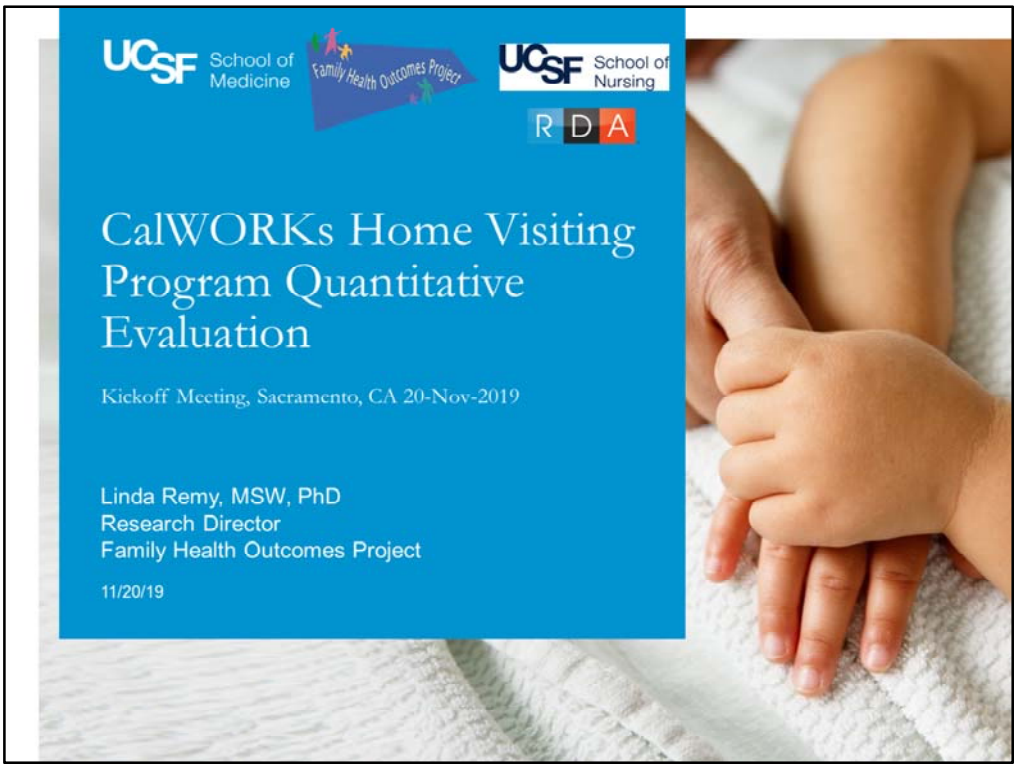
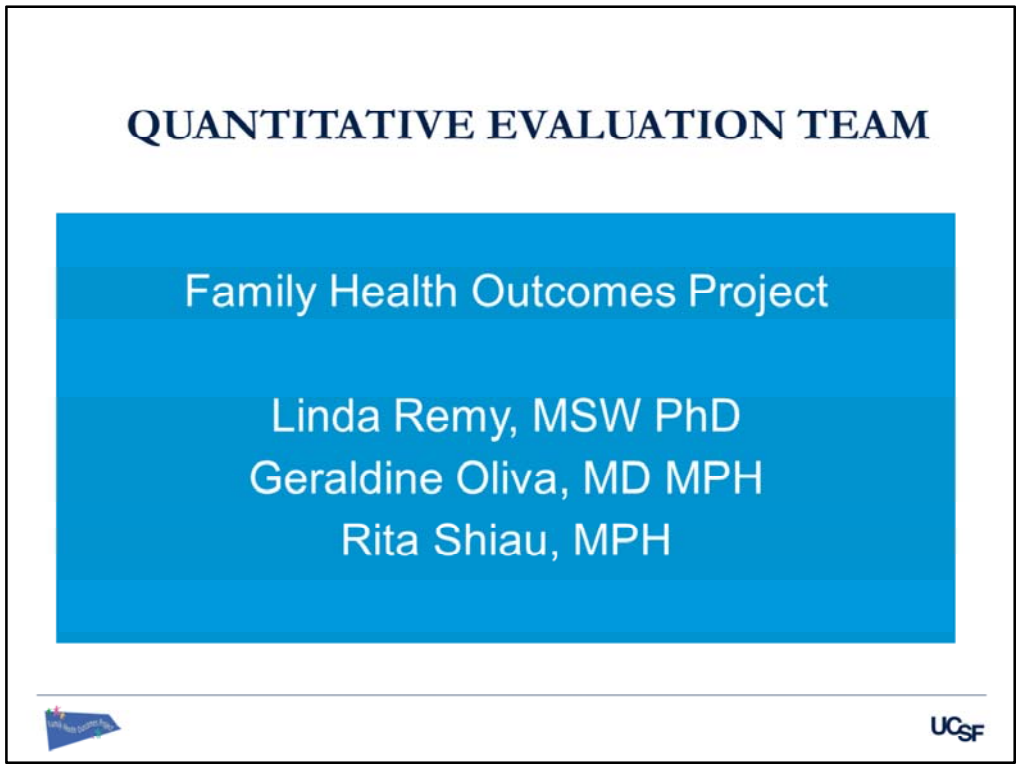

UCSF School of Medicine
Family Health Outcomes Project
UCSF School of Nursing
RDA
CalWORKs Home Visiting Program Quantitative Evaluation
Kickoff Meeting, Sacramento, CA 20-Nov-2019
Linda Remy, MSW, PhD
Research Director
Family Health Outcomes Project
11/20/19


QUANTITATIVE EVALUATION TEAM
Family Health Outcomes Project
Linda Remy, MSW PhD
Geraldine Oliva, MD MPH
Rita Shiau, MPH
UCSF

THE BIG QUESTION

Did all the hard work
for a long time
by many people at many levels
improve the lives of
mothers and their children?

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THE BIG DUE DATE

Report to
California State Legislature
January 2022

You hold the key to what we report

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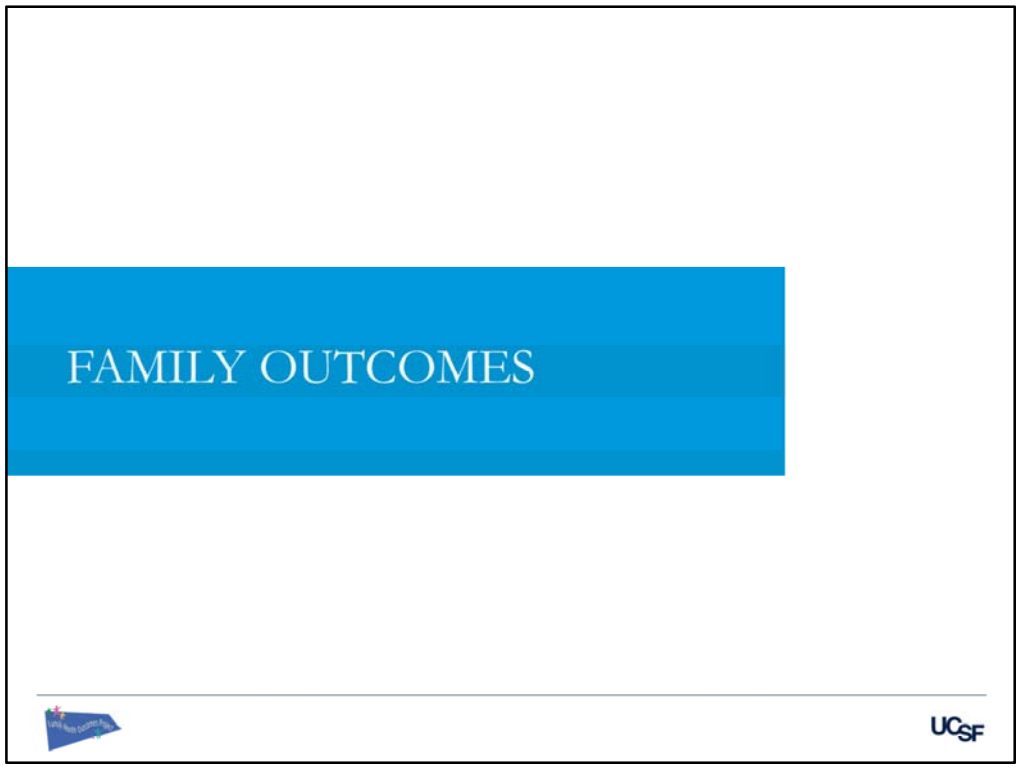
OVERVIEW

- Family outcomes
- Data sources and measures
- How we will do this
- County survey results


FAMILY OUTCOMES
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PARENT

- Referred to and used to needs-appropriate services
- Gained parenting skills and knowledge
- Food security and housing stability
- Workforce training, jobs, financial stability
- Education/ESL participation, as needed
- Immigration services and remedies, as needed

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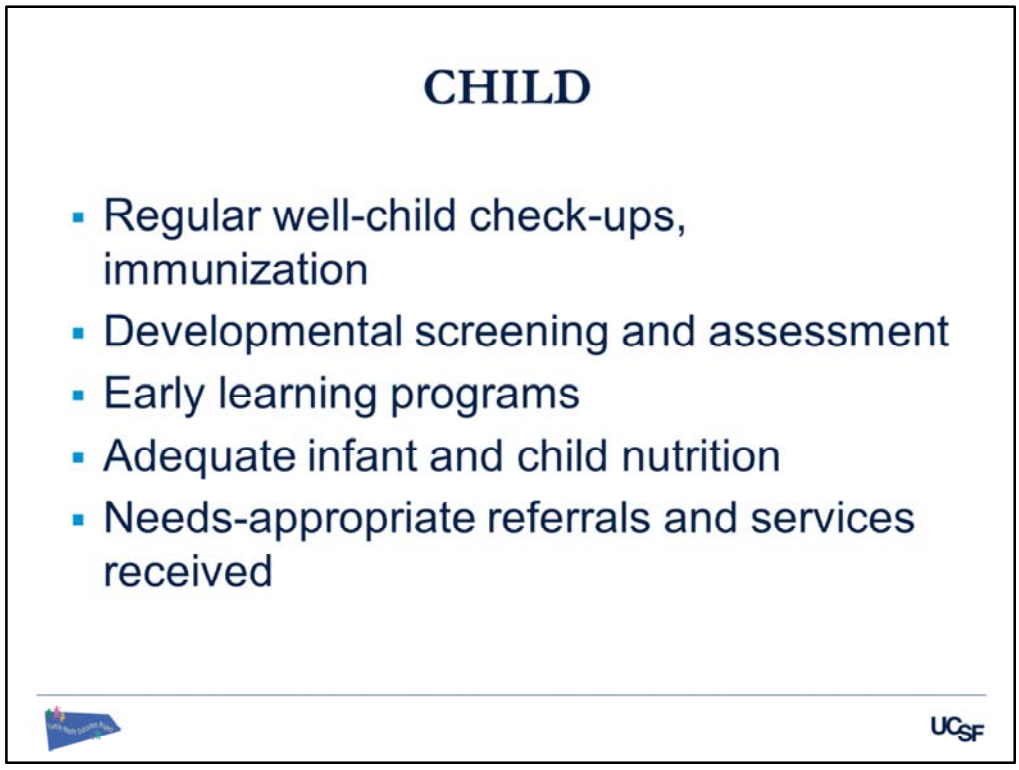
CHILD
Regular well-child check-ups, immunization
Developmental screening and assessment
Early learning programs
Adequate infant and child nutrition
Needs-appropriate referrals and services received
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FAMILY RISK

- Maternal life course (domestic violence, mental health, substance use)
- Pregnancy (inadequate prenatal care, GDM, weight gain, C-section delivery)
- Birth (preterm, low weight, birth defect, infant mortality)
- Child welfare referrals and outcomes

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DATA SOURCES
AND INDICATORS
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California Public Health Data (CDPH)
Birth and Fetal Death Certificates

- Parental demographics (age, sex, race/ethnicity, education, nativity, language)
- Prenatal care (timing, adequacy)
- Pregnancy (weight gain, C-section)
- Infant (preterm, birth weight)

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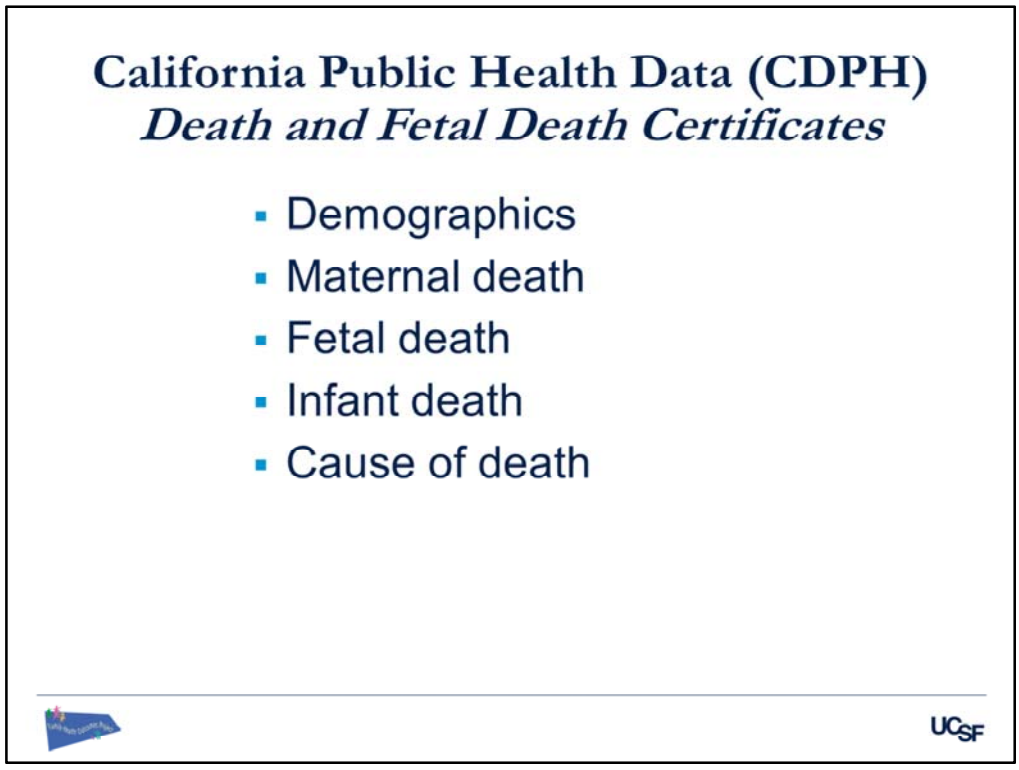
California Public Health Data (CDPH)
Death and Fetal Death Certificates
Demographics
Maternal death
Fetal death
Infant death
Cause of death
UCSF

California Hospital Data (OSHPD)
Emergency Department Visits

- Demographics
- Before, during, and after pregnancy
- Mental health or substance use
- Injury including domestic violence or child abuse
- Ambulatory care conditions (asthma, diabetes, infectious conditions, dental)

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California Hospital Data (OSHPD)
Inpatient Admissions

- Demographics
- Before, during, and after pregnancy
- More detail on delivery and birth outcomes including birth defects
- Co-morbid conditions for mother and infant that increase health risk
- Ambulatory care conditions (asthma, diabetes, infectious conditions, dental)

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Social Services Data
California Department of Social Services

- HVP Cases and CalWORKs controls
- Demographics (age, sex, race/ethnicity)
- Adverse events (Child abuse or neglect reports/validations, foster care placement)
- Parent work related outcomes

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Social Services Data
County Home Visiting Programs

- Program models where cases enrolled
- Demographics (age, sex, race/ethnicity)
- Services referred and delivered
- Assessments of mothers and children
- Critical/adverse events
- Case outcomes

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DATA SOURCES AND USES
Summary

- Population health files provide excellent information about pregnancy and birth outcomes, some information about pre- and post-pregnancy adverse events.
- The best data specific to program will come from CDSS and HVP sites.
- The different data sources have different issues regarding availability for analysis.

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DESIGN ISSUES
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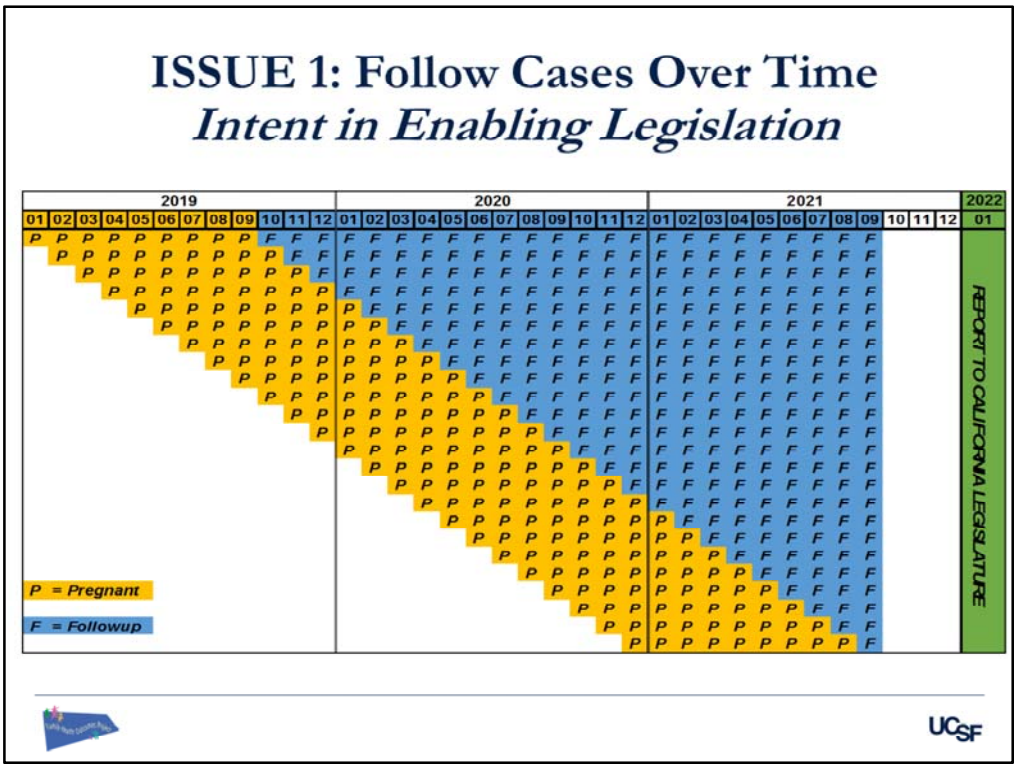


- Per the establishing legislation, the HVP is to follow the mother through her pregnancy until the child is two years old.

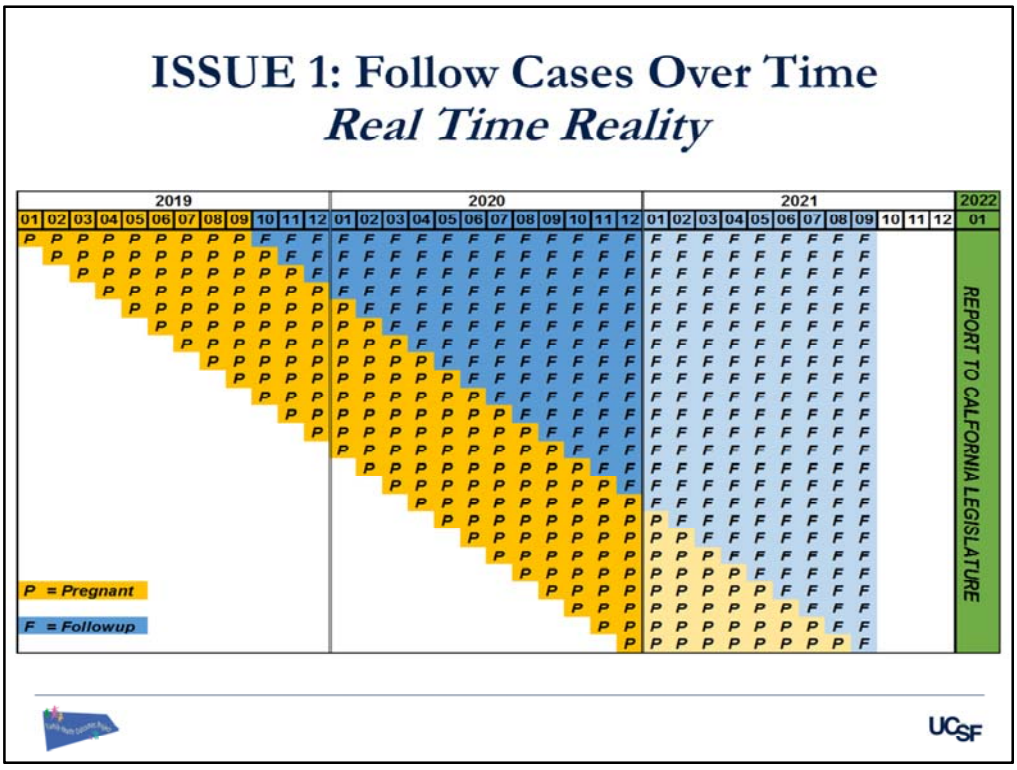
- Beginning in January 2019, the yellow highlights the 9-month pregnancy period, and the blue highlights the potential number of followup months for each monthly cohort.

- Iin January 2019, some home visiting programs were still hiring staff and getting ready to begin services, so some counties have no cases until service begins later.

- This highlights that new cohorts of women enter the HVP monthly. It also highlights that only one group -- mothers who became pregnant in January 2019 -- will complete the full process (pregnancy plus two years post-delivery) by the time the evaluation period ends.

- We will not be able to use any data after September 2021 because we will be preparing our final report to the legislature in January 2022.

- Also observe that by the time we begin writing our evaluation report to the legislature, the last cohort will be only one month post-delivery.



- As evaluators, another reality we have to face is the timing of when we receive these data.
- Annual files from the California Department of Public Health (CDPH) and the Office of Statewide Health Planning and Development (OSHPD) typically do not become available until late summer or early November.
- In November, 2019, as we are meeting, we still have yet to receive 2018 files.
- Unless we are very lucky, we will not receive the 2020 files in time to use for the final report. And we probably will not have any population health data for 2021.
- We are working with CDPH and OSHPD to see if we can arrange to receive interim files, recognizing that the data will not be fully prepared for public release, but we cannot guarantee that the agencies will be able to do this timely.
- The cut to the chase is that we are absolutely dependent on local programs to collect complete and good quality data for the families they serve.

ISSUE 1: Follow Cases Over Time Summary

- Startup dates limit the time that people can be followed forward in time (prospectively)
- The realities of population data acquisition limit the ability to follow people forward in time.
- The data with the best potential to describe case outcomes will come from CDSS and HVP sites.

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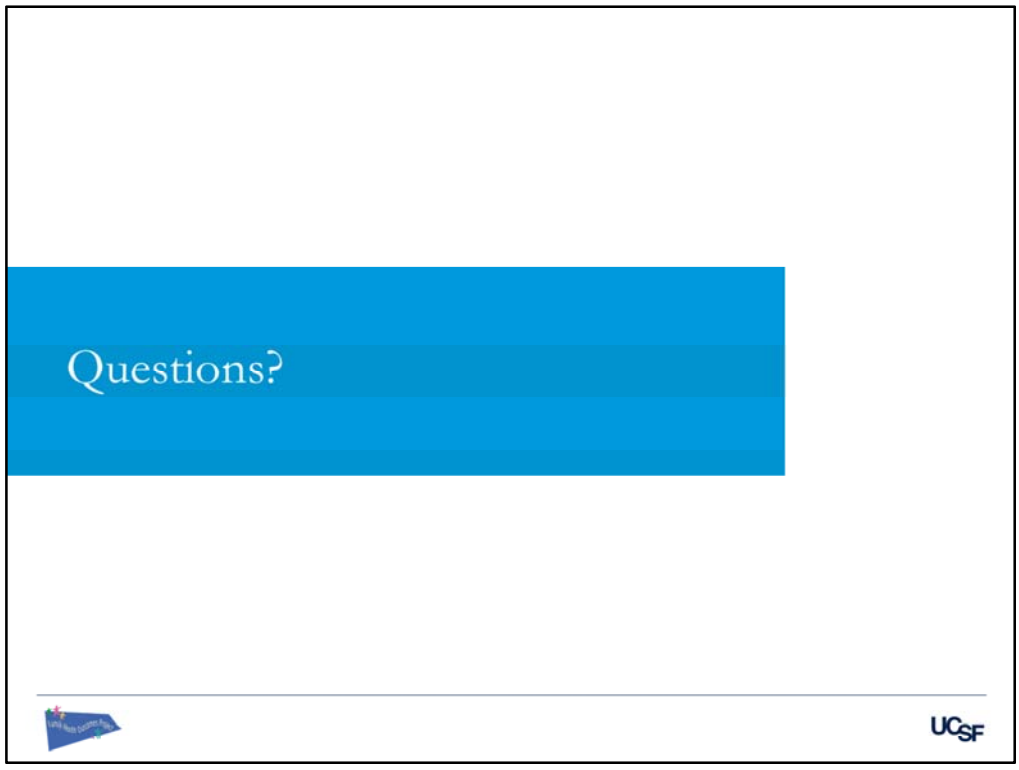
Questions?
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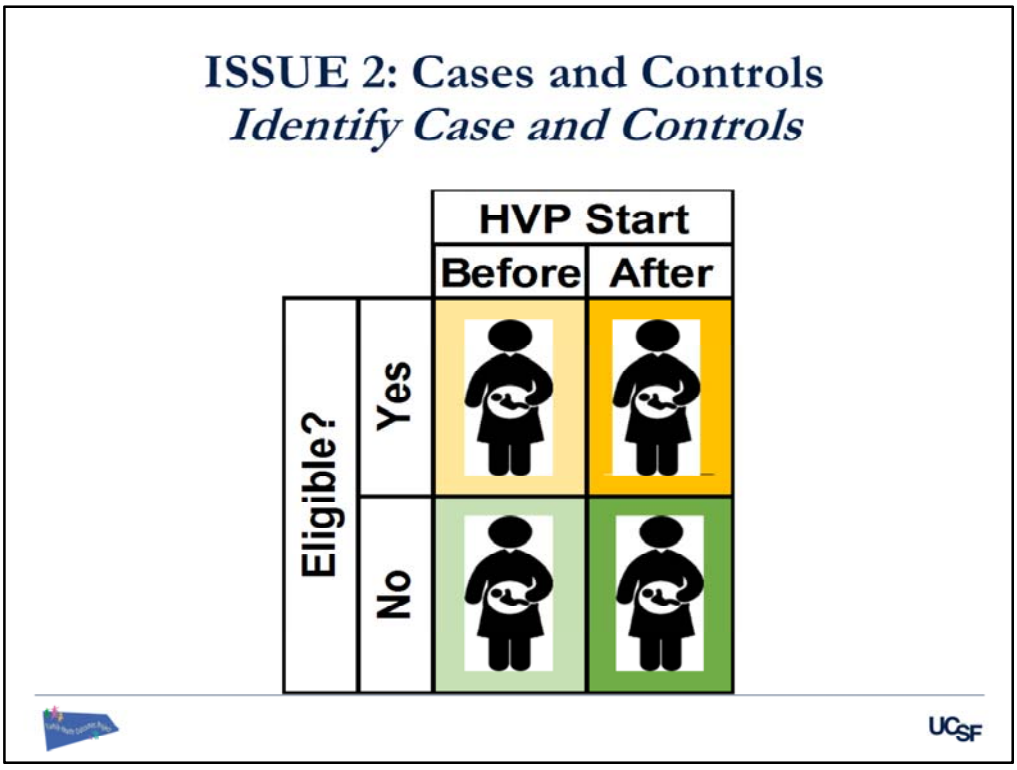
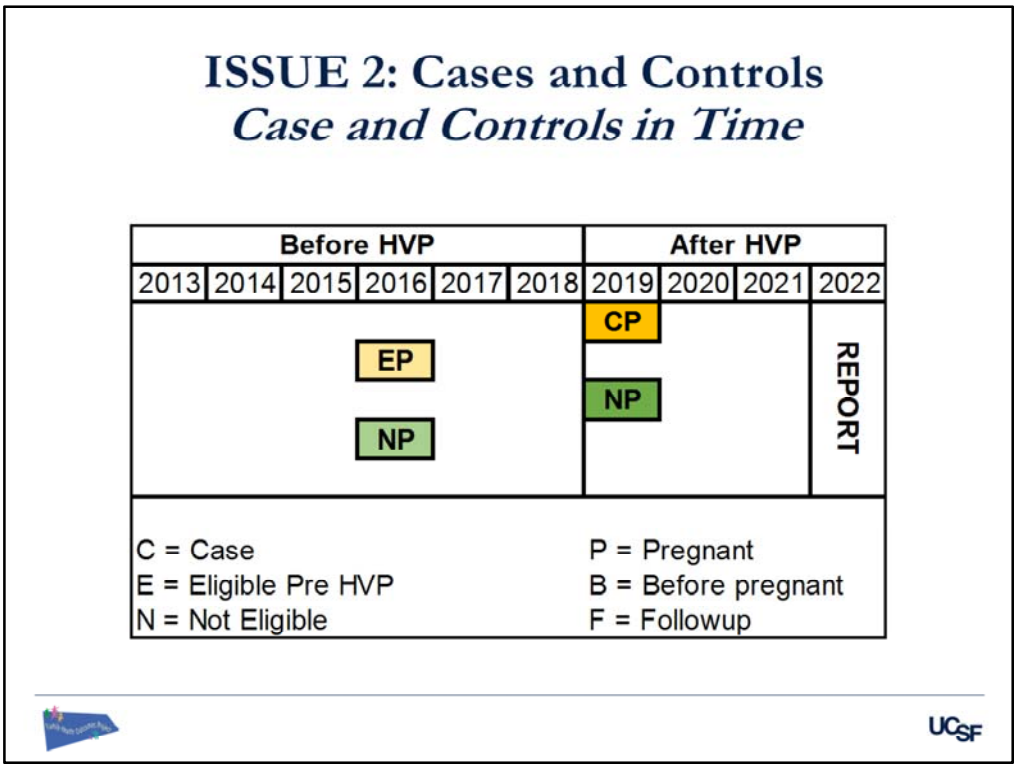


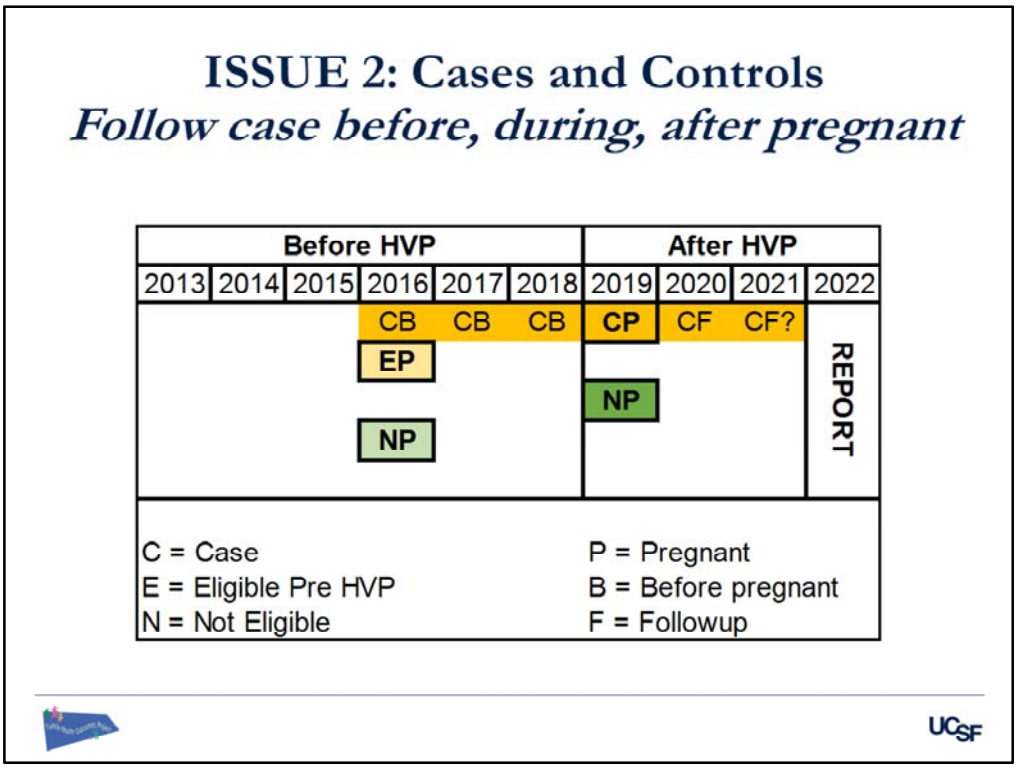
- From this slide forward, slides are animated and best understood viewing PowerPoint file, following notes associated with each slide.
- Now turning to another design issue for the quantitative evaluation: Identifying case controls. [click] The legislation establishing the evaluation did not require comparison groups. It focused on evaluating outcomes for women who were eligible for the program after the program started. In research lingo, these are called cases (C). [click] Here is our first case [click]
- We can follow cases over time but we have no way to know if their outcomes would have been any different if they had never been in the program. We need people who are “like” cases who we can follow over time. These are called “controls”.
- Given the longitudinal nature of the evaluation, we have the possibility for three controls for each case. [click] First, women of similar age, race/ethnicity, reproductive history, community of residence who became pregnant before the HVP started and would have been eligible if the HVP existed. The CDSS information system might help us identify this group of women.
- The other controls would be women who were not eligible before or after the HVP started. [click] We can identify “not eligible” women only from population health datasets: again similar age, race/ethnicity, reproductive history, community of residence, but with private health insurance.



- Now let's put the case and 3 controls into time, specifically when they became pregnant. Cases are indicated with C and P and the same dark orange color from the previous slide, which identifies they were pregnant when they began HVP services. HVP clients will have population health data, CDSS data, and HVP data.

- Eligible (E) controls were pregnant (P) 3 years before the Case began to receive HVP services. They are indicated with (EP) and the same light orange color from the previous slide. Eligible controls will be identified through CDSS records, and will have CDSS and population health data.

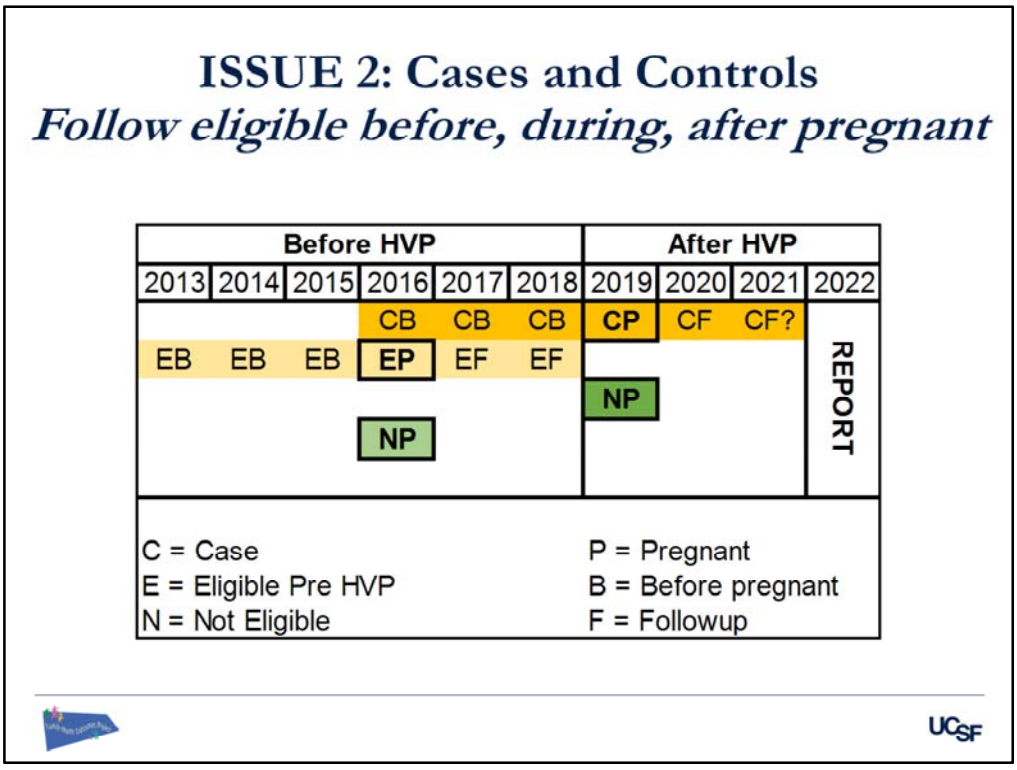
- Non-eligible controls (N), colored dark and light green as in the previous slide, will be identified by searching population health data for pregnancy records (NP), then repeating the search to find their records before, during, and after pregnancy.



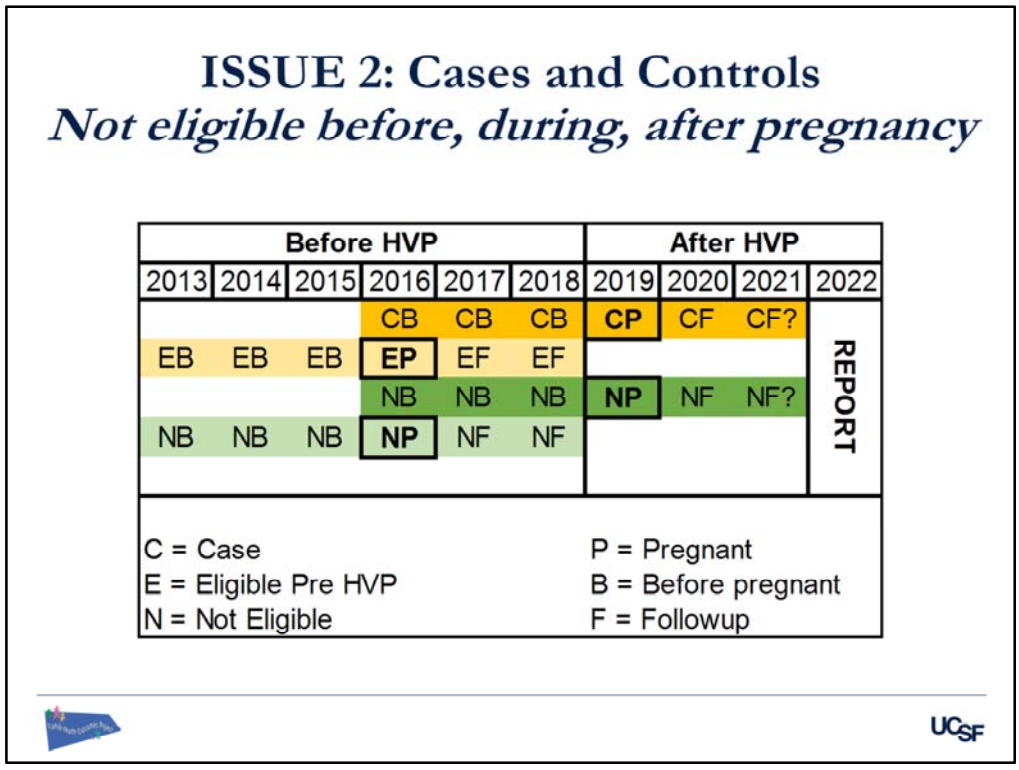
- Now let's look at how we will follow cases and controls.

- Let's start with the HVP clients, our cases in research lingo, shown again on the top line. We will search population health and CDSS data three years before they were pregnant (Case, Before (CB)) to identify possible events in the lives of these women that might indicate high-risk pregnancies: Earlier miscarriages, domestic violence, substance use, mental health admissions.

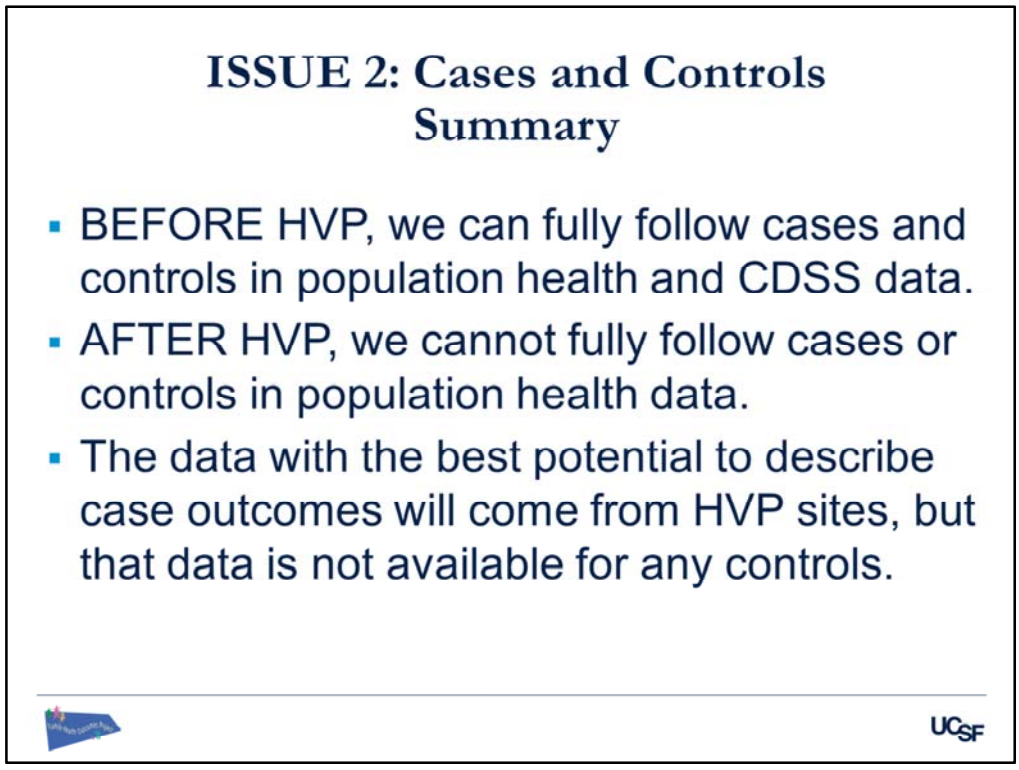
- We will again search the population health data to identify Client pregnancy outcomes (CP), and we will follow the clients post-delivery (Case, Follow) for the longest time possible given data availability, as indicated by the question mark. And bear in mind that this is followup is limited both by when the woman becomes pregnant and the period for which we have data.



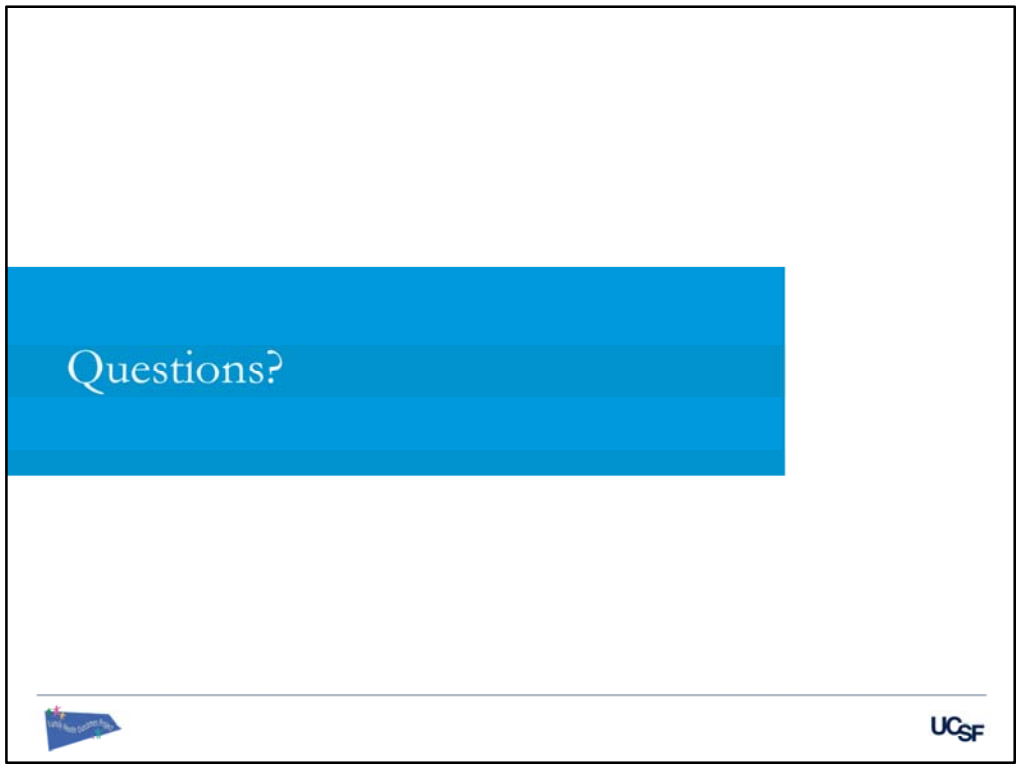
- For control cases who would have been eligible (E) but were pregnant (EP) before the HVP started, this shows that we can fully follow three years before pregnancy (EB), during pregnancy (EP), and two years post-pregnancy followup (EF).



- Non-eligible (N) controls have the same data availability issues. Full population health data before pregnancy (NB). Follow-up data limited for non-eligible controls after delivery, full follow-up data for non-eligible controls before the HVP began.



- Again, the data with the best potential to describe case history and outcomes will come from HVP sites but that data is not available for controls.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ISSUE 3: Context and Multilevel *Definitions*

- CONTEXT – the setting within which events happen, e.g., family, neighborhood, community, program, county
- MULTILEVEL – people nested within higher-level contexts. Examples are individual people (mother, father, child) in families, in programs, in counties.

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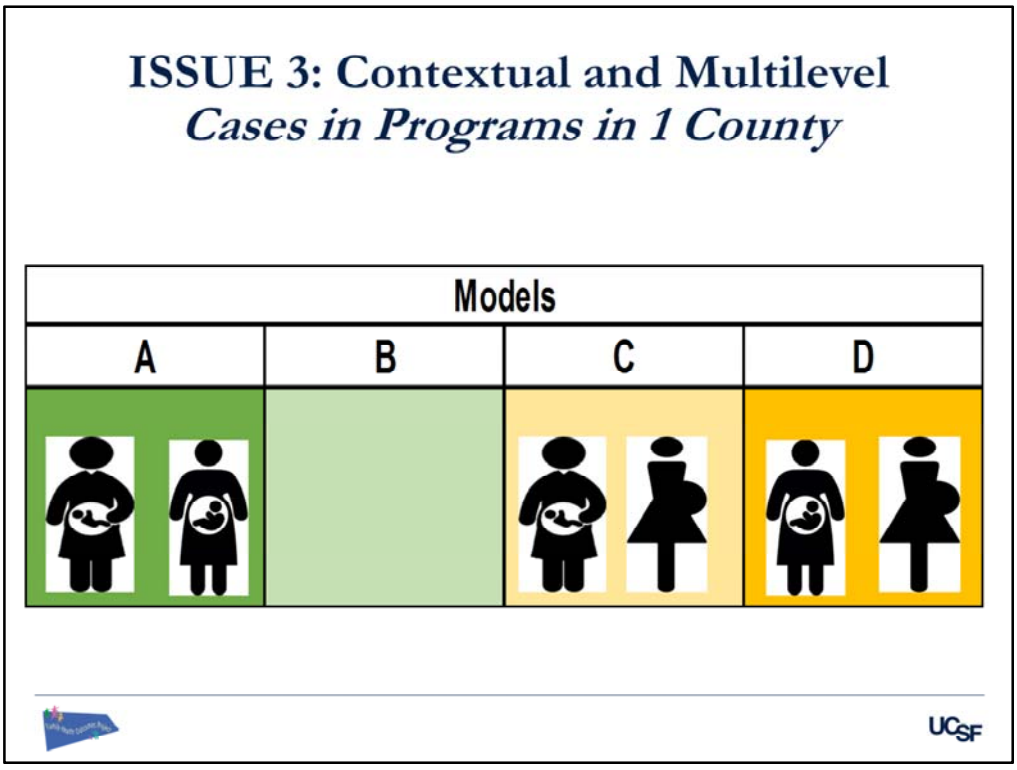


- Now I am going to introduce you to how these models works.

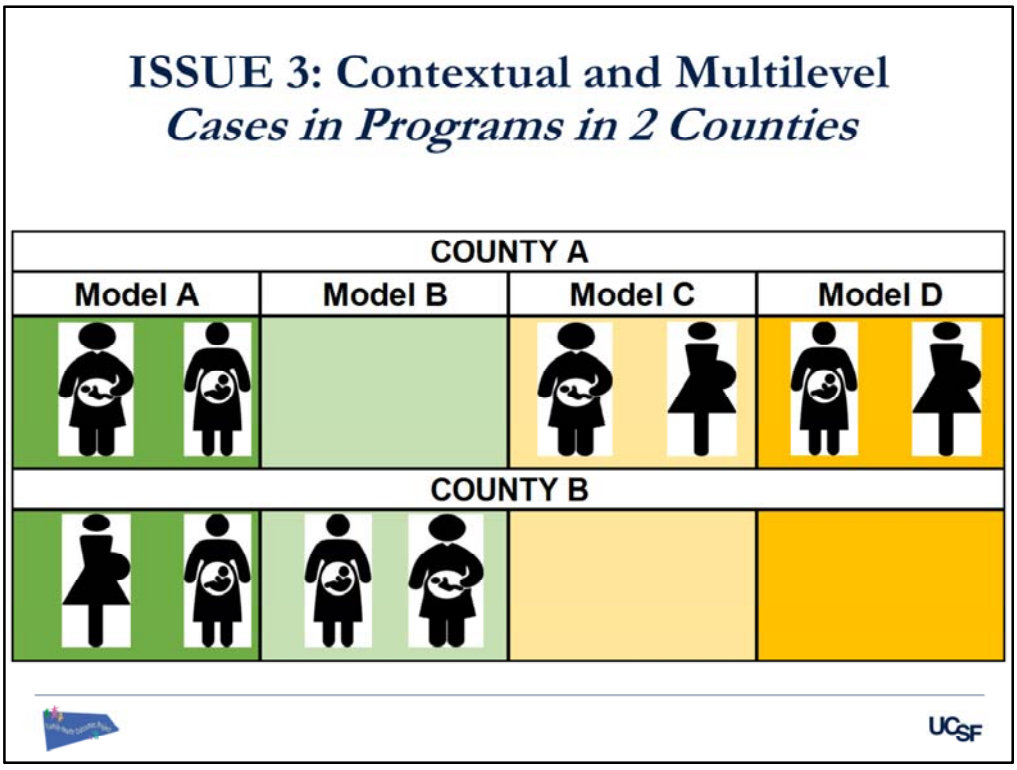
- The evaluation is testing the effectiveness of different program models on helping their clients achieve program outcomes. [click] This slide shows four primary models, not named, that are being tested statewide. Every county selected a different combination of models, some selected only 1, others select multiple models. This uses the same colors as before, but here we are referring to program models, not cases or controls.

- Let's start by seeing what models this county is testing, and get some sense of who their clients are. [click] Here we see our first eligible client in this county enrolled in Model A. Keep in mind that this woman has her own matched set of 3 controls.

- [click] Another woman with similar characteristics enrolled in Model C. She also has her own matched set of 3 controls. This means we will be able to test if similar women have the same or different outcomes in different programs in this county.

- [click] Next, a woman with different characteristics enrolled in Model A [click] and a woman similar to her also enrolled in Model D. [click] This allows us to test if people with certain backgrounds do better in certain programs than in other programs.

- [click] Finally, we see that two similar women enrolled in models C and D. This allows us to do even more complex comparisons for outcomes.



- Now see how complexity increases with multiple counties.
- We start by again showing the final case combinations from County A.
- [click] County B implemented Model A, but it has a different case mix. With different case mixes, will both counties have the same general outcomes for this program model?
- [Click] County B also implemented Model B, which was not implemented in County A but in another of the 44 counties. The case mix of Model B in County B mix is similar to the mix of Model A in County A. We can test the effectiveness of the model with a similar case mix but different county context. Perhaps one county is quite rural and another very urban. Does the differences in context (both program model and county) influence outcomes?
- Or do families with similar characteristics do better regardless of the models where they are assigned? Or do different models with the same clients have the same general outcomes? That is, do characteristics predict outcomes, or do program models predict outcomes, and what does county context (rural, urban, wealthy, poor) contribute to our understanding of the outcomes?
- We are deep into the complexity of program evaluation.

ISSUE 3: Contextual and Multilevel Summary

- Multi-level, contextual, longitudinal evaluation with controls is a complex design.
- We need good quality data from all sources.
- With HVP data we can test different models.
- We need population data with controls to test overall HVP effectiveness.
- We face data acquisition timing issues.

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QUANTITATIVE DATA
CONFIDENTIALITY
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DATA CONFIDENTIALITY

- The quantitative evaluation relies completely on receiving
  - Good quality case data from HVP sites.
  - Data from state and county computer systems.
- FHOP is working with CDSS to develop standard data access agreements

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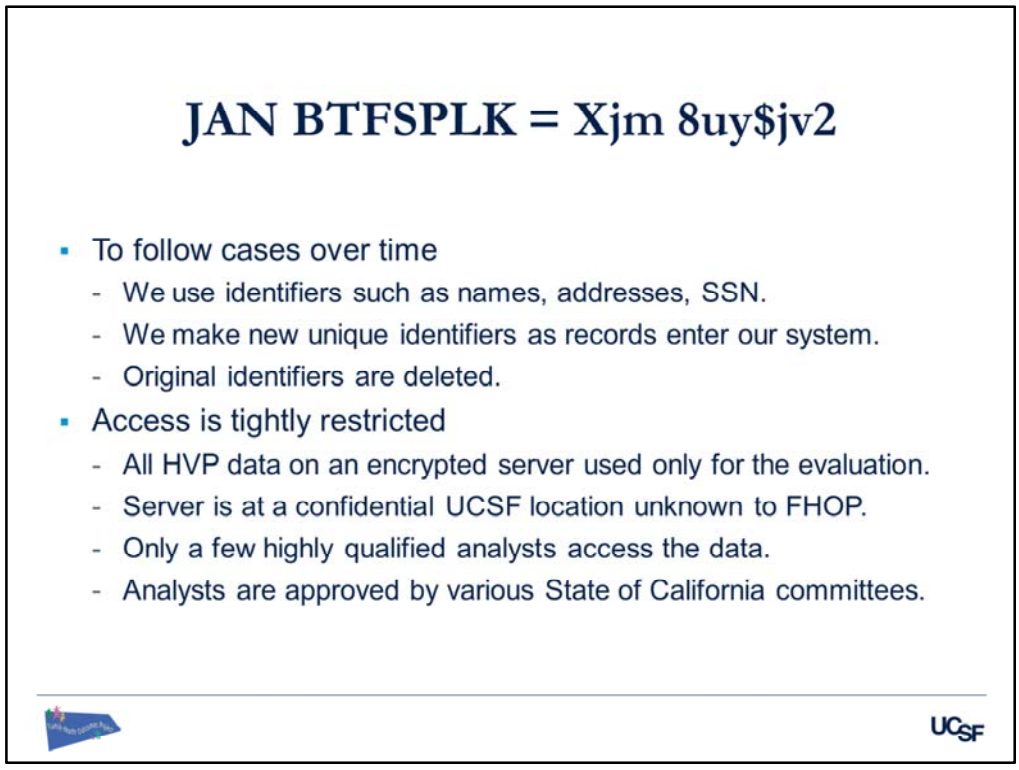
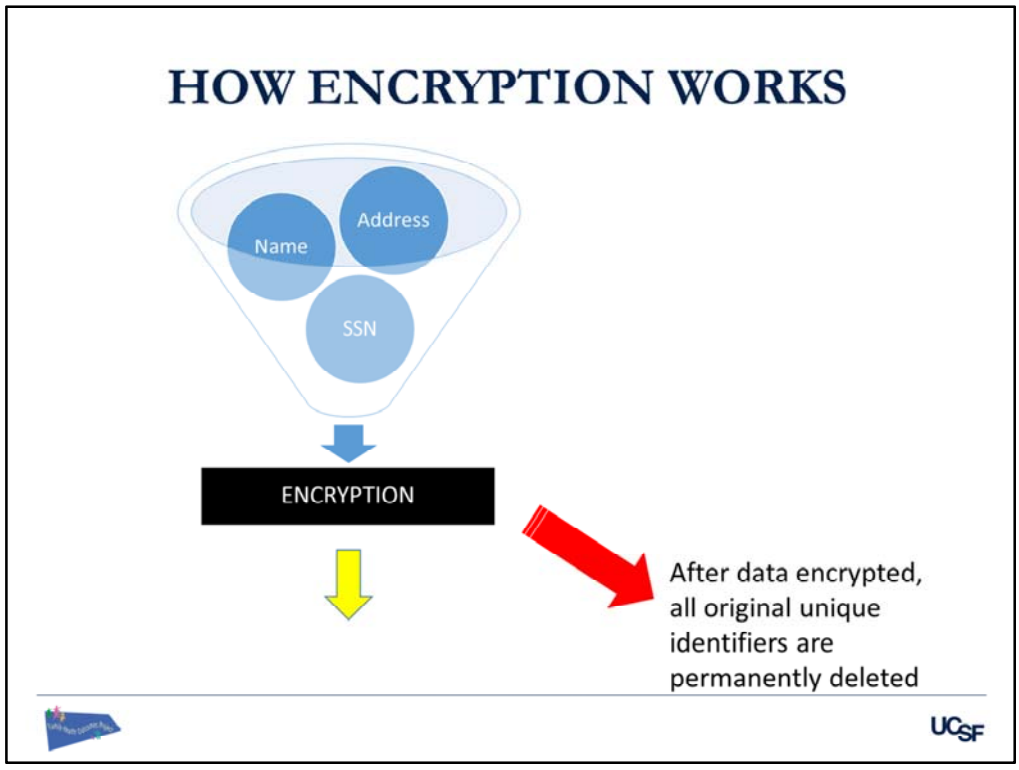


- Jan's name is not encrypted using our algorithm. This is a randomly-generated sequence.


HOW ENCRYPTION WORKS
Name
Address
SSN
ENCRYPTION
After data encrypted, all original unique identifiers are permanently deleted
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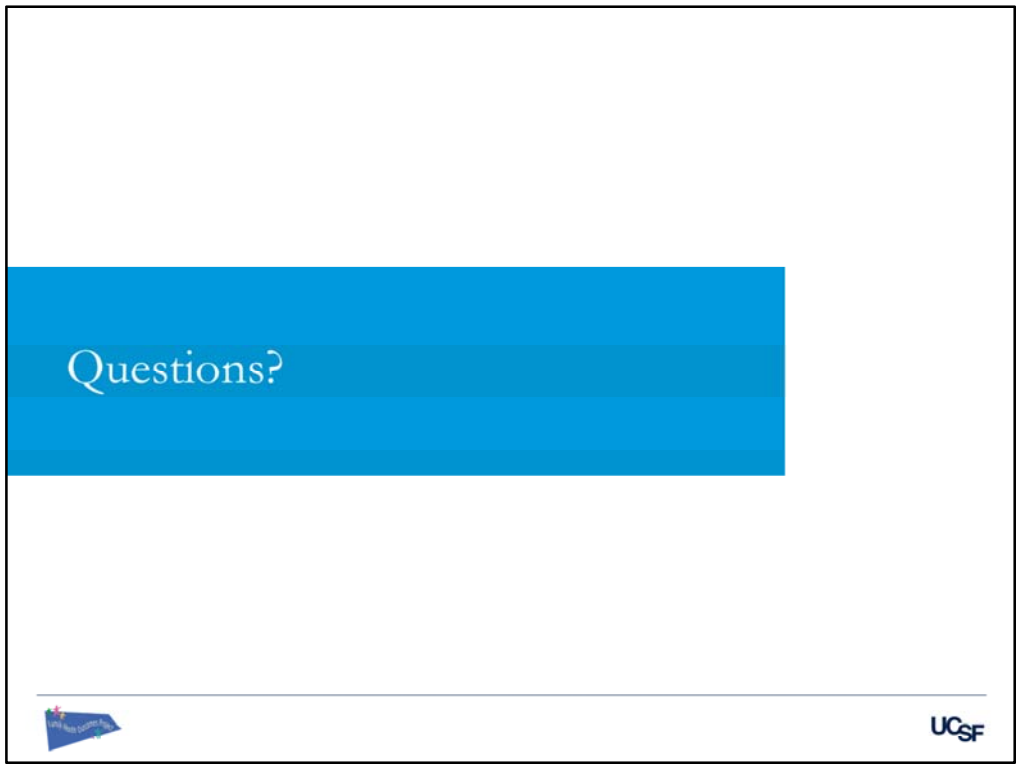
Questions?
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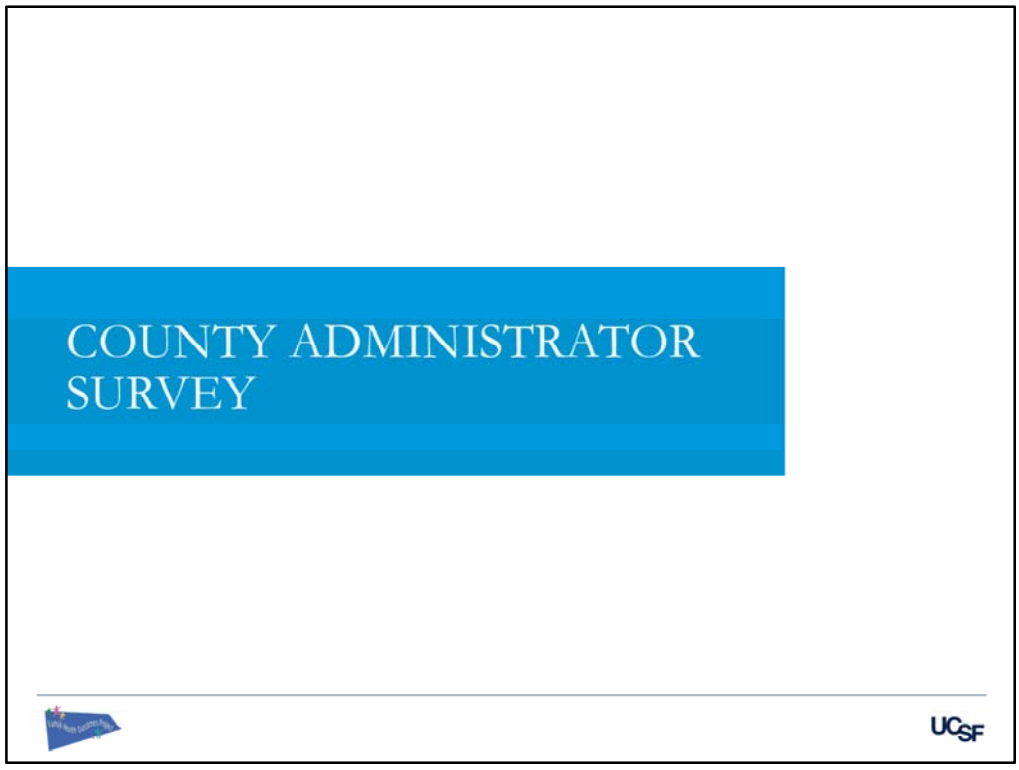
COUNTY ADMINISTRATOR SURVEY
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PURPOSE

- Confirm contact information for 44 County DSS HVP administrators
- Obtain baseline County administrative workforce data
- For each program model adopted, identify if each major type of case management data is recorded using internet- or agency-based computer

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WHO RESPONDED (%)

Position	Administrator	67
	Administrator/Supervisor	17
Experience	County 10+ years	67
	Position 5+ years	57

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- **n = 30, 68% response**

DEMOGRAPHICS (%)

Sex	Female	79
Race/ ethnicity	White	47
	Hispanic	30
	Other	23
Age	30-39	23
	40-49	27
	50-max	50

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JOB PREPARATION (%)

Education	AA degree or less	17
	Bachelor degree	55
	Graduate	24
Previous Work	Business/accounting	20
	Education/teaching	27
	Psychology	20
	Social Welfare	43
	Sociology	27
	Other	27

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- No respondents indicated they had worked in any branch of law, medicine, or computing.

AGENCIES AND MODELS (%)

Participant Agencies	Social Services/Welfare	37
	Public Health	53
	First 5	33
	Other	33
Home Visiting Models	Early Head Start	13
	Healthy Families America	33
	Nurse Family Partnership	30
	Parents as Teachers	47
	Other	10

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ELECTRONIC DATA (%)

Primary Online System	Cal-SAWS/CalWin	38
	Cal-SAWS/C-IV	59
Electronic Case Management	Case register	87
	Assessment	77
	Services	77
	Critical events	63
	Outcomes	67

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THE BIG QUESTION

Did all the hard work to implement home visiting for CalWORKs participants

improve the lives of these parents and children?

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THE BIG DUE DATE

Report to
California State Legislature
January 2022

You hold the key to what we report

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Social Services Data

- California Department of Social Services
  - CalWORKs (OCAT, OAR)
  - Cal-SAWS (CalWIN, C-IV, LRS)
  - Child welfare data
- County Social Services and HVP
  - Computerized case management data

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