# How Researchers Can Access OSHPD Data

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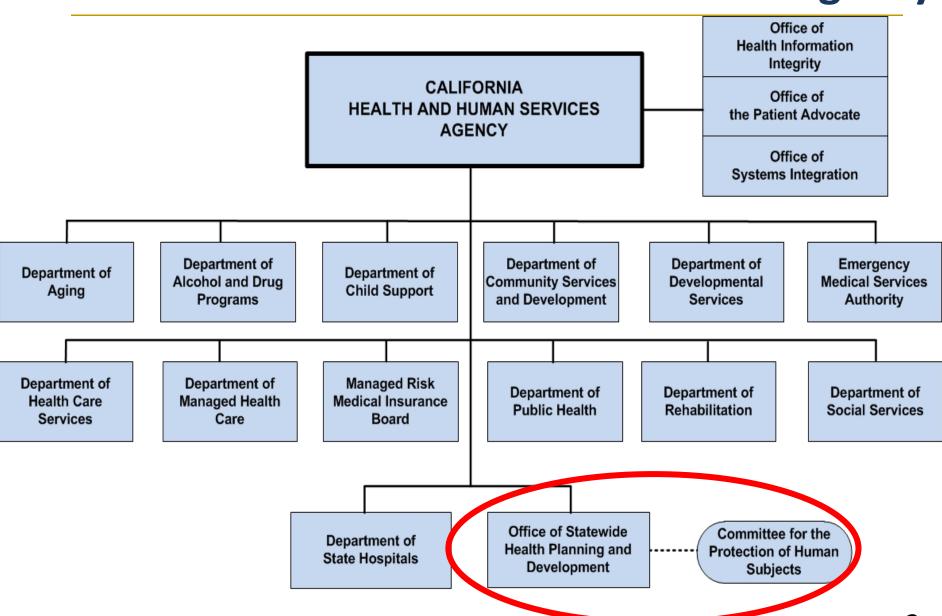
Using Data to Improve Maternity Care in California: Research Collaborations and Future Opportunities
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## Part of CA Health & Human Services Agency



#### **Data Users**

- State & Federal Government\*
- Universities\*
- Hospitals\*
- Other Health Providers & Facilities
- Trade Associations & Lobbyists
- General Public
- Insurers
- Investors
- Media
- Others

## **Hospital Confidential Patient Records**

In-Patient Discharges: 4 million/year (diagnosis, procedures, DRG, age, gender, race, zip code, admission source, payer, charges)

Emergency Department Visits: 10 million/year (as above but no charges or clinical groupings)

 Licensed Freestanding or Hospital-Based Ambulatory Surgery Centers: 2 million/year (as above but no charges or clinical groupings)

#### **Public Patient Data**

- De-identified
  - Most sensitive info (e.g., dates of birth & service, ZIP Code, all HIPAA identifiers) deleted
- Removed demographics; hospital-specific records with unique diagnosis, treatment or E (external cause of injury) codes
- Designed to maintain maximize usefulness& minimize risk to patient privacy
- Various products created to provide additional access to data

#### **Public Products that Use Patient Data**

## Coronary Artery Graft Bypass Outcomes (by hospital and surgeon)

#### 53 AHRQ Measures (by hospital or geography)

- Prevention (access to community primary care) (13)
- Utilization (9)
- Patient volume (6)
- Patient safety (7)
- Pediatric quality (6)
- Inpatient Risk-Adjusted Outcomes (12; plan 3 new submeasures)

#### **AHRQ Pediatric Measures @ OSHPD**

#### Geographic distribution, from 2005 onward

- 1. Asthma (2-17 yrs)
- 2. Diabetes short-term complications (6-17 yrs)
- Gastroenteritis (3 months-17 yrs)
- 4. Perforated appendix (1-17 yrs per 1,000 pop.)
- 5. Urinary tract infection (3 months-17 yrs)

## [above are inpatient admission rates per 100,000 population]

6. Low birth weight (newborn <2,500 grams per 1,000 population)

## **AHRQ Utilization Measures – By Hospital**

- OSHPD reports 11 conditions or procedures
- @ every CDPH-licensed hospital
- from 2007 through 2012
- Birth-Related @ Rates per 100 deliveries
  - ✓ C-Sections all types
  - ✓ C-Sections primary or 1<sup>st</sup> time
  - ✓ Vaginal Birth After C-Section (VBAC)
  - ✓ VBAC uncomplicated

#### **Confidential Data**

- Patient level records (non-deidentified)
- Legal requirements must be met to access data of:
  - ✓ CA Information Practices Act (IPA): Civil Code Sec. 1798.24
  - ✓ Health Data Act CA Health & Safety Code Section 128766
- IPA allows access for university-sponsored researchers

## Committee for the Protection of Human Subjects (CPHS)

- California Health & Human Services Agency's Institutional Review Board (IRB)
- Reviews confidential data requests/research protocols concurrently or prior to OSHPD review
- Current protocol must be maintained for duration of access to OSHPD data – annual renewal
- CPHS has statutory responsibilities for privacy protection under Information Practices Act

Forms and information @ www.oshpd.ca.gov/CPHS/index.htm

## **OSHPD Confidential Data Requirements**

- Release of "minimum necessary" data required to conduct the proposed research
  - ✓ Data will be "sub-set" to achieve this: Reduce records to those required (including control/comparison groups; geographical, age & gender subsets)
  - ✓ Reduce data fields in each record to those needed for research
- The more precise the subset, the easier to approve

## **Requesting Non-public Data**

- Two principal steps:
  - Approved OSHPD application for data
  - Approved CPHS Project Protocol
- Both must be consistent in terms of the data desired and purposes for which sought
  - Suggest: Contact OSHPD first to ensure data specifications consistent between

## Requesting Non-public Data

- Detailed justification for each data element
- Sensitive elements entail more scrutiny
- "Non-profit educational institution" must sponsor the request
  - Signatures by PIs and Department Chair or equivalent university official & on Protocol
- OSHPD Director may authorize disclosure unless "unreasonable risk to patient privacy" (Health & Safety Code 128766)

#### **Confidential Data Access**

- Typically loaned on time-limited basis
- Receiving newer data years ("refresh option") faster than initial release
- Assistance from Healthcare Information Resource Center staff
- On-site data use @ OSHPD office

## **Pricing**

- Most recent 3 years of data @ no charge to eligible non-profit requestors
- \$200/year for other data years
- Linked with CDPH Vital Statistics (Death or Birth) requires additional payment to California Department of Public Health

## **Goal of Linkage**

Population-based studies of risks and outcomes using demographic, prenatal or other control variables.



Not track individual cases.

## **Linking OSHPD & CDPH Data**

#### **OSHPD** Records:

- ✓ Newborn Discharge
- ✓ Mother's Delivery
- ✓ Post Infant Visits within 1<sup>st</sup> year (inpatient, emergency, ambulatory surgery)
- ✓ Mother prenatal and postnatal (inpatient, emergency, ambulatory surgery)

#### **CDPH Vital Statistics Records**

- ✓ Birth
- ✓ Fetal death
- Death



All in Vital Statistics
Birth Cohort File

**Problem #1: Duplicate Records** 

## Problems #2 & #3: Coding Errors & No Universal Identifier to Link Across Data Sets

Solution: Probabilistic match using multiple fields

#### **Vital Statistics**

- Hospital (4-digit code)
- Infant Birth Date
- Infant Sex
- C-Section Delivery (Y/N)
- ZIP Code of Mom's residence
- Payer source for L&D
- Maternal Race/Ethnicity
- Birth Weight

#### **OSHPD**

- Hospital (6-digit code)
- Patient Birth Date
- Patient Sex
- C-Section Delivery (Y/N based on ICD-9-CM DX)
- Patient ZIP
- Payer Source for encounter
- Patient Race/Ethnicity
- Birth Weight (based on ICD-9-CM DX)

#### **Contact Us**

## Healthcare Information Resource Center (HIRC)

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