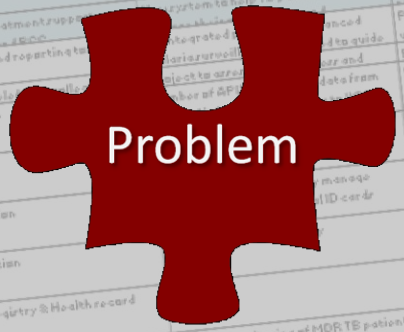
Centralized vs. de-centralized identification management

Features	Centralized	De-Centralized
Scaling	Easy to scale up	Slow to deploy
Costs	Eliminate redundant costs	Higher project costs
Data definitions	Con KOREA finitions	Less LAOS o local needs
Maintenance	Easy to maintain	Often ignored
Implementation skills	Less intensive to implement changes	Effort intensive
Change Management	Lea THAILAND top down approach	Data VIETNAM cation owners are change agents at grassroots
Access and Management	Lies with central team, Ven INDIA hip easy to maintain	Dependent on the governance and CAMBODIA
Control	Cent TAIWAN infr	Decentralized control if using distributed data systems

Country examples are referring to the updating procedure of demographic data (the system architecture can be based on various server clusters across a country)

Let’s take a closer look to Vietnam…

During our interviews more than 40 information systems were found and documented



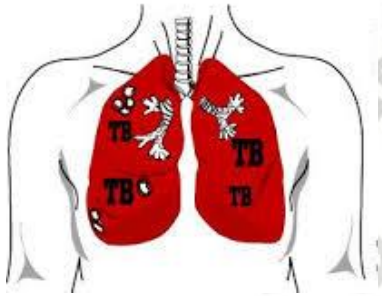
Internal ID Number is rarely used for any data sharing outside their clinic or clinic network

A person can easily receive <u>two National Id cards</u> if he moves from one province to another

It is also theoretically possible to have <u>two passports at the same time</u> using different IDs from different provinces.

Using the national ID is not a perfect solution for patient identification

HIV Facilities

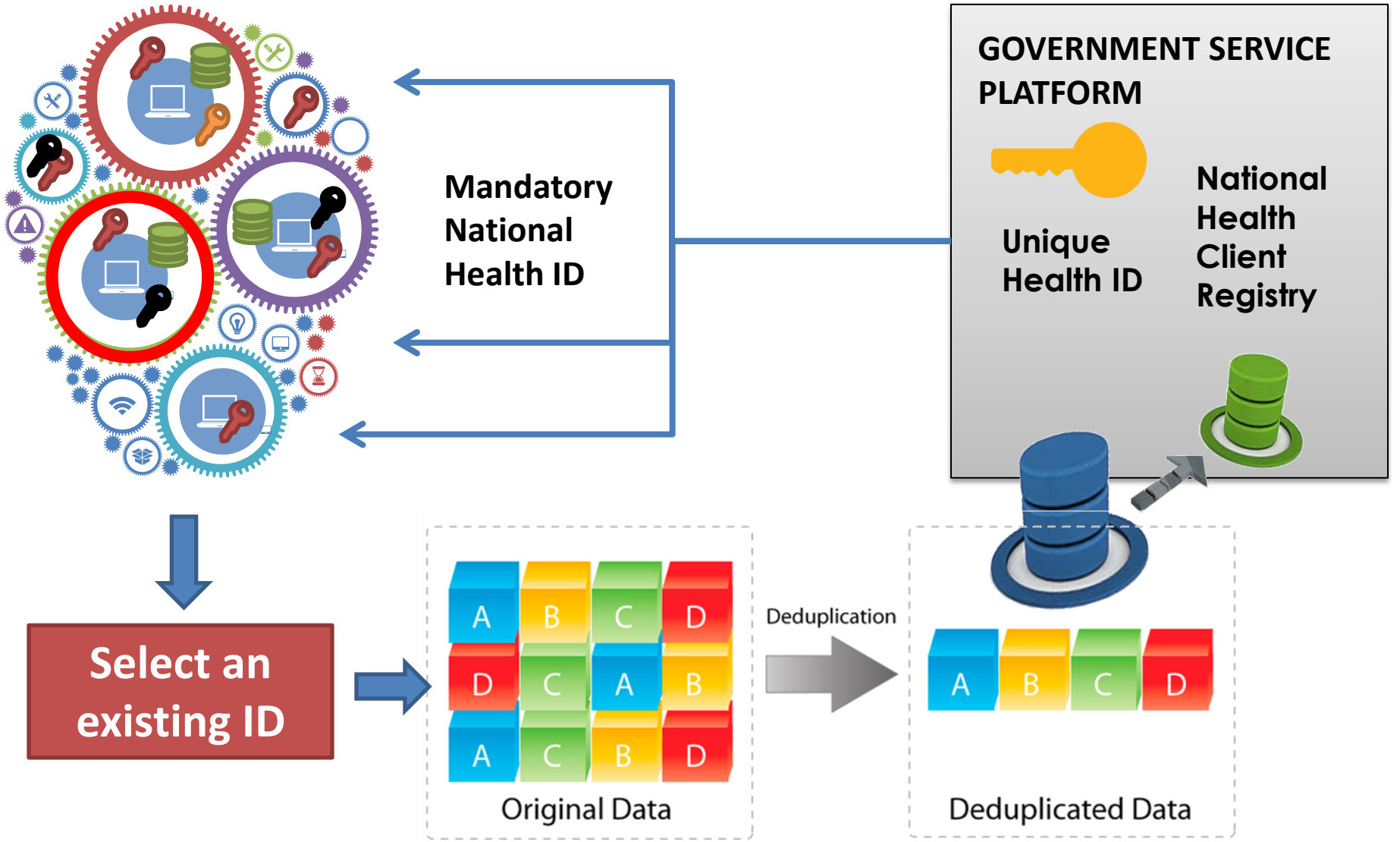


TB Facilities

Internal ID Number is rarely used data sharing outside their clinic or facility network

Using a vertical disease ID is not a perfect solution for patient identification

Vietnam…the way forward



Thailand

Digitizing over 60 million records from paper

CENTRAL POPULATION DATABASE

But why not `waiting for the National ID Number?

Country Example: **Thailand**

HEALTH SYSTEM STAKEHOLDERS

Mandatory use of National Citizen ID

Multi purpose card:

1. Personal ID
2. Fingerprints
3. Tax
4. Social welfare
5. Social security numbers
6. Agricultural data
7. Healthcare data

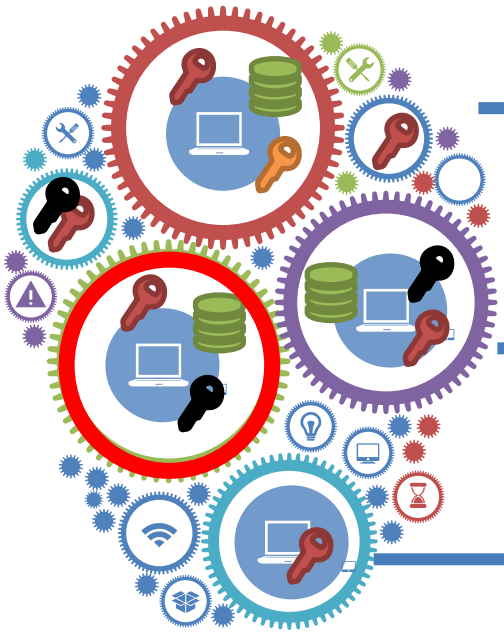
GOVERNMENT SERVICE PLATFORM

CITIZEN DATABASE

13 digit number generated at time of birth .
ID card when they reach the age of 7.

Considerations in **Tonga**

Attention
DHIS2 is primarily a data collection tool



Reporting

dhis2

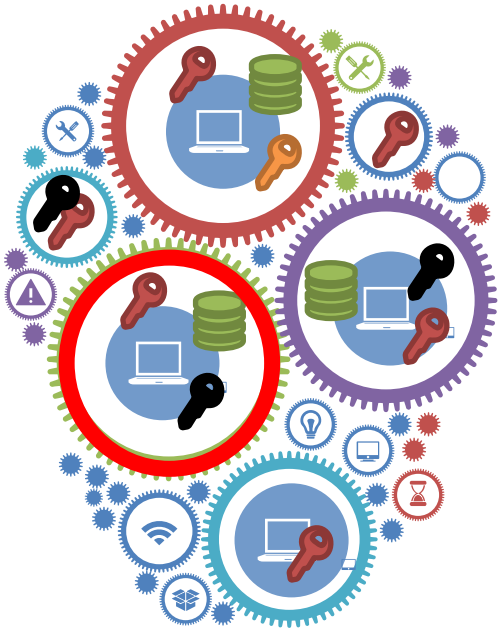
Using the DHIS2 primary key as the unique health ID

HEALTH SERVICE PLATFORM

National Health Client Registry

Unique Health ID

Considerations in **Cambodia**



Mandatory
National Health ID

Checking Identity
via Health Client
Registry

GOVERNMENT SERVICE PLATFORM

Unique
Health ID

National
Health
Client
Registry

National
ID Number
as sub key

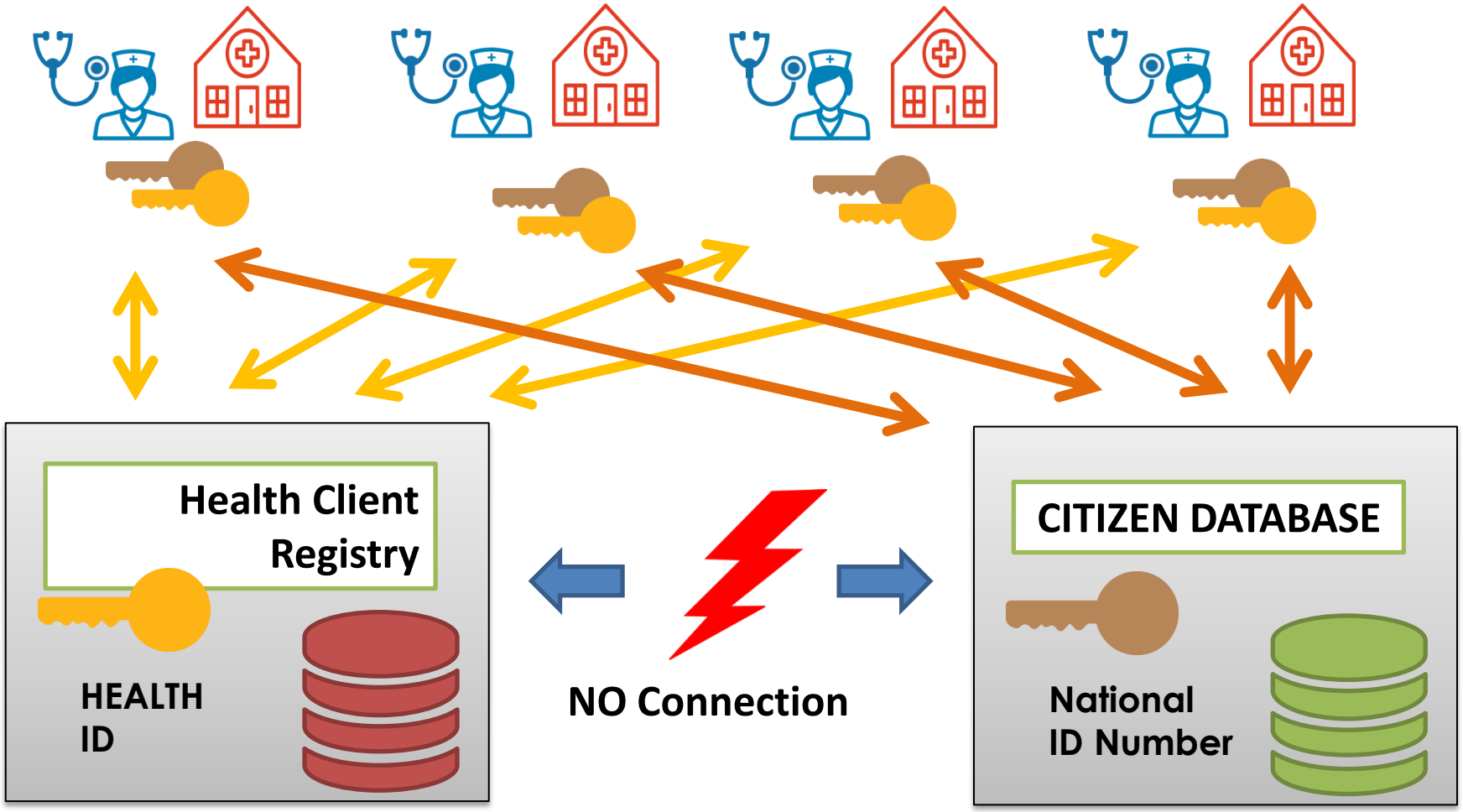
CITIZEN DATABASE

National
ID Number

Health stakeholders contribute
to updating the CRVS System

CRVS

Current situation in **Malaysia**

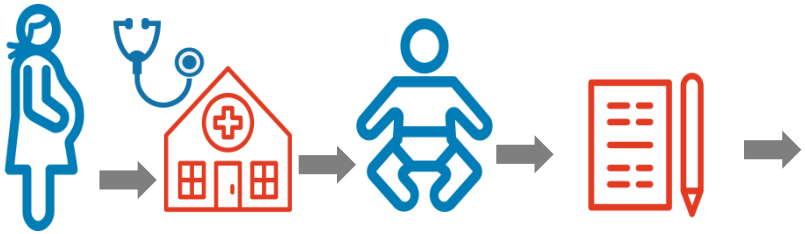


eHealth and eGovernment

&

Maturity of ICT solutions

Health Sector
is feeding the
population registry
via the CRVS system



Health center
Home delivery
Immunization
Patient ID

Birth certificate
Family book update

Education
Health
Driving license/
Vehicle registration
Identity
Land
registry
State benefit
International
Immigration/
Border control

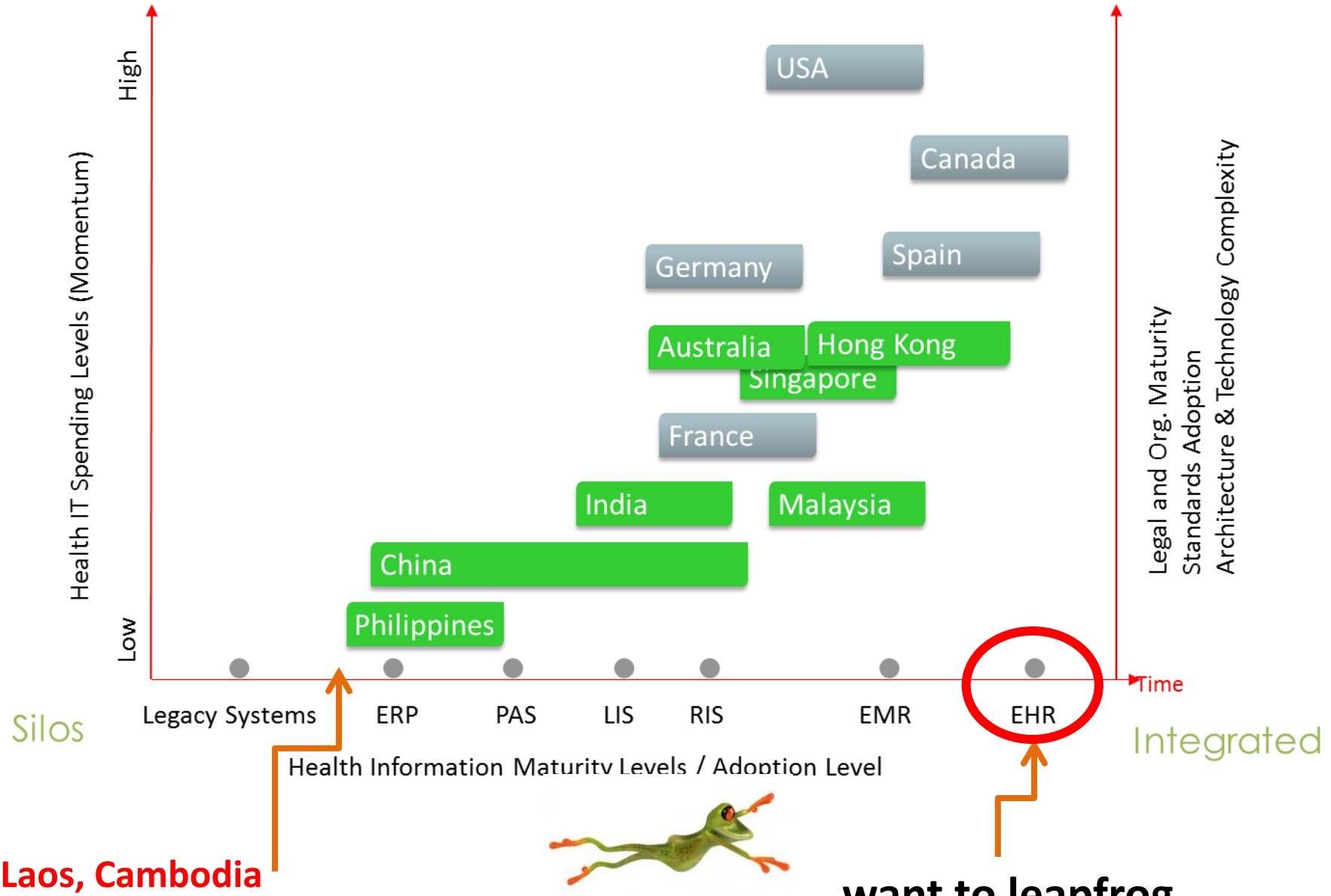
CRVS system

POPULATION REGISTRY

eHealth

eGovernment

Countries are at different ICT maturity levels



Laos, Cambodia
Vietnam, Myanmar are here….but…

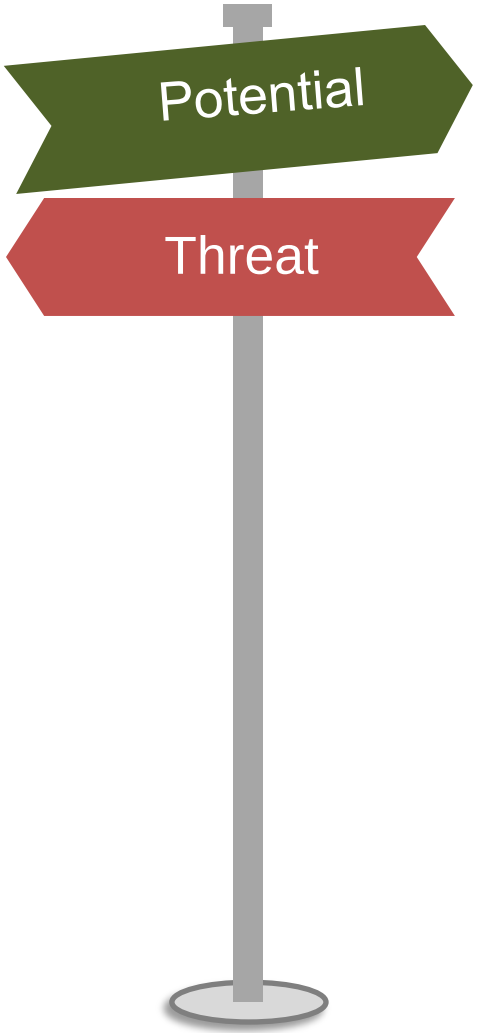
…want to leapfrog

Leapfrogging to the latest digital health technology

Trying to implement innovative solutions **without having the basic infrastructure in place**

Not having **legal frameworks in place** which ensure data/privacy protection

Adding data silos instead of consolidating, linking and harmonizing data and small-scale projects



No need to build on legacy digital information systems from 20 years ago

Develop with a **patient-centered approach**

Better health information to **manage more complex chronic diseases**

Using innovative solutions like **mobile apps; wearables…**

Develop a legal environment for the new VN Social Security Number

Supporting the development of EMRs

Is it mandatory to use the VSS Number?

Who has the authority to update patient data?

Should the new ID support the idea of paperless medical records?

Are biometrics collected?

RECAP

Strengthen prevention and response to communicable diseases

IT infrastructure can speed-up disaster respond time..

IT infrastructure can speed-up disaster respond time..

Health Facility Registry (GIS based)	**Quickly know the status of a facility after a disaster**
Health worker registry	**Quick diversion of resources**
mHealth application + Social Media	**Inform people where to go for medical services**
Drug disbursement system	**Know your drugs in stock and re-order quickly**
Telemedicine solutions	**Medical advice for people in cut-off areas**

This all requires

Investment opportunities

CAPACITY BUILDING

DHIS2 Training
HL7 FHIR Training
Business Process Design
Organizational change
Policy design and implementation

GOVERNMENT INFRASTRUCTURE

Network
Data center
Population Registry
Health Registries

HEALTH FINANCING

IT for national health insurance schemes

Linking EMRs with health insurance purpose

POLICY & PROCESSES

eHealth Strategy Design
Business Process mapping
Policy advise

Thank you