

Data-Driven Decision Making

ALETHEA R. DE GUZMAN, MD, MCHM, PHSAE
OIC-Director III, Epidemiology Bureau
COVID-19 Surveillance and Quick Action Unit
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Epidemiology Bureau

Mandate

Provide and promote **epidemiologic information for evidence-based decision making**

Mission

We provide stakeholders with **surveillance and epidemiologic information to prevent and control outbreaks** and to **improve health policies, programs, and systems**

Develop competent health personnel to detect and respond to public health threats.



Value of ACT - Accurate, Complete, Timely Data

In any response, we need quality data and information for action

- Surveillance data is different from research or survey data
 - “Living” data that will never be perfect
 - Quality depends on primary data sources - disease reporting units
- Balancing between completeness (which may take more time) VERSUS relevance (not 100% complete but valid info at hand)

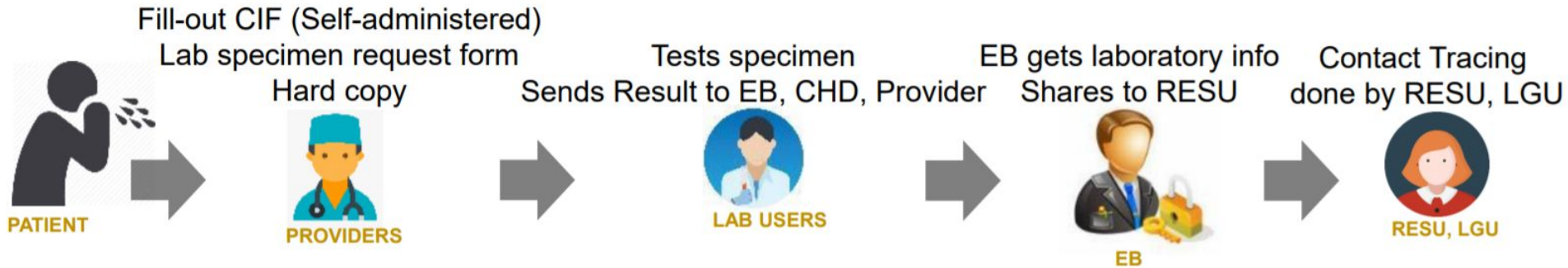


COVID-19 Data Challenges

COVID-19 tested capacity of EB and its epidemiology network and the information systems used

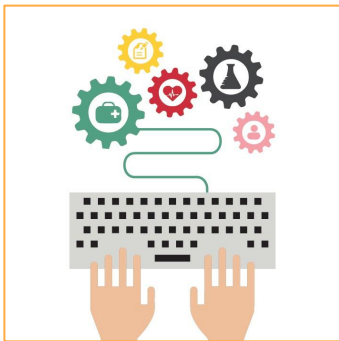
- Data quality issues due varying epidemiology and surveillance capacities across all levels
- PIDSR info system not immediately modifiable to include new diseases
- Functionality of info systems limited by IT capacity across all levels
- Devolved health system posed challenges towards a coordinated and systematic response

Bottlenecks in Data Completion and Timeliness



Common Reasons for Data Inconsistencies

Encoding Errors or
Timeliness



Duplicates

Non-real time encoding

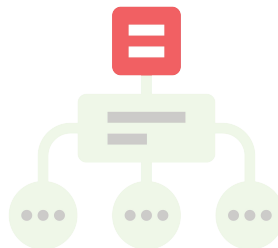
Forms Not
Completely Filled Up
or Submitted in Full



25-55% no address or
contact number

DRU address as proxy

Ongoing Verification
Process



Missing information (ex:
cause of death)

Illogical entries

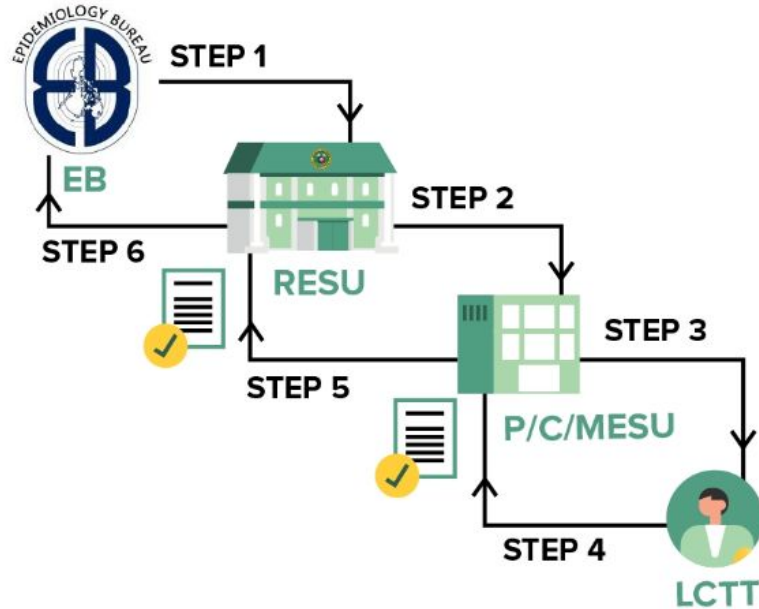
Difference in
Extraction Time



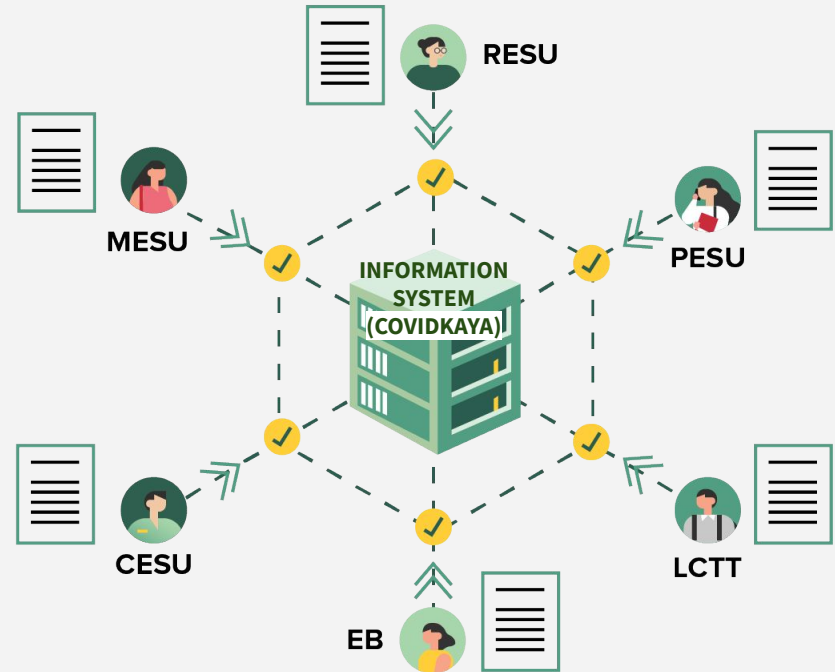
DOH reports by 4pm
are extracted 12nn
before

Moving from Ladderized to Webbed Information Flow

Ladderized



Webbed



What do we need to provide

1. Clear roles and accountabilities by agencies concerned
2. Set of indicators and metrics and corresponding list of data needs
3. Information and reporting system
4. Compliance monitoring and assessment system
5. Processes for data analysis and interpretation

Gaining ground as a team



COVID-19 Data Quality Initiatives

Governance



Inter-Agency Task Force
For the Management of
Emerging Infectious
Diseases

COVID-19 Surveillance & Quick Action Unit

Objective:
Enable quick action at all
levels through end-to-end
management and use of
data and surveillance
information for effective
COVID response



The 2020 Revised Implementing Rules and Regulations of Republic Act No. 11332, or the Mandatory Reporting of Notifiable Diseases and Health Events of Public Health Concern Act



Policies and Capacity Building

Data Management



Information Systems



Interoperability



**Increased data
processing
efficiency**

Data Analytics

**Revised Community Quarantine
Decision Framework for
Provinces/HUCs/ICCs**



IATF STWG on Data Analytics



Data Platforms



**Strategic
Communications**

Linkages

**Multi-sectoral, -agency
partnerships**



Epidemiology Network

IATF and STWG on Data Analytics

Inter-Agency Task Force for the Management of Emerging Infectious Diseases (IATF-EID or IATF)

- TF organized by the Executive Branch and tasked to assess, monitor, contain, control and prevent the spread of any potential epidemic in the Philippines
- Policy making body (National Action Plan, Omnibus Guidelines on the Implementation of Community Quarantine in the Philippines)

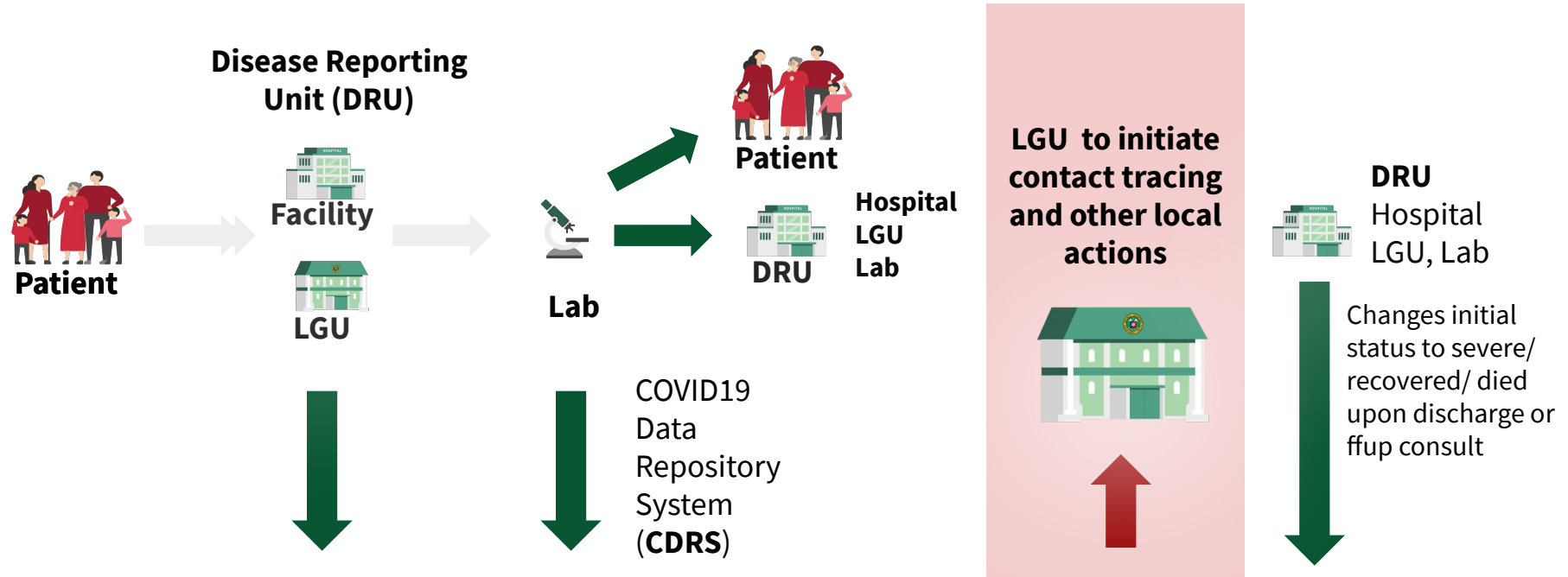
Sub-Technical Working Group on Data Analytics

- Provide accurate and timely aggregation and analysis of all relevant data regarding COVID 19 and relevant policy recommendations to the [ATF-EID]
 - Decision framework for community quarantine
 - LGU Risk Classification
 - National situationer

Developing and enhancing case reporting

- **MANDATORY REPORTING of COVID-19 cases**
 - ALL CASES MUST be reported as per RA 11332
 - Monitoring of case and testing data submission by licensed RT-PCR laboratories
- **COVID KAYA - new information system as a repository for ALL case and laboratory data**
- **Set standards for data quality and reporting**

Ideal Patient and Data Flow for COVID-19 Case Data



COVIDKAYA





COVID-19 Tracker

PHILIPPINES



/OfficialDOHgov



@DOHgovph

Overview



Download COVID-19 DOH Data Drop

Filter Epidemiology data by Region: (All)

by Province / HUC / ICC: (All)

As of June 7, 2021

Nationwide Cases Data

Total Cases

1,276,004

+6,539 added on 06/07

Active Cases

58,854

Recovered

1,195,181

Died

21,969



View Detailed
Case Information

Confirmed cases are those that tested RT-PCR positive by a DOH-RITM certified lab.

Weekly Cases by Date of Onset of Illness

For 67.7% or 863,773 of cases where date of onset of illness is unreported, date of specimen collection was used as proxy.

☒ Weekly

☐ Daily

☒ Cases

☐ Recoveries

☐ Deaths

We urge caution when interpreting data during the highlighted period below, which may be incomplete because of delays in reporting.



Platform which allows public to generate and visualize case and laboratory data

Daily data drop – case line list without personal identifiers to facilitate external analysis

FASSSTER - COVID-19 Data LGU Platform



DASHBOARD

- Dashboard
- Print/Download SitRep
- Change LGU



LGU Situationer

Dashboard / LGU Situationer

Alethea De Guzman ▾

Santa Cruz COVID 19 Today

LGU COVID 19 Situationer Report



09 June 2021

Case Statistics

Total cases

15 Apr 2021

4,692

+45 new cases

Admitted: 242

Recovered

3,620

+0 on 15 Apr 2021

Died

78

+0 on 15 Apr 2021

Active cases

994

More efficient DOH Data Validation and Cleaning Process

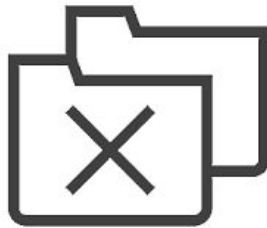
Semi-automated deduplication and data processing enables release of daily topline numbers and case line lists



Extraction



Pre-Processing



Deduplication



Post-processing



Cleaning and validation



Release

12nn

4pm

Multi-stakeholder Response: Expert Advice & Support

IATF Sub-Technical Working Group on Data Analytics



DOH Technical Advisory Group

HEALTH CONSIDERATIONS



SECURITY, SOCIAL, ECONOMIC CONSIDERATIONS

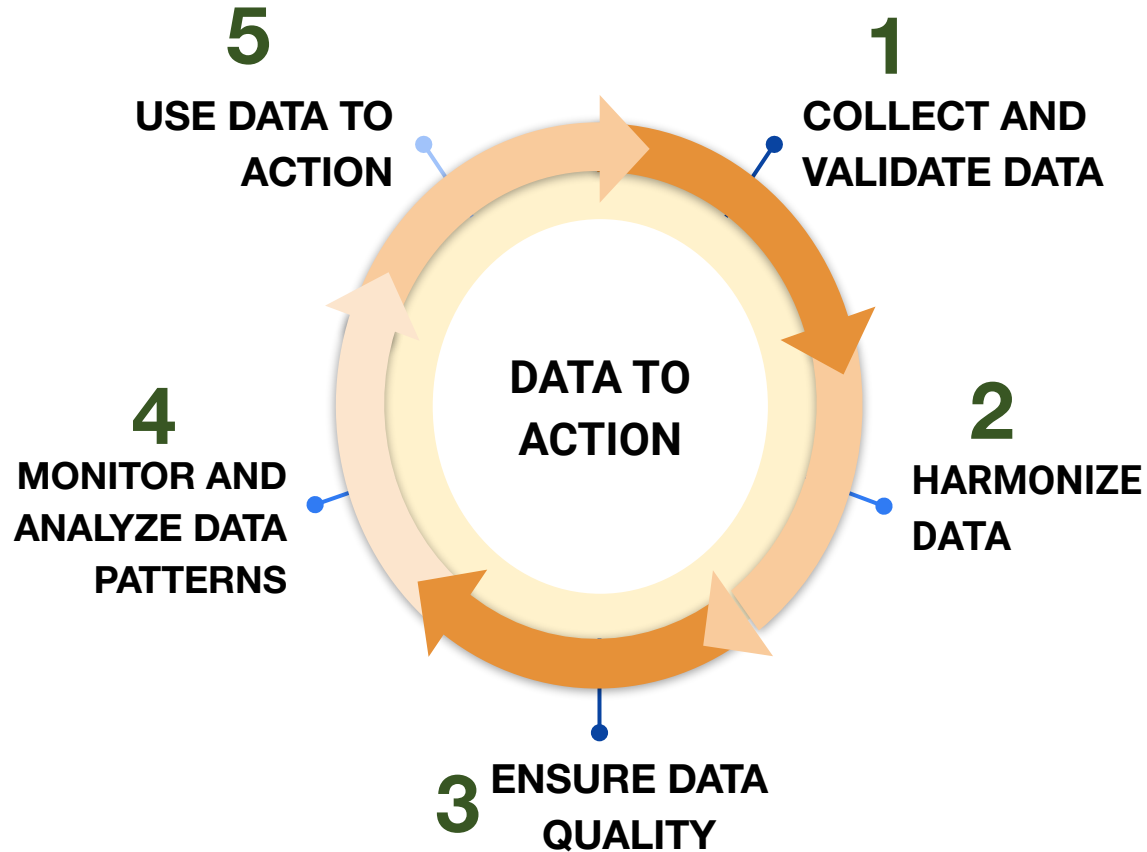


DEVELOPMENT PARTNERS FOR DATA

Epidemiology Bureau COVID-19 Surveillance & Quick Action Unit

Objective:

Enable quick action at all levels through end-to-end management and use of data and surveillance information for effective COVID response



Who USES the data?

Analysis is based on what is needed: Daily data to guide daily operations, weekly and longer period data to assess current strategies and make necessary changes; data from info systems complemented by published data from studies and other references

1. IATF-EID
 - a. CQ classifications
 - b. Drafting new and revising policies on case detection, tracing, testing, and isolation/protocol
2. National task Force
 - a. Operational targets
 - b. Guide for daily response
3. Department of Health
 - a. Weekly briefing for the Secretary of Health
 - b. TG on Response Operations with FICT and CHDs, HTAC, Lab Group
4. Partner agencies
5. General public

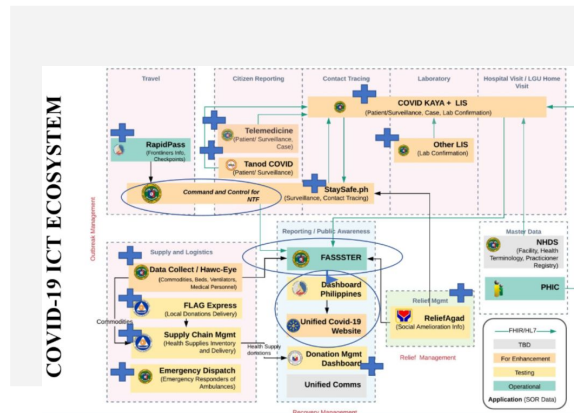


Much still remains to be done



We look forward to...

Strong Data Governance



Clear ICT Framework, Goals,
and Strategies

Enhancing ICT capacities across
all levels

Digital Innovations and Solutions



Minimal manual processes for
data processing

Use of OCR technology

Electronic Medical Records

Unified, Streamlines Data Dashboards and Platforms



“Overall” M&E system we can contribute
to

Automation of data analysis and
visualization that provides us more time
for interpretation

Maintaining data transparency, privacy,
and credibility

Maraming Salamat