Public Health Standards Vital Records

National Committee on Vital and Health Statistics

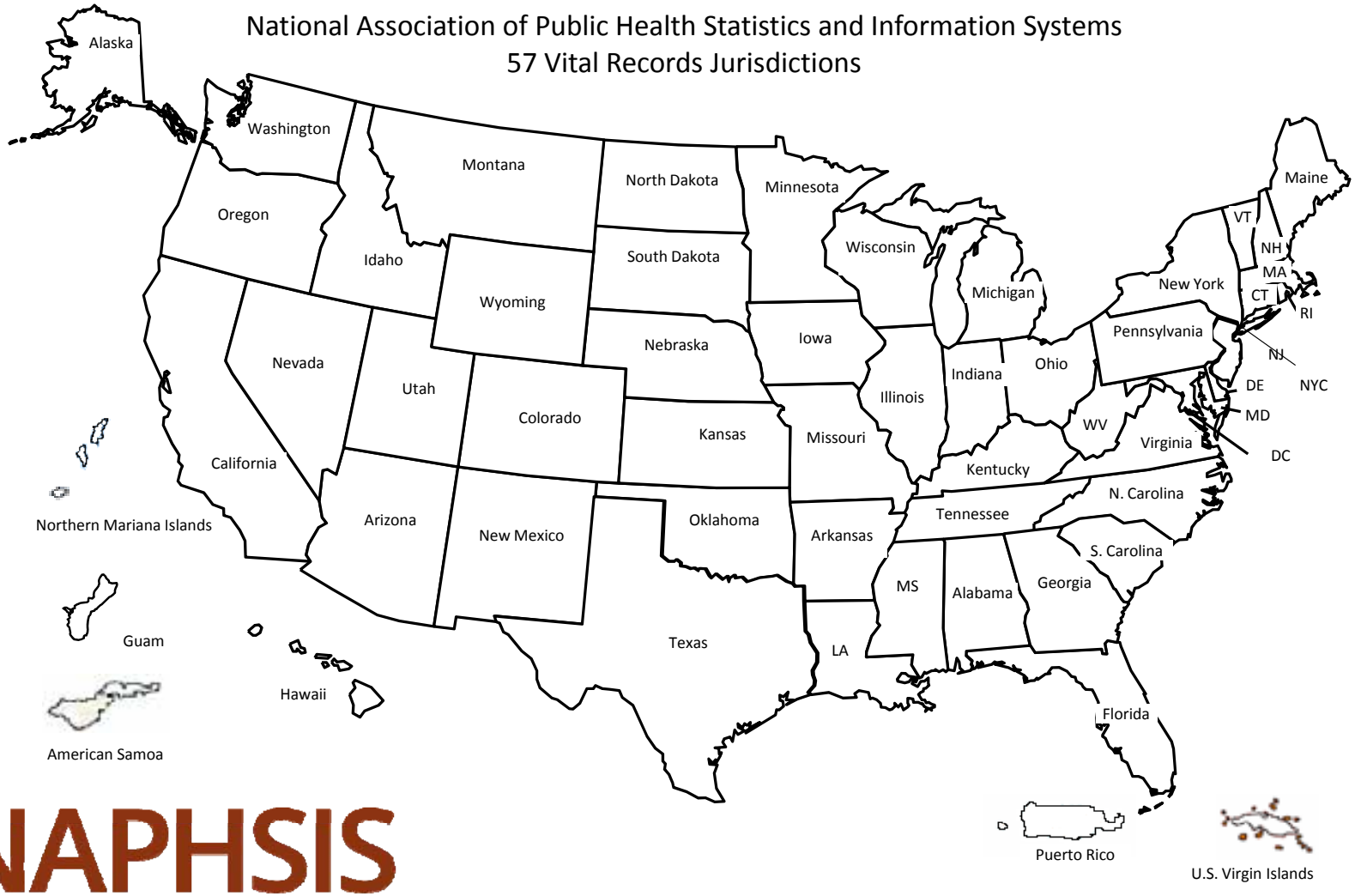
Subcommittee on Standards

November 12, 2014

NAPHSIS

Protecting Personal Identity
Promoting Public Health

National Association of Public Health Statistics and Information Systems
57 Vital Records Jurisdictions



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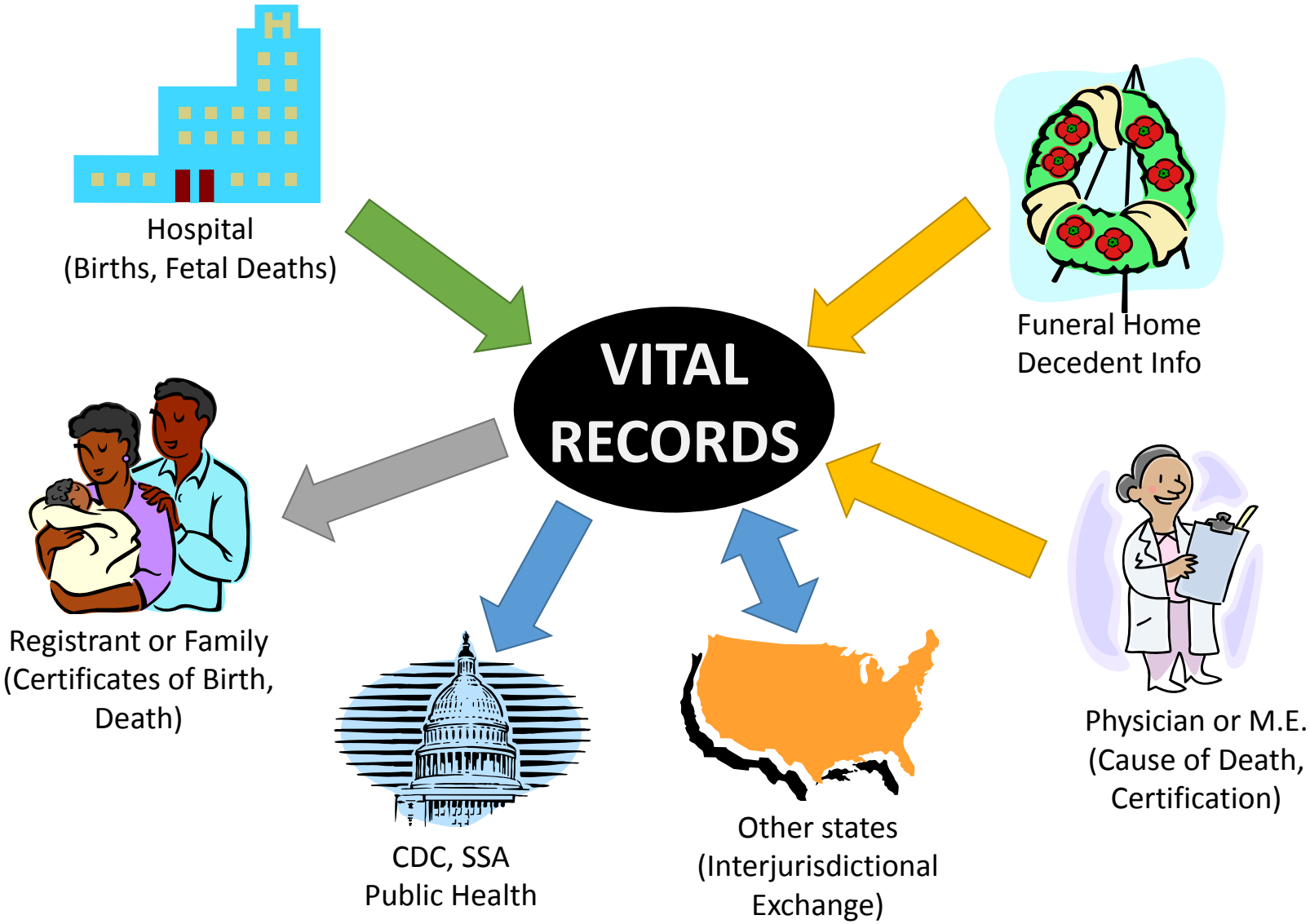
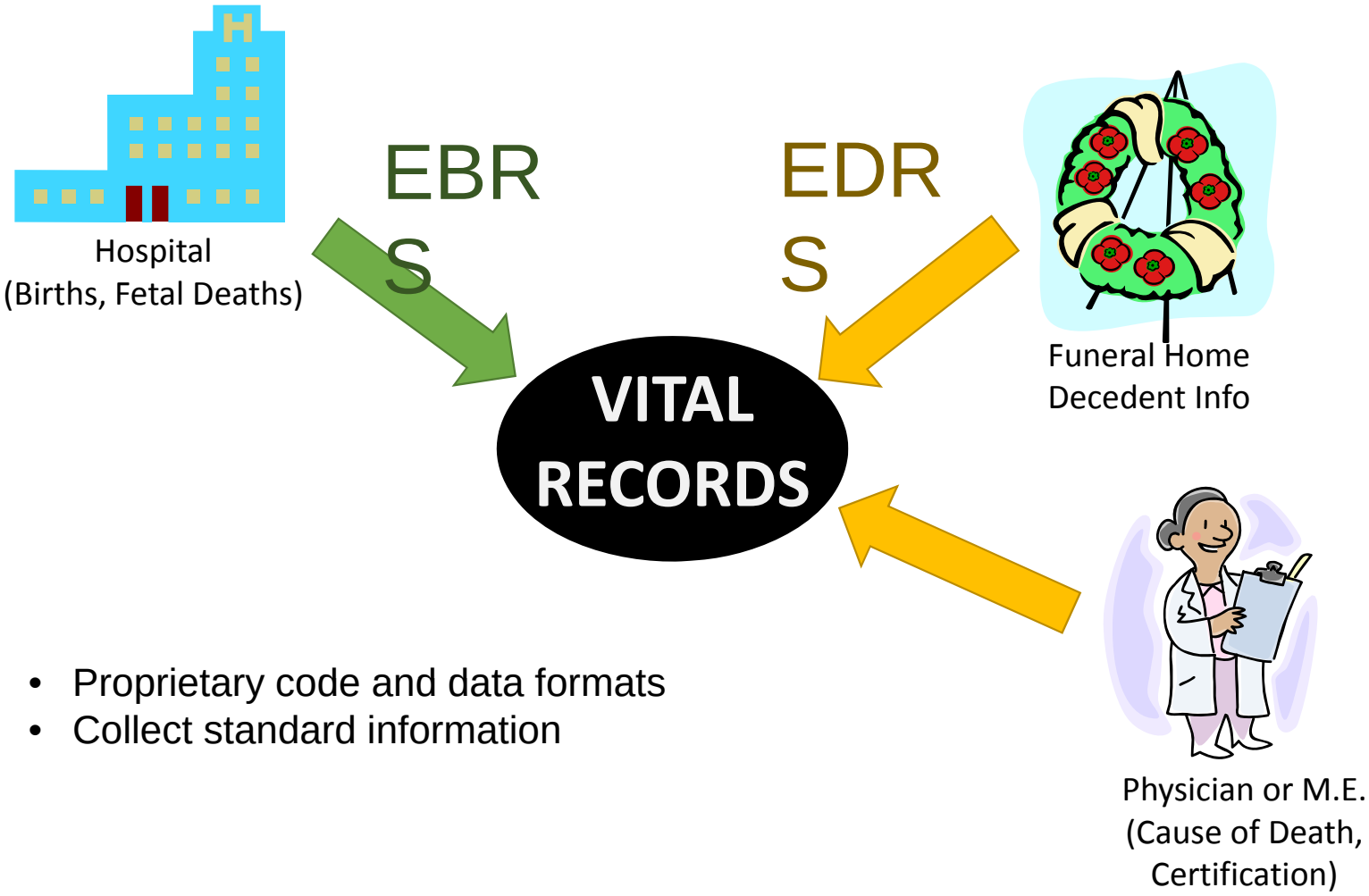

VITAL RECORDS
Hospital
(Births, Fetal Deaths)
Funeral Home
Decedent Info
Registrant or Family
(Certificates of Birth, Death)
Physician or M.E.
(Cause of Death, Certification)
CDC, SSA
Public Health
Other states
(Interjurisdictional Exchange)



- Proprietary code and data formats
- Collect standard information

- Standard data formats and codes
- Standard, secure transmission protocols

U.S. STANDARD CERTIFICATE OF LIVE BIRTH

LOCAL FILE NO.

BIRTH NUMBER:

CHILD

1. CHILD'S NAME (First, Middle, Last, Suffix)
2. TIME OF BIRTH (24 hr)
3. SEX
4. DATE OF BIRTH (Mo/Day/Yr)
5. FACILITY NAME (If not institution, give street and number)
6. CITY, TOWN, OR LOCATION OF BIRTH
7. COUNTY OF BIRTH

MOTHER

8a. MOTHER'S CURRENT LEGAL NAME (First, Middle, Last, Suffix)
8b. DATE OF BIRTH (Mo/Day/Yr)
8c. MOTHER'S NAME PRIOR TO FIRST MARRIAGE (First, Middle, Last, Suffix)
8d. BIRTHPLACE (State, Territory, or Foreign Country)
9a. RESIDENCE OF MOTHER-STATE
9b. COUNTY
9c. CITY, TOWN, OR LOCATION
9d. STREET AND NUMBER
9e. APT. NO.
9f. ZIP CODE
9g. INSIDE CITY LIMITS? ☐ Yes ☐ No

FATHER

10a. FATHER'S CURRENT LEGAL NAME (First, Middle, Last, Suffix)
10b. DATE OF BIRTH (Mo/Day/Yr)
10c. BIRTHPLACE (State, Territory, or Foreign Country)

CERTIFIER

11. CERTIFIER'S NAME: _____

TITLE: ☐ MD ☐ DO ☐ HOSPITAL ADMIN. ☐ CNM/CM ☐ OTHER MIDWIFE

☐ OTHER (Specify)_____

12. DATE CERTIFIED

_____/ _____ / _____

MM DD YYYY

13. DATE FILED BY REGISTRAR

_____/ _____ / _____

MM DD YYYY

INFORMATION FOR ADMINISTRATIVE USE

MOTHER

14. MOTHER'S MAILING ADDRESS: ☐ Same as residence, or: State: City, Town, or Location:

Street & Number: Apartment No.: Zip Code:

15. MOTHER MARRIED? (At birth, conception, or any time between) ☐ Yes ☐ No

IF NO, HAS PATERNITY ACKNOWLEDGEMENT BEEN SIGNED IN THE HOSPITAL? ☐ Yes ☐ No

16. SOCIAL SECURITY NUMBER REQUESTED FOR CHILD? ☐ Yes ☐ No

17. FACILITY ID. (NPI)

18. MOTHER'S SOCIAL SECURITY NUMBER:

19. FATHER'S SOCIAL SECURITY NUMBER:

INFORMATION FOR MEDICAL AND HEALTH PURPOSES ONLY

MOTHER

20. MOTHER'S EDUCATION (Check the box that best describes the highest degree or level of school completed at the time of delivery)

☐ 8th grade or less

☐ 9th - 12th grade, no diploma

21. MOTHER OF HISPANIC ORIGIN? (Check the box that best describes whether the mother is Spanish/Hispanic/Latina. Check the "No" box if mother is not Spanish/Hispanic/Latina)

☐ No, not Spanish/Hispanic/Latina

☐ Yes, Mexican, Mexican American, Chicana

22. MOTHER'S RACE (Check one or more races to indicate what the mother considers herself to be)

☐ White

☐ Black or African American

☐ American Indian or Alaska Native (Name of the enrolled or principal tribe)_____

☐ Asian Indian

☐ Chinese

MOTHER

29a. DATE OF FIRST PRENATAL CARE VISIT
_____/_____/_____ ☐ No Prenatal Care
MM DD YYYY

29b. DATE OF LAST PRENATAL CARE VISIT
_____/_____/_____
MM DD YYYY

30. TOTAL NUMBER OF PRENATAL VISITS FOR THIS PREGNANCY
_____ (If none, enter "0".)

31. MOTHER'S HEIGHT
_____ (feet/inches)

32. MOTHER'S PREPREGNANCY WEIGHT
_____ (pounds)

33. MOTHER'S WEIGHT AT DELIVERY
_____ (pounds)

34. DID MOTHER GET WIC FOOD FOR HERSELF DURING THIS PREGNANCY? ☐ Yes ☐ No

35. NUMBER OF PREVIOUS LIVE BIRTHS (Do not include this child)

35a. Now Living
Number _____
☐ None

35b. Now Dead
Number _____
☐ None

36. NUMBER OF OTHER PREGNANCY OUTCOMES (spontaneous or induced losses or ectopic pregnancies)

36a. Other Outcomes
Number _____
☐ None

37. CIGARETTE SMOKING BEFORE AND DURING PREGNANCY
For each time period, enter either the number of cigarettes or the number of packs of cigarettes smoked. IF NONE, ENTER "0".

Average number of cigarettes or packs of cigarettes smoked per day.

	# of cigarettes		# of packs
Three Months Before Pregnancy	_____	OR	_____
First Three Months of Pregnancy	_____	OR	_____
Second Three Months of Pregnancy	_____	OR	_____
Third Trimester of Pregnancy	_____	OR	_____

38. PRINCIPAL SOURCE OF PAYMENT FOR THIS DELIVERY
☐ Private Insurance
☐ Medicaid
☐ Self-pay
☐ Other
(Specify) _____

35c. DATE OF LAST LIVE BIRTH
_____/_____
MM YYYY

36b. DATE OF LAST OTHER PREGNANCY OUTCOME
_____/_____
MM YYYY

39. DATE LAST NORMAL MENSES BEGAN
_____/_____/_____
MM DD YYYY

40. MOTHER'S MEDICAL RECORD NUMBER

MEDICAL AND HEALTH INFORMATION

41. RISK FACTORS IN THIS PREGNANCY
(Check all that apply)

Diabetes
- ☐ Prepregnancy (Diagnosis prior to this pregnancy)
- ☐ Gestational (Diagnosis in this pregnancy)

Hypertension
- ☐ Prepregnancy (Chronic)
- ☐ Gestational (PIH, preeclampsia)
- ☐ Eclampsia

☐ Previous preterm birth

☐ Other previous poor pregnancy outcome (includes perinatal death, small-for-gestational age/intrauterine growth restricted birth)

☐ Pregnancy resulted from infertility treatment-If yes, check all that apply:
- ☐ Fertility-enhancing drugs, Artificial insemination or Intrauterine insemination
- ☐ Assisted reproductive technology (e.g., in vitro fertilization (IVF), gamete intrafallopian transfer (GIFT))

☐ Mother had a previous cesarean delivery
If yes, how many _____

☐ None of the above

42. INFECTIONS PRESENT AND/OR TREATED

43. OBSTETRIC PROCEDURES (Check all that apply)

☐ Cervical cerclage
☐ Tocolysis

External cephalic version:
- ☐ Successful
- ☐ Failed

☐ None of the above

44. ONSET OF LABOR (Check all that apply)

☐ Premature Rupture of the Membranes (prolonged, ≥12 hrs.)

☐ Precipitous Labor (<3 hrs.)

☐ Prolonged Labor (≥ 20 hrs.)

☐ None of the above

45. CHARACTERISTICS OF LABOR AND DELIVERY
(Check all that apply)

☐ Induction of labor
☐ Augmentation of labor
☐ Non-vertex presentation
☐ Steroids (glucocorticoids) for fetal lung maturation received by the mother prior to delivery

46. METHOD OF DELIVERY

A. Was delivery with forceps attempted but unsuccessful?
☐ Yes ☐ No

B. Was delivery with vacuum extraction attempted but unsuccessful?
☐ Yes ☐ No

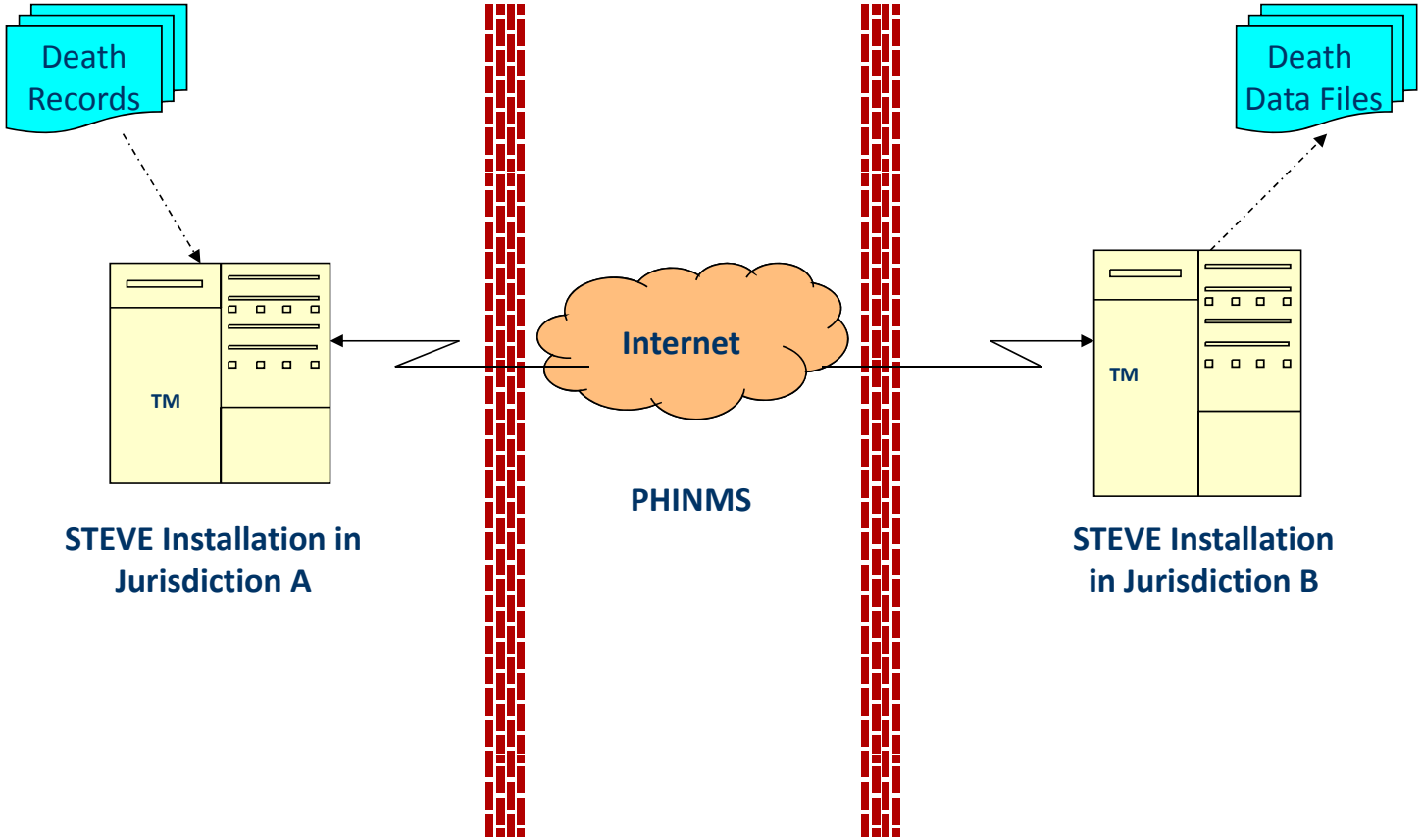
C. Fetal presentation at birth
- ☐ Cephalic
- ☐ Breech
- ☐ Other

D. Final route and method of delivery (Check one)
- ☐ Vaginal/Spontaneous
- ☐ Vaginal/Forceps
- ☐ Vaginal/Vacuum
- ☐ Cesarean
  If cesarean, was a trial of labor attempted?
  - ☐ Yes
  - ☐ No

47. MATERNAL MORBIDITY (Check all that apply)
(Complications associated with labor and delivery)

☐ Maternal transfusion
☐ Third or fourth degree perineal laceration
☐ Ruptured uterus

Standards Efforts (Internal)



STEVE provides point-to-point exchange of vital record data between jurisdictions using a standard flat file format and the CDC's PHINMS secure messaging pipeline.

Electronic Health Record (EHR) and Vital Record (VR) Systems Information Exchange

Capturing birth and death data in electronic health record systems

Electronic exchange using HL7 and IHE-based standards

Improving the timeliness, accuracy, and completeness of vital records data

Standards Efforts

- HL7 v3 Domain Analysis Model
- HL7 EHR System Functional Profiles
  - Vital Records
  - Public Health
- HL7 v2.5.1 Implementation Guides
  - Birth and Fetal Death
  - Death
- HL7 v3 CDA r2 Implementation Guides
  - Birth and Fetal Death
  - Death
- IHE Technical Framework (RDF)
  - Birth and Fetal Death
  - Death

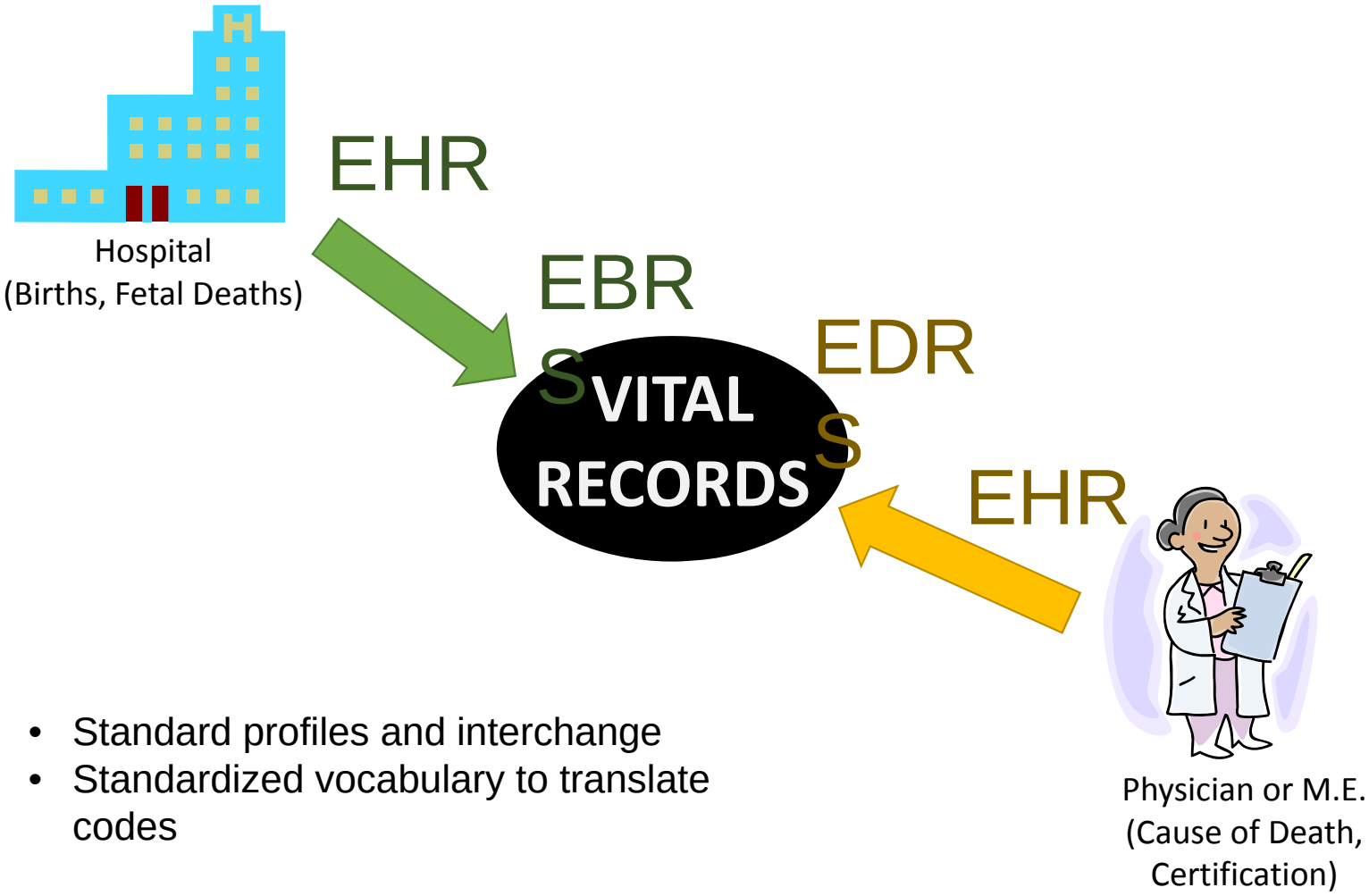
Integrating the Healthcare Enterprise

IHE

IHE Quality, Research and Public Health
Technical Framework Supplement

Birth and Fetal Death Reporting
(BFDR)

Trial Implementation



- Standard profiles and interchange
- Standardized vocabulary to translate codes

Using Standards for VR Birth Data Interoperability

IHE Birth and Fetal Death Reporting Content Profile

Form Manager

Birth Certificate Facility Worksheet Form Pre-populate

Form Filler

Present Birth Certificate Form with relevant clinical data from the EHR and allow for manual data entry

Form Receiver

Send all the data (pre-populated and manual data entry) to VR System

Using Standards for VR Death Data Interoperability

HL7 V2.5.1 Vital Records Death Reporting, Release 1 (US Realm)
Draft Standard for Trial Use

Funeral Director

Electronically completes the funeral director's section of the Death Certificate

EHR

Allows access to the EHR while clinician completes medical certifier's section of the Death Certificate

EDRS

Electronically send all the data entered through the EHR to the VR System

Challenges

- Large investment in current systems / procedures
- No incentive
  - Vital records not part of Meaningful Use
  - No strong customer need (EHR or PH)
- Lack of resources
  - Financial
  - IT support
- Specialized requirements of civil registry
  - Breeder documents
  - Legal issues with changes/updates

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