Instructions for Workbook B: Title V Health Status Indicators

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Instructions for Workbook B
Title V Health Status Indicators

Workbook B was designed to help local Maternal Child and Adolescent Health (MCAH) jurisdictions summarize the results of their review of the 27 required Health Status Indicators. It allows jurisdictions to more easily review changes in indicator values over time, compare local and state values, assess trends in local and state values, and measure progress toward meeting the Healthy People (HP) 2010 objective. Your jurisdiction's Workbook B is available in the password-protected section of the Family Health Outcomes Project (FHOP) website accessible through the following link:
http://familymedicine.medschool.ucsf.edu/fhop/htm/ca_mcah/counties.

FHOP prepared data for Workbook B with input from MCAH and the local MCAH jurisdictions. There are a number of reasons why FHOP prepared statistics for the local and state indicators. The first is to assure uniformity in the definitions of the numerator and denominator for each indicator. The second is to assure uniformity in the way indicators are calculated. This generates uniform statistics that allow counties to compare themselves to each other and the state. It also is intended to minimize the resources local jurisdictions need to allocate to generate local statistics, and provide local analysts with the opportunity to concentrate more effort on in-depth analyses of problems identified by the indicator statistics. For this reason, counties are encouraged to take advantage of the data in Workbook B and the Databooks to complete this part of the Title V local needs assessment.

You will notice that the indicator values in Workbook B are three year aggregates for the earliest and most recent periods for which data are available. Three year aggregates allow for more uniform assessment of both small and large jurisdictions and result in narrower confidence intervals with a greater accuracy in assessing differences when comparing rates.

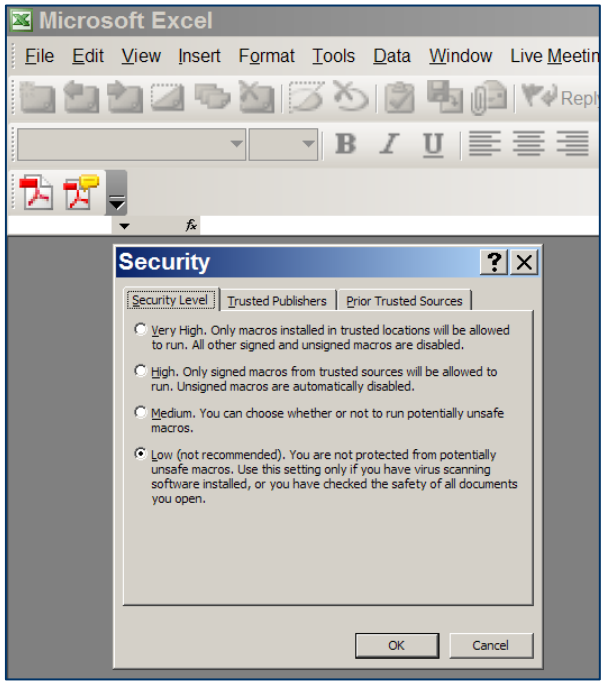
FHOP cannot provide technical support if jurisdictions use other data sources to complete Workbook B.

1 Preparing to Complete Workbook B

1.1 Download the Excel workbook

Workbook B, tailored specifically for your jurisdiction, is in the form of an Excel workbook. It is on your jurisdiction's data page on FHOP's website. Workbook B contains three worksheets, or tabs: Sources, County, and State. The County tab name identifies your jurisdiction. If the County tab has the name of another jurisdiction, please notify FHOP immediately, as there will have been an error in posting the data to the website. You will need to complete the worksheet with the name of your jurisdiction. *Completing this worksheet is a required part of the Title V local needs assessment packet.*

Macros built into Workbook B activate pull-down menus. Some jurisdictions may have computer security settings that refuse to accept files with macros, thinking they contain viruses. We posted zipped files on the password-protected page of the County Pages on the FHOP website with an extension of PIZ. This fools some systems into accepting the file. After you download it, change the file extension to ZIP which then can be opened by PKZIP or WinZip.



WARNING:

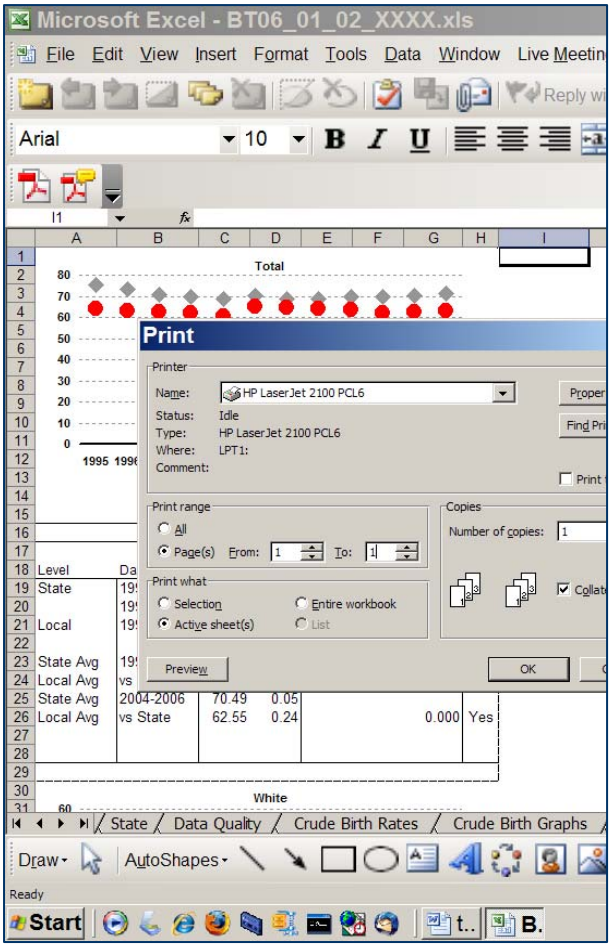
Workbook B contains built-in macros. To be able to download the file, you may need to change your computer security settings to ***low*** ***BEFORE*** downloading the file.

BEFORE opening Workbook B in Excel, **set SECURITY to LOW**. Click on *Tools*, *Macro*, *Security*, and select Low as shown in the picture on the left.

As soon as you open Workbook B in Excel, you can reset the security settings.

If you do not know how to change security settings, or if your jurisdiction does not allow you to change these settings you may need to ask your computer administrator to help you. FHOP cannot provide technical support for this.

1.2 Print the graph tab for each FHOP Databook indicator



Click the "Sources" tab in Workbook B. The "Sources" tab identifies each indicator, the eight Databook files containing the indicators, and the 27 specific tabs to preprint. Note that the last four characters of each file name are not shown in the databook file name column. These characters (nnAA) are specific to each county.

When you open the Databook, only print the first page of each Graph Tab, with trend statistics for Total Cases. These printouts will be used to evaluate trends.

To do this, click in cell I in row 1. Then pick *File*, *Print*, *Pages* from 1 to 1, and *Active Sheet*, as shown in the picture to the left.

Non-FHOP indicators are included in Workbook B. The source of these summaries can be found at another place on FHOP's website: http://familymedicine.medschool.ucsf.edu/fhop/htm/ca_mcah/title_v/t5_indicators.htm.

The Non-FHOP indicators have been differently presented depending on the source that provided them. These do not have trend tests

and do not have to be preprinted.

1.3 Print the "State" worksheet in Workbook B

To make it easier to compare your jurisdiction to the State, we suggest preprinting the worksheet tabbed "State" in Workbook B. MCAH has pre-filled its worksheet to make it easier for local jurisdictions to compare their progress to the state's.

2 Issues in Evaluating Indicator Changes

2.1 Progress, Directionality, and Symbols

Most evaluations of progress are based on evaluating confidence intervals. For each indicator in Workbook B, the total rate and its 95% confidence interval was calculated. To identify a statistically significant difference between two rates, confidence intervals for both rates must not overlap. If confidence intervals overlap, rates are not significantly different from each other. A jurisdiction may have a rate of 10 in one period and 2 in another, which may seem like progress. However, if confidence intervals overlap, the rates are not significantly different. To do this analysis, we urge attention to confidence intervals rather than rates.

Pull-down menus summarize local progress for the health status indicators. The pull-down menu in each evaluation cell shows in words and symbols the available choices for the indicator. When you make a choice, only the symbols are placed in the worksheet cells. The following summarizes the meaning of symbols in the pull-down menus.

A declining rate can indicate progress toward the objective for some indicators (e.g., teen births) and progress away from the objective for others (e.g., prenatal care). Different symbols allow readers to understand their meaning if no color printer is available.

- ⇩ ⇧ **Blue circled arrows** are used when a decreasing or increasing rate or trend is moving in the desired direction.

- ⇩ ⇧ **Red hollow arrows** are used when a decreasing or increasing rate or trend is moving away from the desired direction.

Some indicators have no commonly understood definition of progress. Examples include fertility, hospital admissions with mental health diagnoses, and domestic violence. Some people think rising fertility is desirable while others believe rising fertility is undesirable. Some people think a high rate of mental health hospital admissions means people are getting appropriate care for an acute psychiatric episode. Others interpret a high rate to mean that the community has inadequate local outpatient care to prevent admissions. A low rate could mean that people are getting adequate care in community programs, that they are allowed to roam the streets without care, or that they are incarcerated for loitering and are not eligible for hospitalization. Similarly, we are not sure whether a high domestic violence rate reflects good outreach at the local level or whether rates truly are high or low.

- ⇧ ⇩ **Black hollow arrows** are used when a decreasing or increasing rate or trend has no common understanding.

The choice "No significant difference" is used when confidence intervals overlap or when the trend test is non-significant.

- ⇔ **Black hollow arrow pointing in both directions** is used to signify that there is no statistically significant difference in the rate or trend for the comparison period.

For Workbook B, we provide numbers and calculate rates using all events without instituting small numbers criteria as we do for trend tests in the Databooks. Small numbers of cases will almost always result in a wide confidence interval making it impossible to achieve statistically significant change.

Some jurisdictions have no events (N = 0) for some indicators over a three-year interval. They appear to have a rate of zero. In these circumstances, the lower confidence interval cannot be less than zero, but the rate can have an upper confidence interval.

- ✹ **NSD No Events (No significant difference).** The jurisdiction had no events for the interval evaluated but the difference is not statistically different (NSD).

To menus evaluating progress toward the HP 2010 objective (column *R*), we added the following symbol. It may be used when the period end 3-year confidence interval indicates your jurisdiction met the objective.

- ✪ **Circled Blue Star - Objective Met.** The confidence interval does not include the HP2010 objective and is on the appropriate side of the indicator. Hooray!

  Example: HP 2010 Objective = 6%, where low is good.

  Rate is 5.3, LCL 5.1, UCL 5.5. ✪

Trends have to be evaluated by referring to the graph tab in the appropriate FHOP Databook which you previously printed. Focus only on your jurisdiction's total trend. Most indicator trends can be evaluated using the standard arrows. However, some trends need different indicators.

- ☐ **Box** signifies your jurisdiction did not have enough events to calculate a trend.

- ≈⇨ **Wavy symbol and right arrow** signifies a non-linear trend. The arrow points to the right to remind you to briefly describe the trend direction in the column headed *Comment Explain*. Cells in this column are formatted to wrap text if the line is too long.

Some indicators have no HP 2010 objective. Others have no trend data or, if a trend exists, are non-linear. When such circumstances exist, these indicators do not have to be compared to an HP 2010 objective and/or analyzed for trend. In these events, the cells have been pre-filled with the notation *N/A, which should not be changed.*

- **N/A** Not applicable.

2.2 Reliability

Results of Worksheet B can be used to guide further statistical analyses and assist local planning and program development activities. Incorrect answers could inadvertently lead a jurisdiction to think it had a problem where it had none, or that it had no problem when it had one.

To assure that results accurately reflect local circumstances, we STRONGLY recommend that at least two people <u>independently</u> complete Workbook B, compare results, and resolve discrepancies before finalizing responses in Workbook B and beginning to plan.

3 Completing Worksheet B

3.1 Indicator

Indicator		
#	Description	HP 2010 Objective
1	Fertility per 1,000 Females Age 15 to 44	N/A
2 A	Births per 1,000 Females Age 10 to 14	N/A
2 B	Births per 1,000 Females Age 15 to 17	43
2 C	Births per 1,000 Females Age 18 to 19	N/A
2 D	Births per 1,000 Females Age 15 to 19	N/A
3	Low Birth Weight Live Births (%)	5%

The column set headed "Indicator" identifies the 27 required health status Indicators that have been provided for you. Note that some indicators have multiple categories, for example teen births. These are indicated by A, B, etc.

If the Indicator has a Healthy People 2010 Objective, it is shown.

If your jurisdiction added other indicators, insert the name(s) in the rows at the bottom of the local worksheet (after the required indicators). It is important to clearly define the numerator, denominator and indicator measurement for all additional indicators that your jurisdiction included.

3.2 Local Period Start and Local Period End

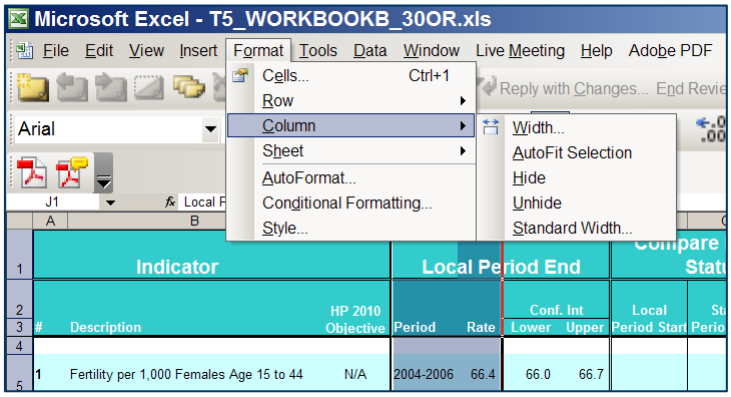
Local Period Start			
		95% Conf. Int	
Period	Rate	Lower	Upper
1995-1997	63.3	62.8	63.8
1995-1997	1.1	1.0	1.3
1995-1997	27.0	25.9	28.1
1995-1997	63.8	61.8	65.9
1995-1997	41.9	40.8	43.0
1995-1997	7.0	6.8	7.2

The next two major column sets, Local Period Start and Local Period End, each contain the same types of information. For the 27 required indicators, cells in these columns have been filled in for you, so you do not have to do any of the calculations. You will only need to calculate rates and confidence intervals for the optional indicators you choose to add.

- ***Period*** refers to the 3-year interval for which a given statistic is calculated.
- ***Numer(ator)*** refers to the *total number of events* in the reference period. This column is filled in for all indicators. Note that small numbers are reported. *(Hidden column)*
- ***Denom(inator)*** refers to the *total number of people* in the population in the reference period. *(Hidden column)*
- ***Rate*** refers to the value obtained after dividing the numerator by the denominator and multiplying by the appropriate scale (100; 1,000; 10,000, etc).
- ***Lower*** refers to the lower 95% confidence limit (LCL) for the reported rate. These are not the same statistic as the 3-year standard error values from the relevant Databook table.
- ***Upper*** refers to the upper 95% confidence limit (UCL) for the reported rate. These are not the same as the standard error values from the relevant Databook table.

For some indicators, the numerator is a subset of the denominator (e.g., percent of preterm births). Other indicators (e.g., teen birth rate, motor vehicle injuries) are calculated using standard external population data. California law requires public agencies to use Department of Finance (DOF) population estimates. Some non-FHOP indicators provided their own denominators. For these indicators, FHOP used the numerator data provided by the source, but used DOF estimates in order to have consistent denominators across indicators with the same age groups. Thus the number of events used for the numerator will be consistent, but some rates may not be exactly comparable to rates from non-FHOP sources published on the web.

After evaluation, a jurisdiction may seem to have a problem with a certain indicator. In deciding whether a problem is important enough to develop a program, it is important to understand prevalence. Be sure the number of events supports developing a program. To make that assessment, it will be necessary to unhide columns containing the numerator and denominator.



HINT: FHOP hid columns E, F, K, and L to facilitate viewing. These columns contain numerators and denominators for each three-year period. To unhide these, select the columns headed period and rate. Then click on *Format*, *Column*, *Unhide* as shown in the picture on the left.

After work is completed, we recommend rehiding these columns.

3.3 Local Period End Compared To

This set of columns is intended to evaluate how the jurisdiction is doing, comparing its local end rate to its period start rate, to the State period end rate, and to the HP 2010 objective.

Compare Local End Status to		
Local Period Start	State Period End	HP 2010 Objective
⇔	⇩	N/A
⇩	⇔	N/A
⇩	⇩	✪
⇩	⇩	N/A
⇩	⇩	N/A
⇔	⇧	⇧

Local Period Start. To make this determination, compare confidence intervals in the Local Period Start vs. Local Period End columns. If their confidence intervals overlap, the jurisdiction will have made no statistically significant change. Click on the appropriate cell under the Local Period Start subheading. Select the drop-down menu choice that best summarizes how your jurisdiction's Local Period End did in comparison to the Local Period Start.

If you had no events in your Local Period End, select the 0 events indicator ✹.

State Period End. To make this determination, compare the Local Period End on your local tab to State Period End on the State tab.

Again, focus on confidence intervals of the two rates. If confidence intervals overlap, the jurisdiction will have made no statistically significant change relative to the State. Click on the appropriate cell under the State Period End subheading. Dropdown menus appear with options to describe how your jurisdiction is doing at Local Period End compared to State Period End.

If you had no events in your Local Period End, select the 0 events indicator ✹.

HP 2010 Objective. To make this determination, compare the Local Period End on your local tab to the HP 2010 Objective in Column C.

Again, focus on the confidence intervals for Local Period End. If the confidence interval overlaps the HP 2010 objective, the jurisdiction will have no statistically significant difference between its rate and the HP 2010 objective.

If your confidence intervals are in the appropriate direction relative to the HP 2010 objective and do not overlap it, select the star indicator ✪. Your jurisdiction met the HP 2010 goal. Hooray!

3.4 Local Trend Line, Non-Linear Explain

To complete this section, refer to the trend graph worksheets you preprinted. Focus only on the total graph and its statistics from page 1 of the relevant Databook graph tab, specifically the local trend statistics which are yellowed in the example.

Trend Regression Results							
		Intercept		Slope			
Level	Date Range	Est.	Std. Err	Est.	Std. Err	P-Value	Sig?
State	1995-2006	10.24	0.08	0.07	0.01	0.000	Yes
Local	1995-2006	10.28	0.15	-0.07	0.02	0.011	Yes
	Different?					0.000	Yes

We start with the simple linear trend. The table shows that the local jurisdiction had a significant downward trend (as shown by -0.07, P-value 0.011). If the indicator is improving when it goes down (e.g., low birthweight), select the blue downward circle ⓘ. If the indicator is worsening when it goes down (e.g., children with health insurance), select the red downward arrow ⇩.

Trend Regression Results							
		Intercept		Slope			
Level	Date Range	Est.	Std. Err	Est.	Std. Err	P-Value	Sig?
State	1995-2002	39.12	0.33	-2.50	0.08	0.000	Yes
	2002-2006	24.60	1.42	-0.43	0.15	0.023	Yes
Local	1995-2003	29.41	0.89	-1.85	0.19	0.000	Yes
	2003-2006	15.52	6.80	-0.11	0.68	0.870	No

Now let's look at a non-linear example. Here we see that the local jurisdiction had a trend line with one bend in the 2003-2006 period. From 1995-2003, the rate decreased significantly (-1.85, P-value = 0.000) and was essentially flat (not significant) thereafter (-0.11, P-value 0.870). Because there was at least one bend in the period between 1995 and 2006, the trend is non-linear. Select the non-linear trend symbol ⇨.

Comment Explain
From 1995-2003, the rate decreased significantly (-1.85, P-value = 0.000) and was essentially flat thereafter (-0.11, P-value 0.870).

Because the trend is non-linear, it must be explained in the last worksheet column headed "Comment-Explain." Describe the trend as summarized above.

You can add more detail in the written report if you think it is needed. Examples of what might be discussed further in the written report are whether certain race/ethnic groups have higher or lower rates such that they affect your total rate, an analysis of whether sufficient numbers are available to develop an intervention, etc. Text will wrap in this cell. If you want to make the column wider, feel free to do so.

If the trend was linear and non-significant, select the non-significant symbol ⇔

If your jurisdiction had too few events to calculate a trend line, select the box symbol ☐.

4 Non-FHOP Indicators

Data for indicators identified at the bottom of this section came from resources outside of FHOP. Layouts and data elements varied enormously from indicator to indicator. FHOP and MCAH retrieved the source files from the internet or in some cases directly from the organizations that prepare them. FHOP is preparing new sets of county worksheets containing data used for the following non-FHOP indicators:

15 Women Exclusively Breastfeeding at the Time of Hospital Discharge
16 Children and Adolescents Age 0 to 19 without Health Insurance
17 Children Age 2 to 11 without Dental Insurance
18 Children Age 2 to 11 Who Have Been to the Dentist in the Past Year
19 A Children less than Age 5 Who Are Overweight
19 B Children Age 5 to 19 Who Are Overweight
21 Reported Cases of Chlamydia Females Age 15 to 19
24 A Non-Fatal Motor Vehicle Accident Injuries Children Age 0 to 14
24 B Non-Fatal Motor Vehicle Accident Injuries Age 15 to 24
25 Children Living in Foster Care each July
26 Children Age 0 to 17 Living in Poverty
27 Domestic Violence Related Calls for Assistance

4.1 Population

Some of these sources had population-referenced denominators. To assure that we were using the same denominators for the same age groups across all indicators (0 to 4, 15 to 19, etc), FHOP used the most recent DOF estimates (July 2007 revision) provided on the FHOP website.

4.2 Pediatric Nutrition Surveillance System (PedNSS)

The PedNSS Nutrition Survey reported denominators and percent-based rates for overweight children. We imputed a numerator from the reported percent. If a jurisdiction had fewer than 100 participants, the people who produced the report showed the denominator but not the percent. This had a particular impact on five to eight smaller local health jurisdictions in a given year. For city-based local health jurisdictions, when no percent was available, we imputed a numerator based on the percent in the parent county. The numerator was imputed using the percent for the MCAH perinatal region for small counties. This may result in rate distortions in the affected jurisdictions, particularly if data are present in one year and not another. If the results seem unrealistic based on your knowledge of your community, be sure to add a comment in the last column of the local Workbook.

In interpreting PedNSS data, be aware that it is based on data from low-income children enrolled in federally-funded maternal and child health programs and may not be representative of the overweight status of the jurisdiction's entire child population.

4.3 Breastfeeding

FHOP and MCAH are seeking to obtain revised rates for earlier years of breastfeeding data. These data will be available shortly. Rather than further delaying the release of Workbook B, we are sending it without these data filled in. We will send a separate email to each jurisdiction with the rates and confidence intervals to paste into Workbook B. To indicate that these data are unavailable at this time, the values 999 have been inserted as placeholders.

4.4 California Health Interview Survey

The California Health Interview Survey has not yet released 2007 data. Thus data for children without health and dental insurance and children who saw the dentist in the previous year are not available at this time. These data will be available shortly. To indicate that these data are unavailable at this time, the values 999 have been inserted as placeholders.

Rather than delaying the release of Workbook B, we are sending it without these data filled in. As soon as the data are available, we will send a separate email to each jurisdiction with the rates and confidence intervals to paste into Workbook B.

5 Support

If you have further questions about the use of this Workbook, please contact Gosia Pellarin at FHOP:

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