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Getting the most out of your local DataBooks

Sept. 2018

Family Health Outcomes Project, UCSF

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Objectives

Participants will understand:

- What data products are available from FHOP for the needs assessment
- Topics and indicators in the DataBooks
- Why some DataBooks are labeled PROVISIONAL
- Where to find specific information in the DataBooks (e.g., numerators, denominators, year rates, 3-year rates)
- How to determine if rates are significantly different and if they have changed significantly over time
- How to determine whether a trend is significant, linear or curvilinear, and if it differs from the state

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Data products for Needs Assessment

- Community Health Status Report (CHSR) Overview - produced every 5 years for needs assessment)
  - Includes data from a variety of sources – vital statistics data, census, MIHA, CHIS, Dept. of education, etc.
  - Overall rates, confidence intervals where available, comparisons with state rate if from MIHA or Databooks
- Community Health Status Report (CHSR) Details - a subset of the CHSR Overview and only includes indicators FHOP analyzes and makes DataBooks for
- DataBooks - Excel spreadsheet files with rates and trends for key MCAH indicators, overall and usually by race/ethnicity

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Spreadsheet Topics

- Prenatal Care
- Birth Interval
- Birth Weight
- Cesarean Sections
- Fetal and Infant Mortality
- Infant and Youth Mortality
- Family Issues – Domestic violence calls, children in foster care, unemployment
- Fertility
- Injury Hospitalizations
- Insurance status and Poverty
- Medi-Cal covered births
- Mental Health Hospitalizations
- Gestational Diabetes
- Substance use in Pregnancy
- Population Data
- Asthma (coming)

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PROVISIONAL Data

- **Databooks labeled "PROVISIONAL":**

  Because of the conversion from ICD-9-CM (International Classification of Diseases, Ninth Revision, Clinical Modification) to ICD-10-CM, for certain hospital discharge data there will only ever be 9 months of data for the year 2015. So all Databooks labeled "Provisional" only have data through September of 2015

  – IMPACT: Numerators (number of admissions) and denominators will be SMALLER in 2015 because only 9 months of data, but no effect on rates

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Maternal/ Women's Health Spreadsheets

1-A	Medi-Cal insured deliveries per 100 live births: MCAL
1-C	Prenatal care in the first trimester per 100 females delivering a live birth: APNC Also in this databook: • Prenatal care beginning in the last trimester or never per 100 females delivering a live birth • Inadequate prenatal care per 100 females delivering a live birth • Adequate prenatal care (80% Kotelchuck index) per 100 females delivering a live birth
1-F	PROVISIONAL: Substance use diagnoses per 1,000 hospitalizations of pregnant females age 15 to 44: PCXP Also in this databook: • Mental health hospitalizations per 1,000 pregnant females • Substance-affected infant diagnosis per 1,000 hospital still- or live-births

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Maternal/ Women's Health Spreadsheets

1-H	**PROVISIONAL:** Gestational diabetes per 1,000 females age 15 to 44 delivering a live or still-born infant in-hospital: PCXP
1-I	Births conceived within 18 months of a previous birth per 100 females age 15 to 44 delivering a live birth: IPI
1-J	Cesarean births per 100 low risk females delivering a live birth: CSEC Also in this databook: • Cesarean births per 100 low-risk females giving birth for the first time • Cesarean births per 100 females delivering a live birth
1-O	Uninsured per 100 female population age 18-64: INSU Also in this databook: • Uninsured per 100 female population age 18 to 64 (0-200% FPL) • Uninsured per 100 female population age 18 to 64 (gt 200% FPL)

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Maternal/ Women's Health Spreadsheets

1-P	PROVISIONAL: Mood disorder hospitalizations per 100,000 female population age 15 to 44: MHPD Also in this databook: • Mood disorder hospitalizations per 100,000 population age 15 to 24 Related indicators in different databook: • Mood disorder Emergency Department visits per 100,000 female population age 15 to 44: MHED (PROVISIONAL) • Mood disorder Emergency Department visits per 100,000 population age 15 to 24: MHED (PROVISIONAL)
1-Q	PROVISIONAL: Assault hospitalizations per 100,000 females age 15 to 44: INJPD Also in this databook: • Assault hospitalizations per 100,000 population age 15 to 24 • Related indicators in different databook: • Assault Emergency Department visits per 100,000 female population age 15 to 44: INJED (PROVISIONAL) • Assault Emergency Department visits per 100,000 population age 15 to 24: INJED (PROVISIONAL)
1-R	Domestic violence calls per 100,000 population: CHSR Overview only

Infant Health Spreadsheets

2-A	Births less than 37 weeks gestation per 100 live births: GAGE Also in this databook: • Births 37 to 38 weeks gestation per 100 live births • Births 34 to 36 weeks gestation per 100 live births • Births 32 to 33 weeks gestation per 100 live births • Births less than 32 weeks gestation per 100 live births • Singleton births 37 to 38 weeks gestation per 100 live births • Singleton births less than 37 weeks gestation per 100 live births • Singleton births 34 to 36 weeks gestation per 100 live births • Singleton births 32 to 33 weeks gestation per 100 live births • Singleton births less than 32 weeks gestation per 100 live births
2-B	Births weighing less than 2,500 grams per 100 live births: BWT Also in this databook: • Births weighing less than 2,500 grams per 100 live singleton births • Births weighing more than 4,500 grams per 100 live births • Births weighing more than 4,500 grams per 100 live singleton births

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Infant Health Spreadsheets

2-C	Births weighing less than 1,500 grams per 100 live births: BWT Also in this databook: • Births weighing less than 1,500 grams per 100 live singleton births
2-G	Deaths at age less than 1 year per 1,000 live births: DTHI Also in this databook: • Neonatal (between 0-27 days) deaths per 1,000 live births • Postneonatal (7-28 days) deaths per 1,000 live births

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Child and Adolescent Health Spreadsheets

3-A	Uninsured per 100 population age 0 to 18: INSU Also in this databook: • Uninsured per 100 population age 0 to 18 (0-200% FPL) • Uninsured per 100 population age 0 to 18 (gt 200% FPL)
3-J	PROVISIONAL: Substance abuse hospitalizations per 100,000 population age 15 to 24: MHPD Also in this databook: • Co-occurring mental illness and substance abuse hospitalizations per 100,000 population age 15 to 24 • Related indicators in different databooks: • Substance abuse Emergency Department visits per 10,000 population age 15 to 24: MHED (PROVISIONAL) • Co-occurring MISA Emergency Department visits per 10,000 population age 15 to 24: MHED(PROVISIONAL)

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Child and Adolescent Health Spreadsheets

3-K	**PROVISIONAL:** Mental health hospitalizations per 100,000 population age 15 to 24: MHPD Also in this databook: • Self-injury hospitalizations per 100,000 population age 15 to 24 Related indicators in different databooks: • Mental health Emergency Department visits per 100,000 population age 15 to 24: **MHED (PROVISIONAL)** • Self-injury Emergency Department visits per 100,000 population age 15 to 24: **MHED (PROVISIONAL)**
3-L	Births per 1,000 females age 15 to 19: FERT Also in this databook: • Total live births • Births per 1,000 population (Crude birth rate) • Births per 1,000 females age 15 to 44

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Child and Adolescent Health Spreadsheets

3-M	Births within 18 months of a previous birth per 100 females age less than 20 delivering a live birth: IPI Also in this databook: • Births within 18 months of a previous birth per 100 females age 15 to 44 • Births per 1,000 females age 15 to 44 (Fertility) • Births per 1,000 population age 40 to 44
3-P	PROVISIONAL: Motor vehicle injury hospitalizations per 100,000 population age 0 to 14: INJPD Also in this databook: • Motor vehicle injury hospitalizations per 100,000 population age 15 to 24 • Related indicators in different databooks: • Motor vehicle injury Emergency Department visits per 100,000 population age 0 to 14: INJED (PROVISIONAL) • Motor vehicle injury Emergency Department visits per 100,000 population age 15 to 24: INJED(PROVISIONAL)
3-Q	Deaths per 100,000 population age 1 to 4 years: DTH
3-R	Deaths per 100,000 population age 5 to 14 years: DTH
3-S	Deaths per 100,000 population age 15 to 19: DTH
3-T	Deaths per 100,000 population age 20 to 24: DTH

Population Demographics Spreadsheets

4-A	Total Population: POP
4-B	Total Population White: POP
4-C	Total Population African American: POP
4-D	Total Population Hispanic: POP
4-E	Total Population Asian/ Pacific Islander: POP
4-F	Total Population American Indian/ Alaska Native: POP
4-G	Total Population Multi-Race: POP

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Social Determinants of Health Indicators

5-A	Poverty (0-200% FPL) per 100 population age 18 to 64: INSU
5-B	Poverty (0-200% FPL) per 100 population age 0 to 18: INSU
5-D	Unemployment per 100 people in the employment market: FAMS
5-H	Children in foster care per 1,000 children age 0 to 17: FAMS Also in this databook: • Child maltreatment allegations per 1,000 children age 0 to 17

CYSHCN

6-F	Rate of emergency department visits for Asthma (ages 0-17): **ASTPD** and **ASTED** (these databooks are not yet available)

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What is in the DataBook spreadsheet?

- Data Tabs
- Definition Tab – Note: only for some few indicators where needed to provide more specific information on how they are calculated
- Data Quality Rates Tab – Note: only for some indicators where there are data quality standards
- Rate Tabs
- Graph Tabs

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Spreadsheet – Data Tabs

- Data Tabs are a 2-tab set of 12 years of local jurisdiction and state data summarizing required and optional indicators
- Includes numerators with the appropriate denominators to calculate rates
- Data are the source for calculating rate and graph tabs for each indicator.
- Small numbers (1 – 4) in numerators are suppressed, with at least 2 cells being suppressed

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Spreadsheet – Data Quality Rates

- Shows numbers of cases set aside in each year of the period for each grouped set of indicators due to data quality problems
- Identifies the indicator(s) screened for data quality, including: definitions of the indicator, numerator, denominator, the National Center for Health Statistics (NCHS) Standard for data quality, and risk factors associated with this indicator

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Spreadsheet – Rate Tab

Set to print on 3 pages

Page 1

- Indicator and its risk factors
- Rate table for total cases
- Data sources
- Recommendations for additional analyses

Page 2

- Rate tables for White Non-Hispanic and Hispanic All-Race

Page 3

- Rate tables for Non-Hispanic African-American and Asian populations

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Spreadsheet – Graph Tab

Summarizes results of trend tests for data on the **Rate Tab – prints on 3 pages**

Page 1

- Trend results for all data
- Change of rates within level and race/ethnic group

Page 2

- Trend results for White Non-Hispanic and Hispanic All-Race

Page 3

- Trend results for Non-Hispanic African American and Asians

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What can trend analysis tell us?

- Allows us to look at rates over a time period of 2004-2015 and see if there are significant upward or downward trends on key indicators (as oppose to the inaccurate eyeballing approach)
- Useful for identifying and monitoring trends in disparities among racial/ethnic groups
- Allows for comparisons with the statewide trends on key indicators for different racial/ethnic groups
- Useful for identifying whether a problem is affecting people across groups or disproportionately impacting subgroups
- Allows local health jurisdictions to track their progress toward reaching Healthy People 2020 Goals

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Graph tab – graphs and tables

What do the trend graphs and tables tell us?

- If there are significant upward or downward trends (or no trends) in local rates over time
- If there are significant upward or downward trends (or no trends) in state rates over time
- If the local trend vs. state trend are significantly different
- If the local or state trend is curvilinear (as opposed to linear) **NOTE: If a curvilinear trend, CANNOT test if local different from state

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Graph tab – graphs and tables (cont.)

- Were average local rates at beginning of period (2004-2006) significantly different from average state rates
- Were average local rates at end of period (2013-2015) significantly different from average state rates
- All of the above comparisons for the group overall and for race/ethnic subgroups
- Table comparing of rates overtime for race/ethnic groups at the local and state levels
- Pay careful attention range of values on the vertical axis when looking at graphs by race/ethnicity. RANGES VERY A LOT!!!!!

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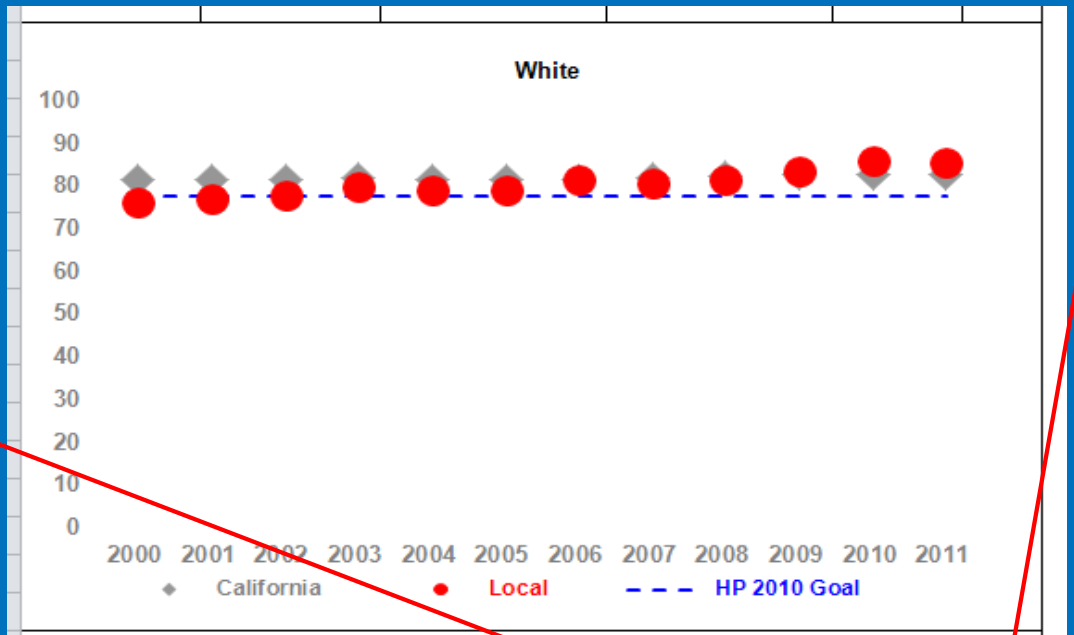
Linear Trend Example



Trend Regression Results

Level	Date Range	Intercept Est.	Intercept Std. Err	Slope Est.	Slope Std. Err	Slope P-Value	Sig?
State	2000-2011	81.26	0.16	0.13	0.02	0.000	Yes
Local	2000-2011	76.16	0.51	0.82	0.08	0.000	Yes
	Different?					0.000	Yes
State Avg	2000-2002	81.48	0.06				
Local Avg	vs State	77.10	0.26			0.000	Yes
State Avg	2009-2011	82.72	0.06				
Local Avg	vs State	85.01	0.23			0.000	Yes

PNC Adequate Graphs | PNC Adequate Plus Rates | PNC

1. This tells us if there is a significant trend. If it says 'Yes' there is a significant trend, if 'No' then no trend

2. This is the slope of the trend. If it is positive, the trend is increasing. If it is negative, the trend is decreasing

3. If it says 'Different?' then tests were done to see if the trends were significantly different. If 'Different?' is not in the table, then comparing trends was not possible

4. If it says 'Yes' then the State and Local trends are significantly different

5. If it says 'Yes' then then the average State and Local rates at the start of the period were significantly different.

6. If it says 'Yes' then then the average State and Local rates at the end of the period were significantly different.

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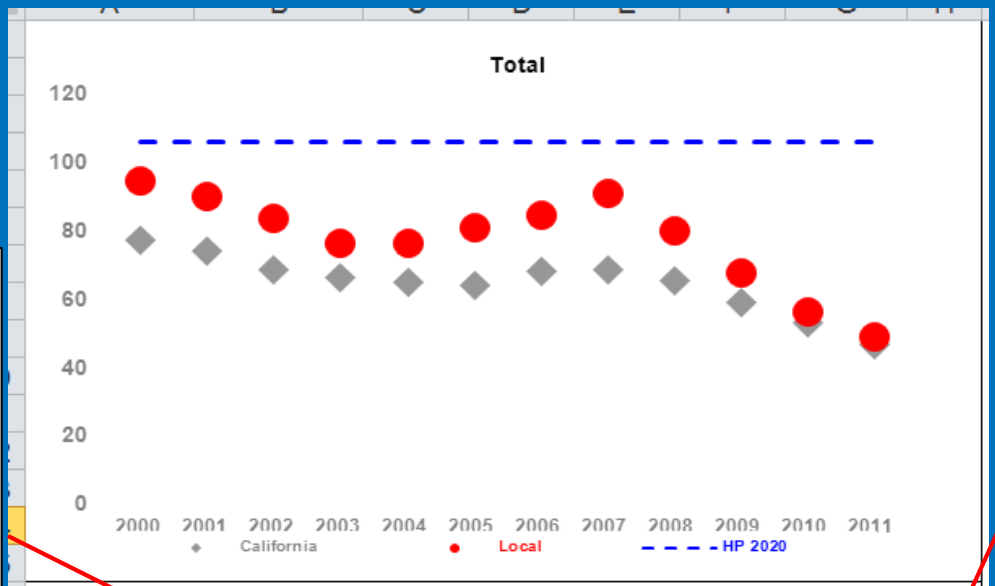
Curvilinear Trend Example



Trend Regression Results

Level	Date Range	Intercept Est.	Intercept Std. Err	Slope Est.	Slope Std. Err	Slope P-Value	Sig?
State	2000-2004	76.69	0.58	-3.33	0.30	0.000	Yes
	2004-2007	54.87	4.82	2.12	0.88	0.072	No
	2007-2011	109.03	2.40	-5.61	0.25	0.000	Yes
Local	2000-2003	96.15	1.81	-7.05	1.34	0.006	Yes
	2003-2007	64.61	5.84	3.47	1.16	0.040	Yes
	2007-2011	160.61	5.82	-10.25	0.59	0.000	Yes
State Avg	2000-2002	73.21	0.22				
Local Avg	vs State	89.26	1.07			0.000	Yes
State Avg	2009-2011	52.93	0.17				
Local Avg	vs State	57.42	0.71			0.000	Yes

Births 15-17 Graphs | Births 18-19 Rates | Births 18-19 Grap

2. Note the slopes for the local. Rates decline between 2000-2003, increase for 2003-2007, then decrease from 2007-2001

1. This tells us if there is a significant trend. If it says 'Yes' there is a significant trend, if 'No' then no trend

3. This tells us that there is a significant trend for each of these time periods.

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Now let's look at an actual DataBook!

Exercises to Check for Understanding

Looking at the Mental Health Hospitalizations DataBook (MHPD) – (show on screen):

- How many admissions are there in 2015 for youth 15-24?
- Why are there fewer admissions for self-injury in 2015 than 2014 among youth 15-24?
- If the number of admits is smaller in 2015, why is the rate larger than 2014?
- Which race/ethnic group has the most admissions in the state?

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Exercises to Check for Understanding

Looking at the Mental Health Hospitalizations DataBook (MHPD) for self-injury for youth 15-24 (show on screen):

- What is the most recent local 3-year rate and does it differ significantly from the state rate?
- Which race/ethnic group has the highest 3-year rate in the state? Locally?
- Is there a significant local trend for self-injury for youth 15-24?
  - Describe the state trend
  - Describe the local trend

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Resources

Resources for understanding your DataBooks on the FHOP website –

- *Do We Have a Linear Trend?*
- *Trend Analysis Examples – simplified*
- *Technical Guide for Using Title V 5-Year Needs Assessment Indicators Databooks 2004-2015*

Questions?

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