

Using Data for Decision Making

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Commission on HIV 2019 Data Summit
St. Anne's Maternity Home
July 23, 2019



Presentation Overview

- Strategies for effectively using data in decision making
- Data needs in HIV and STD Planning
- Challenges and Barriers
- Triangulation
- Best Practices
- Question and Answer Session 3



“Get me everything on everybody”

Strategies for effectively using data in decision making

- Start by asking **questions** that you want to answer...then find the data that help answer the questions.
- Apply the appropriate data to answer the appropriate question.
 - Example: service utilization data can't tell you about quality of service.
- Prioritize your data needs. Don't try to do everything at once...start small.

Strategies for effectively using data in decision making (cont.)

- Know what you want/need to measure
 - Identify the variables that will lead to the answers
 - Verify that the variables being collected match the intended measure
 - Carefully define units of measurement
 - Standardize for comparison
- Prioritize your data needs. Don't try to do everything at once...start small.

Strategies for effectively using data in decision making (cont.)

- Don't be afraid to use data that aren't perfect. Acknowledge the problems with the data and use what you can verify.
- Educate yourself and the members of the planning groups to understand data and how data can be presented and used in planning.
- Find the experts and solicit their assistance.
- Build relationships with other agencies and share!
- “Steal shamelessly and share seamlessly.”

Data Needs

- Priority setting (targeted/special populations)
- Resource allocation
- Gaps analyses/unmet need
- Comprehensive planning
- Evaluation of service effectiveness
- Administrative assessments
- Special studies and research
- Population analyses

Data Needs (cont.)

- Stakeholder accountability (federal/state/local)
- Contract monitoring/compliance
- Quality management/improvement
- Program evaluation
- Service procurement
- Grants (applications, conditions of award, progress reports)

Challenges and Barriers with Data Collection

- Quality and completeness of data
 - Data entry errors
 - Missing information
- Access to data
 - Population based data on co-morbidities, data from private insurers, Medi-Cal data, data from independent cities

Challenges and Barriers with Data Collection (cont.)

- Cost and staffing needed to collect, validate, and manage reliable data
 - Staff turnover (resources needed for ongoing training)
 - Data burden on providers, DHSP staff, and PC members
- Inconsistency of measures
 - Different measures or variables collected over time
 - Same measures or variables but different definitions

Challenges and Barriers with Data Analysis

- Specific knowledge and skills to do data analysis
 - Requires familiarity with program/services and biologic basis of disease
 - Knowledge of research methods and strong statistical skills
- Adequate number of staff to verify, validate, and clean/correct the data
- Difficult to extrapolate data from larger systems
- Outdated or erroneous data are barriers in data matching

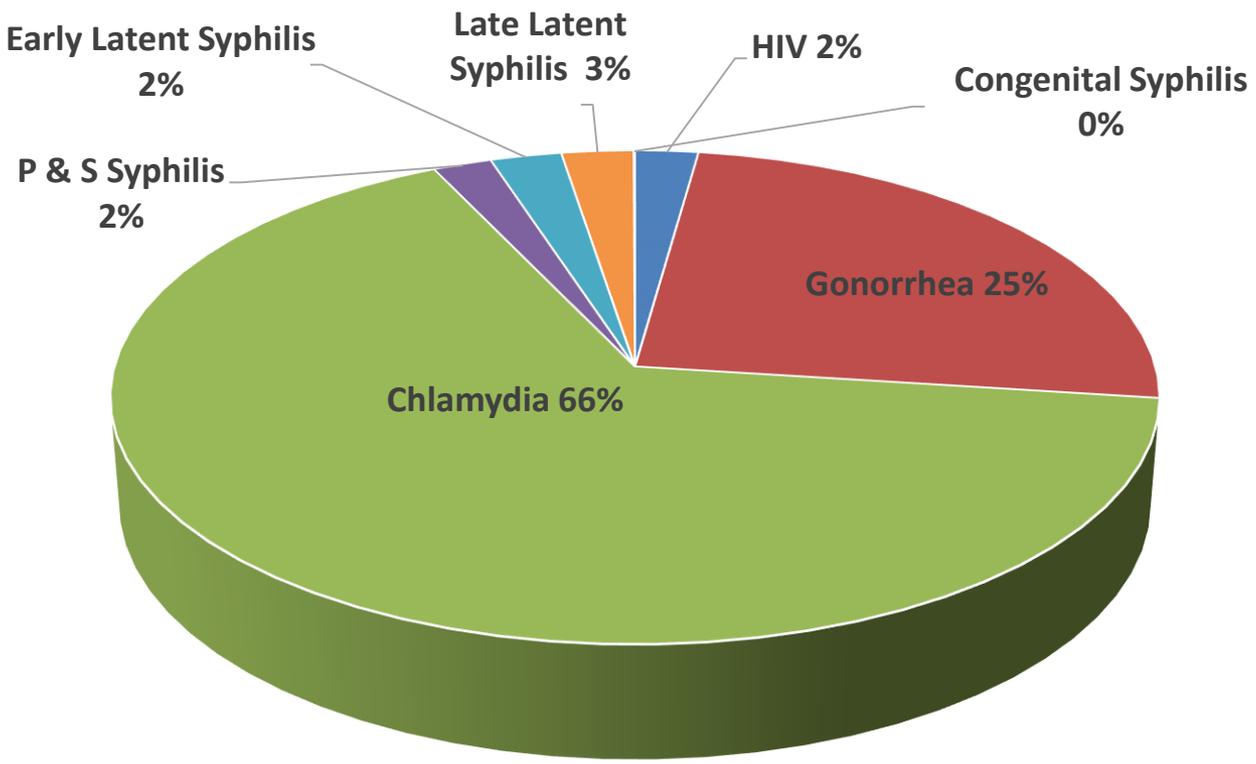
Challenges and Barriers with Data Interpretation

- Though choices; more data often can lead to more conflict and confusion when making priority decisions (“what are these data telling me?”)
- Using the wrong data source (or forgetting to triangulate) to answer a question
- Putting individual motivations and bias aside
 - People have different motivations in using data (eg., cost effectiveness vs. needs data)
 - People approach data with different philosophies and interpretations
- Data intimidation

Becoming an Informed Data User

- Deal with discomfort with numbers or *innumeracy* – it's more common than illiteracy
- Become familiar with frequently used reports and data formats – *like epi data and program utilization data*
- Learn to read bar graphs, pie charts, and other commonly used data charts

Reported STD and HIV/AIDS Cases LAC, 2016¹



A total of 88,837 STD and HIV/AIDS cases were reported in LAC in 2016:

- 65.9% Chlamydia
- 24.8% Gonorrhea
- 7.0% Syphilis
- 2% HIV/AIDS

1. 2016 data are provisional due to reporting delay. Data exclude cases of Chlamydia, Gonorrhea, Syphilis, and PID in Long Beach and Pasadena.
2. PID includes Chlamydia, Non-Chlamydia, Gonococcal, and Non-Gonococcal.

Chlamydia, Gonorrhea, P&S Syphilis, and HIV Rates¹ and Cases by Service Planning Area (SPA), LAC 2016²

Service Planning Area (SPA)	Chlamydia Rate (n) ³	Gonorrhea Rate (n) ³	Early Syphilis Rate (n) ³	HIV Rate (n) ⁴
Antelope Valley (1)	570 (2,235)	154 (603)	14 (55)	10 (40)
San Fernando (2)	375 (8,387)	132 (2,956)	27 (594)	13 (282)
San Gabriel (3)	362 (6,467)	107 (1,918)	20 (366)	10 (171)
Metro (4)	727 (8,601)	496 (5,870)	109 (1,294)	48 (688)
West (5)	371 (2,463)	171 (1,133)	25 (168)	9 (62)
South (6)	888 (9,489)	361 (3,857)	50 (534)	32 (339)
East (7)	502 (6,593)	144 (1,887)	29 (387)	14 (180)
South Bay (8)	544 (8,603)	193 (3,054)	35 (554)	17 (271)
Unknown	---- (5,707)	---- (793)	---- (58)	---- (--)
LAC Total	572 (58,545)	216 (22,071)	39 (4,010)	19 (1,949)

1. Per 100,000 population.
2. STD data are for 2016 and are from STD Casewatch; HIV data are for 2013 and are from the I-HARS system; 2016 data are provisional due to reporting delay.
3. STD data exclude cases from the cities of Long Beach and Pasadena.
4. HIV data include cases from the cities of Long Beach and Pasadena.

Assessing and Interpreting Data

- Data and data reports vary in *quality* and in *value* for decision-making
- Poor data can lead to poor decisions
- Decision-makers need to be able to assess data and reports
- Some data may be very useful for particular kinds of decisions
- Data reports are likely to be most useful when they were developed to support specific decision-making

Assessing the Quality of Needs Assessment and Related Data

Consider:

- **Numbers:** number of people from whom data was obtained
- **Representativeness:** whether the people included are representative of the diverse Ryan White-eligible population
- **Sampling:** whether the sample was drawn from the entire population using random or other probability sampling so every person has an equal chance to be included

Assessing the Quality of Needs Assessment and Related Data (cont.)

- **Questions:** content, clarity, and appropriateness of questions asked in surveys or interviews or focus groups
- **Design:** appropriateness of the research methods used
- **Quality control:** extent to which interviewers were properly trained and supervised, data was reviewed, analysis was sound, etc.

Knowledgeable Data Users

- Ask about data sources and samples
- See if traditionally underserved populations were included
- Ask whether the sample includes people “not in care” (their perceived needs are likely to be very different from those of people in care)

Knowledgeable Data Users (cont.)

- Remember that numbers alone don't ensure representativeness
- Compare findings from different studies
- Ask why are the data presented in a certain format (bar graph vs. pie chart vs. line graph)
- Cautious of conclusions that go beyond the data

How to Use “Triangulation”

- **What is Triangulation?**
 - Comparing data from different studies or sources to see whether they report similar findings – and giving greater weight to findings reported from several different sources and studies
 - Comparing multiple data sets for a multi-sided assessment of a key measure or indicator

How to Use “Triangulation” (cont.)

- Identify an important report and its most relevant findings for your decision-making
- Check at least 2-3 other studies or data reports to see if they include similar results
- If so, use data with more confidence
- If not, review the sources and try to identify reasons for different findings – and “weight” the data differently

Best Practices

- Planning doesn't start with data, it starts with a good question.
 - Formulate your question or hypothesis
- Determine what study design or data sources can answer the question/hypothesis
 - Triangulate!
- Assess the data for limitations
 - Sample size, generalizability, excludes specific individuals

Best Practices (cont.)

- Interpret with caution
 - Watch out for assumptions
 - Carefully assess what information is provided
 - What can be inferred?
- Disseminate or share findings
 - Who is available to distill findings and create understandable and useful reports?
 - When/where can the reports be shared?
 - Less is better—simplify reports—use summaries, triangulation, and lots of charts and graphs.

Questions or Comments?

“Curiosity killed the cat” was not a statement from a researcher—don’t be afraid to ask questions.