

Public Health and Health Information Exchange

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Health Information Exchange

- ▶ Transfer of appropriate information from source to receiver, e.g.:
 - Provider to provider
 - Provider to patient
 - Provider to public health
 - Lab to provider +/- or public health
 - ▶ Unidirectional vs. bidirectional
 - ▶ Phone, mail, fax, electronic
 - ▶ Electronic models
 - Direct from EHR
 - Indirect via HIE
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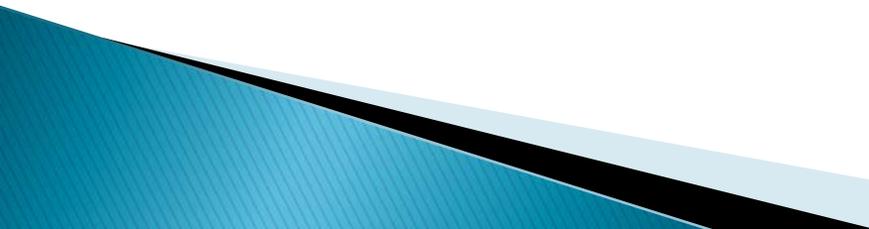
HIE, cont.

- ▶ Types of HIEs
 - Provider network (e.g. clinic system)
 - Health system (e.g. Kaiser)
 - Community (e.g. Inland Empire, PPHealthHub)
 - Commercial (e.g. Cerner)
 - ▶ Data transmission models
 - Point-to-point
 - Point-to-distribution
 - ▶ Data repository vs. data router
 - ▶ HIEs currently used by most large hospitals, healthcare systems, commercial labs
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Critical Data for Public Health

- ▶ Reportable Conditions under Title 17
 - ▶ Syndrome Surveillance data
 - ▶ Reportable data under Meaningful Use
 - ▶ Vital Statistics
 - ▶ Community Health Indicator data
 - ▶ Needs Assessment data
 - ▶ Public Health Nursing and case management data
 - ▶ Jurisdiction-specific data
 - ▶ Clinical data for jurisdiction clients
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Title 17 Reporting

- ▶ Reportable communicable diseases and selected other conditions (e.g. certain toxins, syndromes)
 - ▶ Occurrence of any unusual disease
 - ▶ Outbreaks of any disease
 - ▶ Lapses of consciousness
 - ▶ Childhood lead poisoning
 - ▶ Reporters: providers, laboratories, schools, facilities
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Meaningful Use

- ▶ Syndrome Surveillance data – EH/CAH core, EP menu
 - Commercial, BioSense 2.0, local/regional custom system
- ▶ Electronic laboratory data – EH/CAH core
 - Communicable diseases, lead, cancer
- ▶ Immunization data – EH/CAH & EP core
- ▶ Cancer data – EP menu
- ▶ “Special Registry” data – EP menu
 - Up to Public Health Agency

Other Data

- ▶ Vital Statistics

- Birth records, Death records, Fetal & Infant Mortality

- ▶ Community Health Indicator Data

- BRFSS and other surveys, OSHPD data, County Health Rankings, smoking rates, obesity rates, poverty rates

- ▶ Needs Assessment data

- MAPP, hospital IRS, other generalized assessments
 - MCAH, Mental Health, other specific assessments
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Other Data, cont.

- ▶ Public Health Nursing and case management
 - At-risk families, foster care, Ryan White, TB, STDs
- ▶ Jurisdiction-Specific Data
 - Emergency Medical Services, animal bites, chronic diseases (e.g. asthma, cholesterol level, HbA1c), injuries, 'public health importance'
- ▶ Clinical data
 - CCS clients, CHDP
 - Primary care, mental health, dental, substance abuse

Data Partners

▶ Sources / senders

- Healthcare providers, healthcare facilities, EMS
- Laboratories, including out-of-state
- Other LHDs, CDPH
- Clients, managed care plans, CBOs, schools, etc.

▶ Receivers

- CDPH, other State Agencies (DHCS, EMSA, etc.), CDC
- Community partners, clients, other LHDs

Uses of Data

- ▶ Case reports, case investigation
 - ▶ Outbreak detection
 - ▶ Outbreak investigation and control
 - ▶ Disease surveillance and trend analysis
 - ▶ Community health status & improvement
 - ▶ Program implementation and evaluation
 - ▶ System assessment (e.g. EMS)
 - ▶ Client care
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Data Pathways

- ▶ Transmission methods
 - Fax, mail, telephone
 - Electronic lab reports
 - Health information exchanges (increasingly common)
- ▶ Pathways
 - Source -> LHD -> State
 - Source -> State -> LHD
 - Source -> HIE -> State and/or LHD
- ▶ Mostly point-to-point
- ▶ Labs/hospitals: up to dozens of data receivers

Meaningful Use & ACA: Opportunities

- ▶ Meaningful Use
 - Financial incentives & penalties for EHRs
 - Public Health Objectives: Immunization, ELR, SS
 - Cancer and “Special” Registries
 - Promotes health information exchanges
- ▶ Affordable Care Act (healthcare reform)
 - Promotes prevention & primary care partnerships

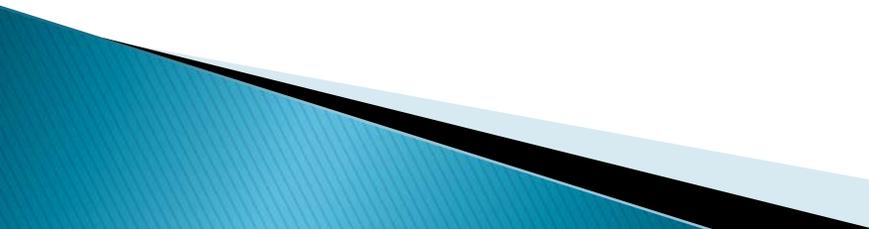
CDPH HIE Gateway

- ▶ Router to specific CDPH programs
 - ▶ Helping to support over 200 internal applications
- ▶ Single user registration and data transmission locus
- ▶ Currently routes public health data to CAIR registries and to CalREDIE
- ▶ Will soon also route to RASSCLE (childhood lead registry) and cancer registries
- ▶ Supports registration for Meaningful Use on behalf of LHDs
- ▶ Scalable and flexible

Solution Approach for LHDs

- ▶ Local public health works with its healthcare providers in alignment and support of Federal and State efforts
- ▶ Local public health can delegate to provide services on its behalf
- ▶ HITECH represents a great opportunity
 - Public health staff can shift resources from data collection to data use and application
 - Transition from faxes and manual entry to electronic
- ▶ *If public health is ready and able*

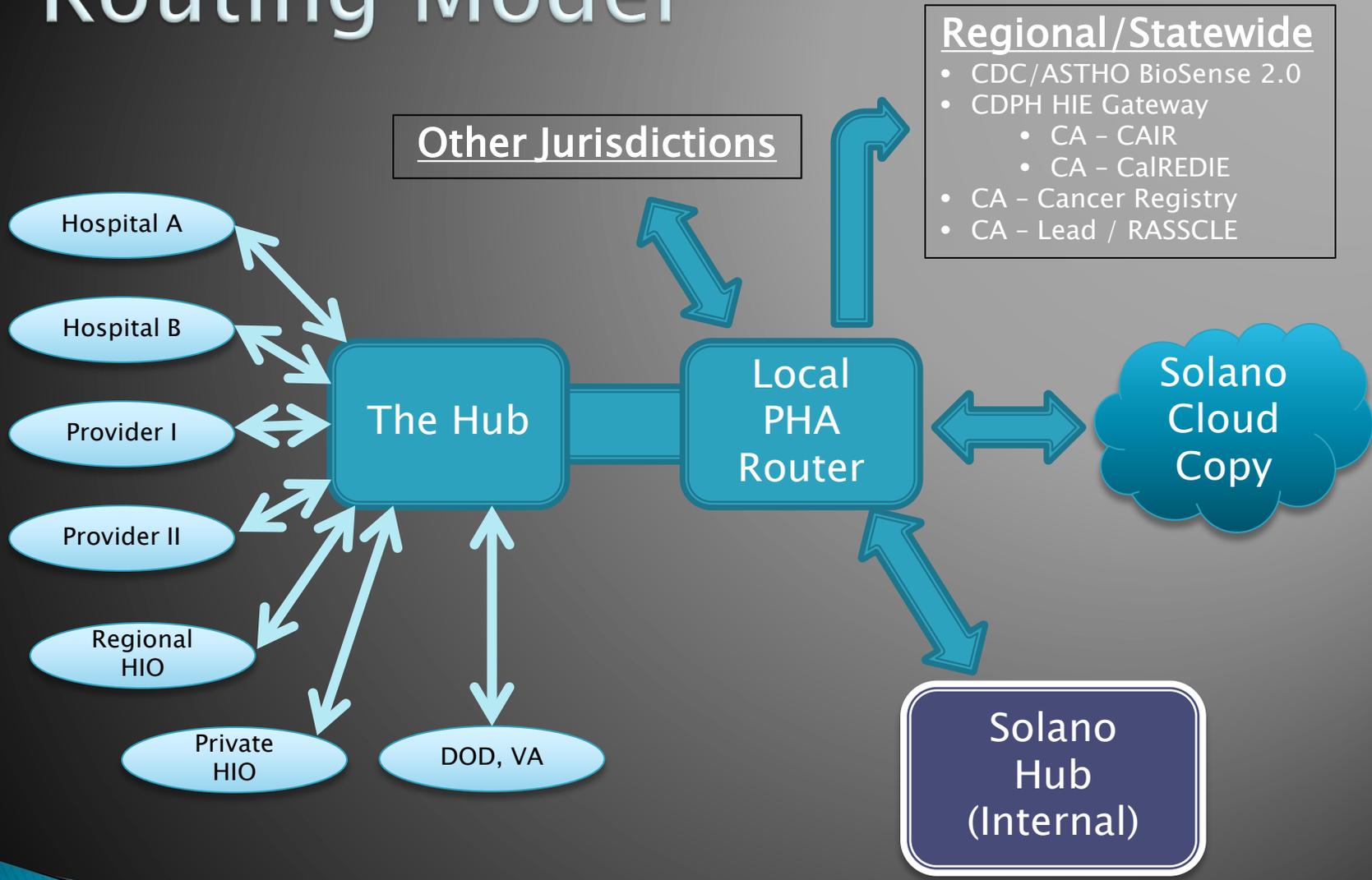
A Potential Solution for LHDs

- ▶ Current approach for data transmission to LHDs too inefficient, variable quality
 - ▶ Substantial burden on data sources, esp. hospitals and labs
 - ▶ Substantial burden on LHDs for data acquisition and quality assurance
 - ▶ Scalability limited
 - ▶ Preferred model: a single data feed to public health
 - Electronic data transmission to a router/hub
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The “Hub”

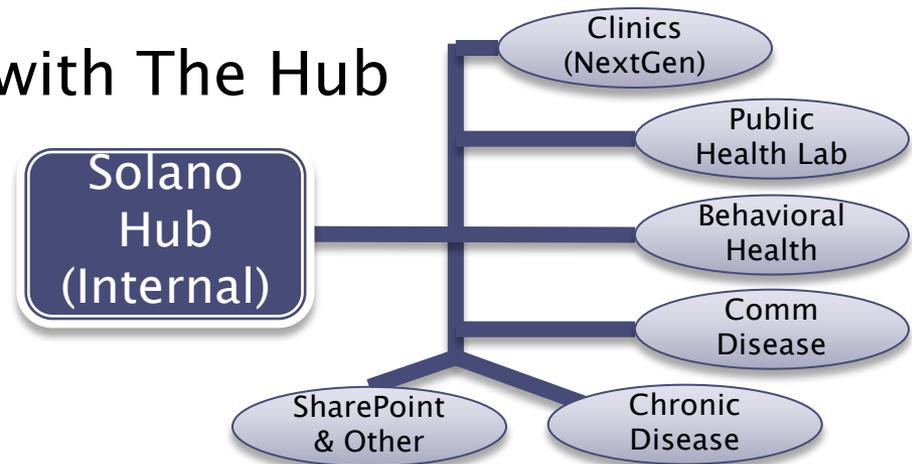
- ▶ All public health data flow to “hub”, which both translates data (QA) and routes to destinations, including CDPH HIE Gateway
 - ▶ Subscription Software as a Service model
 - ▶ Data available “in the cloud” or a local copy under the governance of local public health and its partners, or both
 - ▶ Allows jurisdictions to focus on internal needs with a single feed from healthcare
 - ▶ Can be cost justified under PHEP and other Federal funding
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Routing Model



Internal Value for Solano

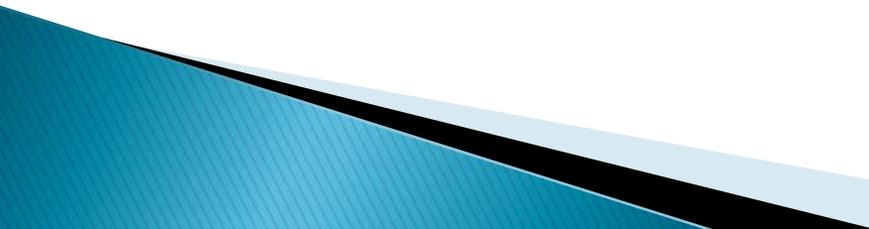
- ▶ Solano focuses on its internal needs
- ▶ Burden of data exchange shared with healthcare partners and other jurisdictions
- ▶ Enables statewide and interstate exchange to meet healthcare partner models
- ▶ Solano has implemented “Mirth” for its internal hub
 - Uses HITECH standards with The Hub
 - Internal stays internal
 - Data QA before entry
 - Allows cost-sharing



Meaningful Use & Title 17 Reporting

- ▶ Online tools for Meaningful Use Attestation, status tracking and electronic information exchange
 - ▶ Routing data to jurisdiction-identified systems, such as BioSense 2.0, CDPH HIE Gateway, Immunization Registries, local case reporting, others
 - ▶ Collaboration tools to coordinate activities and share information with Partners
 - ▶ And more...visualize local and regional information with Partners (de-identified)
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Benefits to Public Health

- Realize the potential of Meaningful Use reporting
 - Improve Community Health by enhancing Partner relationships
 - Quality electronic data and information
 - Significant cost savings and error reduction
 - Give back to Partners
 - Technical scalability and sustainability
 - Shared governance and management oversight by BEACH
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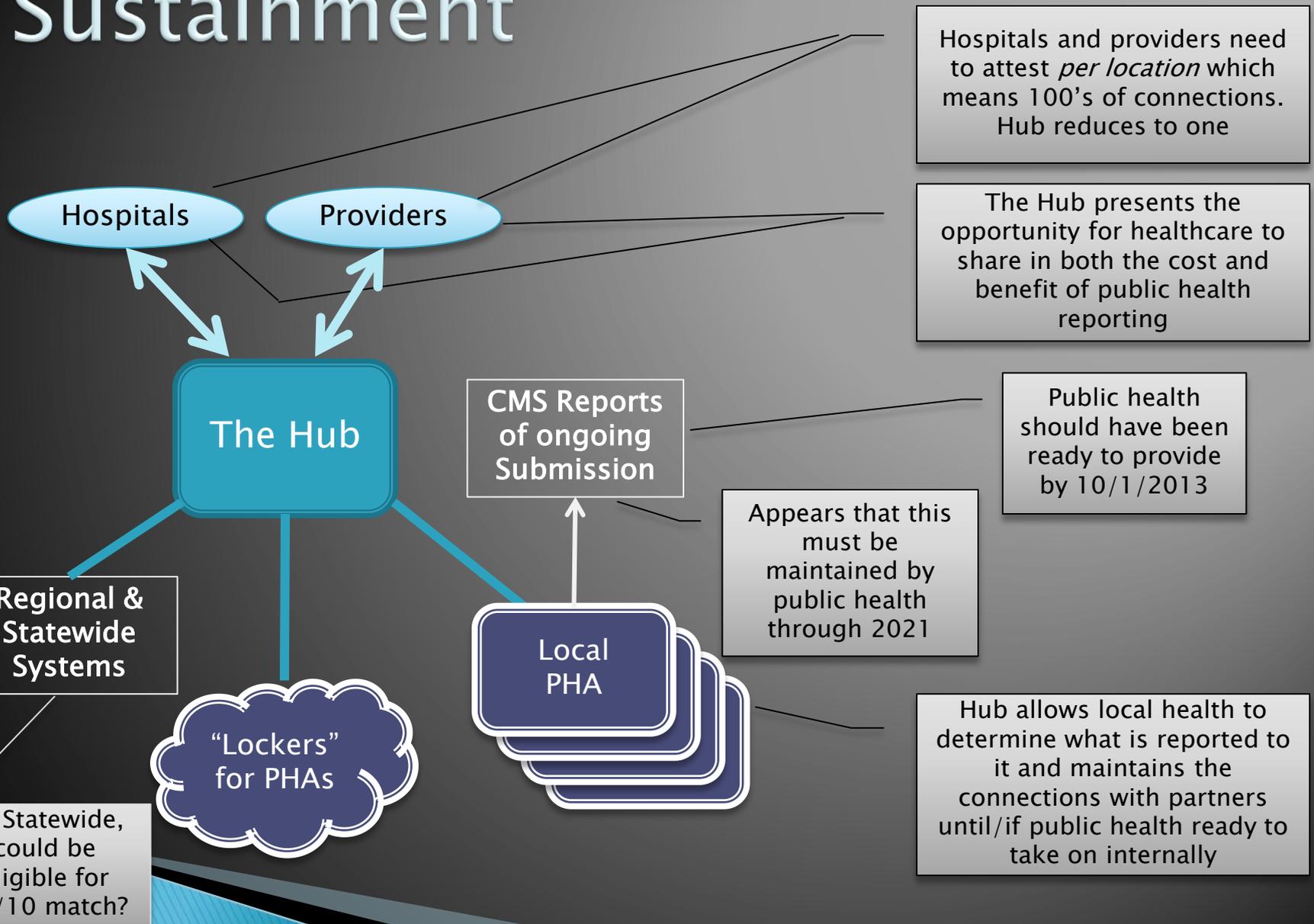
“Delivery” Components

- ▶ More than just the technology
- ▶ Technical
 - Connections, data exchange, translation, etc.
 - Separate “build” cost from ongoing operations
- ▶ Administrative
 - Public health tracking status of each Partner and connection for CMS through 2021
- ▶ Programmatic
 - Non-Meaningful Use partners (commercial labs)
 - Data reporting quality, use, assurance and analysis



Where we should be focusing our resources

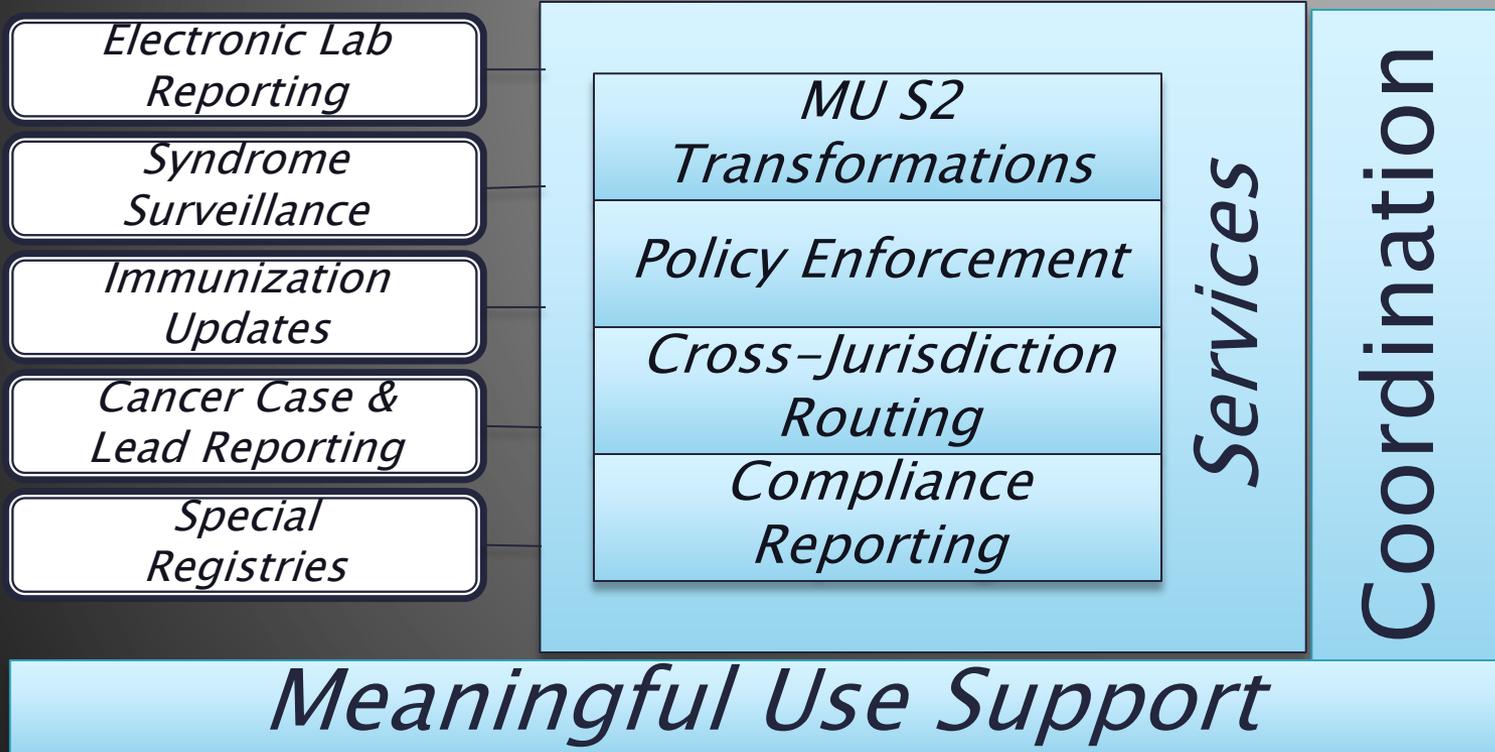
Sustainment



Solano Initiatives

- ▶ Support for Meaningful Use Stage 2, Title 17
 - Data routing
 - Solano “lock box”
 - Cloud analytics, visualization
- ▶ Point of Use Dx and data – A1C, Cholesterol, BMI
- ▶ Workflow assessment: lead screening, follow-up and case mgt., env’l assessment, remediation
- ▶ Public Health Laboratory
- ▶ Clinics
 - MU Stage 2 – community connections
 - Public Health Laboratory regional service
- ▶ NetSmart (behavioral health)

PPHealthHub Services



Introduction Site



Solano County

The Population and Public Health Hub (PPHealthHub) is your single point of access for collaboration, data exchange and situation awareness with Solano County Health and Social Services (HSS) and community public health partners.

Start Today!

It's Easy

Solano County HSS partners now have a single location to collaborate and send their immunization, syndrome surveillance, laboratory results, case reports, and other public health data. The PPHealthHub makes it easy and ensures that local, regional, state and federal systems, including BioSense and CaLEDIE, are updated for you.

Infrastructure

Public health is about the Community including our healthcare partners. PPHealthHub provides a shared public health infrastructure that reduces the burden of reporting, mitigates impacts on internal systems, and allows us all to access community health information through a collaborative governance process.

Meaningful Use

Solano County accepts all Stage 1 and Stage 2 Meaningful Use population and public health Core and Menu measures through the PPHealthHub. Solano County HSS is here to help your organization meet Meaningful Use and Public Health reporting requirements with our streamlined processes. Team Up today!

Provider registration page

[Home](#) [Process](#) [FAQs](#) [Join Up](#) [Contact](#)

Registration of Intent

Completion of the form below will constitute your registration of intent for Meaningful Use certification. Upon receipt of this form the Solano County HSS will contact you to gather additional information needed to setup your online hub account. Once your organization has been confirmed a questionnaire will be emailed to you with instructions.

Organization:

First Name:

Last Name:

Primary Email:

Example: username@organization.com

Re-enter Primary Email:

Secondary Email:

Is your organization interested in meaningful use?

- Yes
 No

Which meaningful use stage is your organization attesting for?

- Stage 1
 Stage 2

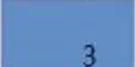
What is your anticipated attestation date?

January ▼ 01 ▼ 2014 ▼

Which of the following datasets are you interested in reporting data for?

- Reportable Laboratory Results
 Syndrome Surveillance
 Immunizations Registry
 Cancer Case
 Public Health Case
 Chronic Disease Case

Meaningful Use Dashboard

Organization	Number of Sites	Total Data Feeds	Status of Enroll	Prepare		Affirm		On-Board			LIVE
				Connect	A-Ucs	Upload	A-Msgs	Transfer	P-Msgs	Parallel	PROD
NorthBay Healthcare	7	23	 4	 57%	 61%	 29%	 13%	 29%	 22%	 17%	 4%
Kaiser Permanente	4	16	 3	 50%	 50%	 25%	 6%	 25%	 19%	 13%	 0%
Sutter Health	4	12	 2	 25%	 25%	 0%	 0%	 0%	 0%	 0%	 0%
Solano County Public Health	2	6	 1	 50%	 17%	 50%	 0%	 0%	 0%	 0%	 0%
LaClinica	2	5	0	 0%	 0%	 0%	 0%	 0%	 0%	 0%	 0%
Alpha Pregnancy Medical Clinics of Northern CA	1	2	 1	 100%	 50%	 100%	 50%	 0%	 0%	 0%	 0%

Dashboard Drill-down

Organization	Site Name	Sites	Number Data Feeds	Status of Enroll	Prepare		Affirm		On-Board			LIVE
					Connect	MSGs	Upload	MSGs	Transfer	PMSGs	Parallel	
NorthBay		7	23	4	57%	61%		13%		22%		
	NorthBay Medical Center		6			83%		17%		33%	33%	17%
	NorthBay Vacaville Hospital		4			75%		25%		25%	25%	0%
	Center for Primary Care - Fairfield		3			100%		33%		33%	33%	0%
	Center for Primary Care - Green Valley		3			33%		0%		0%	0%	0%
	Center for Primary Care - Vacaville		2			50%		0%		50%	0%	0%
	Center for Woman's Health		3			0%		0%		0%	0%	0%
	Wound Center		2			50%		0%		0%	0%	0%

Collaboration



PPHealthHub

Solano County

Dashboard

Notebook

Task List

Calendar

Members

Layers

Feed Reader

3D HTML5 Viewer

bing Terrain data courtesy Analytical Graphics, Inc.

Apr 1 2014 12:52:18 UTC

Apr 2 2014 00:00:00 UTC

Apr 2 2014 12:00:00 UTC

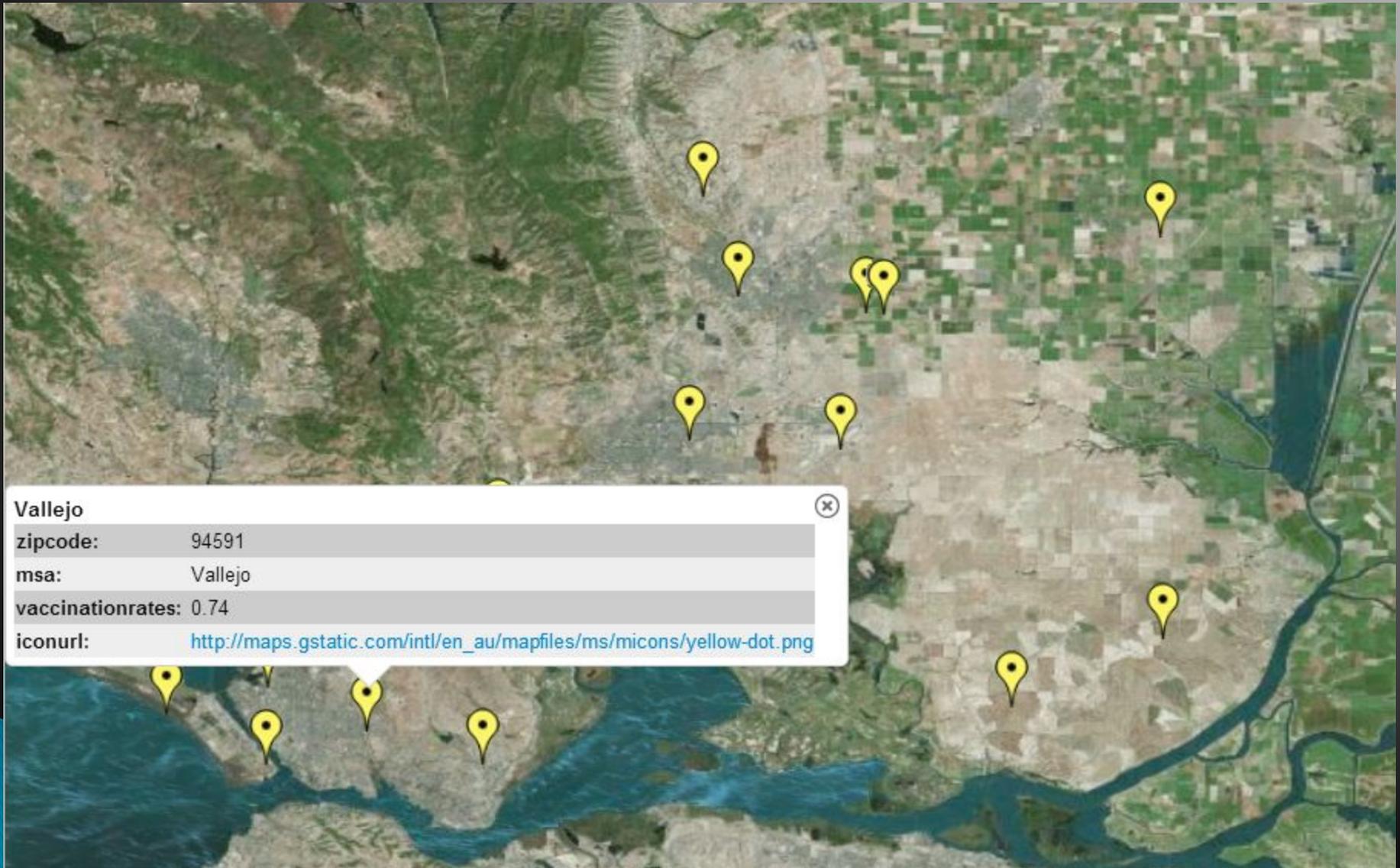
Meeting Status

There are currently no active meetings.
[Create a new meeting.](#)

March 2014

S	M	T	W	T	F	S
23	24	25	26	27	28	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22

Realizing Value



Options for Public Health

▶ Standard Edition

- Partner Enrollment, Validation and Collaboration
- Meaningful Use and Title 17 processing of Stage 2 NIST-Compliant Messages
- Dashboard for Attestation Status and Affirmation of receipt
- Exchange of Immunization, Syndrome Surveillance and Electronic Laboratory Reports

▶ Advanced Edition

- All the features of the Standard Addition
- Cloud access to jurisdictional data in identified and de-identified forms and to analytics
- Visualization of jurisdictional and regional information

But....

- ▶ Does it compete with the State?
 - ▶ Don't have the technology
 - ▶ Don't have the resources
 - ▶ Can't afford to buy it
 - ▶ Can't afford to maintain it
 - ▶ Don't know what to do with all the data
 - ▶ Does it work?
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PPHealthHub is operational

- ▶ Over a year of testing and validation
 - San Diego Beacon Community performed comprehensive testing including cross-jurisdictional routing
 - CA State CHeQ production readiness with CAIR Immunization Messaging Portal via San Diego Health Connect
- ▶ Serving Partners
 - Solano County is in Stage 2 Year 1 with Partners
 - Stage 2 Attestation begun for SDHC Participants