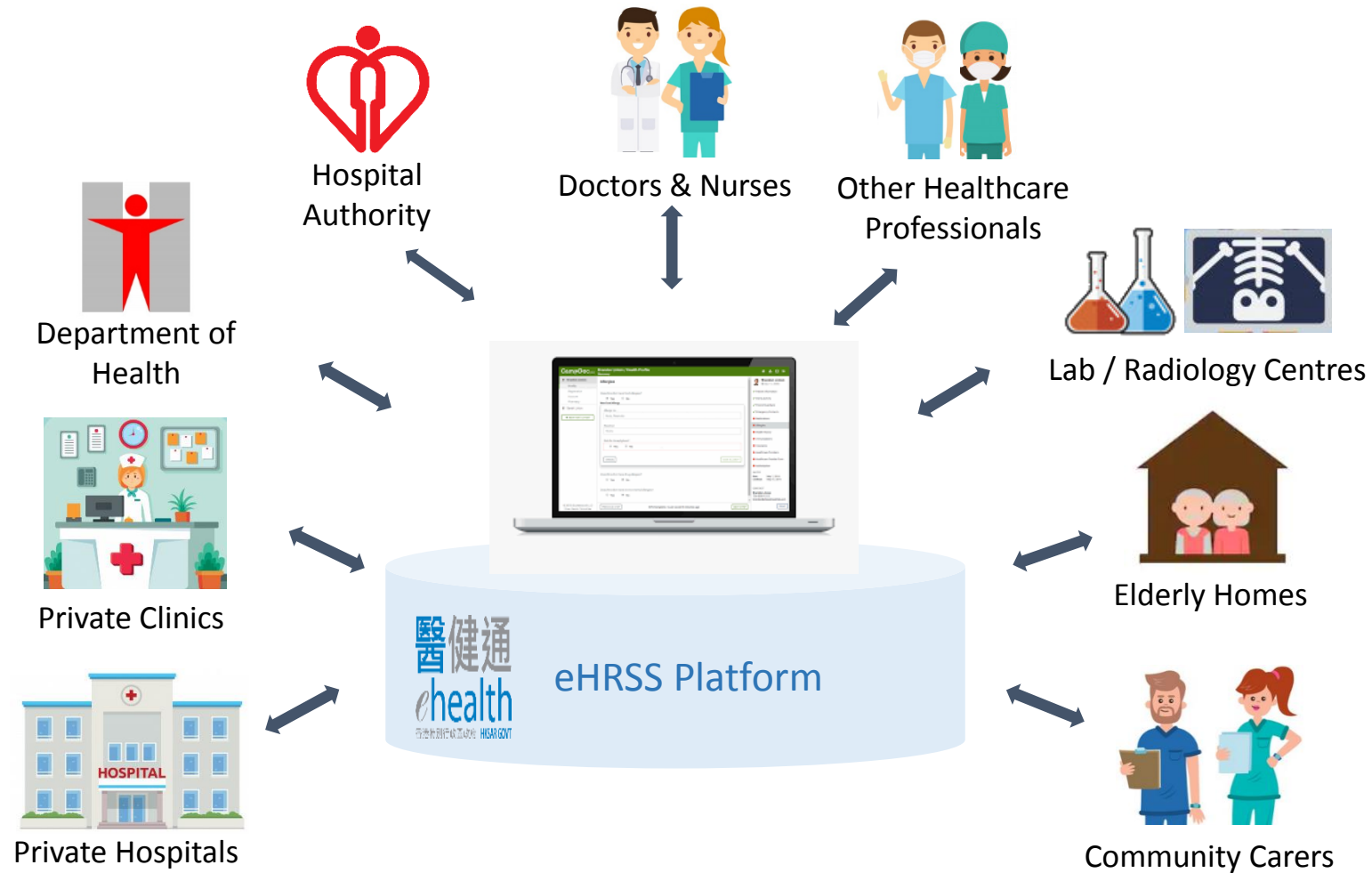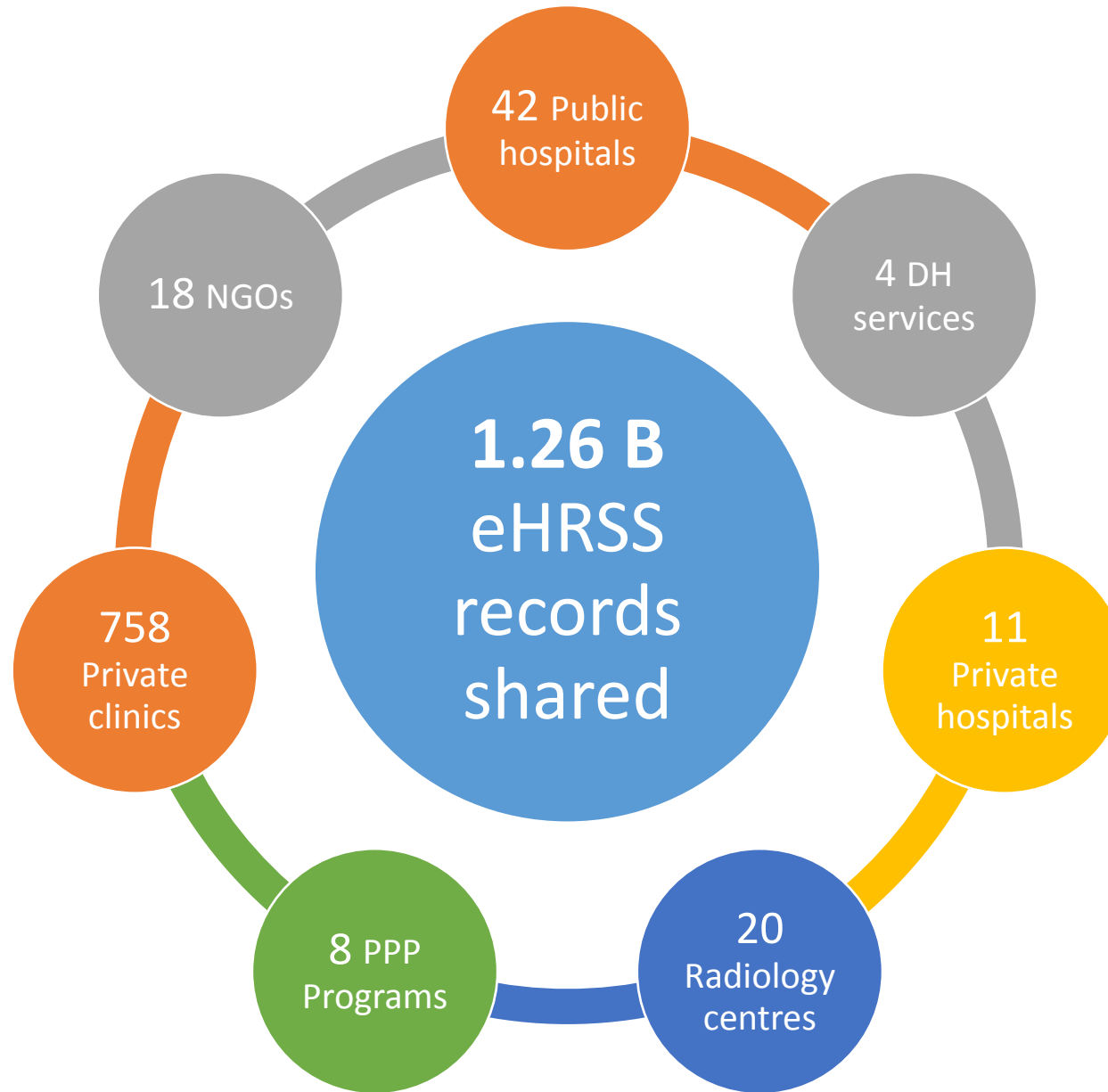# Data Incident Management Framework of Electronic Health Record Sharing System in Hong Kong SAR

Won Rosa HM, Yeung Cynthia SK, Chan WY, Poon JA, Tong Ellen LH, Sum Catherine MM, Tam Carol MK, Wong WN, Cheung NT

Department of Health

Hospital Authority

Doctors & Nurses

Other Healthcare Professionals

Lab / Radiology Centres

Private Clinics

醫健通
ehealth
香港特別行政區政府 HKSAR GOVT

eHRSS Platform

Elderly Homes

Private Hospitals
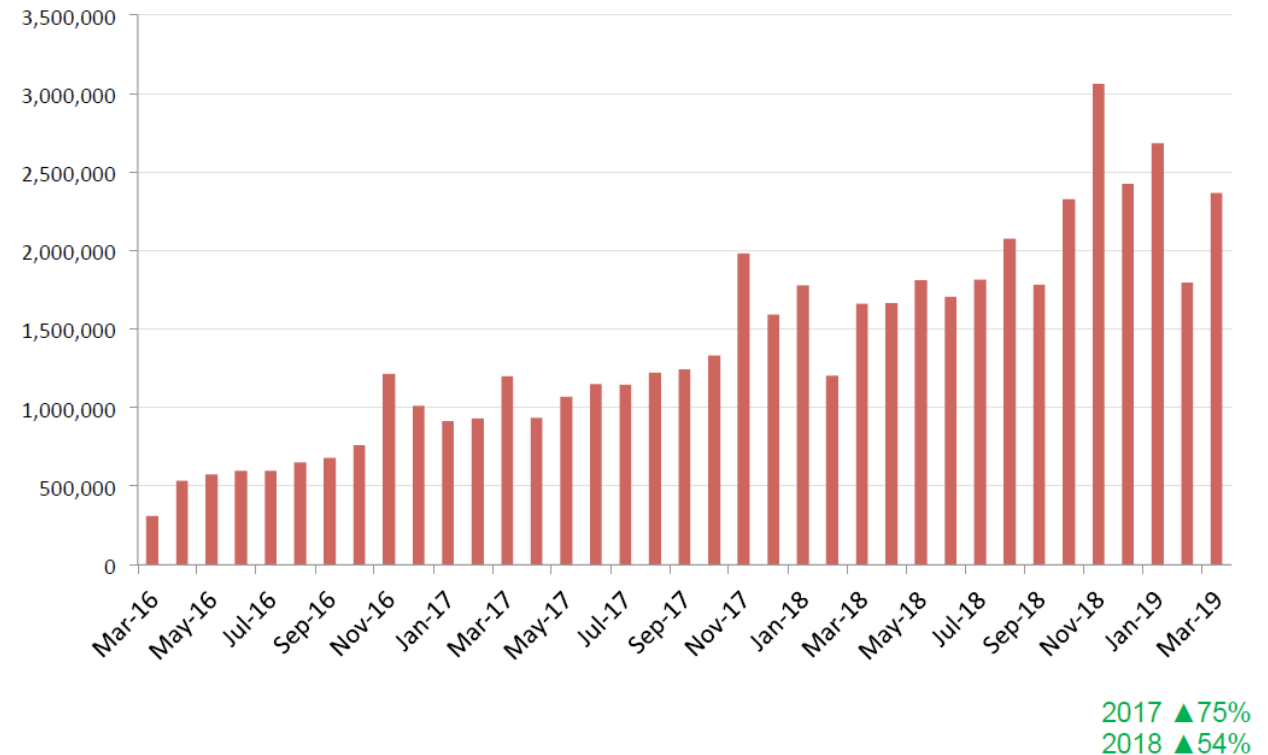
HOSPITAL

Community Carers

As at 31 July 2019
Source: www.ehealth.gov.hk

eHRSS participation and usage are good

Patient registration :

1,174,386

Healthcare professional
registration:

50,026

2017 ▲75%
2018 ▲54%

BOTCHED OPERATION

Death By 1,000 Clicks: Where Electronic Health Records Went Wrong

The U.S. government claimed that turning American medical charts into electronic records would make health care better, safer and cheaper. Ten years and $36 billion later, the system is an unholy mess. Inside a digital revolution that took a bad turn.

By **Fred Schulte** and **Erika Fry, Fortune** • MARCH 18, 2019

(The Voorhes for Fortune)

CLINICAL IT | ELECTRONIC HEALTH RECORD/ELECTRONIC MEDICAL RECORD (EHR/EMR)

Patients Give Positive EHR Feedback, Though Accuracy Concerns Remain

One in five respondents said they or a family member have noticed an error in their EHR

BY **RAJIV LEVENTHAL** — MARCH 19, 2019

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A large share of patients have reported that their physicians' use of an EHR (electronic health record) has made the quality of care they receive and their interactions with their physicians better.

The data, coming from the January 2019 KFF (Kaiser Family Foundation) Health Tracking Poll, which included responses from nearly 1,200 U.S. adults, examines the public's attitudes about and experiences with EHRs. Researchers note that at the beginning of the healthcare reform debate in 2009, KFF polls showed the public held mixed views of EHRs. Most said it would improve care (67 percent), but fewer believed it would reduce healthcare costs (22 percent) and large shares had privacy concerns (59 percent).

Study Finds Inaccuracies in Electronic Health Records for Ophthalmic Medications

2019-07-08 12:43:00

Jennifer Barrett, Associate Editor

Medication lists generated from electronic health records (EHRs) may not capture up-to-date and accurate information on ophthalmic medications, according to a new study published in *JAMA Ophthalmology*.

EHRs are one example of how technology can improve patient care through data capture, but the study highlights the shortcomings of using EHR medication lists.

… there is increasing concern that a potential loss of documentation integrity could lead to compromised patient care, care coordination and quality reporting and research…

Poor data quality will be amplified with HIE… [1]

[1] Integrity of the Healthcare Record: Best Practices for eHR Documentation

Definition of eHRSS data incident

the **personal** data or **clinical** data of 1 or more person is potentially **mixing up**, **missing**, **abnormally displayed** or **delayed** in eHRSS data upload, which result in potential **clinical or corporate impact**

Scope of eHRSS data incident

✓ eHRSS data incidents
  - Patient identification data
  - Patient clinical data assess through eHRSS portal

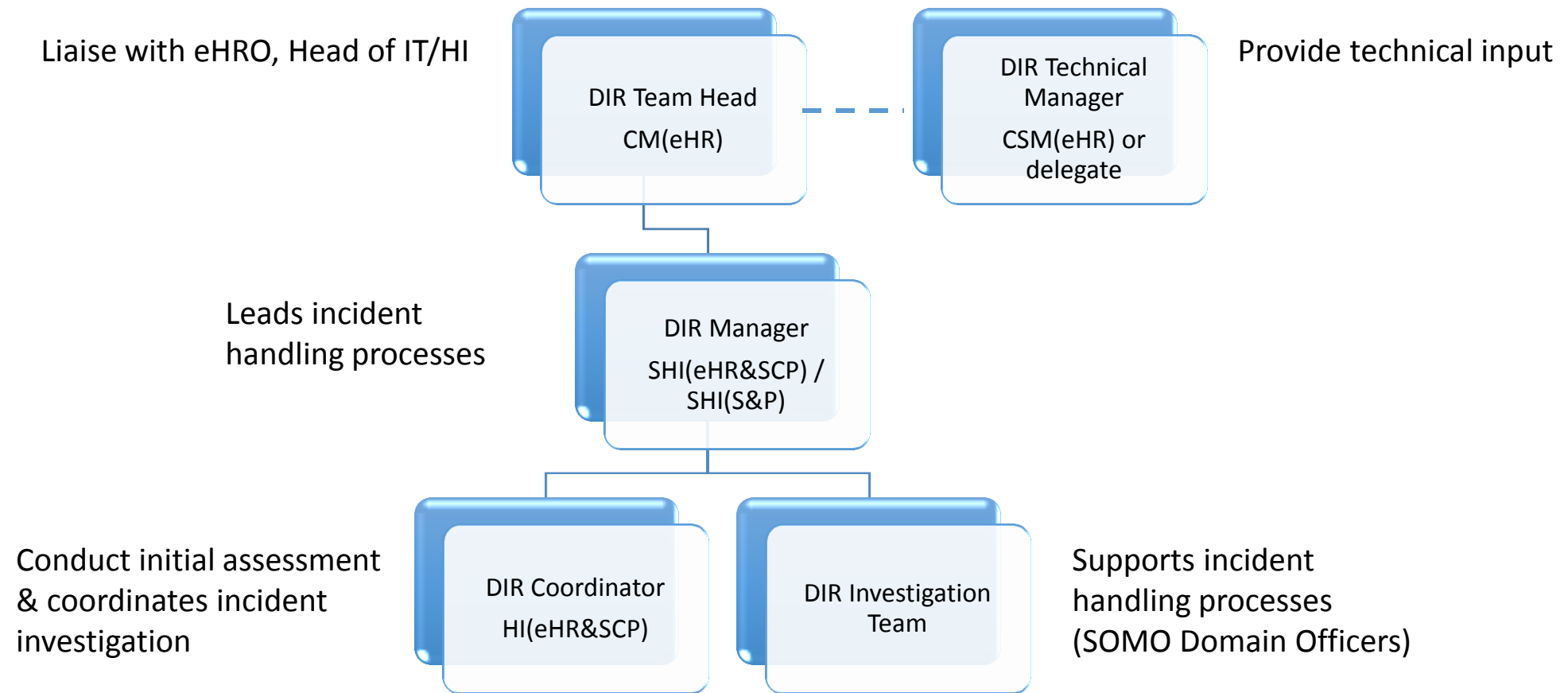✗ eHRSS technical incidents

✗ eHRSS operational incidents

✗ eHRSS privacy incidents

eHRSS Data Incident Management Objectives

1. Establish framework and governance
2. Define processes
3. Develop guidelines

Governance lies in eHRSS Data Incident Response Team

Liaise with eHRO, Head of IT/HI

DIR Team Head
CM(eHR)

DIR Technical Manager
CSM(eHR) or delegate

Provide technical input

Leads incident handling processes

DIR Manager
SHI(eHR&SCP) / SHI(S&P)

Conduct initial assessment & coordinates incident investigation

DIR Coordinator
HI(eHR&SCP)

DIR Investigation Team

Supports incident handling processes
(SOMO Domain Officers)

Data Incident management workflow

Detection	
Logging & categorization	
Notification & Escalation	

Category	
A	• Any issues with ev
B	• Other data issues

Investigation
Containment
Eradication
Recovery

Reporting

Investigation Team

Compile the post incident report

HI Incident Coordinator

Report to DIRM for endorsement & seek DIRT head endorsement for the investigation results & remedial actions

Project Team

Assign project team(s) to follow up with the incident

Closure

HI Incident Coordinator

Formal communicate with all affected stakeholders

Formal reporting in SOMO PMO

Case close

Case Sharing

Missing data

#01 Case Study

A patient's daughter reported that doctor in Hospital A could not view her father's laboratory record from Hospital B
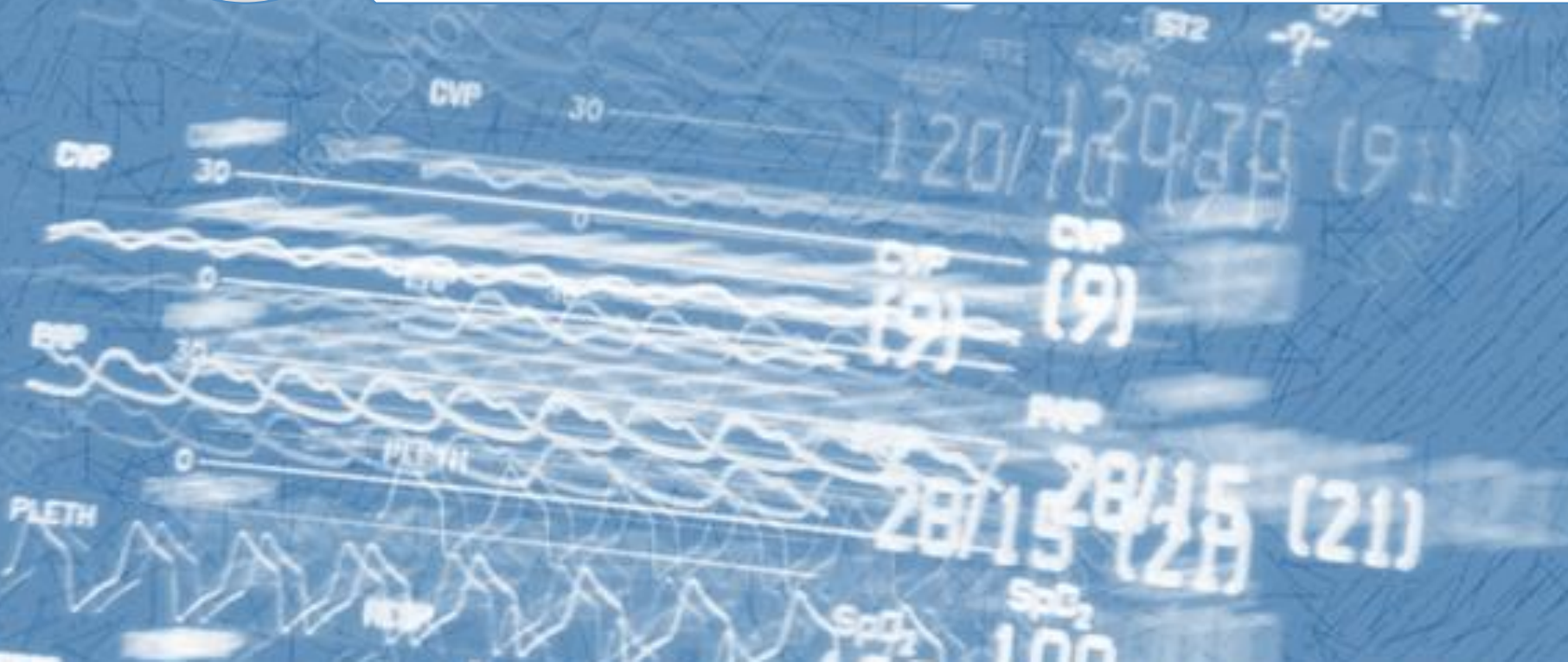
#02 Case Study

A citizen complained that his family doctor could not view his vaccination record from Healthcare provider X and diagnosis record from Hospital Y

Abnormal display of Data

#03 *Case Study*

Clinic A had uploaded over 100 duplicated records

Abnormal display of Data

#03 *Case Study*

Clinic A had uploaded over 100 duplicated records

#04 *Case Study*

Clinic B and C had uploaded duplicated records