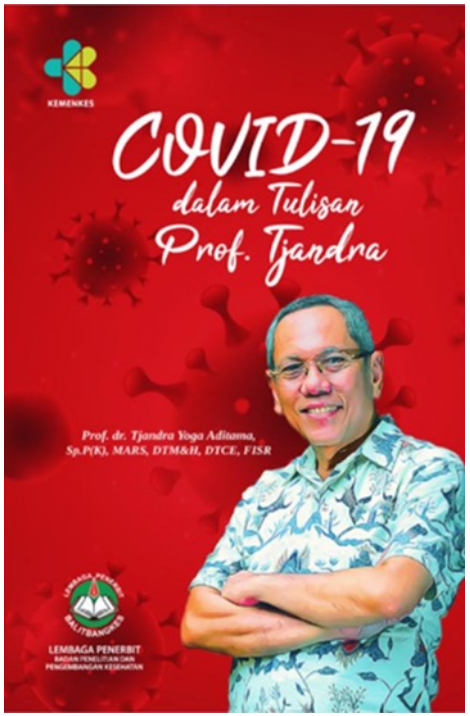
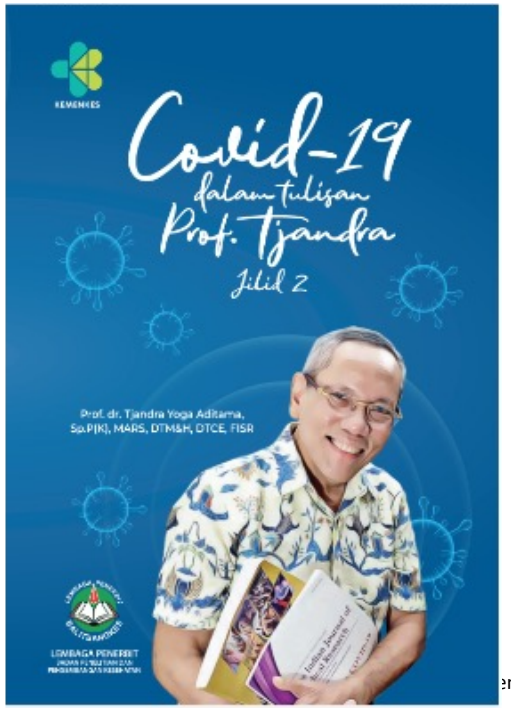
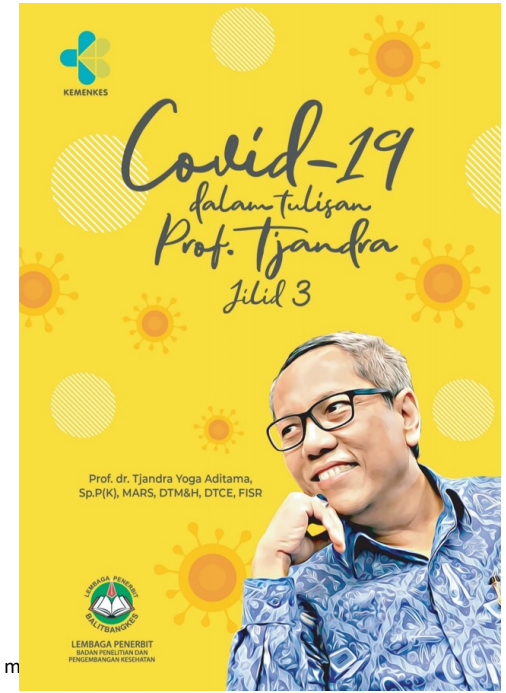
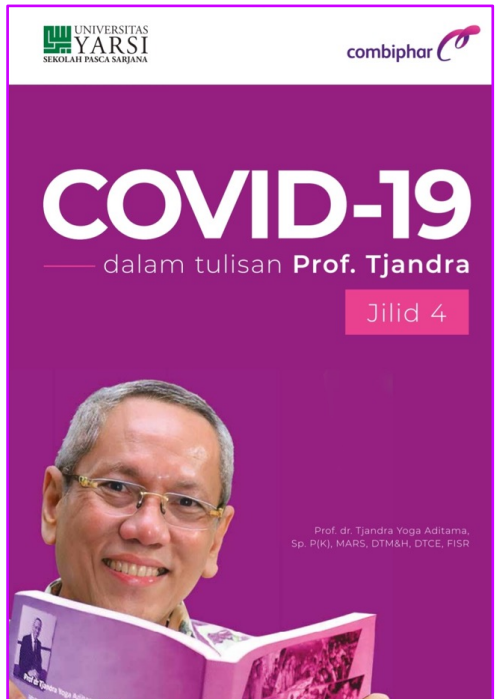
Surveillance – Public Health Laboratory









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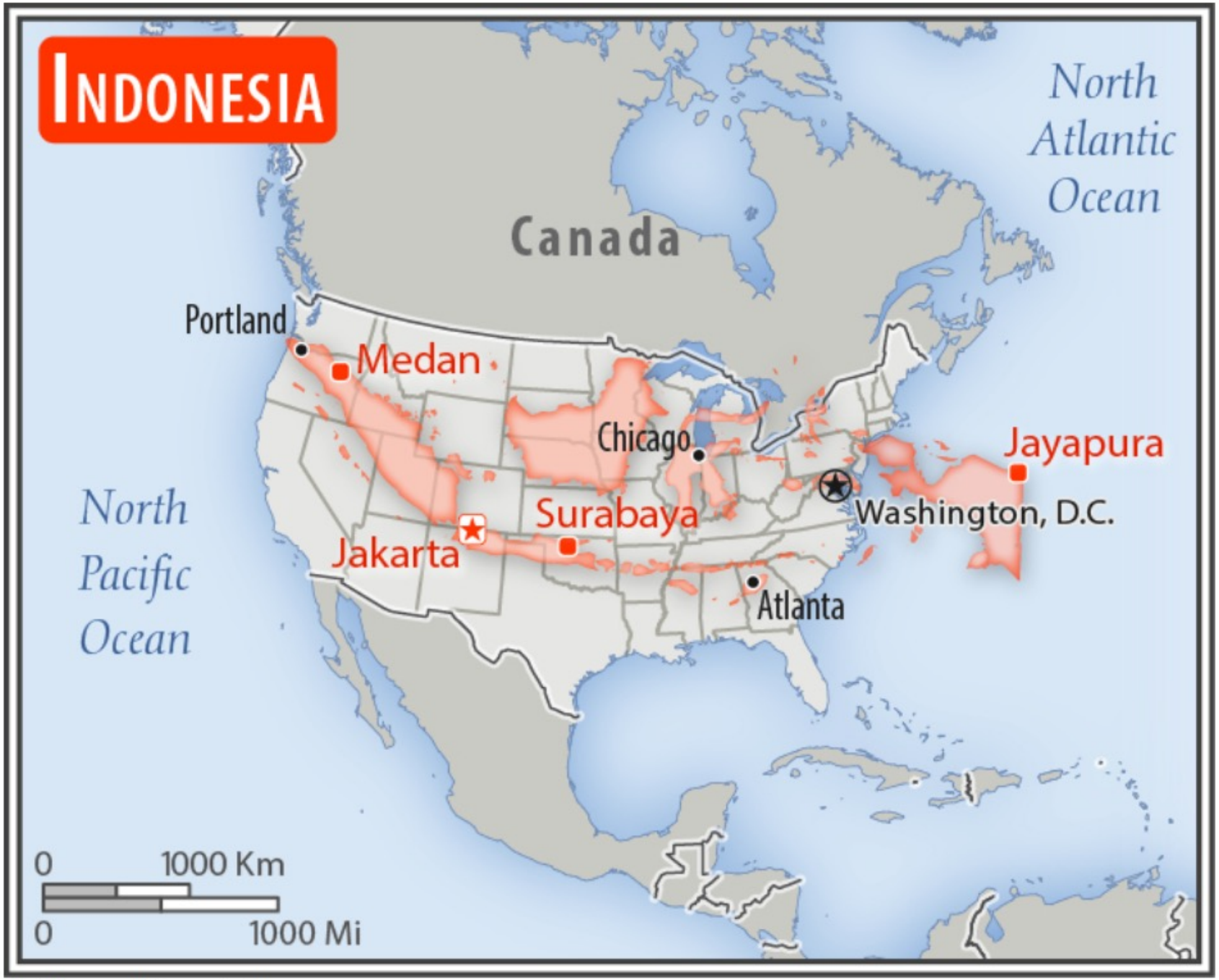

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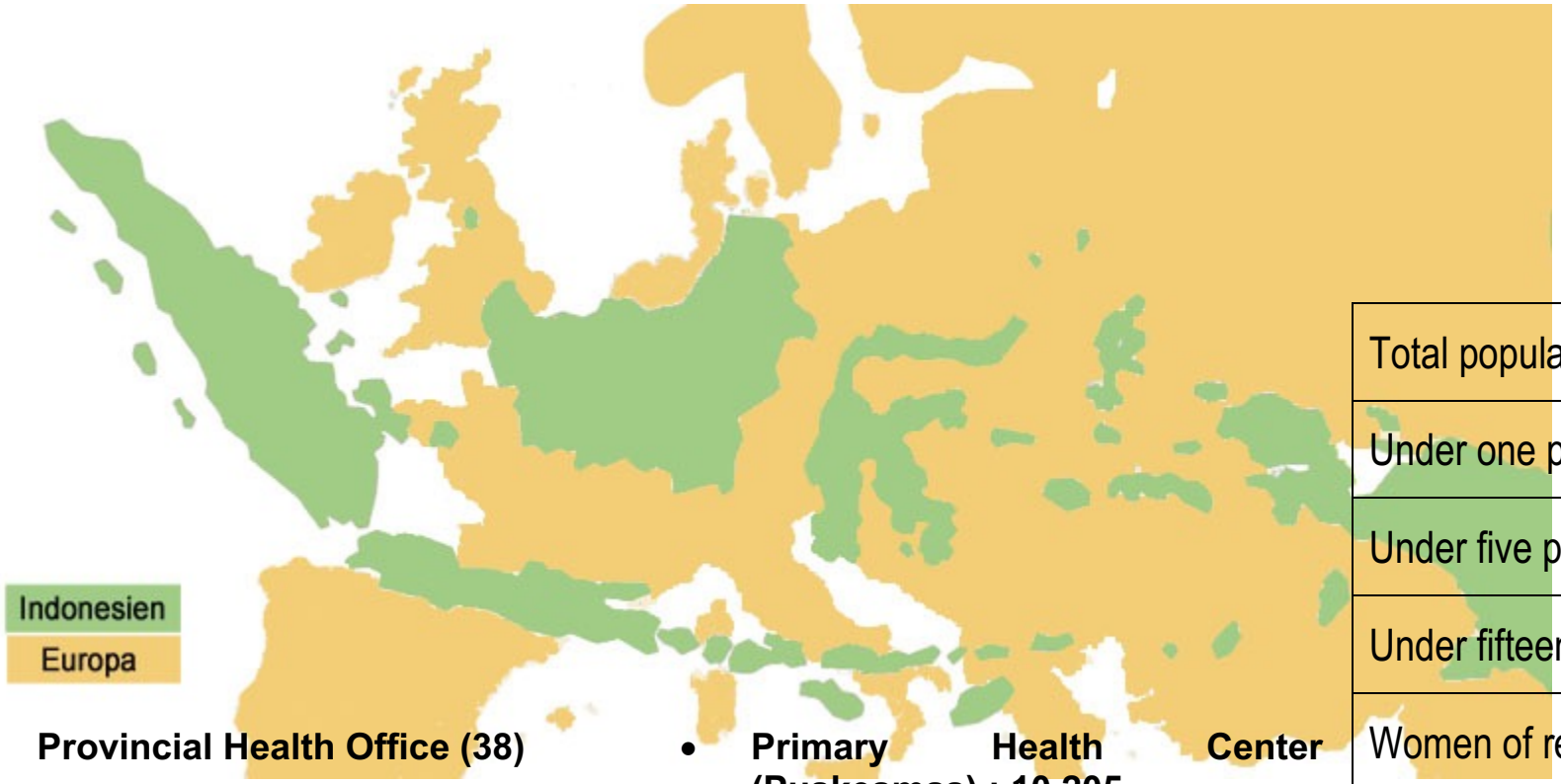


KEMENTERIAN KESEHATAN REPUBLIK INDONESIA

Provincial Health Office (38)

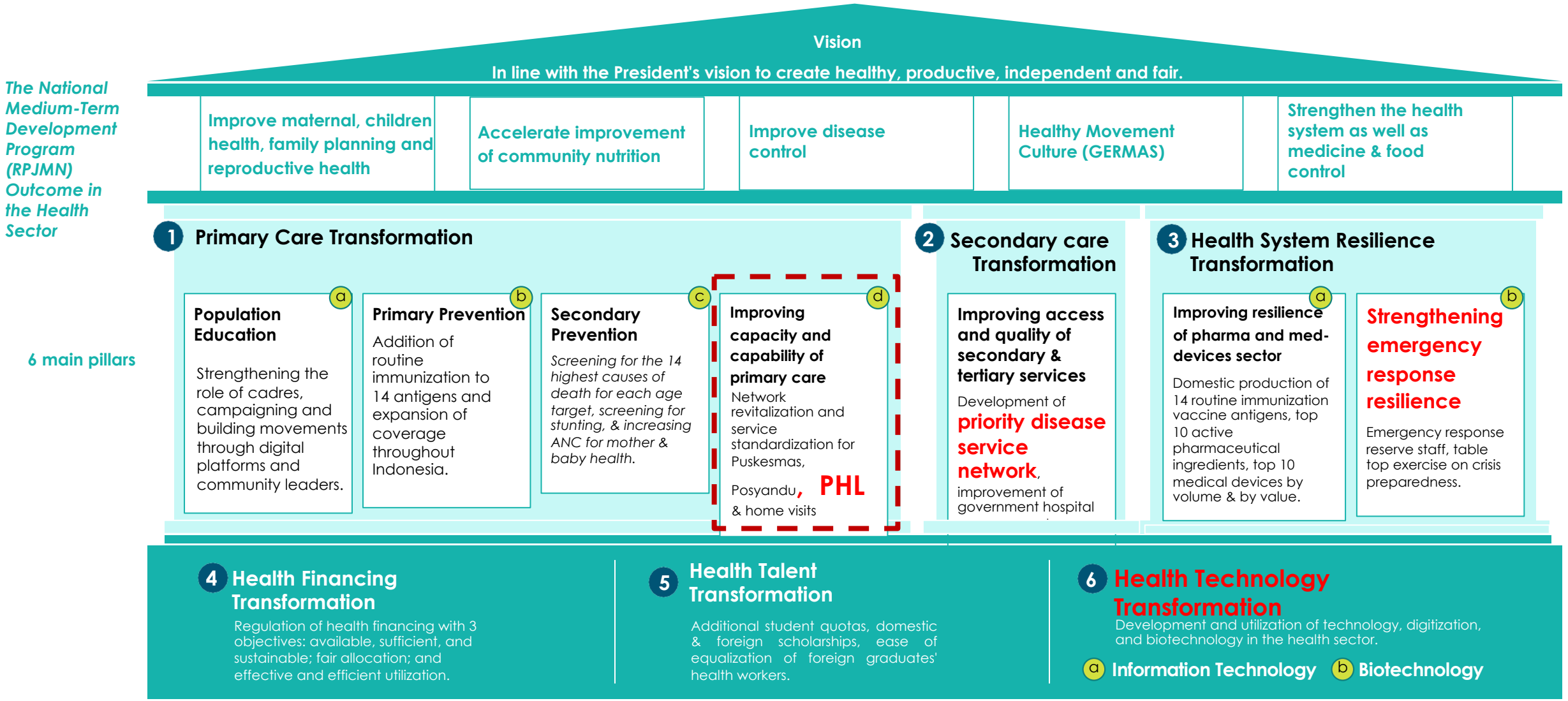
District Health Office (514)

- **Health Centers (10 203)**
- **Hospitals (2985; Private (1445), Public (1004)**
- **Posyandu (Integrated Service Post) that provide outreach immunization services: 296.777(Active Posyandu: 188.855, 63.6%*)**
- **Primary Health Center (Puskesmas) : 10 205**
- **Cinics : 11.347**
- **Private Doctor: 4704**

Total population:	272,248,454
Under one population:	4,383,561
Under five populations:	21,891,959
Under fifteen populations:	65,969,246
Women of reproductive age group:	53,472,957
Identified hard-to-reach /migratory/at risk population: (Explain why they are hard-to-reach)	8,554,889*
Under-1 mortality (geographical variations if any)	20.2 (per 1,000 LB)
Under-five mortality (geographical variations if any)	23.9 (per 1,000 LB)

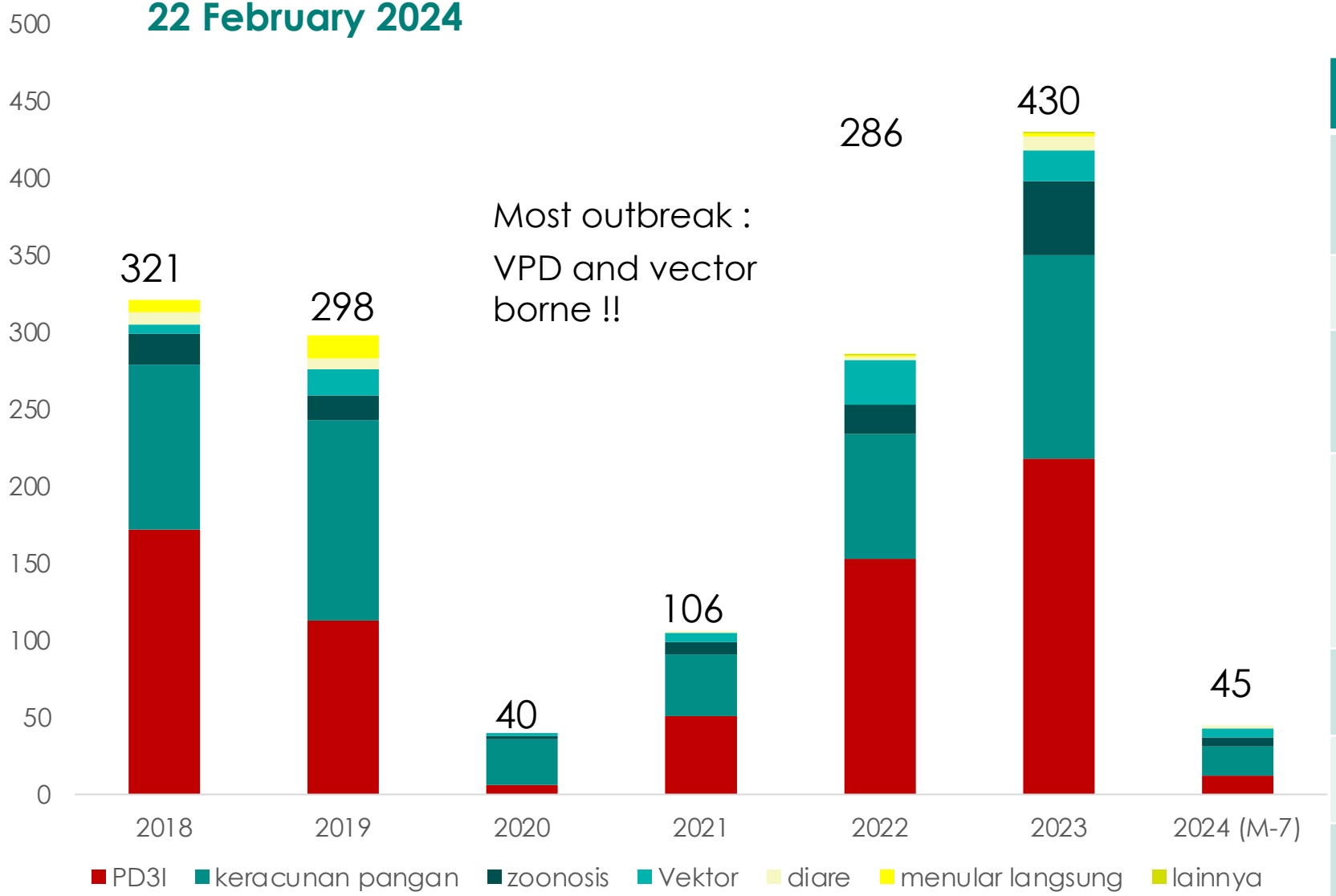
MoH is committed to implementing health system transformation

The 6 pillars of transformation supporting the Indonesian health system:



Indonesia poses higher risk for outbreak

KEMENTERIAN KESEHATAN REPUBLIK INDONESIA



Category	Diseases
Vaccine Preventable Diseases	Polio, Diphtheria, Measles, Pertussis, Neonatal Tetanus
Food poisonings	Food poisoning
Zoonosis	Leptospirosis, anthrax, and rabies
Vector-borne	Dengue, chikungunya, malaria, Japanese enchepalitis
Acute Watery Diarrhoe	Acute Watery Diarrhoea
Direct transmission	Hepatitis A, Mpox
Others	Meningitis

KEMENTERIAN KESEHATAN REPUBLIK INDONESIA

24 Mandatory Notifiable Diseases under EWARS

KEMENTERIAN KESEHATAN REPUBLIK INDONESIA

Based on Ministry of Health Regulation No 1501 year 2010 on Type of Infectious Diseases that may cause Outbreak/Epidemic and its response

1. Acute Diarrhea	13. Suspected Antraks
2. Malaria Confirmed	14. Suspected Leptospirosis
3. Suspek Dengue	15. Suspected Kolera
4. Bloody diarrhea/Disentriform	16. Suspected Meningistis/Encephalitis
5. Suspected Typhoid Fever	17. *Influenza Like Illness*
6. Sindrom Acute Jaundice	18. Suspected Tetanus
7. Suspected Avian Influenza	19. Pneumonia
8. Suspected Chikungunya	20. Suspected Tetanus Neonatorum
9. Suspected Measles	21. Animal Bites (Rabies risk)
10. Suspected Diphtheria	22. Suspected HFMD (Hand, Foot, Mouth, Disease)
11. Suspected Pertussis	23. Cluster of unusual/unknown cases
12. AFP/suspek polio	24. Suspected COVID-19

More than 11 thousands reporting unit under EWARS network

KEMENTERIAN KESEHATAN REPUBLIK INDONESIA

	2022	2023	2024
Puskesmas	10 435	10 489	10 486
Hospital	593	935	1 386
Labs	-	11	11
Port Health Office	-	51	51

Media, social media, EIOS

Other programme/ institution such as zoonotic, immunization, vets, environment, etc

Community

Multi Source Surveillance approach

Early Warning through Event-Based Surveillance (EBS) and Indicator Based Surveillance

KEMENTERIAN KESEHATAN REPUBLIK INDONESIA

Event Based Surveillance

Report from media, community, health professional organization, etc

↓

Verification "*true event*"

↓

Further investigation

↓

Pathogen identification (working with public health Lab)

↓

Response and enhanced surveillance

Indicator Based Surveillance

Daftar penyakit berpotensi KLB (Permenkes 1501/2010)

Kolera	H5N1
Pes	Antraks
Demam berdarah	Leptospirosis
Campak	Hepatitis
Polio	Meningitis
Difteri	Yellow fever
Pertusis	Chikungunya
Rabies	H1N1
	Peny.lain ditetapkan menteri

- Puskesmas
- Hospital
- Labs
- Port health office

↓

Case definition met

↓

Investigation and sample collection

↓

Lab confirmation

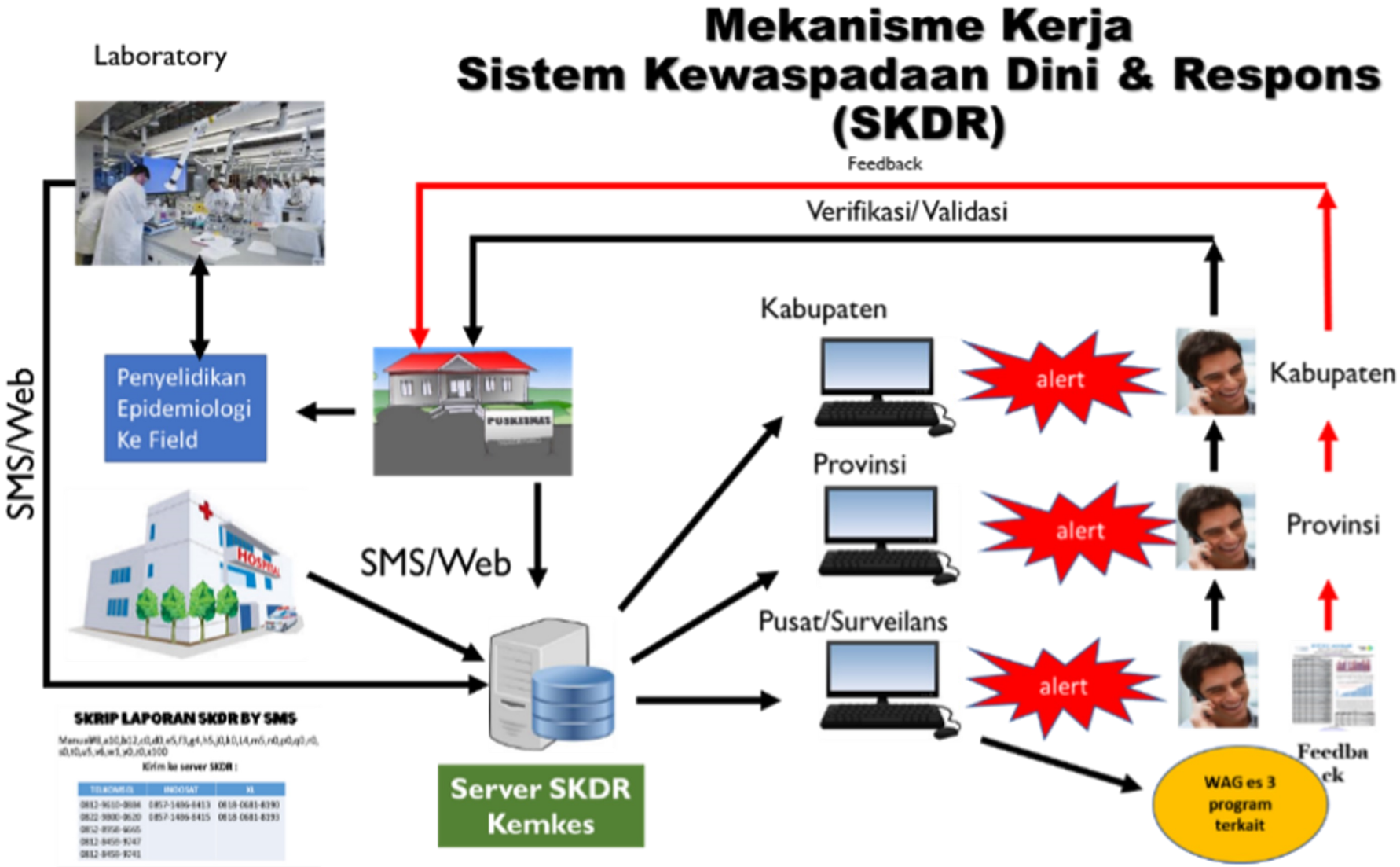
↓

Response

Weekly reporting – online platform

The Algorithm

KEMENTERIAN KESEHATAN REPUBLIK INDONESIA

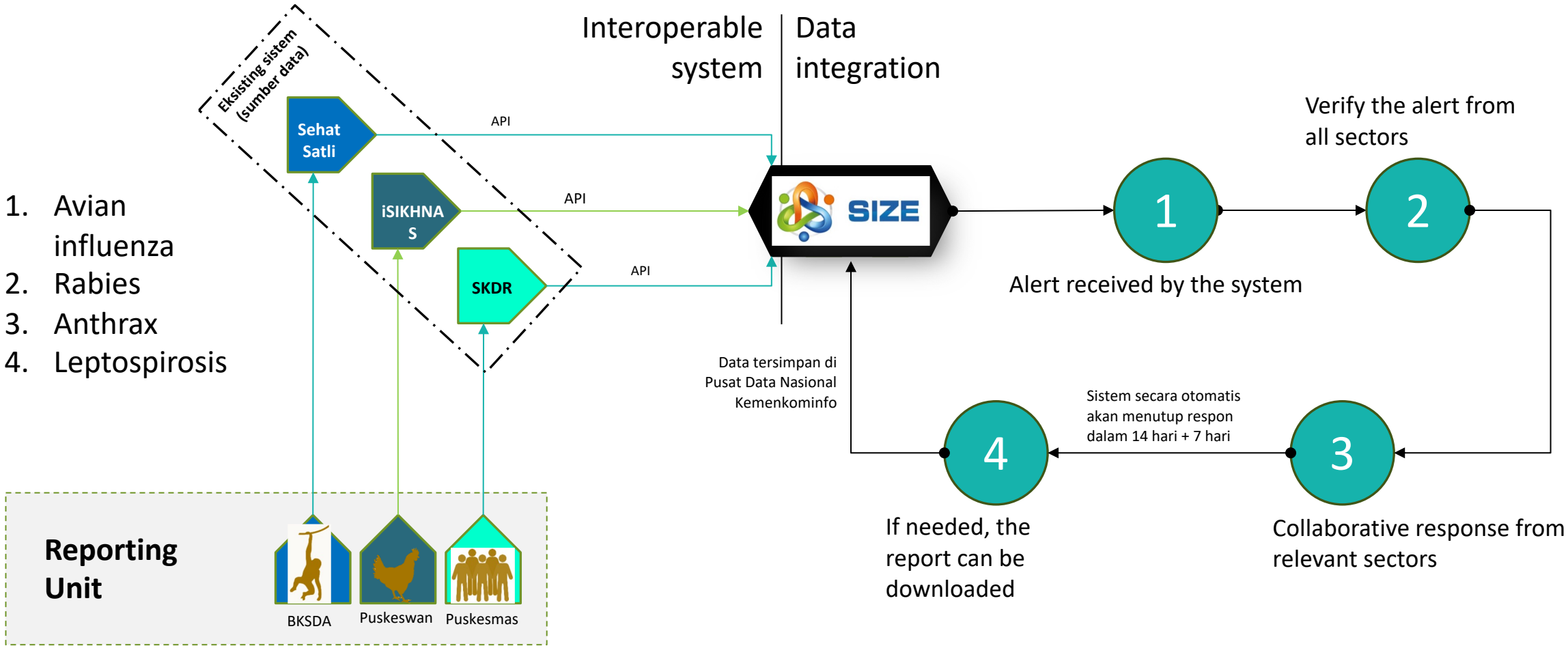


- Reports from the reporting unit
- Web-based platform allows all level to access and verify the report/alert/signals
- Feedback mechanism
  - Daily spotrep
  - Weekly bulletin
  - Monthly coordination meeting
  - Annually national evaluation meeting

Interoperability : Signals sharing between human, animals and wildlife sectors through SIZE application – One Health Approach

KEMENTERIAN KESEHATAN REPUBLIK INDONESIA

1. Avian influenza
2. Rabies
3. Anthrax
4. Leptospirosis



Dissemination System

Tim Kerja Surveilans
Minggu ke-06 Tahun 2024
Data kinerja dan kasus dapat berubah berdasarkan verifikasi dari Dinas Kesehatan. Data diakses dari website SKDR pada 16 Februari 2024 pukul 10:00 WIB

BULETIN NASIONAL
KEWASPADAAN DINI DAN RESPONS

FOKUS MINGGU INI

WASPADA	PROVINSI
Kasus Dengue	Pernyataan DBD oleh Kementerian Kesehatan, Daerah dengan kenaikan kasus : Provinsi Jawa Tengah, Kabupaten Klaten, Kabupaten Blora. Selain itu Provinsi Kalimantan Timur, Kalimantan Selatan, Sulawesi Tenggara, Gorontalo dan Lampung (sumber: EIOS) (sumber: EIOS)
Kasus AFP	Tidak ada penambahan kasus positif Polio pada minggu ke-06 2024. Terdapat kasus suspek AFP dari Provinsi Jawa Tengah, Jawa Timur, dan Lampung yang belum diverifikasi
Potensi Hujan Ringan sd Lebat	Sebagian besar wilayah Sumatra, Jawa, Kalimantan Barat, Kalimantan Tengah, Sulawesi Barat, Sulawesi Tengah, Sulawesi Selatan, Sulawesi Tenggara, Maluku, dan Papua
Kasus GHPR	Terdapat kasus kematian GHPR di Kabupaten Sikka, Provinsi Nusa Tenggara Timur

KINERJA SKDR MINGGU 01 – 06 2024

INDIKATOR	%
KELENGKAPAN	92,88
KETEPATAN	88,73
RESPON ALERT < 24 JAM	83,42

Pada minggu ke-06 secara nasional kelengkapan laporan SKDR sebesar **92,88%**; ketepatan laporan **88,73%**. Jumlah alert yang muncul sebanyak 3.552, jumlah alert yang telah diverifikasi/direspons sebanyak 3.242 alert **(91,27%)** dan alert yang diverifikasi/respons dalam 24 jam sebanyak 2.963 **(83,42%)**. Provinsi dengan **kelengkapan >90% dan ketepatan >80%** dari semua unit pelapor pada Minggu ke-01 sampai dengan Minggu ke-06 tahun 2024 sebanyak **32** provinsi. Provinsi yang masih **BELUM MENCAPAI** yaitu: **Papua (Kelengkapan dan Ketepatan), Papua Barat (Kelengkapan dan Ketepatan), Papua Barat Daya (Kelengkapan dan Ketepatan), Papua Pegunungan (Kelengkapan dan Ketepatan), Papua Selatan (Kelengkapan dan Ketepatan), dan Papua Tengah (Kelengkapan dan Ketepatan).** Kelengkapan dan Ketepatan Provinsi Papua Selatan belum tercapai sesuai target disebabkan kendala internet masih dalam perbaikan.

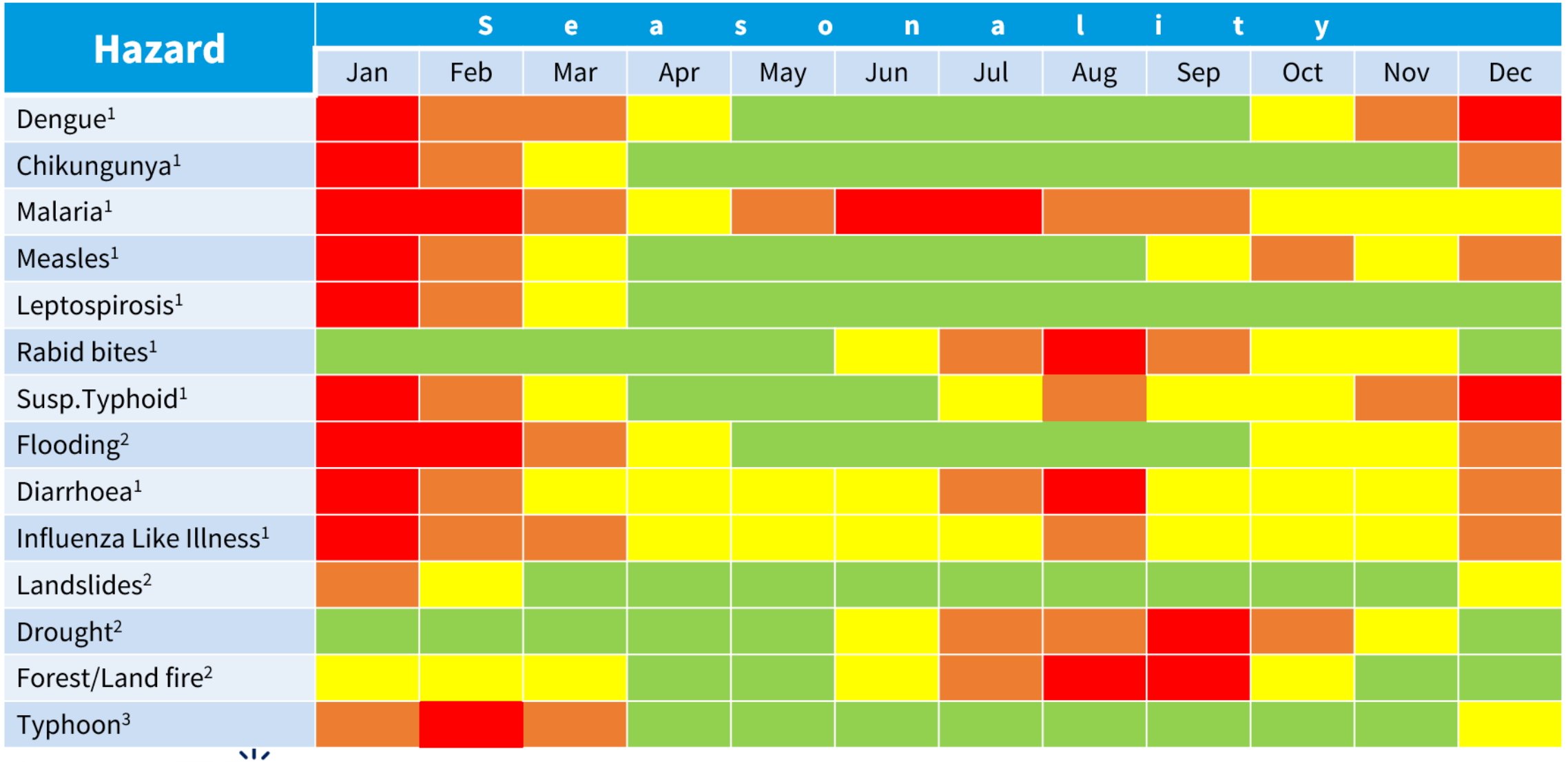
NO	NAMA PROVINSI	M1	M2	M3	M4	M5	M6	M7
1	ACEH	1201	2201	2901	0502	1102	1902	2602
2	BALI	1301	2001	2601	0202	1002	1702	2402
3	BANGKA BELITUNG	1501	2201	2901	0502	1202	1902	2602
4	BANTEN	1501	2201	2901	0602	1202	1902	
5	BENGKULU	1501	2201	2901	0502	1202	1902	2502
6	DI YOGYAKARTA	1401	2101	2801	0402	1102	1802	2502
7	GORONTALO	1201	1901	2601	0202	0802	1602	2202
8	DKI JAKARTA	1501	2201	2901	0502	1202	1902	2602
9	JAMBI	1601	2201	0102	0502	1502	1802	2602
10	JAWA BARAT	1401	2101	2801	0402	1102	1702	2402
11	JAWA TENGAH	1501	2101	2901	0502	1102	1602	2602
12	JAWA TIMUR	2301	2301	2901		1502		2102
13	KALIMANTAN BARAT		2201		0502	1202	1902	2602
14	KALIMANTAN SELATAN	1401	2101	2801	0402	1002	1702	2502
15	KALIMANTAN TENGAH							
16	KALIMANTAN TIMUR	1401	1901	2601	0402	1202	1802	2502
17	KALIMANTAN UTARA	1601	2201	2901		1302		
18	KEPULAUAN RIAU	1101	1801	2501	3101	0702	1502	2102
19	LAMPUNG	1601	2101	2901	0502	1202	1902	2602
20	MALUKU	1501	2201	2901	0502	1202	1802	2602
21	MALUKU UTARA	1501	2201	2901	0502	1202	1902	2602
22	NUSA TENGGARA BARAT	1301	1901	2801	0402	1102	1902	2602
23	NUSA TENGGARA TIMUR	1501		2901	1902	1902		
24	PAPUA BARAT							
25	PAPUA BARAT DAYA							
26	PAPUA	1701	2401	3101	0602	1302	2002	
27	PAPUA SELATAN	1602	1602	1602	1602	1602	2002	
28	PAPUA TENGAH	1101	1901	3101	0702	0902	1602	
29	PAPUA PEGUNUNGAN							
30	RIAU	1501	2201	2901	0502	1202	1902	2602
31	SULAWESI BARAT	1501	2201	2901	0502	1202	1902	2602
32	SULAWESI SELATAN	1501	2201	2601	0502	0902	1902	2302
33	SULAWESI TENGAH							
34	SULAWESI TENGGARA	1501	2201	2901	0502	1202	1902	2602
35	SULAWESI UTARA	1301	2001	2701	0502	0902	1702	2402
36	SUMATERA BARAT	1501	2101	2901	0502	1202	1802	2502
37	SUMATERA SELATAN	1501	1901	2501	3101	0702	1802	2302
38	SUMATERA UTARA	1201	1901	2601	0302	0902	1602	2302

KEMENTERIAN KESEHATAN REPUBLIK INDONESIA

1. National weekly bulletin
2. Weekly subnational bulletin

Indonesia Hazard Calendar

KEMENTERIAN KESEHATAN REPUBLIK INDONESIA



World Health Organization Indonesia

75 HEALTH FOR ALL

Peak | High | Moderate | Low

Restructuring Public Health Laboratories

5 Tiers of PHL

5	PHL Tier 5	2 National Lab for Clinical Specimen National Lab for Environment, Vector, Reservoir
4	PHL Tier 4	11 Regional PHL
3	PHL Tier 3	38 Provincial PHL
2	PHL Tier 2	514 District PHL
1	PHL Tier 1	10.374 Lab in Puskesmas

Laboratory Testing aims to:

a. Screening
b. Diagnosis
c. Follow Up
d. Surveillance
e. Quality Assurance
f. Research and Development

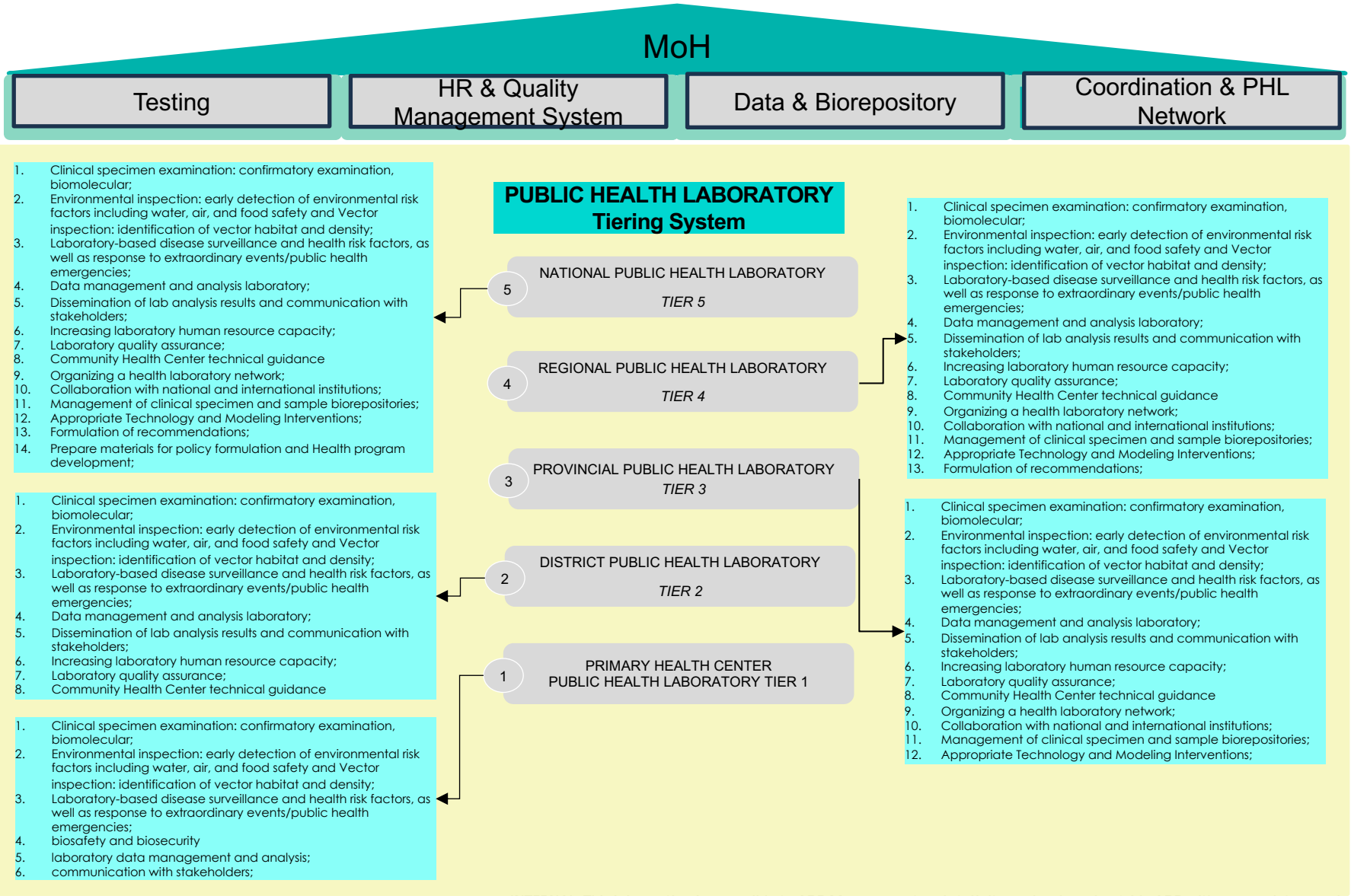
Disease Prevention & Control

dan

Improving the Health Status of the Community

Increasing the Capacity and Capability of

The Public Health Laboratory (PHL)

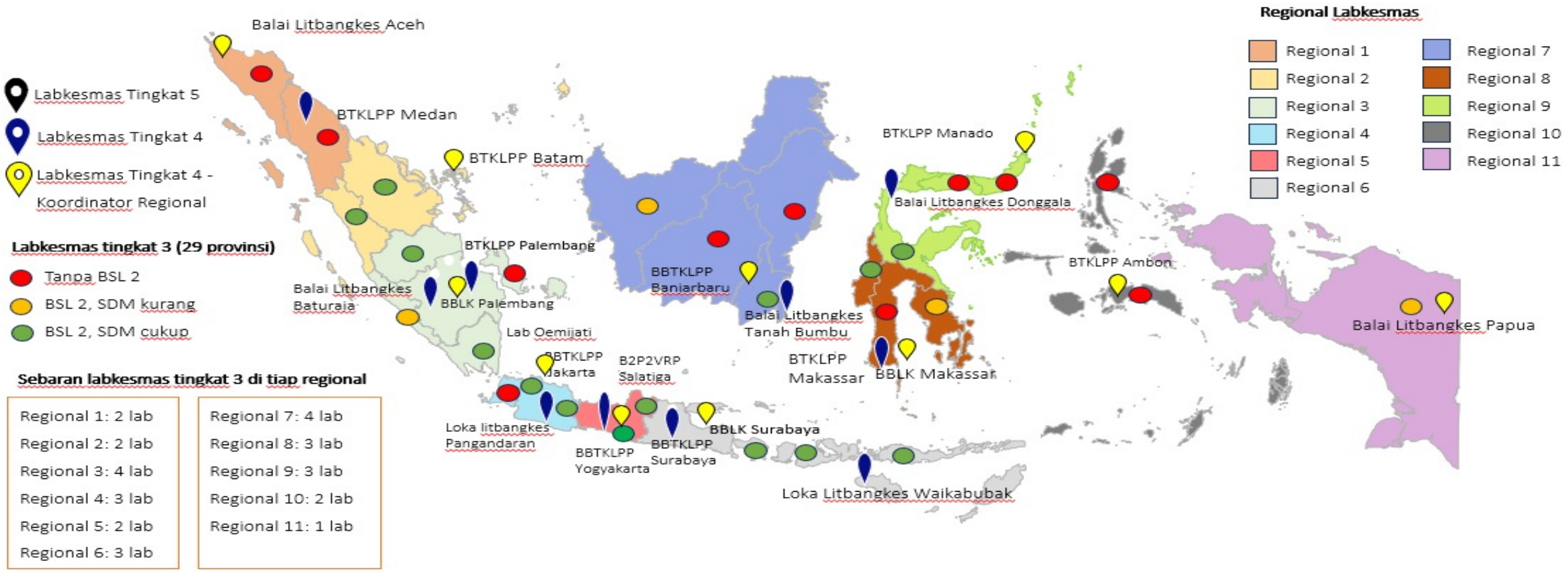


Progress Update and Public Health Laboratory Development Plan

Roadmap	Location
Year of 2022: *Public Health Laboratory grand design*	
Year of 2023: 1. Regulation 2. The Technical Implementation Unit arrangement 3. Capacity Building (SPA) 4. HR capacity building	• 10.011 Public health centers • 150 District health laboratories BSL 2 • 17 Provincial health laboratories BSL 2 • 12 Regional public health laboratories • 2 National public health laboratories
Year of 2024 – 2026: 1. Additional public health laboratories at tiers 2, 3, and 4 are needed in areas where public health laboratories are not yet available. 2. SPA compliance 3. Capacity Building	All public health centers, districts/cities and provinces have public health laboratories with SPA & HR according to standards

KEMENTERIAN KESEHATAN REPUBLIK INDONESIA

Distribution of PHL in Indonesia (Tier 3, 4, 5)



Sebaran labkesmas tingkat 3 di tiap regional

Regional 1: 2 lab	Regional 7: 4 lab
Regional 2: 2 lab	Regional 8: 3 lab
Regional 3: 4 lab	Regional 9: 3 lab
Regional 4: 3 lab	Regional 10: 2 lab
Regional 5: 2 lab	Regional 11: 1 lab
Regional 6: 3 lab	

KEMENTERIAN KESEHATAN REPUBLIK INDONESIA

14 Function of PHL per *Tier*

	Function	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5
1	Testing: clinical specimen	✓	✓	✓	✓	✓
2	Testing: environment, vector and reservoir	✓	✓	✓	✓	✓
3	Laboratory- based Disease and Risk Factors Surveillance, Outbreak preparedness.	✓	✓	✓	✓	✓
4	Laboratory data Management	✓	✓	✓	✓	✓
5	Public and Partner Communication	✓	✓	✓	✓	✓
6	HR Development		✓	✓	✓	✓
7	Procurement and supply chain Management		✓	✓	✓	✓
8	Quality Management System		✓	✓	✓	✓
9	PHL Network Coordination			✓	✓	✓
10	National and International Partnership			✓	✓	✓
11	Biorepository			✓	✓	✓
12	Analysis of lab based Disease, Risk Factors and health issues			✓	✓	✓
13	Development of new method & new technology				✓	✓
14	Recommendation					✓

The basic standard of services in public health laboratories

A Highest burden of disease and screening for 14 diseases

1. Hypertension
2. Heart disease
3. Strokes
4. Diabetes
5. Tuberculosis
6. Chronic obstructive pulmonary disease
7. Lung cancer
8. Hepatitis
9. Congenital hypothyroidism
10. Thalassemia
11. Anemia
12. Breast cancer
13. Cervical cancer
14. Colon cancer

B Infectious diseases and Potential outbreak disease

1. Dengue fever
2. Typhoid fever
3. Acute Diarrhea
4. Dysentery
5. Cholera
6. Pneumonia
7. Malaria
8. Chikungunya
9. COVID-19
10. Hepatitis
11. Measles
12. Polio
13. Diphtheria
14. Pertussis
15. Tetanus
16. Japanese Encephalitis
17. Leptospirosis
18. Rabies
19. Anthrax
20. Pes
21. Meningitis
22. Avian influenza
23. Yellow fever
24. HFMD
25. Tuberculosis
26. Chlamydiosis
27. Gonorrhoeae
28. Taeniasis
29. Brucellosis
30. Rickettsiosis
31. Toxoplasmosis
32. Ebola
33. Hantavirus disease
34. Nipah virus disease
35. Hendra virus disease
36. Helminthiasis
37. Monkey Pox
38. Zika virus disease
39. Filariasis
40. Leprosy
41. Yaws
42. Syphilis
43. MERS COV
44. HIV/AIDS
45. Legionellosis
46. Rubella

C Environmental health risk factors

1. Drinking water quality
2. Air quality
3. Soil quality
4. Food safety
5. Healthcare facility waste

D Vector risk factors and animal transmitted diseases

1. Pathogen detection in vectors
2. Pathogen detection in animal transmitted diseases
3. Insecticide resistance and effectiveness tests on vectors
4. Detection of emerging diseases, vector-borne diseases, and animal transmitted diseases

E Drugs/ Biomonitoring/ Toxicology

1. Drugs
2. Biomonitoring
3. Toxicology

F Drug resistance monitoring

1. Anti-tuberculosis drugs
2. Anti-HIV drugs
3. Anti-Malaria drugs
4. Anti-lepraic drugs
5. Anti-GO drugs
6. Antifungal drugs
7. and others

Global Antimicrobial Resistance and Use Surveillance System (GLASS)

CAPABILITY AT EACH TIER

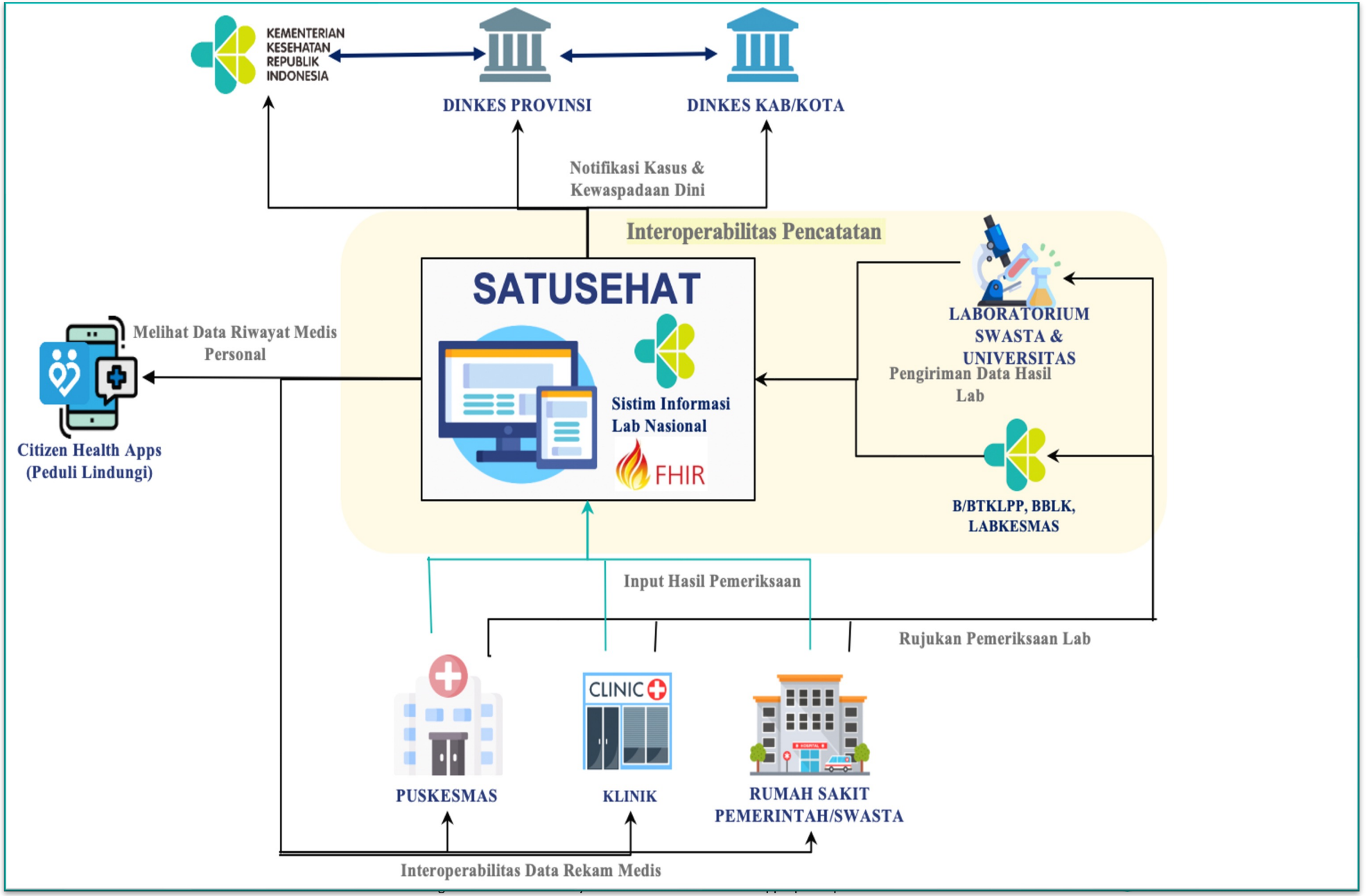
	Delivery Unit					
	Tier 1		Tier 2	Tier 3	Tier 4	Tier 5
	Posyandu	**Puskesmas BSL 1**	**Districts BSL 2**	**Province BSL 2**	**Regional BSL 2**	**National BSL 3, Biorepository System**
Testing	RDT 2 parameter	a. Routine hematology b. Routine Urine c. Clinical Chemistry (ot/pt, ur/cr, lipid profile, HbA1c) d. Microbiology; (microscopic) e. Parasitology; (microscopic) f. Immunology (Rapid test) g. Taking specimen for referral.	a. Complete hematology b. Complete Urin2 c. Clinical Chemistry; d. Microbiology; (microscopic, culture) e. parasitology; (microscopic) f. immunology; (ELISA) g. Biomolecular h. Narcotics, Psychotropic Substances, and Other Addictive Substances *(rapid test)*	a. Complete hematology b. Complete Urin2 c. Clinical Chemistry; d. Microbiology; (microscopic, culture) e. parasitology; (microscopic) f. immunology; (EIA) g. Biomolecular; h. Toxicology dan Biomonitoring i. Narcotics, Psychotropic Substances, and Other Addictive Substances (quantitative)	a. Complete hematology b. Complete Urin2 c. Clinical Chemistry; d. Microbiology; (microscopic, resistance culture) e. parasitology; (microscopic) f. immunology; (EIA) g. Biomolecular; h. Toxicology dan Biomonitoring i. Narcotics, Psychotropic Substances, and Other Addictive Substances (quantitative) 1. Post Market functional Test/conformity test Invitro diagnostic Test	a. Confirmation test for detection of new emerging disease and unknown disease. b. Molecular characterization of microorganisms and the human genome c. Virus Culture and Neutralization test; d. Bacterial culture (*highly infectious)* e. Biomolecular sequencing (Genomic vaccine analysis/escaped treatment, Mutation analysis) f. Clinical Trial Vaccine g. Develop new procedures and methods including designing control materials (primary design) h. Pre Market Invitro diagnostic validation test i. Confirmation Post Market Invitro diagnostic Test j. respond to bioterrorism risks
Quality Assurance	-		1. perform Cross test 2. Perform Comparison test	1. perform Cross test 2. Perform Comparison test	Perform Proficiency Test for: 1. Hematology 2. Clinical Chemistry 3. Microbiology (bacterial) 4. Immunology	Perform Proficiency Test for: 1. Microbiology Pathogen Emerging (Bacterial and Virus) 2. Parasites 3. Fungal 4. Toxicology

CAPABILITY AT EACH TIER

	Delivery Unit				
	Tier 1 Puskesmas	**Tier 2**	**Tier 3**	**Tier 4**	**Tier 5**
	Puskesmas **BSL 1**	**Districts** **BSL 2**	**Province** **BSL 2**	**Regional** **BSL 2**	**National** **BSL 3**
Environmental test	a. Drinking water quality 19 mandatory parameters; (screening) b. Air quality for physical parameters (screening) c. Food safety 6 parameters (Rapid Test) Equipment: Sanitarian Kit	a. Drinking water quality 26 parameters (mandatory and special) b. Water quality for hygiene and sanitation purposes, spa water, swimming pool water, and public baths; c. Food safety for 14 parameters (microbiological and chemical) d. Air quality for physical, chemical and microbiological parameters; e. Liquid waste from health facilities;	a. Drinking water quality 30 parameters (mandatory and special) b. Water quality for hygiene and sanitation purposes, spa water, swimming pool water, and public baths; c. Food safety testing 16 parameters (microbiological and chemical) d. Air quality for physical, chemical, and microbiological parameters; e. Liquid waste from health care facilities; f. ionizing and non-ionizing radiation testing in certain areas;	Confirmation and quality assurance of environmental sample testing: a. Drinking water quality 81 parameters (mandatory and special) b. Water quality for sanitary hygiene purposes, spa water, swimming pool water and public baths; c. Food safety test 21 parameters (microbiology, chemistry); d. Air quality; e. soil pollution test (mandatory parameters, special parameters); f. health care facility liquid waste test; g. ionizing and non-ionizing radiation tests and microbiological tests on environmental media;	a. Confirmation of sample testing to detect specific infectious disease pathogens b. Molecular characterization of microorganisms in disease-carrying vectors and animals c. Quality assurance of microbiology, parasitology, biomolecular, toxicology and biomonitoring sample testing; d. Responding to nubic risks from both domestic and foreign sources, ionizing and non-ionizing radiation tests and microbiological tests on environmental media;
Vector and Reservoir	a. Macroscopic identification of vectors and reservoir; b. Density analysis of vectors and reservoir; and c. Sampling for reference testing (confirmation). Equipment: Entomology Kit	a. Microscopic testing of vectors and reservoir; b. Density analysis of vectors and reservoir; and c. Vector resistance testing to insecticides.	a. insecticide efficacy testing on vectors; b. pathogen identification testing on vectors and reservoir; and c. sampling, identification, and density analysis of vectors and reservoir in special situations.	a. Confirmation of insecticide efficacy and resistance testing; b. Identification of pathogens in vectors and reservoir microscopically, biomolecular. c. Sampling for identification and analysis of the density of vectors and reservoir in situations of Extraordinary Events/Public Health Emergencies.	a. Confirmation of testing to determine the status of vectorial and reservoir; b. Confirmation of insecticide efficacy and resistance testing;
Quality Assurance		1. perform Cross test 2. Perform Comparison test	1. perform Cross test 2. Perform Comparison test	Perform Proficiency Test for Toxicology, biomonitoring	
Calibration			Calibration Testing of Public Health Laboratory Equipment	Calibration Testing of Public Health Laboratory Equipment	

DATA
and
INFORMATION

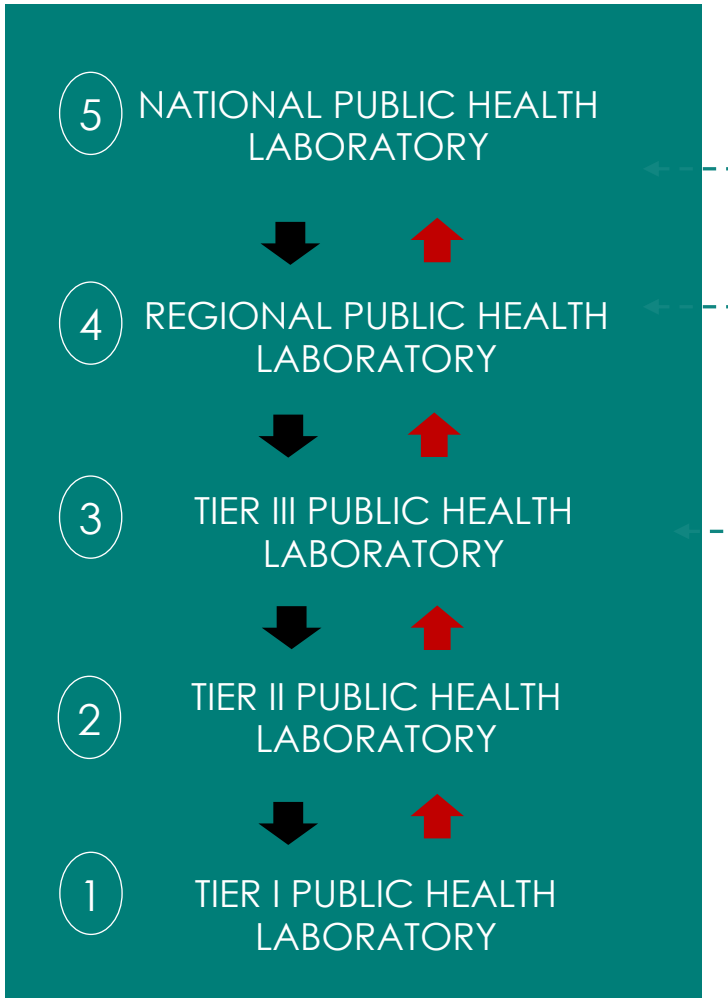
National Laboratory Information System Concept



Public Health Laboratory Network

- In carrying out their task and functions, **public health laboratories network with** medical health laboratories, environmental health laboratories, and/or non-health laboratories, both owned by the **government and the private sector**;
- Networking can be done as needed, including:
  a. Specimen and/ or Sample testing;
  b. Data and information;
  c. HR capacity building;
  d. Quality assurance; and/or
  e. Biorepository

Public Health Laboratory Network with Other Laboratories



Other Laboratories:

a. Research Laboratory,

b. **Veterinary Laboratory**,

c. **Environmental Laboratory**,

d. Biopharma Laboratory,

e. University Laboratory,

etc.

Monitoring path

Reference path

Coordination path

Public health laboratories coordinate medical health laboratories and environmental health laboratories at their respective levels

Scope:

a. Specimen / Sample testing network;
b. Data and information network;
c. HR capacity building network;
d. Quality assurance network;
e. Biorepository network.

ONE HEALTH Integrated National Laboratory Information System

KEMENTERIAN KESEHATAN REPUBLIK INDONESIA

Challenges:

Ensuring the implementation of standard, due to -the huge discrepancy among labs and commitment from local government

Availability of the logistic, distribution, the administration

Still depend on imported logistic

Lab personnel according to the standard are still insufficient

Factors for success :

- Political Commitment to strengthen PHL
- Indonesia already had more than 10.000 PHL (tier1-5)

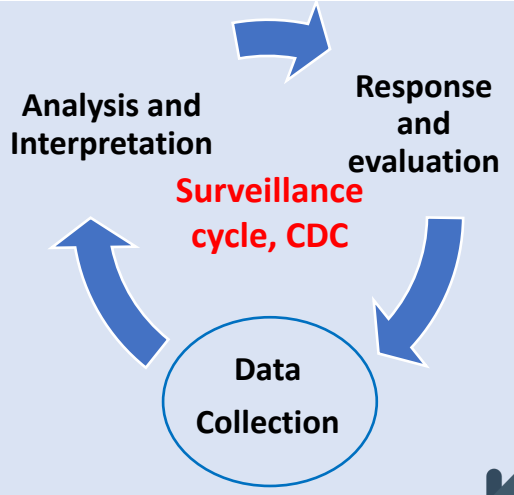
KEMENTERIAN KESEHATAN REPUBLIK INDONESIA

KEMENTERIAN
KESEHATAN
REPUBLIK
INDONESIA

LABORATORY BASED SURVEILLANCE

Directorate Surveillance and Health Quarantine

CONCEPT OF LAB-BASED SURVEILLANCE



Orang sakit/klaster

Orang Sehat / Faktor Risiko

1

2

- Kemampuan nakes untuk **mengenali klinis kasus**/DO
- **Koordinasi** antara faskes dan dinkes

Memenuhi Definisi Operasional (DO)

3

- **Ketersediaan petugas** surveilans/ laboratorium yang **terlatih** melakukan PE dan skill pengambilan spesimen
- **Logistik PE** dan pengambilan sampel
- **Anggaran PE**
- **Penerimaan masyarakat**

- Investigasi
- Pengambilan Spesimen

4

- **Teknik pengepakan & pengiriman** spesimen
- **Akses layanan**
- **Anggaran** pengiriman
- Kurir/moda transportasi yang certificate pengiriman spesimen

Pelaporan Data Epidemiologi

Pengiriman & Pengepakan spesimen

5

- **Sistem** pelaporan (manual/IT)
- Pengelolaan database

Catatan & Pelaporan Provinsi dan Pusat

Lab Rujukan

6

- Ketersediaan **Reagen** dan **BHP**
- **Kecepatan sampel diterima**
- **Kecepatan pemeriksaan**
- **Pencatatan & Pelaporan**

Melakukan Analisis Data Epid + Hasil Lab

Hasil Positif meningkat? Ada KLB?

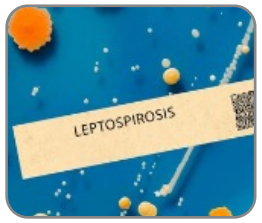
RESPON

LABORATORY-BASED SENTINEL SURVEILLANCE

Existing

Arbovirosis sentinel surveillance

- Dengue (serotype), Chikungunya, Zika
- Japanese Encephalitis

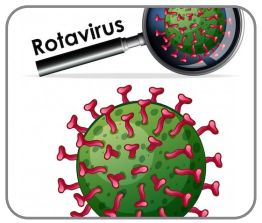


Leptospirosis sentinel surveillance

- Testing by realtime PCR & MAT Serovar
- Detection Hantavirus
- Integrated with rodent surveillance

Sentinel Surveillance ILI SARI COVID

- Enhancing site
- Detection Flu A/Flu B/ Sars-CoV2, Genomic
- Multipatogen RSV & pneumobacter

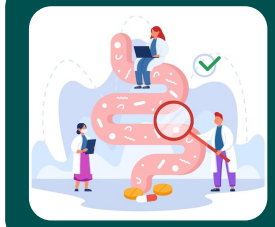


Another sentinel surveillance :

- Sentinel surveillance Plasmodium knowlesi
- Sentinel surveillance Rotavirus
- Sentinel surveillance Congenital Rubella Syndrom
- Sentinel surveillance Legionellosis

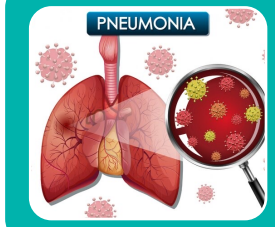
Will be develop

Typhoid abdominalis sentinel surveillance



Diarrhea sentinel surveillance

- Bloody diarrhea
- Cholera

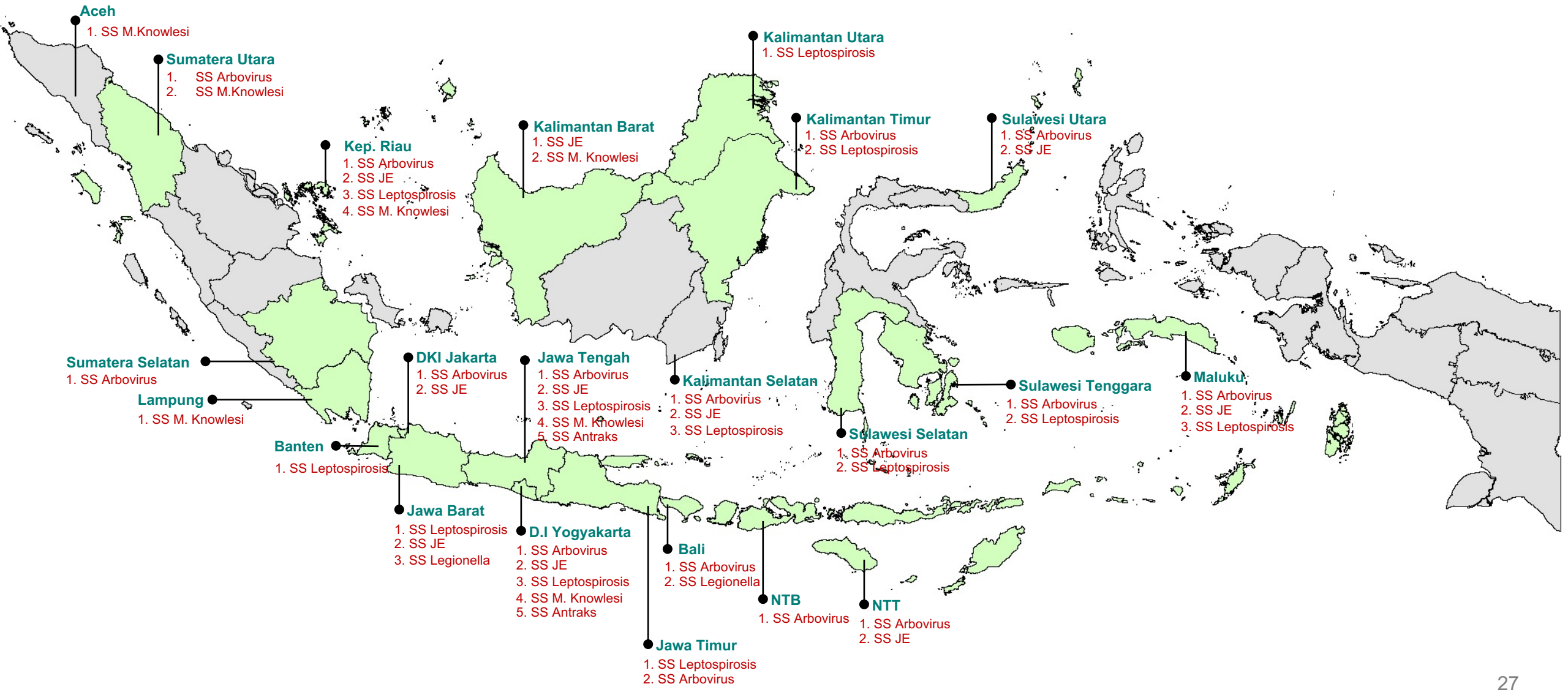


Pneumonia sentinel surveillance

Hand Foot Mouth Disease sentinel surveillance

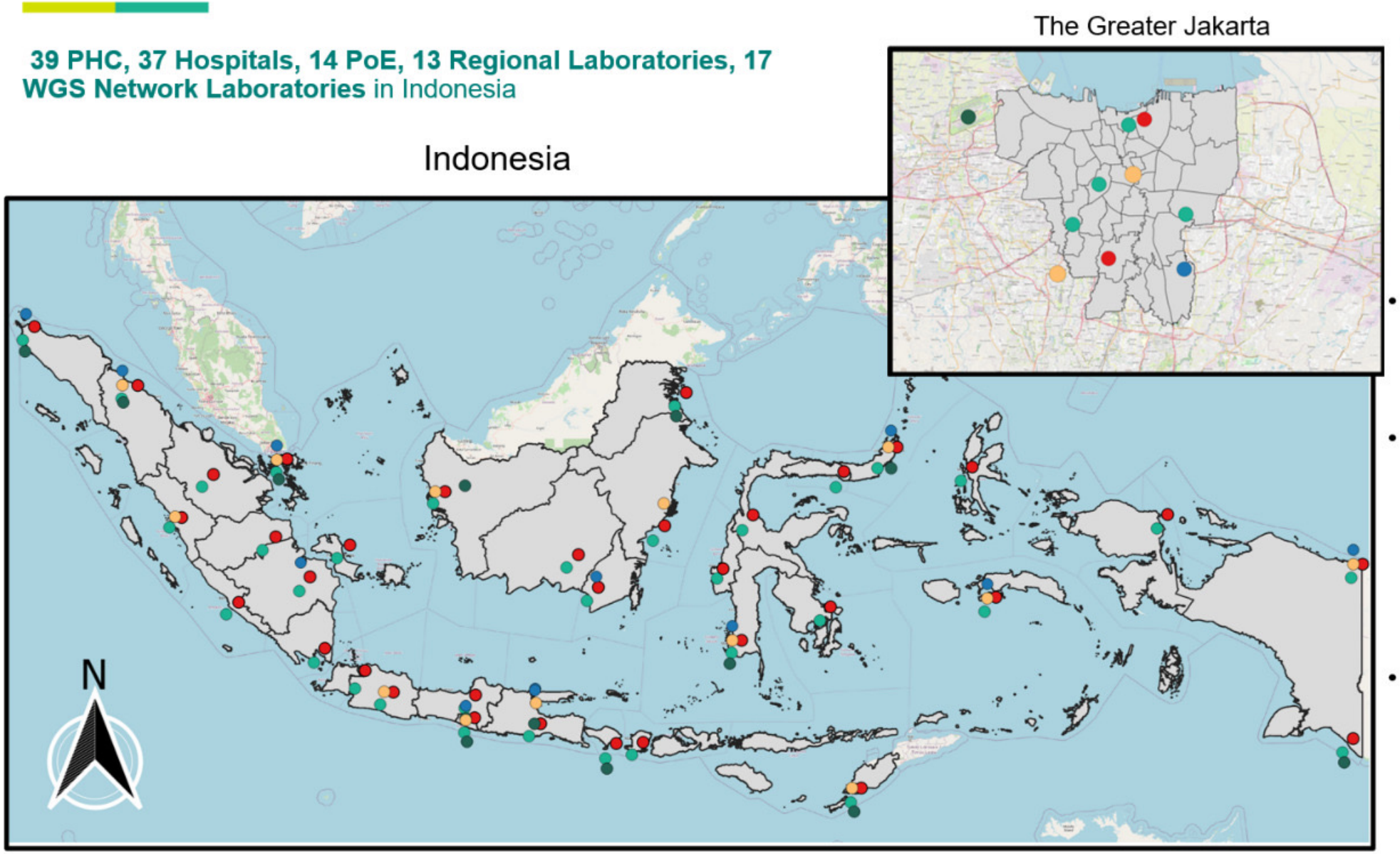
Sentinel Surveillance Sindromic EID

Existing Lab Based Sentinel Surveillance



ILI-SARI

39 PHC, 37 Hospitals, 14 PoE, 13 Regional Laboratories, 17 WGS Network Laboratories in Indonesia



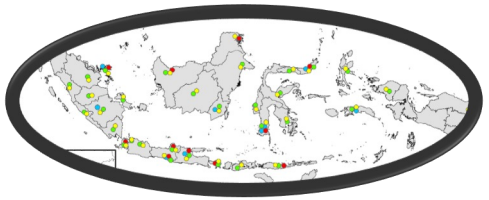
Source: MoH, March 2023

Notes

- The Greater Jakarta (Capital of Indonesia) has the biggest ILI-SARI sites
- The sentinel sites have been expanded as part of the pandemic transition (every provinces in Indonesia has ILI-SARI sentinel sites)
- Monitoring to improve surveillance performance and data quality

KEMENTERIAN KESEHATAN REPUBLIK INDONESIA

TARGET SENTINEL SURVEILLANCE INTEGRATED ILI SARI & SARS-COV2



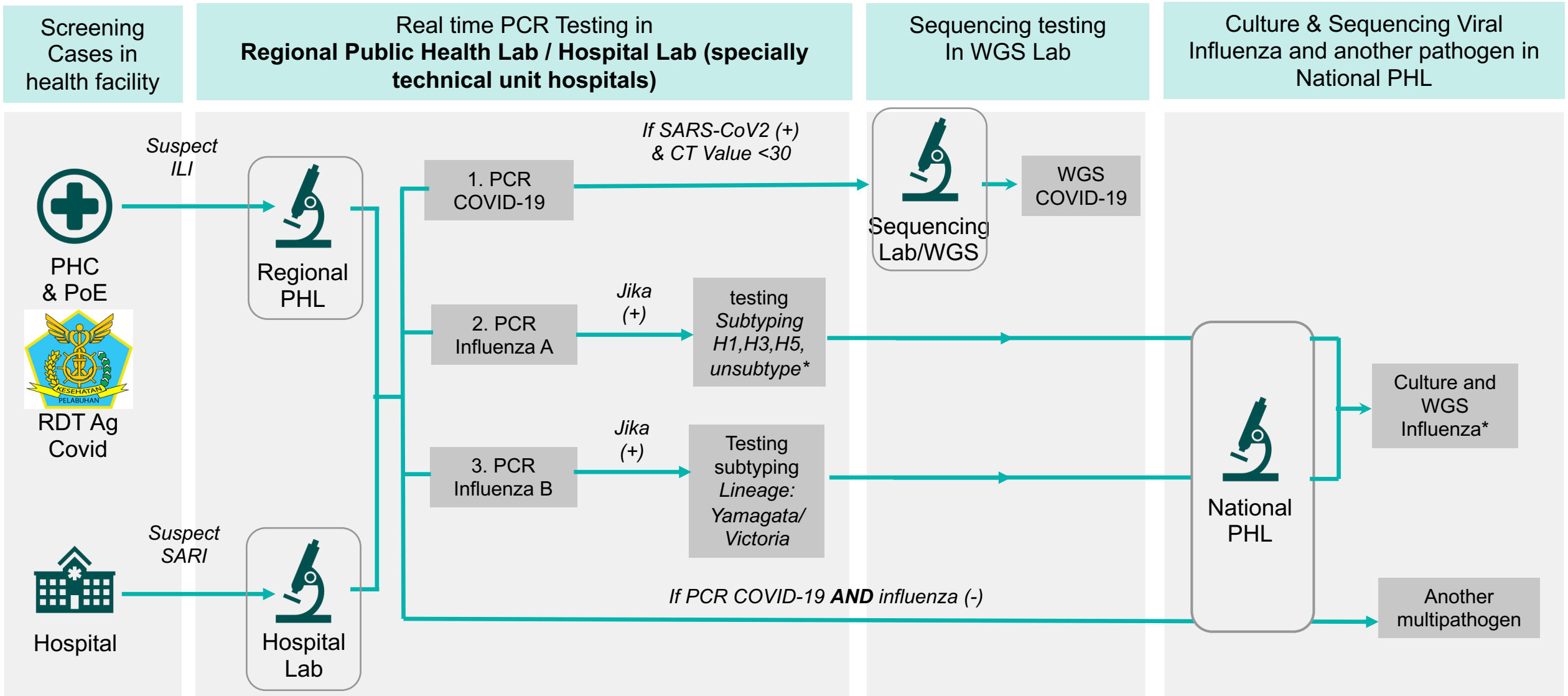
88 Site Sentinel

Site ILI 39 PHC	Site SARI 35 Hospital	Site ILI 14 PoE
Estimation **samples 5-10 swab nasofaring / weeks**, refers to regional PHL (tier-4) to testing Multiplex real time PCR Influenza-COVID19	Estimation **samples 5-10 swab nasofaring / weeks**, refers to regional PHL (tier-4) to testing Multiplex real time PCR Influenza-COVID19, or on 8 vertical hospitals laboratory can testing multiplex PCR	Estimation **samples 5-10 swab nasofaring / weeks**, refers to regional PHL (tier-4) to testing Multiplex real time PCR Influenza-COVID19

- 13 Regional Public Health Laboratory
- 8 Vertical Hospitals Lab
- 1 National Health Biology Laboratory as NIC

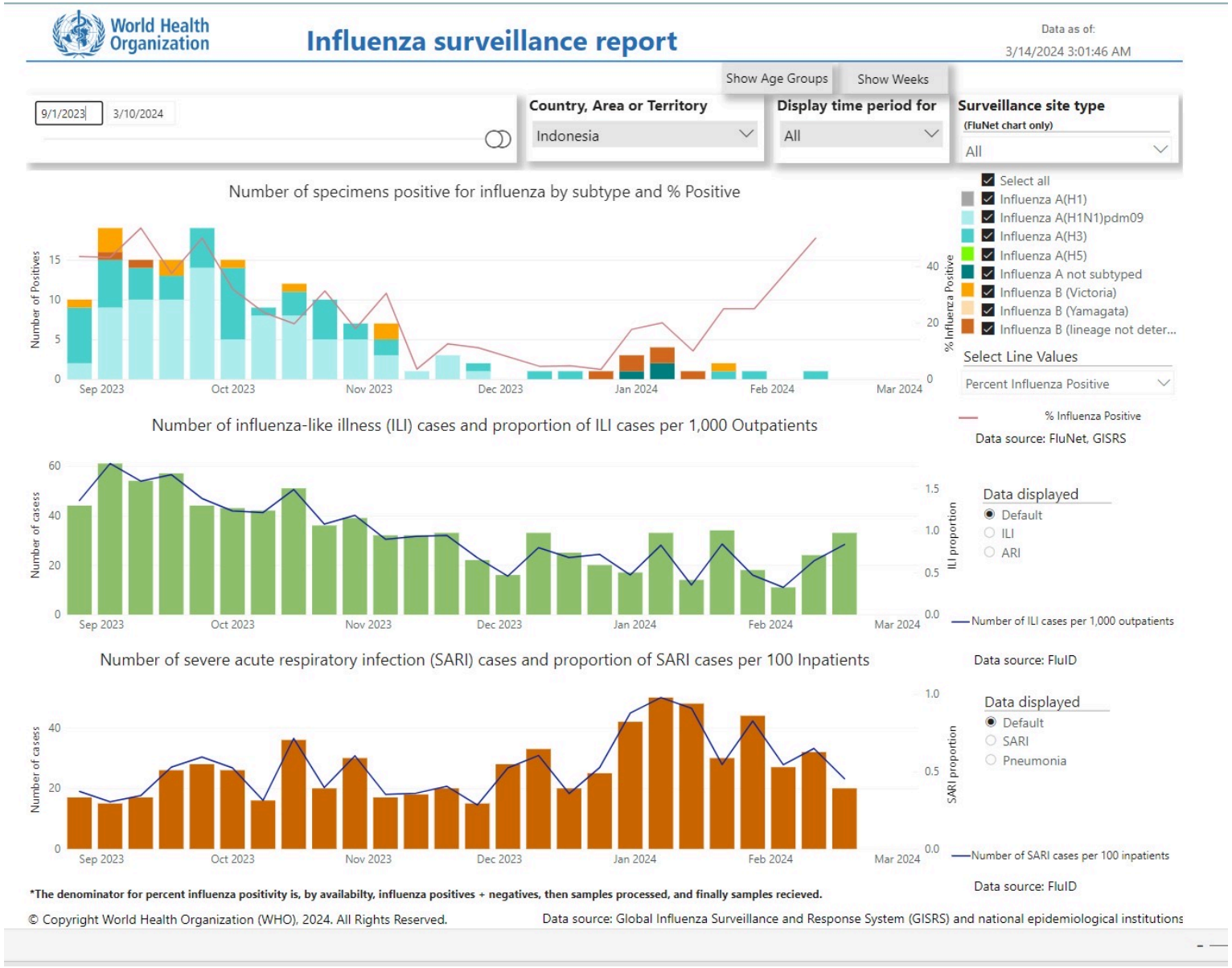
KEMENTERIAN KESEHATAN REPUBLIK INDONESIA

FLOW LABORATORY TESTING FOR ILI–SARI–COVID-19 SENTINEL



*Jika unsubtype, dilakukan pemeriksaan subtype H7/H9 di Lab Nasional

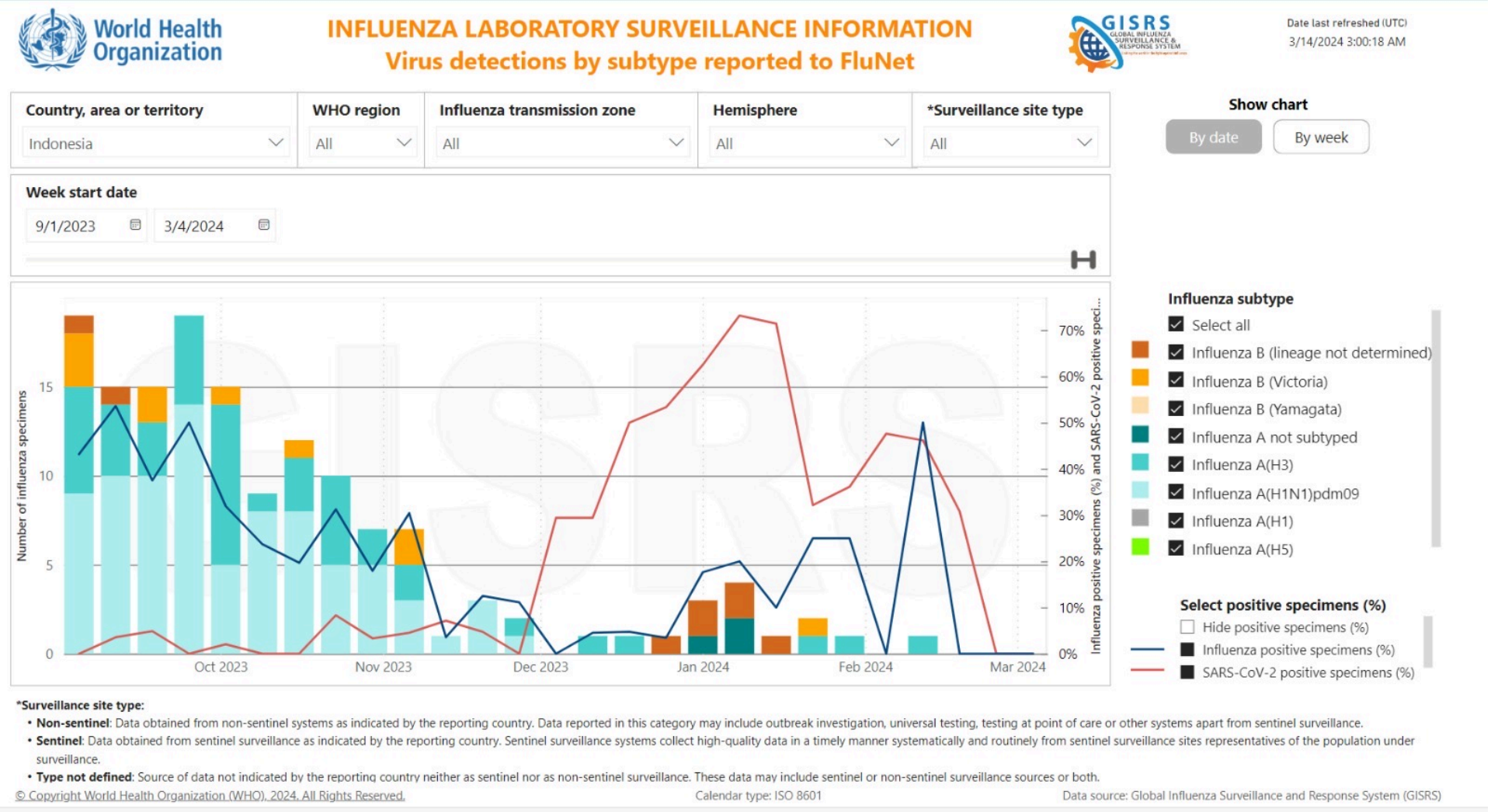
Indonesia (1 Sept 2023 – 4 Mar 2024)



Sumber : flunet/flu.id

1. Hasil subtyping influenza diperoleh dari penemuan kasus di sentinel ILI (hijau)-SARI (coklat).
2. Terjadi penurunan jumlah kasus ILI sejak Desember 2023 – Maret 2024.
3. Terjadi peningkatan jumlah kasus SARI mulai dari Desember 2023.

Indonesia (1 Sept 2023 – 4 Mar 2024)



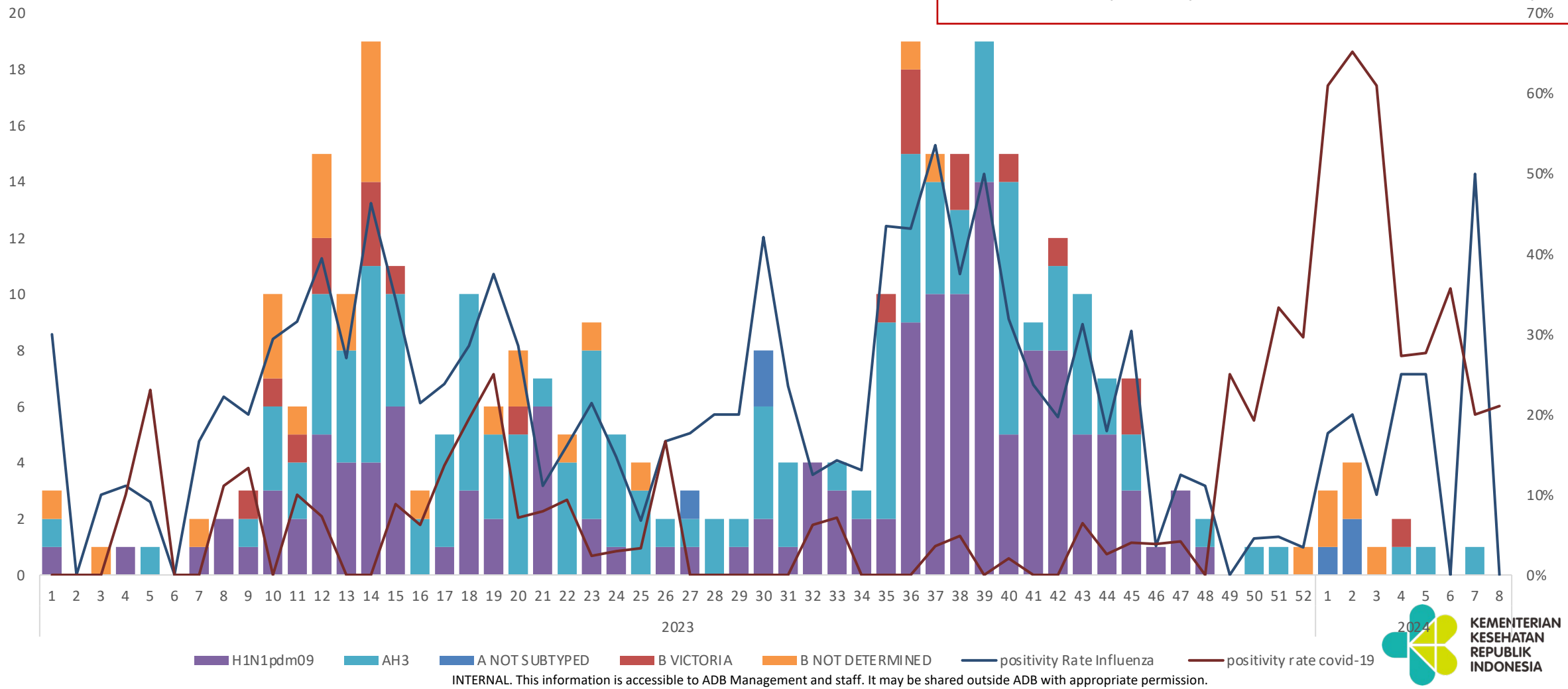
Berdasarkan laporan di Flunet yang merupakan platform global untuk pelaporan surveilans Influenza, sejak 1 September 2023 – 4 maret 2024
influenza
A (H1N1)pdm09
merupakan subtype influenza yang dominan diikuti dengan A(H3) dan influenza B

Sumber : flunet/flu.id

Positivity Rate Influenza dan Covid-19 serta Sebaran Virus (Subtype Influenza)

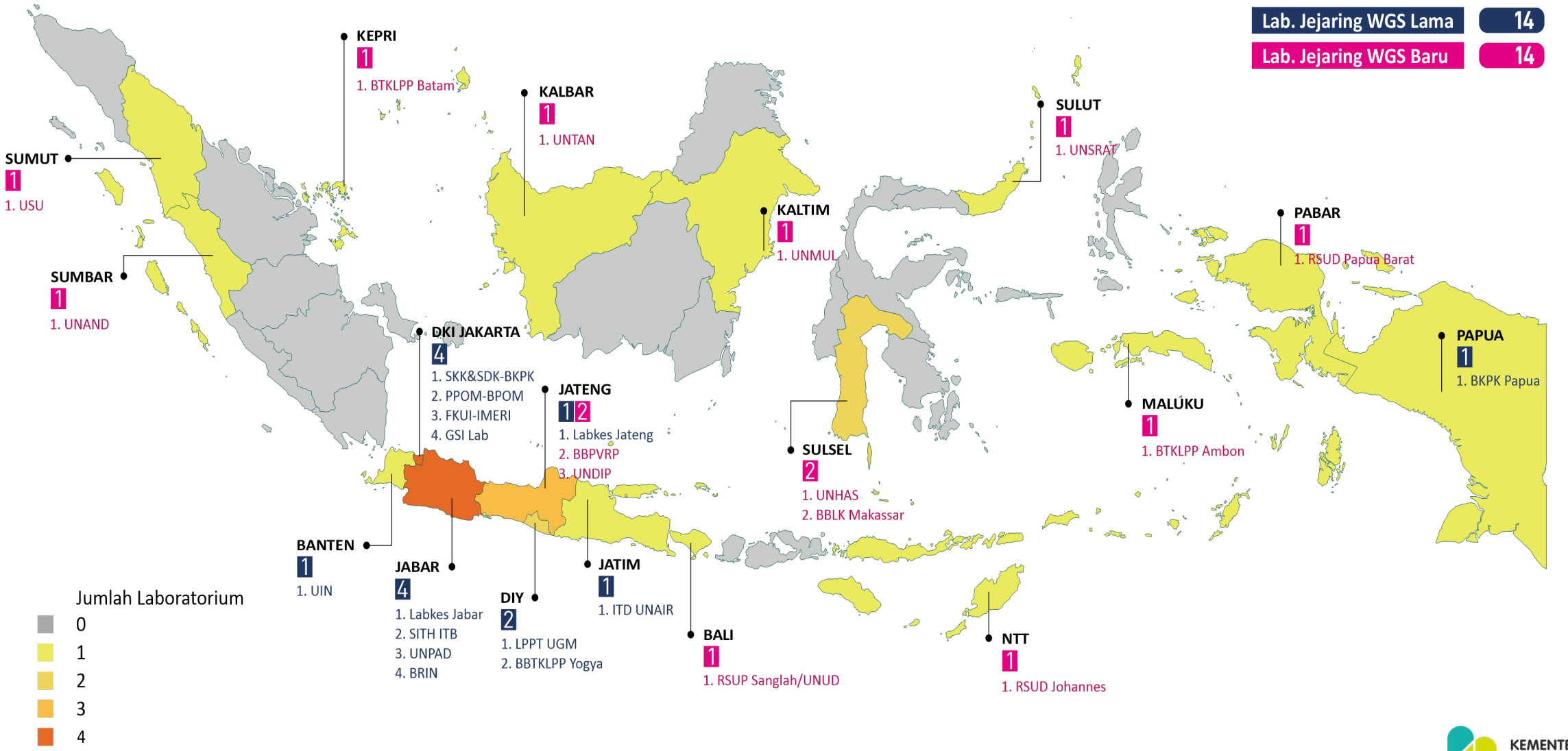
***Surveilans* ILI-SARI: 2023-2024**

Berdasarkan data dari program Surveilans Sentinel ILI-SARI juga menunjukkan adanya pola yang sama dengan Situasi Global, didominasi influenza A (H1N1)Pdm09 diikuti influenza A(H3)



KEMENTERIAN KESEHATAN REPUBLIK INDONESIA

28 WGS Laboratories



KEMENTERIAN KESEHATAN REPUBLIK INDONESIA

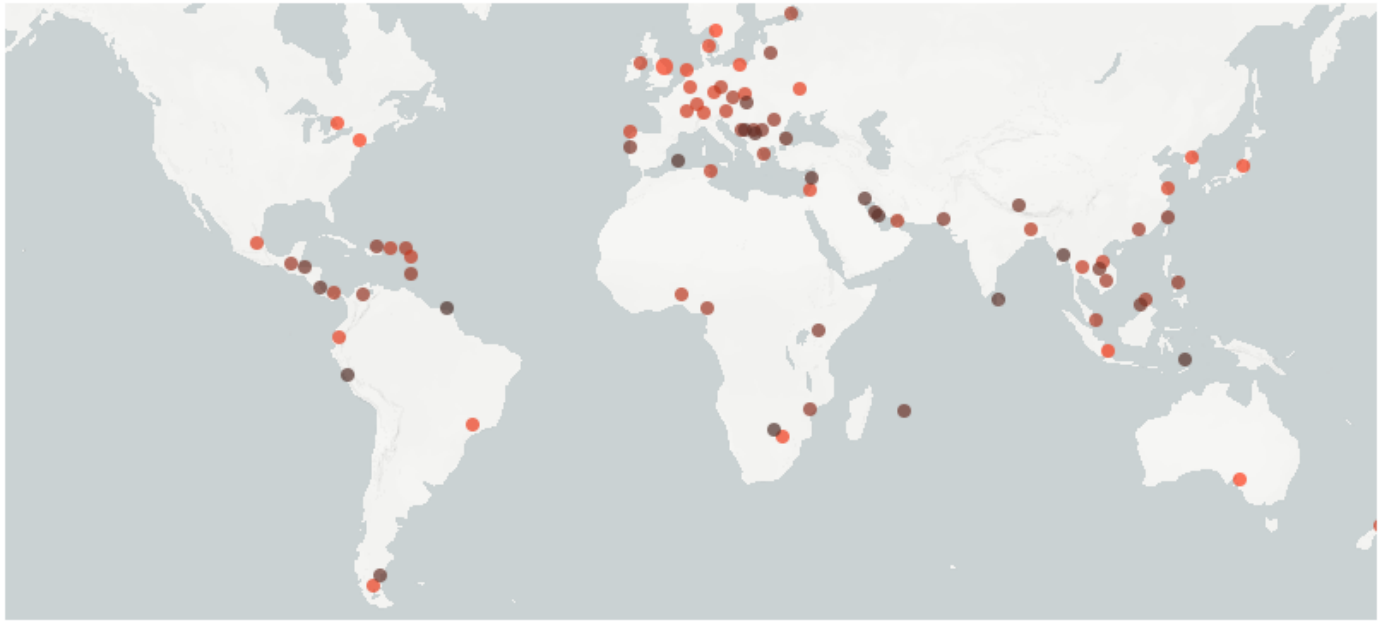
Tracking of hCoV-19 Variants

VOI GRA (BA.2.86+BA.2.86.*) first detected in Denmark...

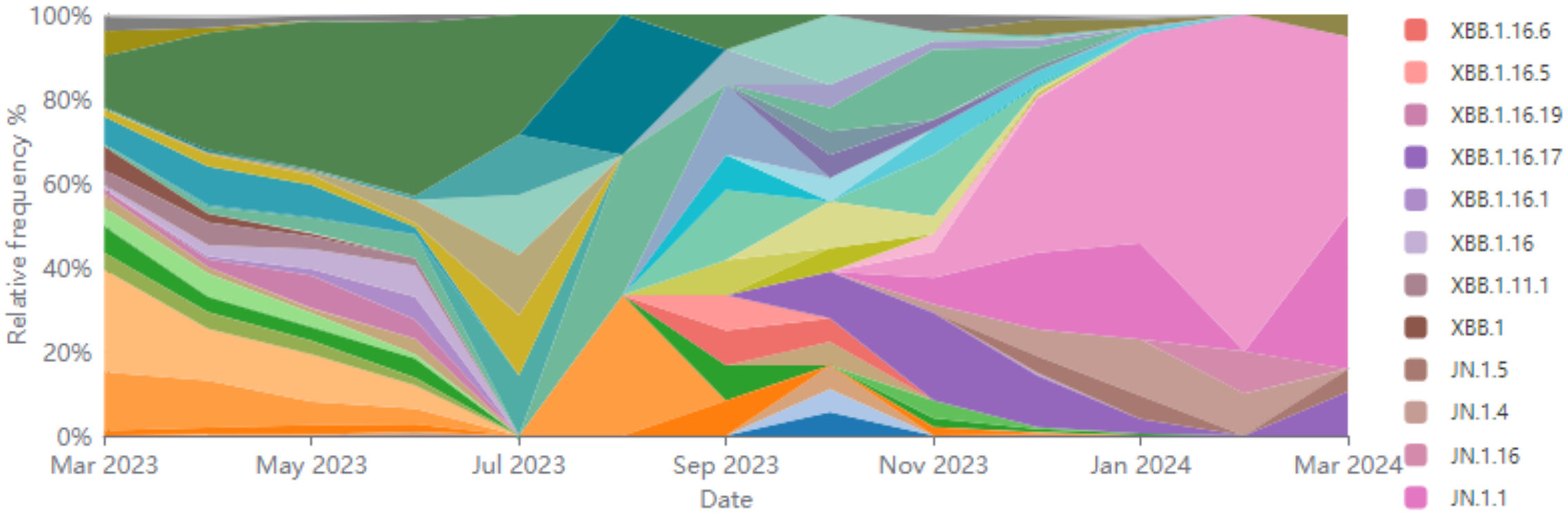
As of 23 March 2024 - 0815UTC, 90 countries shared 21,022 GRA (BA.2.86+BA.2.86.*) genome sequence
publicly accessible via GISAID EpiCoV, in some cases wi

Map of tracked variant occurrence

Circle size proportional to number of variant genomes, zoom into region for more detail. Color by recency with red being most recent.



TREND VARIAN COVID-19



80% Varian COVID-19 yang beredar di Indonesia s.d. 18 Maret 2024 adalah variant JN

- JN.1 (42,11%)
- JN.1.1 (36,84%)
- XBB.1.16.17 (10,53%)
- JN.1.5 (5,26%)
- BA.2.86.1 (5,26%)

Sumber : GISAID

Building a robust health shield: Strengthening Indonesia's surveillance for emergency preparedness

29 February 2024 | Highlights

A robust surveillance system is the linchpin of health emergency preparedness, as it allows us to swiftly detect and obtain valuable information for informed decision-making. However, the COVID-19 pandemic showed that Indonesia had inadequate surveillance capacity to address major health crises. Indonesia's surveillance system also faces challenges due to the diverse nature of over 40 national-level systems, each with its own unique data collection and processing methods. Meanwhile, more than 10,000 health facilities, laboratories and port health offices in the nation produced surveillance data, but comprehensive analysis at the subnational level remains a challenge. This highlights the need to develop a comprehensive transition plan, improve detection capabilities, evaluate the systems, and bridge the gap in data analysis and utilization skills.

ADB ASIAN DEVELOPMENT BANK

Project Data Sheet

Project 54224-002

Project Name	Primary Healthcare and Public Health Laboratories Upgrading and Strengthening Project
Project Number	54224-002
Country / Economy	Indonesia

The Primary Healthcare and Public Health Laboratories Upgrading and Strengthening Project will assist the Ministry of Health in strengthening primary care services and public health laboratories. Along with three multilateral development banks, ADB will cofinance the provision of equipment to upgrade and enhance the capacity of primary care facilities and public health laboratories throughout the country. It will also help address the adverse health impact of climate change and improve the preparedness and resilience of the health system to handle future public health threats. The outcome of project will be equitable access to primary care and public health laboratory services for the prevention, detection, and treatment of communicable and noncommunicable diseases, and other health conditions, expanded.

THE LANCET

EDITORIAL | VOLUME 403, ISSUE 10429, P781, MARCH 02, 2024 Download Full Issue

The Pandemic Treaty: shameful and unjust

The Lancet

Published: March 02, 2024 • DOI: https://doi.org/10.1016/S0140-6736(24)00410-0 • Check for updates

Article info

Figures

Linked Articles

The Intergovernmental Negotiating Body (INB), which is tasked under WHO with drawing up an international instrument on pandemic prevention, preparedness, and response, will sit for the 9th and final time from March 18–29. In the 2 years since it first met, hundreds of hours and unknown costs have been spent, but the political impetus has died. The convention is now at a critical juncture: the final text for countries to ratify is due to be presented at the World Health Assembly in May. With only limited days of negotiation left and a long way to go to secure a meaningful agreement, it is now or never for a treaty that can make the world a safer place.

Prinsip “Equatibility”, “Fair” dan “Equity” dalam Menghadapi Pandemi

26 Maret 2024 13:41 --- F. Hardiman

Prof. Tjandra Yoga Aditama pada hari pertama pertemuan ke-9

WHO Member States agree to resume negotiations aimed at finalizing the world’s first pandemic agreement

28 March 2024 | News release | Reading time: 1 min (401 words)

WHO Member States agreed to resume negotiations aimed at finalizing a pandemic agreement during 29 April to 10 May. The decision came at today’s end of two weeks of intensive country-led discussions on critical subjects aimed at making all countries of the world better prepared for, and able to effectively and equitably respond to, future pandemics.

This ninth meeting of the Intergovernmental Negotiating Body (INB9) started on 18 March and ended today. Government negotiators discussed all articles from the draft agreement, including adequate financing for pandemic preparedness, equitable access to medical countermeasures needed during pandemics and health workforce strengthening.

“Our Member States are fully aware of how important the pandemic agreement is for protecting future generations from the suffering we endured through the COVID-19 pandemic,” said WHO Director-General Dr Tedros Adhanom Ghebreyesus. “I thank them for their clear commitment to finding common ground and finalizing this historic agreement in time for the World Health Assembly.”

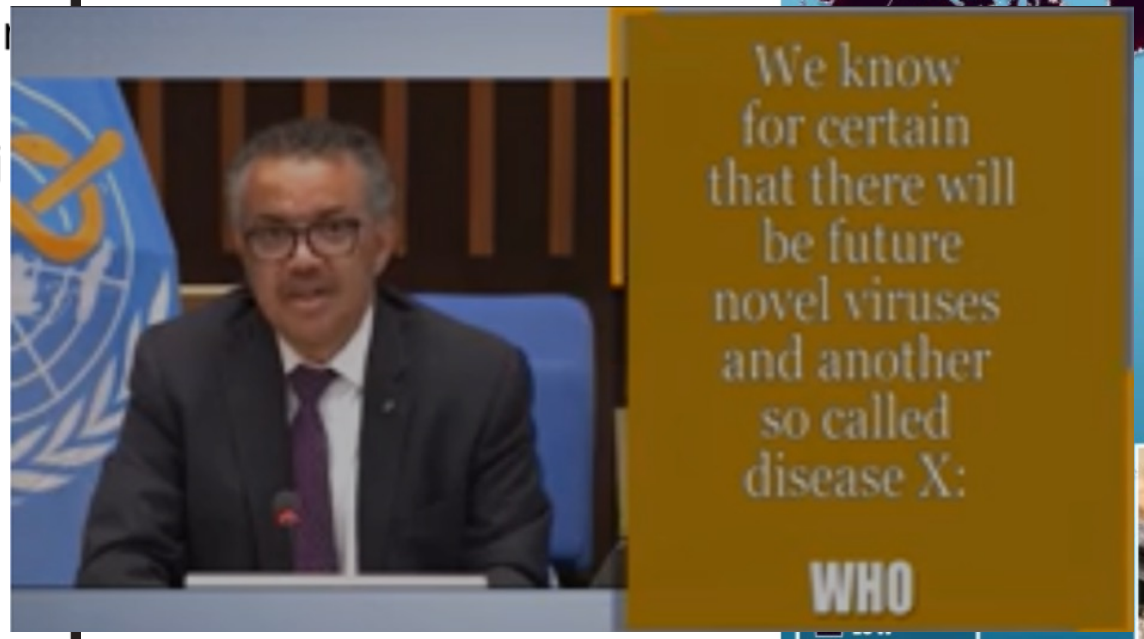
TEMPO
MAJALAH BERITA MINGGUAN

KITA TAHU AKAN ADA PANDEMI BERIKUTNYA

Guru Besar Fakultas Kedokteran Universitas Indonesia Tjandra Yoga Aditama menilai pandemi Covid-19 belum berakhir. Bahkan ada kemungkinan datangnya pandemi baru.

Abdul Manan

Sabtu, 18 Juni 2022



Global Influenza Pandemic

The world will face another influenza pandemic – the only thing we don't know is when it will hit and how severe it will be.

World Health Organization

is informatio

T E R I M A K A S I H