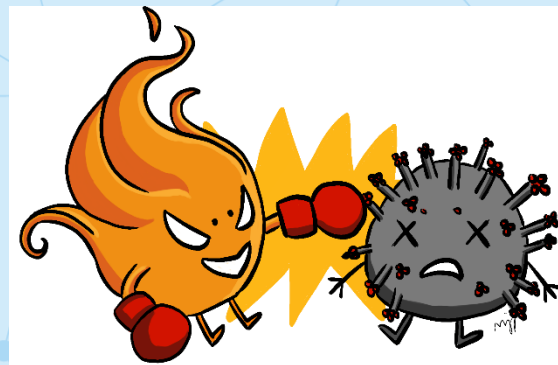# Situation Awareness for Novel Epidemic Response

aka The SANER Project

Fighting COVID-19 with FHIR

Problem Statement

Situational Awareness has been the focus of attention in health IT circles since the detection of potentially pandemic flu strains during the early formation of the Office of the National Coordinator.

- SARS in 2002
- H5N1 (Bird Flu) in 2006
- H1N1 (Swine Flu) in 2009

- MERS in 2012
- H7N9 (another form of Bird Flu) 2013
- SARS-Cov-2 in 2019

Key situational data needs to support awareness of:

1. Local, Regional and National case rates and trends
2. Bed availability for treatment
3. Other resource availability for treatment (e.g., Ventilators, Masks, Test Kits)

Past and Current Efforts

Past Efforts

- OASIS Open Hospital Availability Exchange (HAVE)

- ANSI/HITSP C47 Resource Utilization Message

- AHRQ HAvBED2

Current Efforts

- CDC Reporting Form

- Epic Measure Definitions

- Cerner Public Health Reporting

Project Timeline

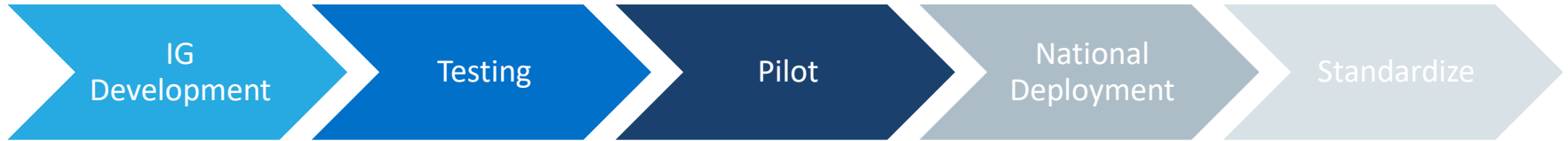| March	April	May	June	July
IG Development	Testing	Pilot	National Deployment	Standardize

- 3/20 Formation
- 3/21 Development
  - 50 pages
- 3/24 Meetings
- 3/29 Rework
  - 100 pages
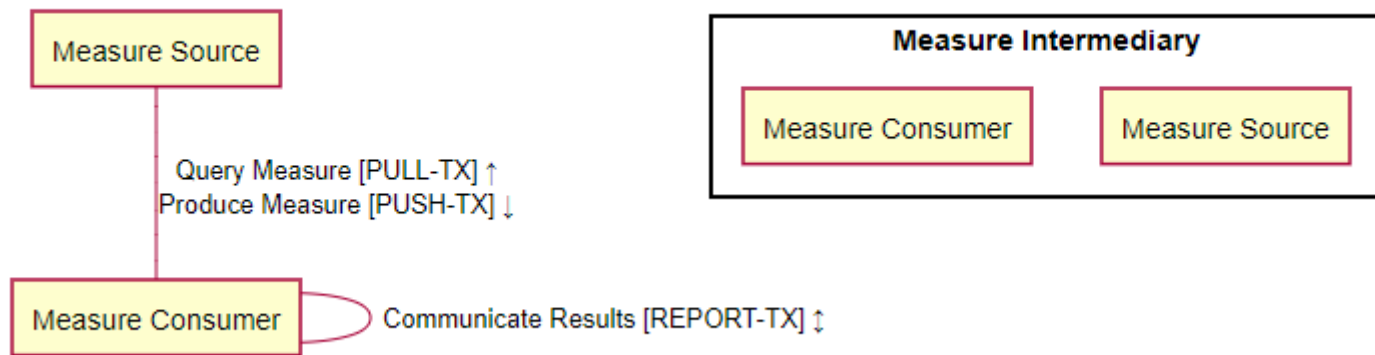
- 3/26 Sample Data
- 3/29 Epic Samples

- 3/24 HL7 Project
- 3/25 Sponsored
- 3/26 Cosponsored
- 4/1 FMG Review
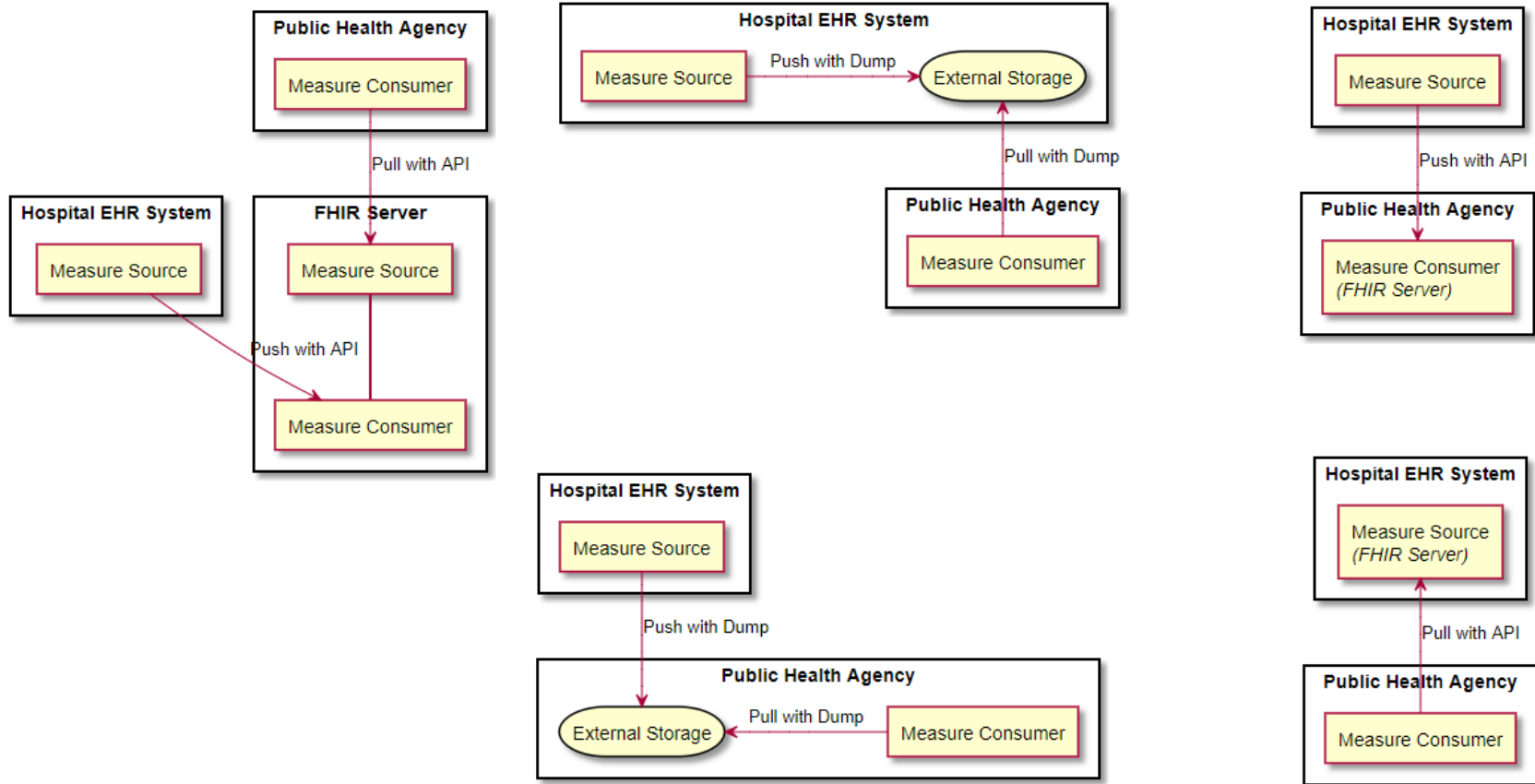- 4/6 TSC Review

AUDACIOUS INQUIRY

Participants

- Electronic Health Records
  - Cerner
  - Epic
  - Meditech
- Medical Equipment
  - GE Healthcare
- Health Information Exchange
  - Audacious Inquiry
  - Carequality
  - New York eHealth Collaborative
  - NextGen
  - Ready Computing

- Standards Development
  - Health Level 7
  - IHE USA
  - OASIS Open
- Gaps
  - Public Health Agencies
  - Hospitals
  - Universities
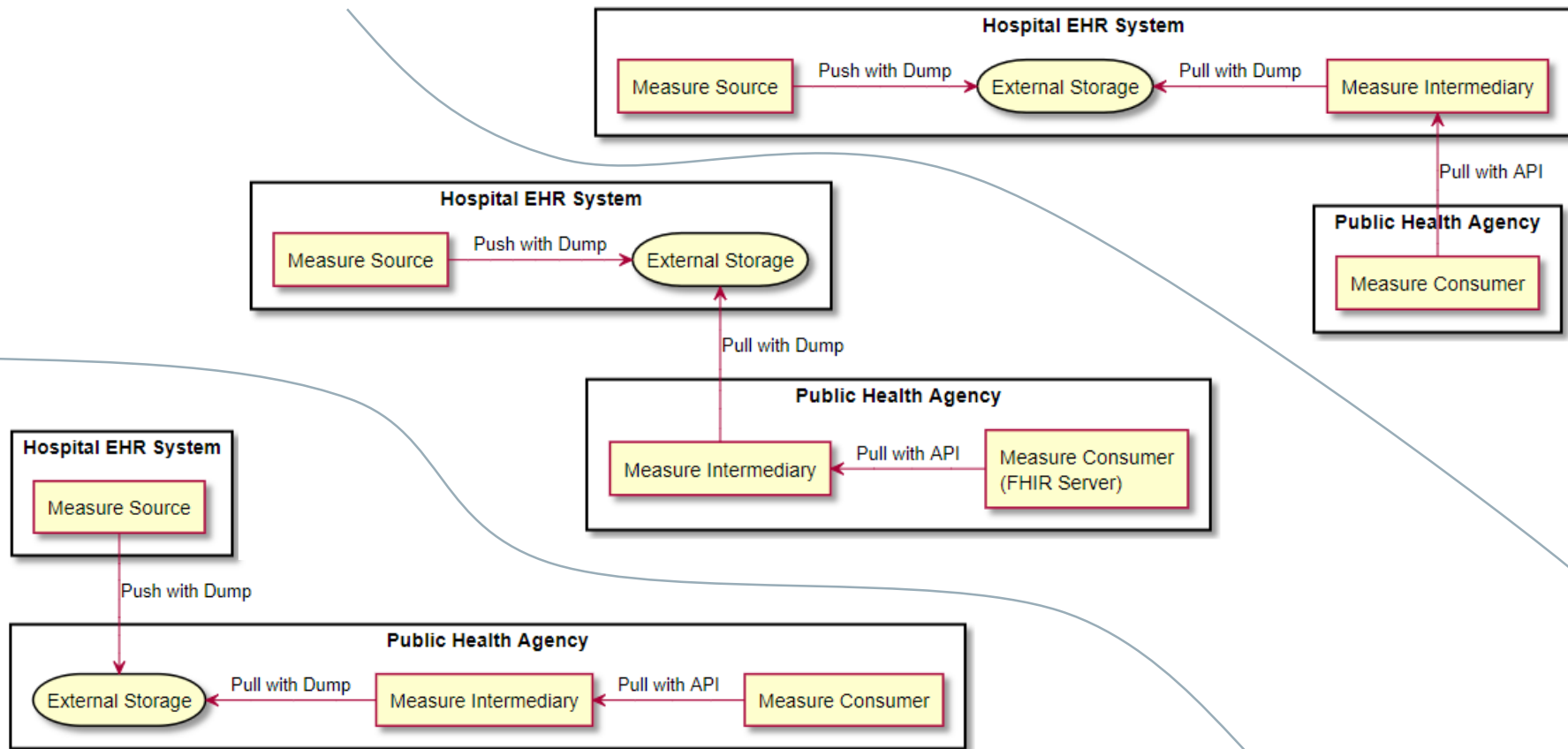 - Geographic Information Systems (GIS)

Architecture

Possible Deployment Models

7

Flexible Security Boundary

Accomplishments

- What we got:
  - Informed others about out project
  - Connected with Public Health Experts
  - Learned about Various Data Sources
  - Added context for non-Health IT Implementers to our Guide
  - Informed IG Architecture and Use Cases

- What we gave:
  - Informed others about HL7 FHIR®
  - Developed an understanding of the needs of the Innovator community
  - Shared Security Considerations with Others
  - Shared Data Sources we knew about

Thank You!

About: http://bitly.com/TheSANERProject
GitHub: https://github.com/AudaciousInquiry/saner-ig
Pages: https://audaciousinquiry.github.io/saner-ig/
CI Build: https://build.fhir.org/ig/AudaciousInquiry/saner-ig/
Meetings: https://meetings.ringcentral.com/j/4801247062