# Data Books - "How to tell your story by the numbers" 

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November 2, 2020
3:00-5:00 pm

## Workshop Objectives

- Understand the purpose of assessment
- Describe the contents of the data book and articulate how the data relates to the Community Prevention Wellness Initiative (CPWI) logic model
- Understand the source and types of data presented in the data book and how to identify differences in the data
- Understand the sequence for conducting a needs assessment
- Q\&A


## Describe your experience using your Data Book

What has your experience been like with your Data Books?

- Go to www.menti.com and use the code 5083751
- When prompted write a word or phrase that describes what your experience has been like for you with your Community Data Books


## Assessment

Purpose: Develop and update the "picture of your community"

## Community Prevention \& Wellness Initiative (CPWI) Process Model

DBHR Community Prevention and Wellness Initiative
PLANNing Framework

Adapted from SAMHSA Strategic Prevention Framework

## Purpose of Assessment

- Purpose: to develop and update the "picture of your community".
- Identify and review data that demonstrates the needs of the community (Needs Assessment).
- Identify people, community readiness, and resources (Resource Assessment).
- Identify gaps of services for community needs (Gap Analysis)


## Purpose of Assessment

Purpose: to develop and update the "picture of your community".

- Identify and review data that demonstrates the needs of the community (Needs Assessment).
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- Identify gaps of services for community needs (Gap Analysis)


## Assessment (pg. 29 CPWI Community Coalition Guide)

Profiling your community's needs, resources, readiness, and gaps
Required CPWI Tasks:
A. Conduct Needs Assessment

- Establish process for assessment
- Conduct assessment
- Conduct "Community Survey" (annually)
- Prioritize outcomes and write into Strategic Plan


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## Strategic Plan Requirements

pg. 44 CPWI Community Coalition Guide
Appendix 6: Strategic Plan Review Checklist
For the Coalition's Strategic Plan the following is required:

## Needs Assessment

## Process

- Provide a summary of the process used for collecting, compiling, and reviewing data Summary of Key Data
- Provide a summary of the results of the Coalition's review of the data


## Needs Assessment Conclusions

- This section should provide the explanation for the first four column's of the coalition's logic model: red-consequences; purple-behavioral health problems; blue - intervening variables / risk and protective factors; orange - local conditions and how they were identified and prioritized
[Namel Coalition Logic Model



## Getting Started on the Assessment

## Create a Community Assessment Workgroup

- Composed of 3-5 people
- People who have access/expertise/interest in working with data
- Include at least one team member that has an understanding of data and an ability to explain it to the larger team
- Limited duration - up to 3 meetings over 2 months


## What does assessment do for us?

A community assessment will assist you in:

- Creating a profile of your community
- Determining the geographic areas and demographic populations that are at greatest risk
- Ensuring you are putting your time and money where it will have the greatest impact
- Showing policy makers the need for funding your prevention programs
- Identifying research-based strategies to implement in your community
- Establishes baselines and expected outcomes for prevention planning process
- Evaluates progress


## Data Books



## Purpose of the Data Book

- Developed for CPWI to assist coalitions in strategic planning.
- Support your community's data-based decisions.
- Provides data to start your Needs Assessment.
- Key work is "start"


## Sources of Data used in assessing communities



## Sources of Data used in assessing communities



## Data Assessment

## [Name] Coalition Logic Model



## Consequence Data

HYS Measures of School Performance (2018, Percent)


| HYS Measures of School Performance | Sample Community |  |  | School Districts Like Us |  | State |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Low Grades in School. Putting them all <br> together, what were your grades like last year? <br> (District results: Getting mostly, C's, D's, or F''s) | 8 | 2018 | 2018 | 2018 | 2016 | 2018 |  |
|  | 10 | $27 \%$ | $28 \%$ | $25 \%$ | $26 \%$ | $23 \%$ | $21 \%$ |
| Skipping School. During the last 4 weeks, how <br> many whole days of school have you missed <br> because you skipped or "cut"? <br> (District results: Skipped any days) | 8 | $20 \%$ | $15 \%$ | $20 \%$ | $15 \%$ | $18 \%$ | $14 \%$ |
|  | 10 | $23 \%$ | $18 \%$ | $22 \%$ | $17 \%$ | $21 \%$ | $16 \%$ |

*The bar chart includes 2018 HYS results for your school district area, 'school districts like us' and the state.
${ }^{\text {a }}$ The 2018 rate is significantly different from the 2016 rate.
${ }^{\mathrm{b}}$ The "school districts like us" rate is significantly different from your school district area rate
${ }^{c}$ The state rate is significantly different from your district area rate. ${ }^{d}$ Fewer than 30 students answered this question.

## Consumption Data

## HYS Measures of Youth Substance Use (2018, Percent)

| HYS Measures of Youth Substance Use | Sample Community |  |  | School Distrits Like Us |  | State |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Graot | 2016 | 2018 | 2016 | 2018 | 2016 | 2018 |
| Current Drinking. During the past 30 days, on how many days did you: Drink a glass, can or bottle of beer? (District results: Drink any days) | 8 | 9\% | 10\% | 9\% | 10\% | 8\% | 8\% |
|  | 10 | 21\% | 20\% | 21\% | 20\% | 20\% | 18\% |
| Problem/Heavy Drinking. (District results: 3-5 days drinking in the past 30 days and/or 1 binge past 2 weeks, or $6+$ days drinking in the past 30 days and/or $2+$ binge past 2 weeks) | 8 | 6\% | 7\% | 6\% | 7\% | 5\% | 5\% |
|  | 10 | 13\% | 13\% | 13\% | 13\% | 13\% | 11\% |
| Current Cigarette Smoking. During the past 30 days, on how many days did you: Smoke cigarettes? (District results: Smoke any days) | 8 | 4\% | 3\% | 4\% | 4\% | 3\% | 3\% |
|  | 10 | 7\% | 7\% | 8\% | 7\% | 6\% | 5\% |
| Current E-cigarette/Vape Use: During the past 30 days, on how many days did you use an electronic cigarette, also called e-cigs, or vape pens? (Results: Use any days) | 8 | 8\% | 12\% | 7\% | 12\% | 6\% | 10\% |
|  | 10 | 14\% | 24\% | 14\% | 25\% | 13\% | 21\% |

-The bar chart includes 2018 HTr results for your school district reee, 'school distritts like us' and the state.


## Intervening Variable

## HYS Measures of Alcohol or Marijuana Availability (2018, Percent)



|  | Sample Community |  |  | School Districts like Us |  | State |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HYS Measures of Alcohol or Marijuana Availability | grade | 2016 | 2018 | 2016 | 2018 | 2016 | 2018 |
| Youth Think Alcohol is Easy to Get. If you wanted to get some beer, wine, or hard liquor, how easy would it be for you to get some? (District results: "Very easy" and "Sort of easy") | 8 | 27\% | 30\% | 28\% | 30\% | 26\% | 31\% |
|  | 10 | 48\% | 47\% | 48\% | 47\% | 47\% | 48\% |
| Youth Think Marijuana is Easy to Get. If you wanted to get some marijuana, how easy would it be for you to get some? (District results: "Very easy" and "Sort of easy") | 8 | 21\% | 24\% | 22\% | 24\% | 20\% | 21\% |
|  | 10 | 49\% | 49\% | 50\% | 49\% | 48\% | 49\% |

- The bar chart includes 2018 HYS results for your school district area, 'school districts like us' and the state.
= The 2018 rate is significantly different from the 2016 rate.
bThe "school districts like us" rate is significantly different from your school district area rate.


# Data Analysis Skills 

Applying data analyses skills to interpret tables and charts included in the Data Book

## Confidence Intervals / Error Bars / Significance



## Data Test! True or False

Bar E is significantly different from Bar B.

True or False

Go to www.menti.com and use the code 5083751


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| :--- |

## Confidence Intervals Error Bars

## HYS Measures of Youth Substance Use (2018, Percent)

- Urban HS
- School Districts Like Us
- State


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## What are Confidence Intervals and why do you need them?

- The confidence interval represents the variability of the estimate
- It's unlikely that $100 \%$ of your students participated in the survey
- The reported value is unlikely to be exactly the same as the "true" value for all your students.
- The confidence interval account for the random variation due to sampling
- The confidence intervals help you compare your results to others and over time


## What affects the size of a confidence interval?

The size of a confidence interval is affected by:

- Sample Size
- In general, the larger the sample (i.e. students surveyed) the smaller the confidence interval
- Inherent Variability
- If most students select the same response to a survey question, there is less variability. The more variable the answers, the wider the CIs
- Level of Confidence (All 95\% for HYS)


## What do error bars indicate about statistical significance?



When standard deviation errors bars overlap quite a bit, it's a clue that the difference is not statistically significant. You must actually perform a statistical test to draw a conclusion.


When standard deviation errors bars overlap even less, it's a clue that the difference is probably not statistically significant. You must actually perform a statistical test to draw a conclusion.


When standard deviation error bars do not overlap, it's a clue that the difference may be significant, but you cannot be sure. You must actually perform a statistical test to draw a conclusion.

# "School Districts Like Us" 

SDLU

## HYS Measures of Youth Substance Use (2018, Percent)



## What is "School Districts Like Us"?

- Other Washington communities that share similar demographic and geographic characteristics as your community.
- SDLU have similar characteristics in:
- Race/ethnicity (\% students by race/ethnicity in K-12 school enrollment)
- Poverty level (\% of students eligible for free/reduced lunch)
- Population Density
- Relationship between school district and community (\% school levy approved)


# Interpreting Tables and Charts 

Identifying difference in the data

## Interpreting Charts

HYS Measures of Youth Substance Use (2018, Percent)


* The bar chart includes 2018 HYS results for your school district area, 'school districts like us' and the state.
a. The 2018 rate is significantly different from the 2016 rate.
b. The 'school districts like us' rate is significantly different from your school district area rate.
c. The state rate is significantly different from your district rate.
d. Fewer then 30 students answered this question.

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## Interpreting Charts

HYS Measures of Youth Substance Use (2018, Percent)


## Small School Districts

- 186 Small School Districts in Washington State (38 CPWI Coalitions represent Small School Districts)
- Fewer than 600 students enrolled in Grades 6, 8, 10 and 12.
- Data limitations - suppression rules
- Fewer than 15 students taking the survey.
- Confidence intervals
- Small samples contribute to large confidence intervals.
- Stability
- Data in small communities are not as stable as in larger communities.
- More likely that *chance* can affect survey results.
- The absence from school of only a couple of students could change results.


## Why combine results for small communities?

## Past 30-day alcohol use in Community $\mathbf{X}$



## What if my school / community has large confidence intervals?

- Having a confidence interval protects you (and your program) from appearing to be ineffective when just a few students can make big changes
- Consider the input of teachers and staff from small-school environments when interpreting data - the data should be used to complement what they already know about their kids


# What do we do with all this data? 

4 Step Process (pages 2-3)

## Step One

- Understand the relationship between the data and your coalition logic model
- Data sections are color coded to match the colors of the logic model



## Step two

- Get to know the general pattern of youth substance use and its consequences in your community
- consequences
- consumption)
- For the HYS data, review the participation Rate


## Consider HYS Participation Rate

|  | Grade 8 | Grade 10 |
| ---: | ---: | :---: |
| Students Participating in the 2018 Survey | 404 | 179 |
| Survey Participation Rate | $72 \%$ | $47 \%$ |

Found at the bottom of the inside cover of Data book before the Table of Contents page

- 70\% + probably representative of students
- 40-69\% Results may be representative
- <40\% probably not representative of students and data are not reported (suppressed)


## Interpret HYS Data Chart

HYS Measures of Youth Substance Use (2018, Percent)


## Comparisons by:

- Grade
- Community
- SDLU
- State


## Visual comparisons between community, SDLU, and State

HYS Measures of Youth Substance Use (2018, Percent)


## Visual comparisons between community, SDLU, and State

HYS Measures of Youth Substance Use (2018, Percent)


## Visual comparisons between community, SDLU, and State

HYS Measures of Youth Substance Use (2018, Percent)


## Comparison between 2016 and 2018



* The bar chart ihcludes 2018 HYS results for your school district area, 'school districts like us' and the state.
a. The 2018 rate is significantly different from the 2016 rate
b. The 'school districts like us' rate is significantly different from your school district area rate.
c. The state rate is significantly different from your district rate
d. Fewer then 30 students answered this question.


## Comparison between community and SDLU

|  |  | Apple HS |  | School Districts Like Us |  | State |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HYS Measures of Youth Substance Use | GRADE | 2016 | 2018 | 2016 | 2018 | 2016 | 2018 |  |
| Current Drinking. During the past 30 days, on how many days did you: Drink a glass, can or bottle of beer? (District results: Drink any days) | 8 | 8\% | 12\% | 8\% | 9\% | 8\% | 8\% |  |
|  | 10 | 17\% | $26 \%)^{a}$ | 18\% |  | 2noh | 18\% c | b. SDLU rate is |
| Problem/Heavy Drinking. (District results: 3-5 days drinking in the past 30 days and/or 1 binge past 2 weeks, or $6+$ days drinking in the past 30 days and/or $2+$ binge past 2 weeks) | 8 | 5\% | $9 \% \quad \text { a }$ | 6\% | $6 \% \quad b$ | 5\% | 5\% | significantly different from the |
|  | 10 | 15\% | 16\% | 12\% | 10\% | 13\% | 11\% | community r |
| Current Cigarette Smoking. During the past 30 days, on how many days did you: Smoke cigarettes? (District results: Smoke any days) | 8 | 4\% | 3\% | 3\% | 3\% | 3\% | 3\% |  |
|  | 10 | 9\% | 8\% | 6\% | 5\% | 6\% | 5\% |  |
| Current E-cigarette/Vape Use: During the past 30 days, on how many days did you use an electronic cigarette, also called e-cigs, or vape pens? <br> (Results: Use any days) | 8 | 15\% | 25\% a | 6\% b | 11\% b | 6\% c | 10\% |  |
|  | 10 | 15\% | 38\% a | 11\% | 19\% b | 13\% | 21\% c |  |

a. The 2018 rate is significantly different from the 2016 rate.
b. The 'school districts like us' rate is significantly different from your school district area rate.
c. The state rate is significantly different from your district rate.
d. Fewer then 30 students answered this question.

## Comparison between community and State

|  |  |  | Apple HS |  | School Districts Like Us |  | State |  | c. State rate is significantly different from the community rate. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | HYS Measures of Youth Substance Use | GRADE | 2016 | 2018 | 2016 | 2018 | 2016 | 2018 |  |
|  | Current Drinking. During the past 30 days, on how many days did you: Drink a glass, can or bottle of | 8 | 8\% | 12\% | 8\% | 9\% | 8\% | 8\% |  |
|  | beer? (District results: Drink any days) | 10 | 17\% |  | 18\% | $17 \% \quad$ b | 20\% | $18 \%$ |  |
|  | Problem/Heavy Drinking. (District results: 3-5 days drinking in the past 30 days and/or 1 binge | 8 | 5\% | 9\% a | 6\% | $6 \% \quad$ b | 5\% | 5\% c |  |
|  | past 2 weeks, or $6+$ days drinking in the past 30 days and/or $2+$ binge past 2 weeks) | 10 | 15\% | 16\% | 12\% | 10\% | 13\% | 11\% |  |
|  | Current Cigarette Smoking. During the past 30 days, on how many days did you: Smoke | 8 | 4\% | 3\% | 3\% | 3\% | 3\% | 3\% |  |
|  | cigarettes? (District results: Smoke any days) | 10 | 9\% | 8\% | 6\% | 5\% | 6\% | 5\% |  |
|  | Current E-cigarette/Vape Use: During the past 30 days, on how many days did you use an electronic | 8 | 15\% | 25\% a | $6 \% \quad$ b | $11 \%$ b | 6\% c | 10\% c |  |
| notes | cigarette, also called e-cigs, or vape pens? <br> (Results: Use any days) | 10 | 15\% | $38 \%$ a | 11\% | 19\% b | 13\% | 21\% c |  |

a. The 2018 rate is significantly different from the 2016 rate.
b. The 'school districts like us' rate is significantly different from your school district area rate.
c. The state rate is significantly different from your district rate.
d. Fewer then 30 students answered this question.

## Identifying Data to Consider

| HYS Measures of Youth Substance Use | Apple HS |  |  | School Districts Like Us |  | State |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | GRade | 2016 | 2018 | 2016 | 2018 | 2016 | 2018 |  |
| Current Drinking. During the past 30 days, on how many days did you: Drink a glass, can or bottle of beer? (District results: Drink any days) | 8 | 8\% | 12\% | 8\% | 9\% | 8\% | 8\% |  |
|  | 10 | 17\% | 26\% a | 18\% | 17\% b | 20\% | 18\% c | X |
| Problem/Heavy Drinking. (District results: 3-5 days drinking in the past 30 days and/or 1 binge past 2 weeks, or 6+ days drinking in the past 30 days and/or 2+ binge past 2 weeks) | 8 | 5\% | 9\% a | 6\% | $6 \% \quad$ b | 5\% | 5\% c | X |
|  | 10 | 15\% | 16\% | 12\% | 10\% | 13\% | 11\% |  |
| Current Cigarette Smoking. During the past 30 days, on how many days did you: Smoke cigarettes? (District results: Smoke any days) | 8 | 4\% | 3\% | 3\% | 3\% | 3\% | 3\% |  |
|  | 10 | 9\% | 8\% | 6\% | 5\% | 6\% | 5\% |  |
| Current E-cigarette/Vape Use: During the past 30 days, on how many days did you use an electronic cigarette, also called e-cigs, or vape pens? <br> (Results: Use any days) | 8 | 15\% | 25\% a | $6 \% \quad$ b | $11 \%$ b | 6\% c | 10\% c | X |
|  | 10 | 15\% | 38\% a | 11\% | 19\% b | 13\% | 21\% c | X |

a. The 2018 rate is significantly different from the 2016 rate
b. The 'school districts like us' rate is significantly different from your school district area rate.
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## Identifying Data to Consider

|  | Apple HS |  |  | School Districts Like Us |  | State |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HYS Measures of Mental Health | grade | 2016 | 2018 | 2016 | 2018 | 2016 | 2018 |  |
| Depression. During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities? (District results: "Yes") | 8 | 40\% | 46\% | 30\% | 34\% b | 28\% c | $32 \%$ c) | X |
|  | 10 | 35\% | 43\% | 37\% | 40\% | 34\% | 40\% |  |
| Considering Suicide. During the past 12 months, did you ever seriously consider attempting suicide? (District results: "Yes") | 8 | 23\% | 27\% | 17\% | 20\% b | 17\% c | 20\% | X |
|  | 10 | 22\% | 26\% | 21\% | 23\% | 21\% | 23\% |  |
| Attempted Suicide. During the past 12 months, how many times did you actually attempt suicide? (District results: Any suicide attempts) |  | 10\% | (17\% | 10\% | 11\% b | 8\% | 10\% c | X |
|  | 10 | 9\% | 16\% | 10\% | 10\% | 10\% | 10\% |  |

* The bar chart includes 2018 HYS results for your school district area, 'school districts like us' and the state.
a The 2018 rate is significantly different from the 2016 rate.
${ }^{\text {b }}$ The "school districts like us" rate is significantly different from your school district area rate.
${ }^{\text {c }}$ The state rate is significantly different from your district area rate.
${ }^{\text {d }}$ Fewer than 30 students answered this question.


## Interpret trend line charts for longer term trends

Current Drinking Grade 10


## Feedback on your experience using Data Charts/Tables

1. What do you think is currently working and not working with the data charts?
2. What are specific ways the data charts can better support your needs?

## Anonymous Responses

OStep 1: Change your name in Zoom to the + symbol (hover over your Zoom square and click on the three dots on the upper right click rename

- Step 2: I will share a prompt with you and you can type your response in the chat box.


# What do you think is currently working and not working with the data charts? 

## What are specific ways the data charts can better support your needs?

## Step 3

- Review intervening variables / risk and protective factors
- Review the additional archival data starting on page 82

TIP: Use a worksheet to keep track of the discussion in your coalition or data workgroup about each of these variables. Have a column for variable name, one for initial interpretation, and one with questions for further consideration.

## Reviewing Intervening Variables

|  | Apple HS |  |  | School Districts Like Us |  | State |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HYS Measures of Alcohol or Marijuana Availability | GRade | 2016 | 2018 | 2016 | 2018 | 2016 | 2018 |  |
| Youth Think Alcohol is Easy to Get. If you wanted to get some beer, wine, or hard liquor, | 8 | 25\% | 26\% | 26\% | 28\% | 26\% | 31\% |  |
| (District results: "Very easy" and "Sort of easy") | 10 | 39\% | 48\% | 45\% | 45\% | 47\% | 48\% |  |
| Youth Think Marijuana is Easy to Get. If you wanted to get some marijuana, how easy | 8 | 31\% | 41\% a | $21 \%$ b | 23\% b | 20\% c | 21\% | c |
| would it be for you to get some? (District results: "Very easy" and "Sort of easy") | 10 | 45\% | 59\% a | 46\% | 48\% b | 48\% | 49\% |  |

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a The 2018 rate is significantly different from the 2016 rate.
b The "school districts like us" rate is significantly different from your school district area rate.
c The state rate is significantly different from your district area rate.
d Fewer than 30 students answered this question.

| Indicator | Interpretation | Questions for further <br> consideration |
| :--- | :--- | :--- |
| Youth think <br> alcohol is easy <br> to get | Rate stable over years and among <br> other comparison communities <br> No difference in 8 $8^{\text {th }} 10^{\text {th }}$ grade rates <br> when compared to SDLU or the State <br> Almost half of $10^{\text {th }}$ graders think <br> alcohol is easy to get |  |
| Youth think <br> marijuana is <br> easy to get | $8^{\text {th }}$ grade perception has increased <br> over the last two years, is significantly <br> higher than SDLU and significantly <br> higher than State <br> 10th grade perception has increased <br> over the last two years, and is <br> significantly higher than SDLU | What is contributing to <br> this perception that <br> marijuana is easy to get? |

## Step 4

- Propose a list of priorities for your coalition to discuss
- Intervening Variables (or risk factors) that you prioritize will become the goals and objectives of your strategic plan
- Identify contributing factors
- "Why is this happening here?"
- "What is contributing to this?"


## Feedback on your experience using Data Charts

1. If you could direct the development of your community's Data Book, what would you like to see?
2. What other types of training do you need around data books? Or data in general?

## Anonymous Responses

OStep 1: Change your name in Zoom to the + symbol (hover over your Zoom square and click on the three dots on the upper right click rename

- Step 2: I will share a prompt with you and you can type your response in the chat box.


# If you could direct the development of your 

community's Data Book, what would you like to see?

## What other types of training do you need around data books? Or data in general?

Q\&A

Washington State


## Questions or Feedback

## Sandy Salivaras

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