Enabling Health Information Exchange in California: A Public Health Perspective

North Coast Health Information Association

December 2, 2010

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A Public Health Perspective on HITECH

- Meaningful Use – What does it mean?
- Meaningful Use and Public Health
- Public Health and the HIE
- Programmatic Example: Vital Records

Meaningful Use – What does it mean?

EHR Incentive Program from CMS

vs.

EHR Certification by Office of the National Coordinator for Health IT (ONC)

Two regulations that are linked together

EHR Incentive Program

Final Rule Released – July 13, 2010

Providers must demonstrate meaningful use by:

1. Use of certified EHR technology in a **meaningful manner** such as e-prescribing;
2. That the certified EHR technology is connected in a manner that provides for the **electronic exchange** of health information to improve the quality of care; and
3. In using this technology, the provider submits to the Secretary information on **clinical quality measures** and such other measures selected by the Secretary

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Stage 1 Objectives / Measures

- Core (required) and Menu (partially optional)
  - 25 for Eligible Providers / 24 for Eligible Hospitals
  - 10 Menu Measures – 5 may be excluded
  - 3 Public Health Measures in the Menu list – one must be chosen
- 15 Clinical Quality Measures for Eligible Hospitals

Meaningful Use and Public Health

- Review of Objectives: Core vs. Menu
- Public Health Measures Defined
- Provider and Hospital Requirements

Priority 1 - Improving quality, safety, efficiency, and reducing health disparities (Core Objectives)

- Use CPOE for medication orders directly entered by any licensed healthcare professional who can enter orders into the medical record per state, local and professional guidelines
- Implement drug-drug and drug-allergy interaction checks
- Generate and transmit permissible prescriptions electronically (eRx) *
- Record demographics
  - Preferred language; Gender; Race; Ethnicity; Date of birth; (Date of death and preliminary cause of death)**
- Maintain an up-to-date problem list of current and active diagnoses
- Maintain active medication List
- Maintain active medication allergy list
- Record and chart changes in vital signs:
  - Height; Weight; Blood pressure; Calculate and display BMI; Plot and display growth charts for children 2-20 years, including BMI
- Record smoking status for patients 13 years old or older
- Implement one clinical decision support rule relevant to specialty or high clinical priority along with the ability to track compliance that rule
- Report ambulatory clinical quality measures to CMS or the States

Priority 2, 3, 5 (Core Objectives)

Engage patients and families in their health care

- Provide patients with an electronic copy of their health information (including diagnostic test results, problem list, medication lists, medication allergies), upon request
- Provide patients with an electronic copy of their discharge instructions at time of discharge, upon request **
- Provide clinical summaries for patients for each office visit *

Improve care Coordination

- Capability to exchange key clinical information (for example, problem list, medication list, medication allergies, diagnostic test results), among providers of care and patient authorized entities electronically

Ensure adequate privacy and security protections for personal health information

- Protect electronic health information created or maintained by the certified EHR technology through the implementation of appropriate technical capabilities

* Indicates Provider only; ** Indicates Hospital only

Priority 1 & 2 (Menu Objectives)

Improving quality, safety, efficiency, and reducing health disparities

- Implement drug formulary Checks
- Record advance directives for patients 65 years old or older **
- Incorporate clinical lab test results into certified EHR technology as structured data
- Generate lists of patients by specific conditions to use for quality improvement, reduction of disparities, research or outreach
- Send reminders to patients per patient preference for preventive/ follow up care *

Engage patients and families in their health care

- Provide patients with timely electronic access to their health information (including lab results, problem list, medication lists, medication allergies) within four business days of the information being available to the EP *
- Use certified EHR technology to identify patient-specific education resources and provide those resources to the patient if appropriate

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Priority 3 & 4 (Menu Objectives)

Improve care Coordination

- The EP, eligible hospital or CAH who receives a patient from another setting of care or provider of care or believes an encounter is relevant should perform medication reconciliation
- The EP, eligible hospital or CAH who transitions their patient to another setting of care or provider of care or refers their patient to another provider of care should provide summary of care record for each transition of care or referral

Improve population and public health

- Capability to submit electronic data to immunization registries or Immunization Information Systems and actual submission in accordance with applicable law and practice
- Capability to submit electronic data on reportable (as required by state or local law) lab results to public health agencies and actual submission in accordance with applicable law and practice **
- Capability to submit electronic syndromic surveillance data to public health agencies and actual submission in accordance with applicable law and practice

Measures that states could add requirements to as they pertain to public health objectives and data registries:

CDPH encourages providers to choose:

Generate lists of patients by specific conditions to use for quality improvement, reduction of disparities, research, or outreach

Problem list; Medication list; Demographics; & Laboratory test results

CDPH is assessing public health readiness (state and local) capability to submit electronic data:

- To immunization registries
- Reportable lab results to public health agencies
- Syndromic surveillance data to public health agencies

Clarification of Public Health Measures

- In addition, achieving Stage 1 meaningful use means demonstration of progress in each of the five healthcare outcome priorities outlined in the proposed rule and discussed again later in this section.
- Only one of these priorities is not represented in the core set, population and public health. As we have discussed in this section we do not want any priority to be overlooked due to the flexibility we have added to Stage 1 of meaningful use;
- **therefore, all EPs and hospitals must choose at least one of the population and public health measures to demonstrate as part of the menu set.**
- This is the only limitation placed on which five objectives can be deferred from the menu set.
- **Paragraph Citation** 75 FR 44328 **Page** 44328

Policy Priority #4
Improving population and public health

- The fourth health outcomes policy priority identified by the HIT Policy Committee is improving population and public health.
- The HIT Policy Committee identified the following care goal to address this priority:

The patient's health care team communicates with public health agencies.

Paragraph Citation 75 FR 44364 **Page** 44364

Meaningful Use Requirements Eligible Providers

Must select **one** of the following:

- Capability to submit electronic data to **immunization registries** and actual submission where required and accepted.
- Capability to provide electronic **syndromic surveillance** data to public health agencies and actual transmission according to applicable law and practice.

Meaningful Use Requirements Eligible Hospitals

Must select **one** of the following:

- Capability to submit electronic data to **immunization registries** and actual submission where required and accepted.
- Capability to provide electronic submission of reportable (as required by state or local law) **lab results** to public health agencies and actual submission where it can be received.
- Capability to provide electronic **syndromic surveillance** data to public health agencies and actual transmission according to applicable law and practice.

Electronic Data to Immunization Registries

Objective: Capability to submit electronic data to immunization registries of Immunization Information Systems and actual submission in accordance with applicable law and practice.

Measure: Performed at least one test of certified EHR technology's capacity to submit electronic data to immunization registries and follow up submission if the test is successful

Stage 1 EHR Standards and Certification

Final Rule Text:

Submission to immunization registries. Electronically record, modify, retrieve, and submit immunization information in accordance with:

(1) The standard (and applicable implementation specifications) specified in rule:

- HL7 2.3.1 Implementation Guide for Immunization Data Transactions using HL7 2.3.1 Standard Protocol Implementation Guide Version 2.2;
- HL7 2.5.1 Implementation Guide for Immunization Messaging Release 1.0; and

(2) At a minimum, the version of the standard specified in rule:

HL7 Standard Code Set CVX - Vaccines Administered, July 30, 2009 version

Electronic Data on Reportable Lab Results

Objective: Capability to submit electronic data on reportable lab results to public health agencies and actual submission in accordance with applicable law and practice.

Measure: Performed at least one test of certified EHR technology's capacity to submit electronic data on reportable lab results to public health agencies and follow-up submission if the test is successful

Stage 1 EHR Standards and Certification

Final Rule Text:

Reportable lab results. Electronically record, modify, retrieve, and submit reportable clinical lab results in accordance with the standard (and applicable implementation specifications) specified in rule:

HL7 Version 2.5.1 Implementation Guide: Electronic Laboratory Reporting to Public Health, Release 1 (US Realm); and

At a minimum, the version of the standard specified in rule:

Logical Observation Identifiers Names and Codes (LOINC®) version 2.27, when such codes were received within an electronic transaction from a laboratory.

Other Objectives of Particular Public Health Interest

- Record demographics
  - preferred language
  - gender
  - race
  - ethnicity
  - date of birth
  - date of death and preliminary cause of death (hospitals)

Cause of Death

- California contracts with the National Center for Health Statistics for Cause of Death Coding
- For more information on collection of Cause of Death to improve the quality of coding please see:

  http://www.cdc.gov/nchs/nvss/writing_cod_statements.htm

Other Objectives of Particular Public Health Interest Cont.

- Record and chart changes in vital signs:
  - Height
  - Weight
  - Blood pressure
  - Calculate and display BMI
  - Plot and display growth charts for children 2-20 years, including BMI
- Record smoking status for patients 13 years old or older

Stage 1 EHR Standards and Certification

Final Rule Text:

Smoking status. Enable a user to electronically record, modify, and retrieve the smoking status of a patient.
Smoking status types must include:

- current every day smoker
- current some day smoker
- former smoker
- never smoker
- smoker, current status unknown
- unknown if ever smoked

Note: This reflects agreement among CMS, ONC, and CDC; the fields associated with this measure should mirror those expressed in CDC, National Center for Health Statistics, National Health Interview Survey related to smoking status recodes.

Other Objectives of Particular Public Health Interest Cont.

- Report ambulatory clinical quality measures to CMS or the States
- Incorporate clinical lab test results into certified EHR technology as structured data
- The EP, eligible hospital or CAH **who transitions their patient to another setting of care** or provider of care or refers their patient to another provider of care should **provide summary of care** record for each transition of care or referral

Public Health Status to Receive Submissions

- Currently assessing capability as readiness varies by region and program.
- Guidance and readiness will be posted on the CDPH eHealth Web Page:

http://www.cdph.ca.gov/data/informatics/Pages/eHealth.aspx

Public Heath and the HIE

- History of exchanging data between providers and local, state and federal health departments
- Centers for Disease Control and Prevention (CDC) has been lead in developing the Public Health Information Network (PHIN) and a number of other efforts to improve reporting by leveraging technology and standards
- PHIN is now aligning with the policy direction from ONC and CMS in developing NHIN

Common Terms

- HIT – Health Information Technology
- HIE – Health Information Exchange
- NHII – National Health Information Infrastructure
- NHIN – National Health Information Network

ARRA HITECH Bill

NHII for electronic use and exchange of health data to:

- Improve public health activities
- Improve efforts to reduce health disparities
- Improve health care quality and reduce medical errors
- Facilitate early and rapid response to public health threats and emergencies, including infectious disease outbreaks
- Promote early detection, prevention and management of chronic diseases

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California eHealth- Purpose

To dramatically improve safe and secure patient and provider access to personal and population health information and decision-making processes, benefiting the health and wellbeing, safety, efficiency, and quality of care for all Californians.

http://www.ehealth.ca.gov

California eHealth Objectives

1) To ensure patients have safe, secure access to their personal health information and the ability to share that information with others involved in their care

2) To engage in an open, inclusive, collaborative, public-private process that supports widespread EHR adoption and a robust, sustainable statewide health information exchange

3) To improve health care outcomes and reduce costs

4) To maximize California stakeholders' access to critical ARRA stimulus funds

5) To integrate and synchronize the planning and implementation of HIE, HIT, telehealth and provider incentive program components of the federal stimulus act

6) To ensure accountability in the expenditure of funds

7) To improve public and population health through stronger public health program integration, bio-surveillance and emergency response capabilities

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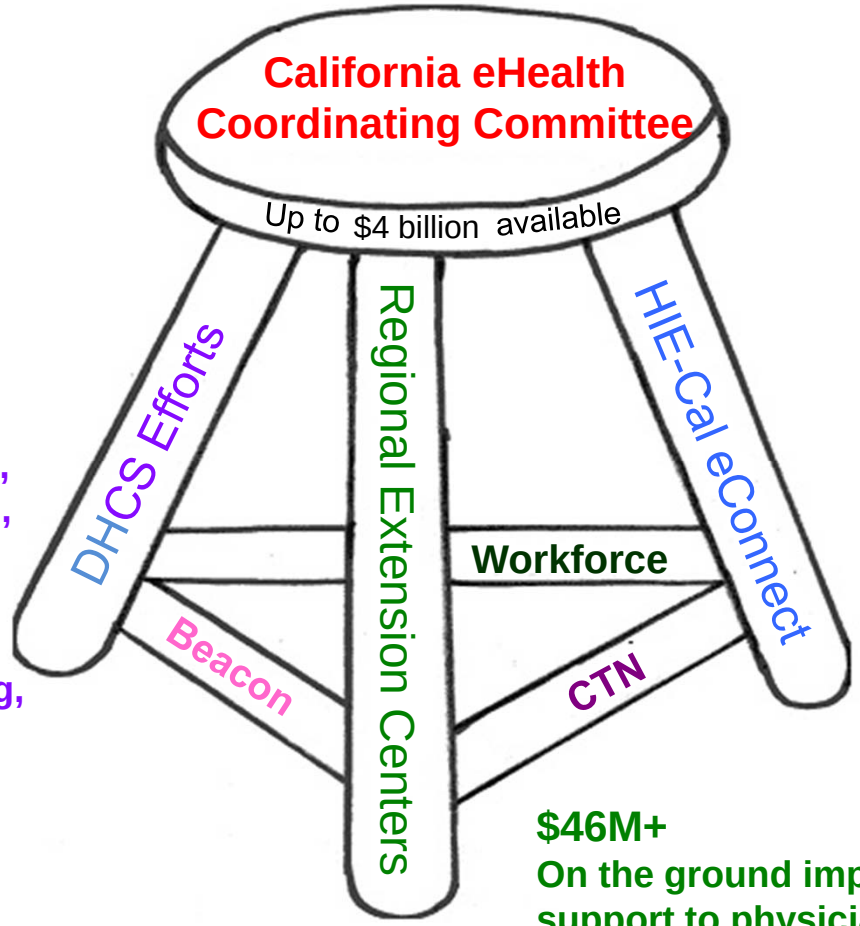
The Big Picture



$1.4 billion in Medi-Cal EHR incentives + ~$25-$30M
Overall EHR Medicaid admin, plan, promotion, payment, consumer education, quality reporting, oversight

$38.8M
Support and infrastructure to make information exchange between sectors faster, more efficient and more secure

$46M+
On the ground implementation support to physicians, hospitals and community health centers

Public Health Moving Forward with HIE

- Evaluate public health programs that may provide services to the HIE for consumption by providers and facilities
- Consider how public health programs may leverage services being developed within surveillance, evaluation and regulatory systems
- Participate in standards and implementation development to ensure public health requirements are met while minimizing burden on providers and other components of the health care system

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Public Health Interfaces with Health Information Exchange

Programmatic Example: Vital Records

EHRs and Vital Records

- EHRs will capture information that must be reported for Vital Record Events
- Meaningful Use requirements will drive availability of each data field
- Standards will be drivers for NHIN
- Vital records must be able to receive information through HIE and contribute to it

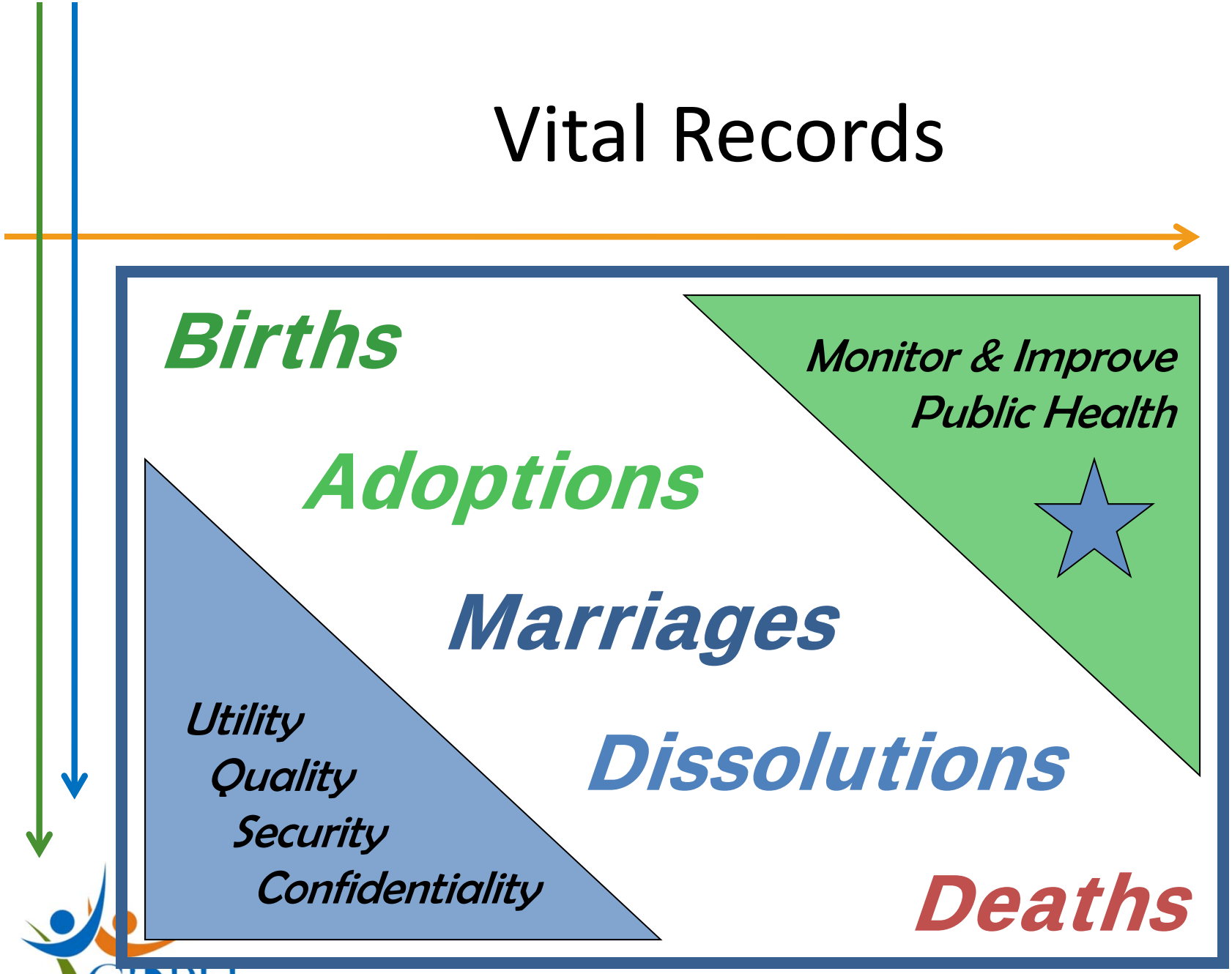
Vital Record Uses

- Issuance, Verification, Certification
  - Legal purposes for individual and for organizations
  - Foundation for revenue that supports the vital records system
- Data & Information Dissemination
  - Analysis and reporting by local, state and national health departments
  - Use of data by researchers and others

Vital Records Support Many Services

- Population Census
- Diseases & Conditions
- Identity
- Fraud Prevention
- Surveillance
- Age
- Market Analysis
- Quality Assurance

Vital Records



Why does HIE matter to vital records?

- Exchange of data from vital records serves many functions
- Vital records through the National Association for Public Health Statistics and Information Systems (NAPHSIS) has two national health information exchanges: EVVE and STEVE

Electronic Verification of Vital Events (EVVE)

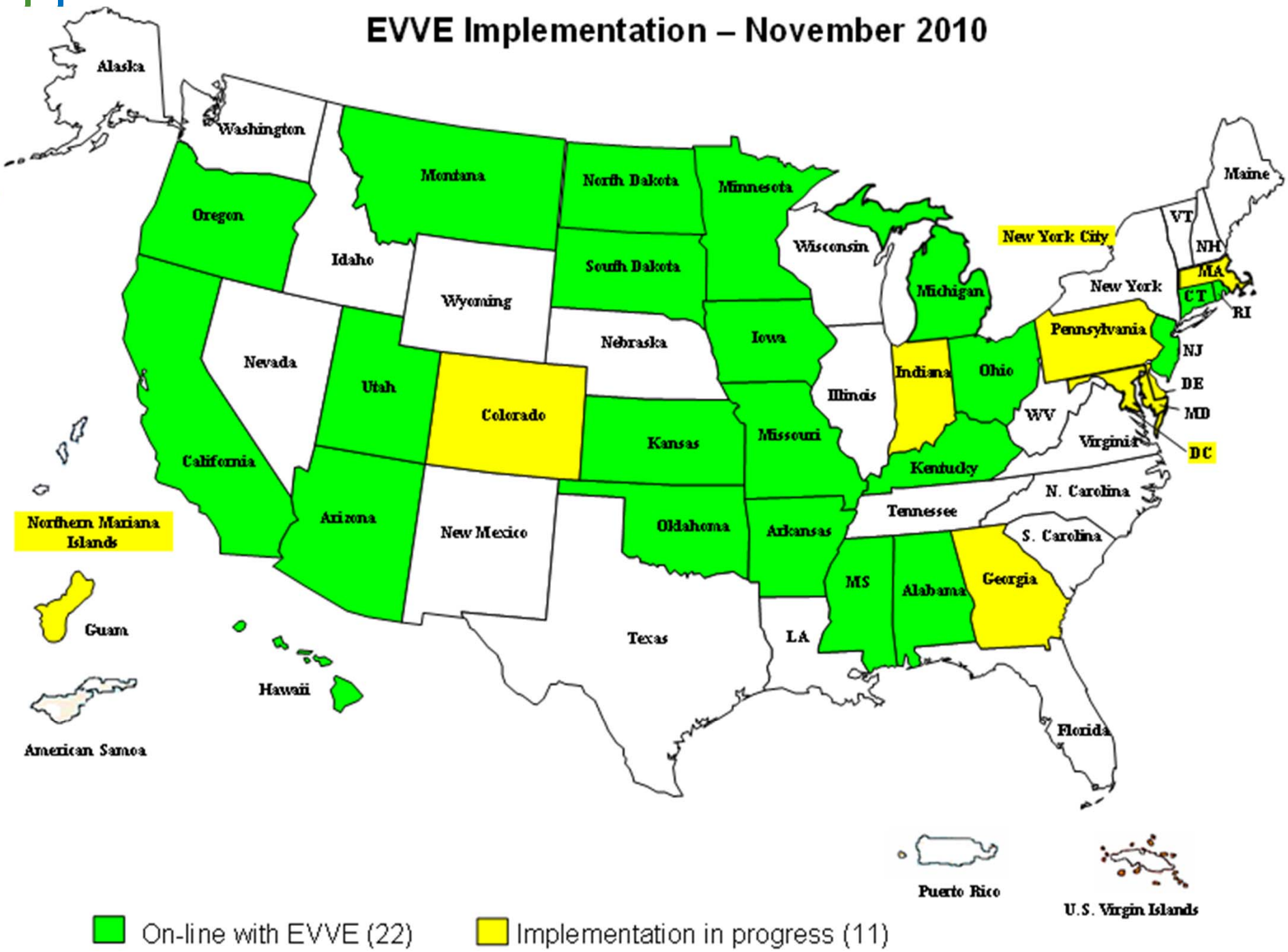
Federal and State agencies rely on birth certificates for:

- proof of age
- proof of citizenship
- identification for employment purposes
- to issue benefits or other documents (e.g. driver's licenses, Social Security cards, and passports)
- to assist in determining eligibility for public programs or benefits

EVVE is:

- Electronic system that allows immediate confirmation of information on a birth certificate presented by an applicant to a government office anywhere in the nation irrespective of the place or date of issuance
- Developed by the National Association for Public Health Statistics and Information Systems (NAPHSIS)
- Also capable of supporting the electronic verification and/or electronic certification of death records

EVVE Implementation – November 2010



State and Territorial Exchange of Vital Events (STEVE)

- Implemented in more than ten jurisdictions
- California alone sends notification of 120,000+ deaths/year to birth jurisdictions (>300 reams of paper)
- STEVE allows exchange of information through messaging (electronic mailboxes)
- Receiving partners will only receive data elements they are legally allowed to use

Next Steps for Vital Records

Address Concerns:

- Interface between vital record registration systems and electronic health records
- Cost recovery for the service

Engage to shape the future:

- Maintain integrity of Vital Records for all uses
- Improve data quality through integration of systems and minimizing data entry errors

Thank you!

For additional information please contact

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http://www.cdph.ca.gov/programs/HISP/Pages/AboutLinetteScott.aspx