

# Key Barriers to Data Flow Among Government Agencies in Indonesia:

A Data Journey Modelling of Health Datasets

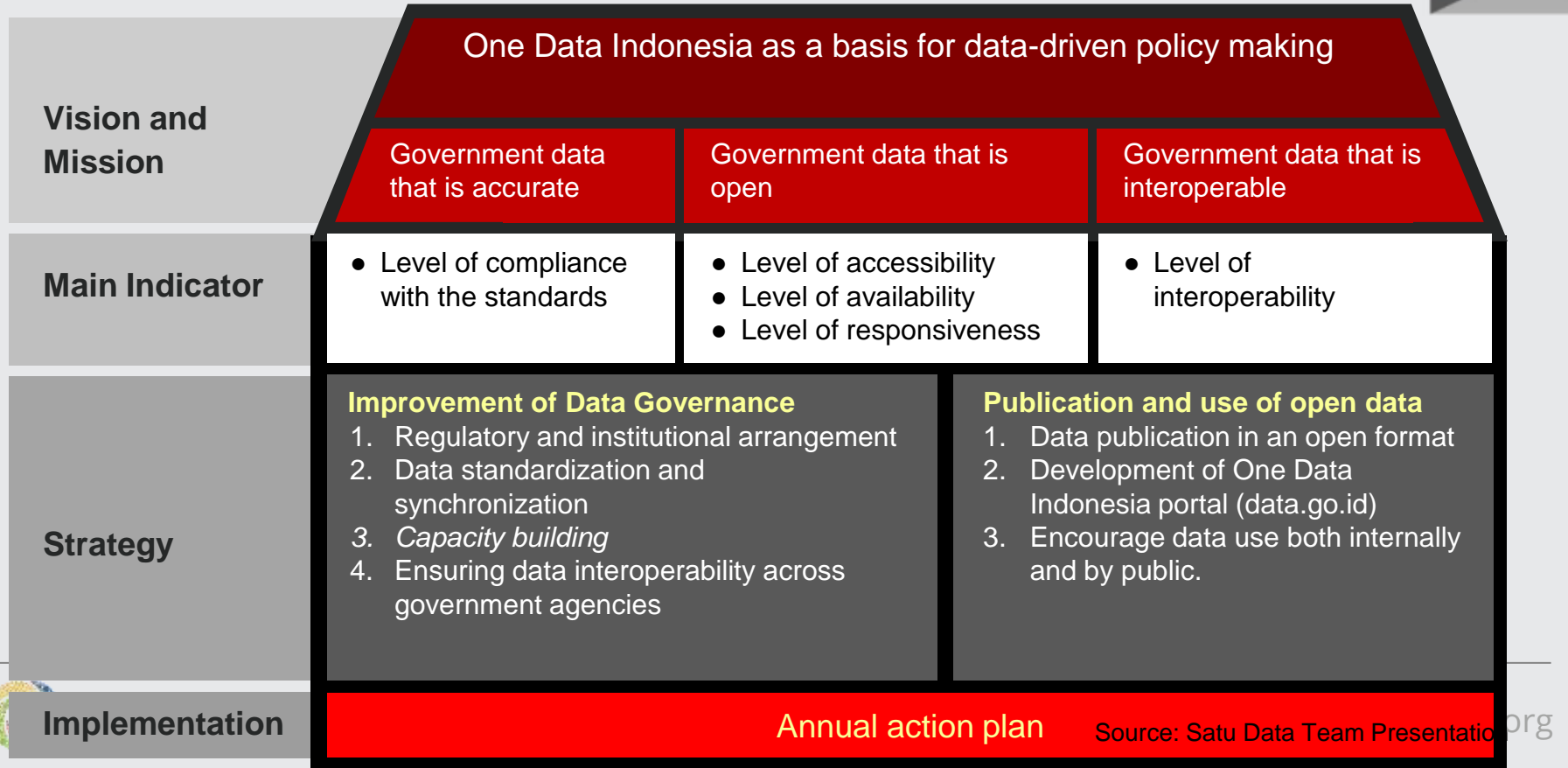
**Glenn Maail**

Research Manager

Open Data Lab Jakarta of World Wide Web Foundation



# Background - One Data Indonesia



# Our Research

## Research Aim

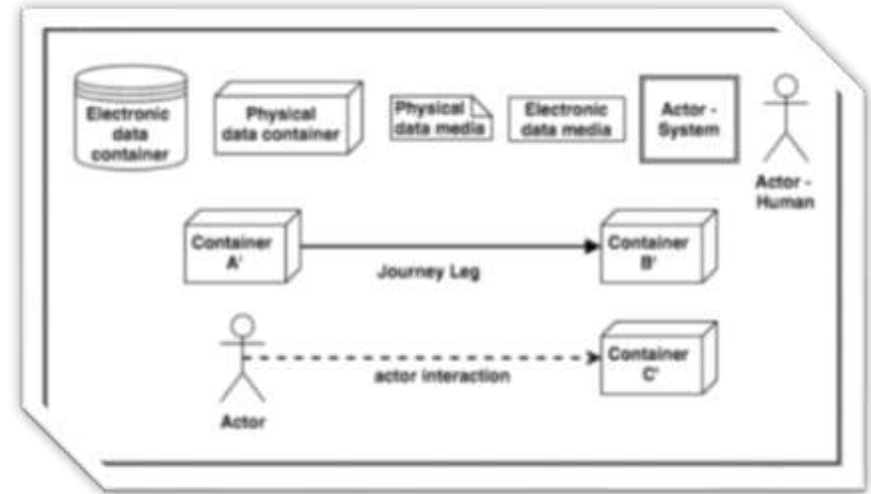
- Understanding key issues to data interoperability. Specifically, barriers to data movement of health datasets among government agencies in Indonesia?

## Scope

- March – June 2017
- Face-to-face interviews + observation
- Three datasets (SDG indicators):
  - Number of deliveries in health facilities.
  - Community-led total sanitation.
  - Prevalence of stunting.

# Data Journey Modelling

- A tool for aiding identification of social and technical barriers to data movement in large, complex organizations.
- Modelled necessary parts of data infrastructure + movement of data.
- Assist in decision making process when implementing new functionalities or policies on existing network of data.



(Eleftheriou et al., 2016).

pengaturan Keluar Login: P

Kriteria Wilayah: Beberapa Provinsi  
 Provinsi: KALIMANTAN BARAT

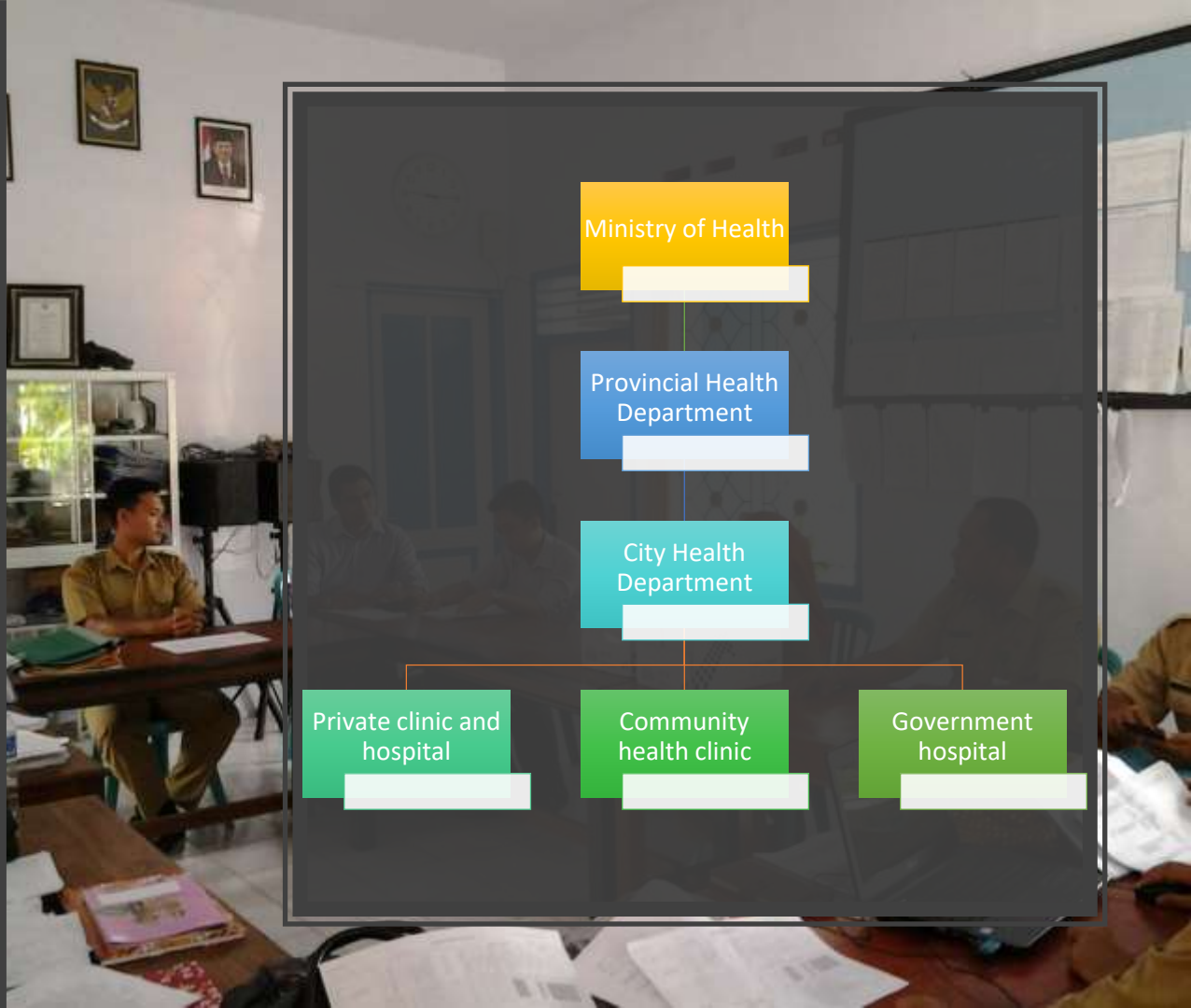
Kriteria Data:  
 Jamban Sehat Permanen (JSP)  
 Jamban Sehat Semi Permanen (JSSP)  
 Slatanghumpang  
 BABS

Abstrak (NO)  
 Revisi (%)

NASIONAL >> KALIMANTAN BARAT >> KUBU RAYA

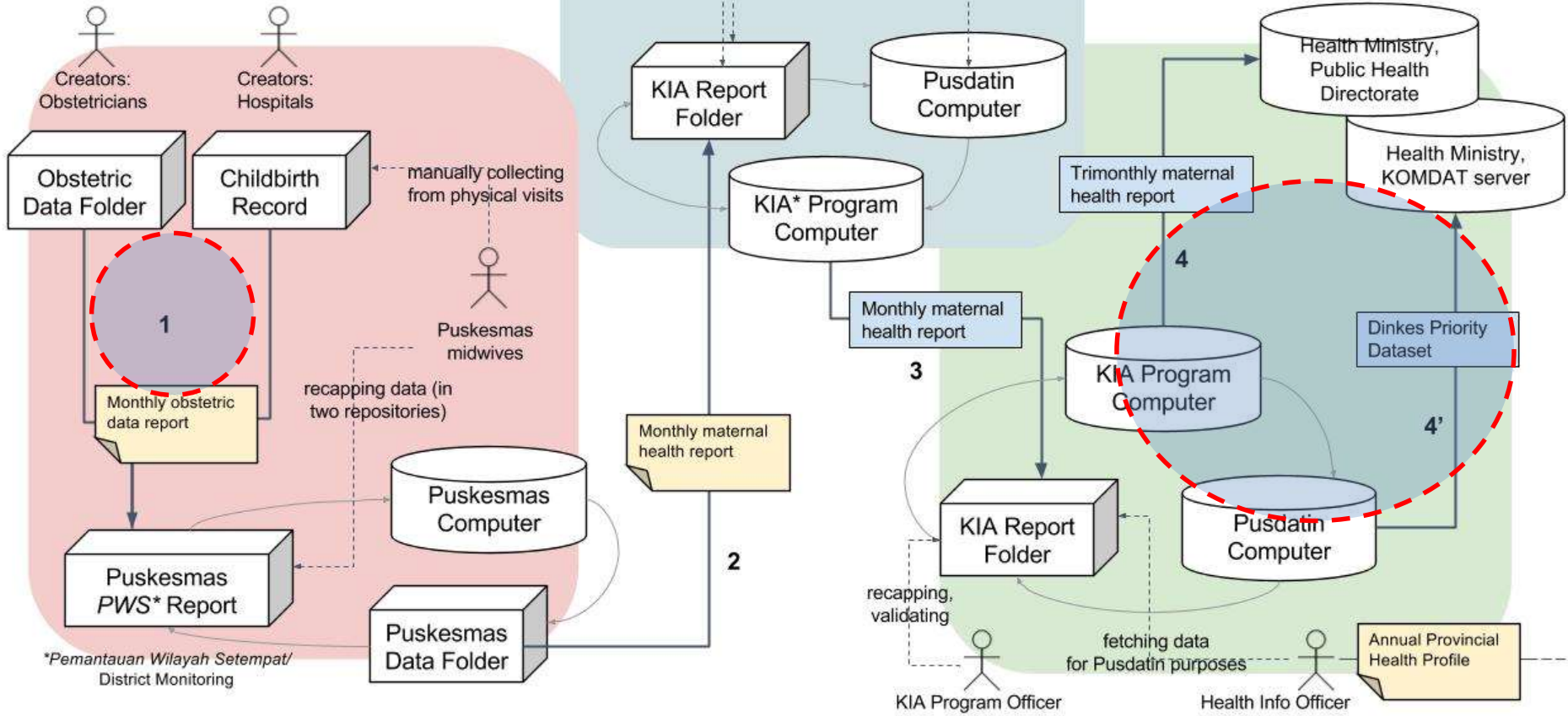
Kategori	JSP		JSSP		Slatanghumpang		BABS		% Jamban	JSP		JSSP	
	JK	%	JK	%	JK	%	JK	%		JK	%	JK	%
	1467 6.902	8.378	14.57	5.917	53.25	1.354	10.53	1.343		21.05	78.55	0	0.00

ASUS



# Data Journey

## Data on Deliveries in Health-care Facilities



# Examples of Problem – Dataset on Number of Deliveries in Health Care Facilities

- **Repeated loss of data of deliveries outside *Puskesmas* and Government hospital.**
  - *Cause: The lack of a systemized data collection procedure for private hospitals and clinic. Currently, they are not strictly required to report delivery records to either the municipal health department or Puskesmas and are not aware of the importance of data integration.*
- **Time inefficiency in data collection**
  - *Cause: Competing tasks by the midwives. The need for Puskesmas midwives to physically visit private hospitals and clinic, sort each delivery data by address, and group the data according to the Puskesmas' boundary working area.*

# Key Barriers to Data Flow

## People

- Leadership (Data steward).
- Absence of a clear governance structure (incl. role and responsibilities).

## Standard

- Lack of data standards and processes.
- Inefficiency in data collection and entry.

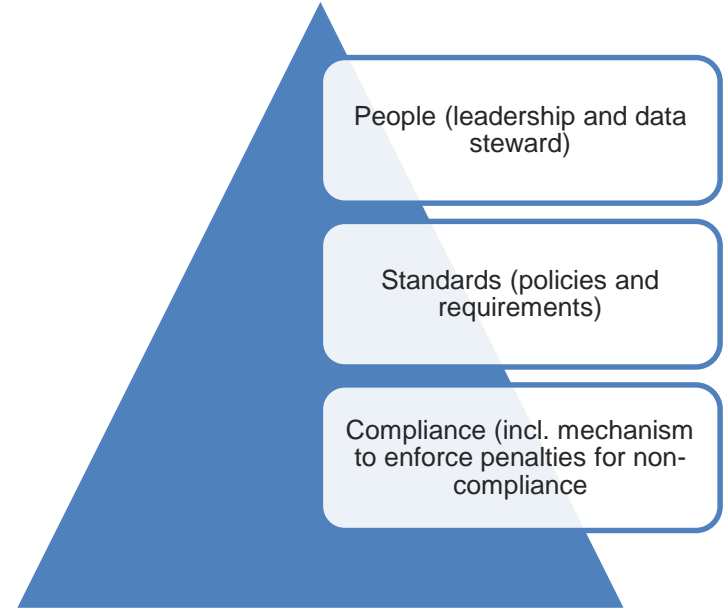
## Compliance

- Lack of incentives.
- Competing priorities in terms of service provision and data management.



# Recommendation

- **Build data governance capacities in local government** (both elected and career civil servants).
- **Develop data architecture standards** including ensuring that metadata is available for each type of datasets **as well as procedures to maintain data accuracy** and the responsibilities matrix associated with these tasks with possible penalties for non-compliance.



Thompson et al. (2015)

# Recommendation (Cont.)

- **Review of existing laws/regulations concerning tasks, roles, and authorities of data producers and data custodians**, including their incentives to ensure that data management tasks do not pose an undue burden to the service delivery activities, compromising quality in both areas.
- **Develop information communication technology (ICT) applications that can improve data collection, repositories, and sharing processes.** Review the different information systems used in the different hierarchical levels to ensure uniformity in standards and related implementation.



OPEN DATA LABS  
JAKARTA

Find out more about us and our projects

[www.labs.webfoundation.org](http://www.labs.webfoundation.org)

@ODLabJkt

Jl. Kudus No 3, Menteng, Jakarta 10310