# DATINGMATTERS

STRATEGIES TO PROMOTE HEALTHY TEEN RELATIONSHIPS

# USING INDICATOR DATA TO INFORM TEEN DATING VIOLENCE PREVENTION:

A GUIDE FOR LOCAL HEALTH DEPARTMENTS







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### Introduction

Preventing or addressing the harmful impacts of teen dating violence continues to be a public health concern. Teen dating violence (TDV) is a form of intimate partner violence, which includes physical, sexual, psychological, or emotional violence (including stalking) within a dating relationship.¹ Local communities need effective strategies to identify and address the risk and protective factors to prevent teen dating violence. Although there are a number of public health, clinical, and social interventions to address healthy teen relationships, communities are not always equipped with data to identify the programs that are the best fit to meet their unique teen dating violence prevention needs.

The Centers for Disease Control and Prevention (CDC) developed Dating Matters—a comprehensive, community-driven, teen dating violence prevention model—for use by local health departments (LHDs) and other community stakeholders. The Dating Matters model includes seven core intervention components:

- classroom-delivered curricula for 6th–8th graders;
- training for parents of 6th–8th graders;
- training for teachers/school personnel;
- 4. a youth communications program;
- 5. a capacity assessment and planning tool;
- 6. an interactive guide to informing policy; and
- 7. this guide to track TDV indicator data.

The goal of Dating Matters is to promote respectful nonviolent dating relationships and decrease emotional, physical, and sexual dating violence among youth in highrisk, urban communities, and build local public health capacity to implement evidence-based and evidence-informed violence prevention strategies.<sup>2</sup> More detailed information on the Dating Matters model is available at <a href="https://www.cdc.gov/violenceprevention/datingmatters">www.cdc.gov/violenceprevention/datingmatters</a>.

A key component of the Dating Matters model involves using the best available data, evidence, and practices to inform policy development, implementation, and evaluation. Using Indicator Data to Inform Teen Dating Violence Prevention: A Guide for Local Health Departments is a resource for LHDs to collect and use the best available data to help reduce teen dating violence in their communities. The objectives of the guide are to:

- Increase LHD, and partner, awareness of public health indicators that can inform community-level teen dating violence rates;
- Provide information to LHDs and partners on how to collect and use teen dating violence indicator data; and
- Identify sources of publicly accessible teen dating violence indicator data.
- This guide can be used alone to help communities understand and track the problem of teen dating violence or, as intended, in conjunction with implementation of the comprehensive Dating Matters prevention model.

# Local Health Department Role in Teen Dating Violence Prevention

An essential element of Dating Matters implementation involves accessing and using relevant data to inform community-level prevention activities. LHDs, through achievement of the 10 Essential Public Health Services (see Box), collect and use data to:

- monitor the health status of communities;
- identify and solve health problems;
- diagnose and investigate health problems;
- inform, educate, and empower people about their health;
- mobilize community partnerships and actions to solve these health problems; and
- develop policies and plans that support individual and community health efforts<sup>3</sup>

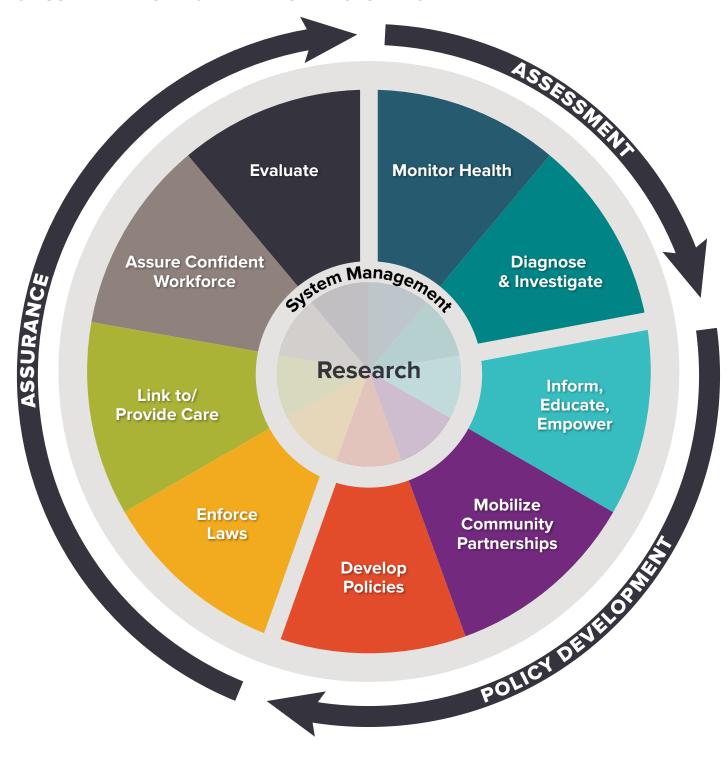
Over 90% of LHDs provide some type of populationbased epidemiology or surveillance service, with 32% conducing community-level injury epidemiology and surveillance activities.<sup>4</sup>

The ability of LHDs to identify, analyze, and distribute information from relevant data sources puts them in an ideal position to access accurate and timely data that can be analyzed to identify community-level risk for, and appropriate interventions to prevent, teen dating violence. Leveraging LHD staff (e.g., epidemiologists and statisticians), access to public health and health care data (e.g., surveillance and hospital discharge data), and community-level partnerships (e.g., schools, justice departments) can support successful implementation of Dating Matters.

### The 10 Essential Public Health Services

- Monitor health status to identify and solve community health problems
- Diagnose and investigate health problems and health hazards in the community
- Inform, educate, and empower people about health issues
- **4.** Mobilize community partnerships and action to identify and solve health problems
- **5.** Develop policies and plans that support individual and community health efforts
- Enforce laws and regulations that protect health and ensure safety
- 7. Link people to needed personal health services and assure the provision of health care when otherwise unavailable
- **8.** Assure a competent public and personal health care workforce
- Evaluate effectiveness, accessibility, and quality of personal and population-based health services
- **10.** Research for new insights and innovative solutions to health problems

### 10 ESSENTIAL PUBLIC HEALTH SERVICES DIAGRAM



### **Measuring Teen Dating Violence Using Health Indicators**

Critical to the prevention of teen dating violence is the use of surveillance data to monitor its incidence and prevalence at national, state, and community levels. National and state-level surveillance systems and activities to collect data about prevalence and risk of teen dating violence are more common than community-level surveillance activities. For instance, through the Youth Risk Behavioral Surveillance System (YRBSS), CDC works with states to conduct biennial surveys on high-priority health risk behaviors that contribute to the leading causes of death, disability, and social problems among youth.<sup>5</sup> Included among these health risk behaviors are indicators for teen dating violence.

Sometimes direct measures of youth risk behaviors, like self-reported teen dating violence exposure, are unavailable at the community level. In those cases, local communities can utilize other measures that are associated with or indicative of the primary behavior of interest as proxies to monitor and predict trends in critical health risks and outcomes. In general, these proxy data sources, referred to as health indicators, may describe:

- the health of a population (e.g., life expectancy, mortality, disease incidence or prevalence, or other health states);
- determinants of health (e.g., health behaviors, health risk factors, physical environments and socioeconomic environments); and/or
- health care access, cost, quality and use.<sup>6</sup>

Depending on the measure, there are health indicators for populations, places, jurisdictions or other geographic areas. Health indicators can be used to describe aspects of health in populations and are based on factors correlated with health status. Moreover, indicators are broadly utilized throughout many fields and are useful in bringing awareness to health problems, reporting trends, and informing policy, evaluation and monitoring of progress.

Communities without surveillance systems that regularly collect health risk data from youth can instead use health indicators to track and help prevent teen dating violence.

# PROMISING HEALTH INDICATORS FOR TEEN DATING VIOLENCE

Identifying health indicators for teen dating violence risk behaviors can be challenging. There is a large body of research on risk and protective factors for teen dating violence. A review identified depression, general aggression, and prior dating violence as individual-level risk factors for teen dating violence perpetration. Engagement in peer violence, friends perpetrating teen dating violence, and parental marital conflict have also been identified as relationship-level risk factors for teen dating violence.

Assessing community-level risk for teen dating violence, such as data aggregated to the school or county level, should include a collection of health indicators that provide information regarding the presence of these relevant risk factors or other factors associated with teen dating violence perpetration or victimization. In an effort to identify promising health indicators for teen dating violence, the National Association of County Health Officials (NACCHO), with support from CDC, conducted a literature and Internet search of potential teen dating violence health indicators with data publicly accessible to LHDs and communities. The search identified health indicators if they were:

- grounded in theory;
- reasonably attainable;
- available at low or no cost to LHDs and communities; and
- collected on a regular basis at the community level.

The list of indicators included in this guide is not exhaustive, as there are many potential indicators of teen dating violence. For the purposes of this guide, we have placed the promising health indicators for teen dating violence into the following five categories: pregnancy and/or birth rate, exposure to violence and abuse, mental health and attitudes towards violence, sexual history, and substance use. Of note, this guide focuses on health indicators that are risk factors for teen dating violence. Protective factors for teen dating violence are not included. The following section provides a brief overview of each category, associated teen dating violence risk based on the published research literature, and promising health indicator data.

Appendix I provides an overview of promising teen dating violence categories, indicators, and sources of information.

#### PREGNANCY AND/OR BIRTH RATE

High school girls who reported experiencing teen dating violence in the previous year were approximately twice as likely as female peers to have ever been pregnant.<sup>10</sup> Also, an estimated two-thirds of young women who become pregnant as teens were sexually and/or physically abused—either as children, in their current relationship, or both.<sup>11</sup> Thus, pregnancy and/or teen birth rates may support local understanding of potential teen dating violence risk in communities.

Promising health indicators related to teen pregnancy and/ or birth rates may include:

- rate of births to women under the age of 20
- rate of pregnancy by age group (e.g., 15–17, 18–19)
- abortion rate

Community-level birth rates are easier to access than pregnancy rates. This is due to how pregnancy data are reported. You can find these birth rates in state- or local-level vital records systems.

### **EXPOSURE TO VIOLENCE AND ABUSE**

The most direct indicator of teen dating violence is self-reported violence and sexual coercion. Adolescents reporting being hurt, bullied or forced into sexual situations can help directly identify community-level risk of teen dating violence. For instance, data from the 2015 YRBSS indicated that nationally 9.6% of students reported being physically hurt and 10.6% reported being forced to do sexual things in a dating relationship. Community-level data, from a local or state surveillance system, can provide information about local teen dating violence burden and inform the need for strategies to prevent teen dating violence.

Other violence exposure can also predict teen dating violence risk. Adolescents exhibiting violent behavior in and out of school are more likely to perpetrate teen dating violence.<sup>13</sup> Likewise, teens that previously witnessed, or are currently witnessing, violence in their homes or communities are more likely to be perpetrators of teen dating violence.<sup>9 14</sup> Risk for teen dating violence may also present in the form of abuse and neglect. Parental discipline styles that are harsh, inconsistent, or lax may play a role in both teen dating violence perpetration and victimization.<sup>15</sup>

Promising publicly accessible health indicators for exposure to violence and abuse include:

- percent of high school students reporting teen dating violence (physical and sexual)
- percent of high school students in a community reporting any physical assault by anyone
- percent of high school students who were in a physical fight
- percent of high school students forced to have sex
- percent of high school students reporting parental abuse or neglect
- percent of high school students who witnessed violence

# MENTAL HEALTH AND ATTITUDES TOWARDS VIOLENCE

Mental health status and attitudes towards violence are potential health indicators for both victimization and perpetration of teen dating violence. Depression, selfesteem, and suicidal behavior have been linked to the abuse of teens in dating relationships. Furthermore, attitudes concerning violence can impact the likelihood of adolescent exposure to violence, as well as violence perpetration. Negative and unhealthy ideas about violence in relationships, such as acceptance of violence and the use of threats or violence in a coercive manner or to express frustration or anger are also related to the risk of teen dating violence.

Promising health indicators that measure mental health status related to depression and suicidality may include:

- percent of high school students sad or hopeless almost every day for two or more weeks
- percent of high school students who considered or are considering suicide
- percent of high school students that made a suicide plan
- percent of high school students attempting suicide one or more times

#### SEXUAL HISTORY

Female victimization and male perpetration of TDV are correlated with sexual risk behaviors. <sup>16 18 19</sup> Among adolescent females, sexual behaviors that increase risk for HIV and other sexually transmitted infections are also correlated with teen dating violence. <sup>16 18</sup> Sexual risk behaviors associated with teen dating violence are early first intercourse, multiple recent sexual partners, and low condom usage. <sup>16 18 19</sup>

Promising health indicators for adolescent sexual behavior might include:

- percent of high school students who experienced sexual teen dating violence in the past 12 months
- percentage of high school students forced to have sex
- percent of high school students reporting first intercourse before age 13
- percent of high school students who ever had sexual intercourse
- percent of high school students reporting no condom used at last intercourse
- percent of high school students reporting substance use before last intercourse
- percent of high school students who had sexual intercourse with four or more people during their life
- rate of 13–24 year olds who have been diagnosed with a sexually transmitted infection

#### SUBSTANCE USE

Substance use—in the form of smoking, binge drinking, or other drug use—is associated with teen dating violence, especially among adolescent females. Adolescents using drugs and alcohol have been shown to be more likely to engage in risky sexual behaviors. Substance use is also a risk factor for sexual violence victimization and perpetration. Data related to substance use provides information on potential community-level risk for teen dating violence.

Promising indicators for substance use include:

- percent of adolescents who had first drink/drug use before the age of 13
- percent of adolescents who reported consuming 5 or more drinks in a row in the past 30 days
- percent of adolescents who reported cocaine use (ever)
- percent of students who used marijuana one or more times during their life
- percent of adolescents reporting substance use before last intercourse

# Identifying and Using Publicly Accessible Health Indicator Data

Health indicator data can support efforts to improve health at local, state, and national levels. Identifying and selecting relevant and available health indicators is key to implementing appropriate teen dating violence prevention programs and interventions. Table 1 provides an overview of considerations for selecting and prioritizing health indicators for use in health improvement.

Table 1: Criteria for Selecting and Prioritizing Health Indicators<sup>20</sup>

Criteria	Indicator Description
Reflective of a High Preventable Burden	The indicator needs to refer to interventions and outcomes related to health conditions that account for considerable morbidity and mortality and are preventable.
Actionable at the Appropriate Level for Intervention	The indicator provides sufficient information about the problem to help identify a way to address it, and whether there are effective programs and policies that can be adopted to address the issue.
Timely	Collect indicator data frequently enough to track changes in the measure.  Make the data available quickly enough to be acted upon.
Usable for Assessing Various Populations	Data are available and can be used to assess different populations.
Understandable	Indicators should not require specialized experience or expertise from decision makers (e.g., public health and health care providers, policy makers, and public) to understand the criteria.
Accepted	Indicators should be widely accepted and consistent with other similar measures in standard use.

LHDs and communities may benefit from identifying available data resources in their communities (e.g., hospital discharge data, vital records data, police records and reports, and community health center data); conducting an inventory of the indicators collected in each data resource; and identifying how each selected health indicator can be used to inform TDV risk in the community.

Primary limitations to selecting and prioritizing community-level health indicator data are the availability and reliability of data.

• Availability: Collecting and using health indicator data are largely based on the availability of data. For example, communities may not have access to reliable data to identify the level of gang involvement in a community, or school survey datasets may be limited because they do not include out-of-school youth who have a higher risk for all forms of violence. Some data may only be collected once, and can only provide a snapshot of the teen dating violence risk in communities rather than examining trends. Another consideration is the level at which the data are available. Many communities do not collect original data to use to inform community-level activities, and often only state or national level data are available. Therefore, it is important to identify and use data that are useful to the jurisdiction or population of interest.

Reliability: Not all publicly accessible health indicator data are reliable, particularly at the local level. Data may not be
collected from a reliable source or using reliable methods that reduce bias in the data collection efforts. To address this
limitation, LHDs and communities should make sure they are collecting data from a reliable source and should address
any methodological limitations of the data collection strategy.

## Checklist for Selecting and Prioritizing Health Indicators for TDV

- Indicator measures condition(s) scientifically relevant to TDV.
- Indicator provides enough relevant information about TDV at the community level.
- Indicator data are collected regularly to identify trends over time.
- Indicator data are available for different populations (e.g., demographic characteristics).

- ✓ Indicator data are available at different levels (e.g., census tract, zip code, county, state, national, etc.).
- Indicator is easily understandable by decision makers and public.
- Indicator data are managed and updated by a credible source.
- Indicator is in standard use and is widely accepted or endorsed.
- Indicator data are accessible to public or public health agency.

### **SOURCES OF HEALTH INDICATOR DATA**

Awareness of the source of data is helpful to support data collection of health indicators and overcome challenges such as availability of data. Although there are a variety of sources of data, all types of health indicator data may not be available in all local communities. Therefore, LHDs and communities could identify specific sources of publicly accessible data that are available to support teen dating violence surveillance efforts in their community. Table 2 provides an overview of typical sources of data for teen dating violence.

Table 2: Typical Data Sources 21

Туре	Examples
Individual	Data collected from surveillance systems, surveys, or reports on a set of indicators for individuals
Health care providers, facilities and records	Data collected from physician offices, hospitals, outpatient departments, emergency departments, inpatient settings, laboratories
Administrative or Legal Actions and Laws or Regulations	Data collected on policies, standard operating procedures, legislation and regulations related to public health activities

While many data sources provide nationally representative data about types, causes, incidence, prevalence, and trends, LHDs often need localized data to measure risks, trends, and the outcomes and impact of local programs, interventions, and laws.

#### DATA SHARING AND HEALTH INDICATORS

Data sharing between LHDs and other local organizations, schools, hospitals, police departments, and judicial systems facilitates opportunities to obtain and use local data to generate knowledge exchange, address public health issues, and evaluate the success of public health interventions. Successful public health data sharing efforts can improve the overall public health response to critical community and national issues. Data sharing can be a facilitator of public health response to prevent or reduce morbidity and mortality. Failing to share public health data broadly may lead to inadequate public health response and a lack of understanding of burden of disease in communities. Even with strong community partnerships and data sharing agreements, challenges with accessing relevant and reliable public health data to address teen dating violence prevention may continue.

# PUBLICLY ACCESSIBLE HEALTH INDICATOR DATA

Publicly accessible data creates opportunities to easily obtain health indicator data and reduce the need for data sharing agreements. Publicly accessible data are usually free and can be accessed and used without restrictions. Nationally, nearly 200,000 federal datasets are online and made available for public use through open data technology at <a href="www.data.gov">www.data.gov</a>. Additional sources of publically accessible local data include the 500 Cities Project (<a href="www.cdc.gov/500cities">www.cdc.gov/500cities</a>) and Community Commons (<a href="www.communitycommons.org/">www.communitycommons.org/</a>).

Publicly accessible health indicator data does not always mean easily accessible. When identifying and prioritizing health indicators for community-level response to teen dating violence, it is important to assess how easily the health indicator data can be obtained and recognize any requirements for obtaining the health indicator data (e.g., development of data sharing agreements). LHDs with limited resources may consider prioritizing health indicator data that they collect; data available through on-line open data sources; or data available through partnerships with established data sharing agreements (e.g., hospitals, vital records). See Appendix II for more information on sources of publicly accessible indicator data.

### **Using Health Indicator Data**

There are many ways to prevent disease and improve the health of communities with health indicator data. For example, health indicators can:

- identify a community's current health status, needs, and issues;
- identify effective public health interventions to address identified community needs;
- inform policy, system and environmental changes; and
- inform program evaluation and quality improvement activities.

#### **COMMUNITY HEALTH ASSESSMENT**

Community health assessment is "the process of community engagement; collection, analysis, and interpretation of data on health outcomes and health correlates/determinants; identification of health disparities; and identification of resources that can be used to address priority needs."<sup>22</sup> Community health assessments are also useful as a part of a process to help communities prioritize and evaluate the impact of prevention activities.<sup>22</sup> A core component of the community health assessment process is to identify:

- primary and secondary data to help understand the health and well-being of the community;
- community perspectives on problems within the community; and
- resources within the community.

During the community health assessment process, you can use health indicator data, typically secondary data, to characterize the community's health and prioritize public health issues at the community level. These health indicator data are analyzed and used to compare rates or trends of priority community health outcomes and determinants.<sup>23</sup>

LHDs can use health indicator data as a key cornerstone of the community health assessment process. Valid indicator data help communities to identify priority health outcomes; potential strengths and gaps in programs, services and policies; and community-level concern for issues such as teen dating violence. The indicators used in the community health assessment process can also be used as a part of the program implementation and evaluation process to determine health outcome trends while an intervention is implemented.

### **Community Health Assessment Resources**

- CDC Community Health Assessment for Population Health Improvement; Resource of Most Frequently Recommended Health Outcomes and Determinants [publication] <a href="https://stacks.cdc.gov/view/cdc/20707">https://stacks.cdc.gov/view/cdc/20707</a>
- NACCHO Mobilizing Action through Planning and Partnership [website] – <a href="https://www.naccho.org/programs/public-health-infrastructure/performance-improvement/community-health-assessment/mapp">https://www.naccho.org/programs/public-health-infrastructure/performance-improvement/community-health-assessment/mapp</a>

# PUBLIC HEALTH INTERVENTIONS AND PRACTICE

Using health indicator data, such as increased percent of adolescents reporting sexual abuse in a dating relationship or increasing sexually transmitted infection rates among adolescents aged 13 to 24 years, can help describe the specific areas of need in communities. Health indicator data can support decisions about programs, practices, or policies, based on the best available evidence from the field, to address identified areas of need. This concept, called evidence-based decision-making, allows the use of science-based interventions with community preference to improve the overall health of populations (Figure 1).<sup>24</sup> Evidence-based decision-making uses contextual, best available, and experiential evidence (or data) to identify, select, and implement relevant teen dating violence interventions in communities.<sup>25</sup>

Figure 1 | Evidence-Based Decision-Making Process<sup>26</sup>



LHDs can collaborate with community partners and the public to collect local contextual information. LHDs often conduct community needs assessments and engage with community stakeholders to identify the most appropriate evidence-based strategies that meet the needs of the community and supports evidence-based practices.

#### **Public Health Intervention and Practice Resources**

- CDC The Community Guide [website] www.thecommunityguide.org/
- CDC Understanding Evidence [website] –<u>vetovi-</u> olence.cdc.gov/apps/evidence/Default.aspx
- CDC Preventing Intimate Partner Violence
   Across the Lifespan: A Technical Package of Programs, Policies, and Practices [publication] www.cdc.gov/violenceprevention/pdf/ipv-technical-packages.pdf

## Policy, System and Environmental Change Resource

CDC – Dating Matters Interactive Guide on Informing Policy [website] - <a href="https://vetoviolence.cdc.gov/apps/datingmatterspolicy/">https://vetoviolence.cdc.gov/apps/datingmatterspolicy/</a>

# COMMUNITY-LEVEL POLICY, SYSTEMS, AND ENVIRONMENTAL CHANGE

Teen dating violence prevention requires a wholecommunity approach. In addition to interventions and strategies developed to meet individual needs, policy, systems, and environmental changes should be put in place to address teen dating violence at all levels of the social ecological model. There is currently limited information on evaluations of policies, systems, and environmental change,<sup>26</sup> but health indicator data can be used to inform the impact of organizational and public policies on teen dating violence outcomes or risk factors. For example, health indicator data can be used to evaluate policies, systems, and environmental changes focused on creating protective environments, as suggested in CDC's Preventing Intimate Partner Violence Across the Lifespan: A Technical Package of Programs, Policies, and Practices.<sup>27</sup> Health indicator data can be collected on safe environments for teens, policies developed to improve organizational and school climate, and actions taken to modify physical and social environments of neighborhoods.<sup>27</sup>

Health indicator data may also suggest the need for making changes to organizational or local policies (i.e., "little p" policies) and state and federal legislation or laws (i.e., "Big P" policies). Depending on capacity, local health departments can use their knowledge of public health practice and teen dating violence prevention strategies to inform both little p and Big P policies.

For more information on how to inform and assess policies for teen dating violence prevention, access CDC's free Dating Matters Interactive Guide to Informing Policy.

#### **PROGRAM EVALUATION**

Program evaluation is an important method to examine effectiveness of public health interventions to address identified areas of community concern, such as teen dating violence. Health indicator data plays an important role in program evaluation activities by identifying areas where interventions are successful and challenged to improve overall health; providing support for investment in public health interventions; and keeping stakeholders informed of the progress of implemented prevention interventions. For example, by using health indicator data, you can identify reductions, stabilization, or increases in morbidity and/or mortality as indicators of the effectiveness of an intervention, a need to change program strategy, and/or quality improvement opportunities for program services.

It is a common perception is that program evaluation is expensive, time-consuming, and complex. However, program evaluation is a core component of effective public health practice and supports continuous quality improvement of public health interventions. Overcoming these challenges is possible. For example, by using free, online data and/or partnering with university researchers, program evaluation can be made less expensive and simpler. This guide does not address program evaluation. However, CDC has resources for community-level evaluation.

### **Program Evaluation Resources**

- CDC Framework for Program Evaluation in Public Health [publication] - <u>www.cdc.gov/mmwr/PDF/rr/rr4811.pdf</u>
- CDC EvaluACTION: Putting Evaluation to Work [website] – <a href="https://vetoviolence.cdc.gov/apps/evaluaction/">https://vetoviolence.cdc.gov/apps/evaluaction/</a>

### Health Indicator Data Collected by Dating Matters Demonstration Sites

CDC implemented the Dating Matters comprehensive prevention model in four sites (Baltimore, MD; Chicago, IL; Ft. Lauderdale, FL; and Oakland, CA) from 2011-2016 as part of a demonstration project aimed at assessing the effectiveness of the model for preventing teen dating violence.

In addition to implementation of the model in schools and communities, the local health departments at each of the four Dating Matters sites collected specific health indicator data on the communities and participating schools to identify trends in teen dating violence. Although sometimes challenging, the sites were able to obtain comparable data for several indicators of teen dating violence. Table 3 provides an overview of the indicator data collected by the Dating Matters sites to support their local teen dating violence prevention activities.

Table 3: Indictors Collected by Dating Matters Sites

Indicator	Source
Percentage of high school students who felt sad or hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities during the past 12 months	CDC, Youth Risk Behavior Surveillance System www.cdc.gov/healthyyouth/data/yrbs/
Percentage of high school students who were in a physical fight one or more times during the past 12 months	CDC, Youth Risk Behavior Surveillance System www.cdc.gov/healthyyouth/data/yrbs/
Teen birth rate (per 1,000 people)	CDC, National Center for Health Statistics  www.cdc.gov/nchs/index.htm  HHS, Health Indicators Warehouse  www.healthdata.gov/dataset/health-indicators- warehouse
Juvenile arrests (including arrests for drug and violent offenses)	U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention, Statistical Briefing Book www.ojjdp.gov/ojstatbb/
Percentage of high school students who used marijuana one or more times during their life	CDC, Youth Risk Behavior Surveillance System www.cdc.gov/healthyyouth/data/yrbs/
Percentage of high school students who used marijuana one or more times during the past 30 days	CDC, Youth Risk Behavior Surveillance System www.cdc.gov/healthyyouth/data/yrbs/
Percentage of households below poverty	U.S. Census Bureau, American Fact Finder factfinder.census.gov

Indicator	Source
Violent crime rate (per 100,000 people)	RWJ, County Health Rankings and Roadmaps www.countyhealthrankings.org/explore-health- rankings/use-data/exploring-data
Dropout rate (per 100 students)	Institute of Education Sciences, National Center for Education Statistics <u>nces.ed.gov/</u>
Percentage of high school students who were physically hurt by their dating partner during the past 12 months	CDC, Youth Risk Behavior Surveillance System www.cdc.gov/healthyyouth/data/yrbs/
Percentage of high school students who seriously considered attempting suicide during the past 12 months	CDC, Youth Risk Behavior Surveillance System www.cdc.gov/healthyyouth/data/yrbs/

The Dating Matters sites were able to successfully collect these health indicators by partnering with local organizations and agencies (e.g., hospitals, police departments, schools, and judicial systems), as well as using data that is readily available to them (e.g., Youth Risk Behavior Surveillance System). Dating Matters sites were able to create sustained relationships with external partners to support their data collection efforts to monitor the progress of their programs. The sites used health indicator data during program implementation and evaluation. In addition, the data informed plans around resources and policies within their communities.

### **CONCLUSION**

Available health indicator data should guide and support LHD's efforts to prevent teen dating violence. Establishing effective partnerships will expand opportunities for LHDs to prevent teen dating violence through community-level efforts. LHDs can work with partners to identify potential sources of credible and reliable data to assess current risk for and prevalence of teen dating violence so they can implement relevant public health interventions and strategies, such as Dating Matters. Even if communities are not implementing the Dating Matters program, they can use the information in this guide to assess the effectiveness of other evidence-based and evidence-informed programs and strategies to prevent teen dating violence.

### References

- Centers for Disease Control and Prevention. Understanding Teen Dating Violence. 2016. Retrieved October 13, 2017 from https://www.cdc.gov/violenceprevention/pdf/tdv-factsheet.pdf.
- Centers for Disease Control and Prevention. Dating Matters: Strategies to Promote Healthy Teen Relationships.
   N.D. Retrieved October 13, 2017 from <a href="https://www.cdc.gov/violenceprevention/pdf/Promote-Healthy-Teen-Relationships\_2014.pdf">https://www.cdc.gov/violenceprevention/pdf/Promote-Healthy-Teen-Relationships\_2014.pdf</a>.
- Centers for Disease Control and Prevention (2014). The 10 Essential Public Health Services: An Overview. 2014.
   Retrieved October 13, 2017 from https://www.cdc.gov/stltpublichealth/publichealthservices/pdf/essential-phs.pdf.
- **4.** National Association of County and City Health Officials. *2016 National Profile of Local Health Departments*. 2017. Retrieved October 13, 2017 from http://nacchoprofilestudy.org/wp-content/uploads/2017/01/Figure7-8.jpg.
- **5.** Centers for Disease Control and Prevention. *Youth Risk Behavioral Surveillance System Overview.* 2016. Retrieved October 13, 2017 from https://www.cdc.gov/healthyyouth/data/yrbs/overview.htm.
- **6.** Centers for Disease Control and Prevention. *Health Indicators Warehouse*. N.D. Retrieved October 13, 2017 from <a href="https://www.cdc.gov/nchs/ppt/nchs2012/li-18\_churchill.pdf">https://www.cdc.gov/nchs/ppt/nchs2012/li-18\_churchill.pdf</a>.
- 7. Canadian Institute for Health Information. *CIHI Health Indicators*. 2014. Retrieved October 13, 2017, from <a href="https://www.cihi.ca/en/health-system-performance/performance-reporting/indicators">https://www.cihi.ca/en/health-system-performance/performance-reporting/indicators</a>.
- 8. U.S. National Library of Medicine. *Health Indicators Overview Transcript*. 2010. Retrieved October 13, 2016, from <a href="https://www.nlm.nih.gov/nichsr/healthindicators/Health\_Indicators\_Overview\_Transcript.html">https://www.nlm.nih.gov/nichsr/healthindicators/Health\_Indicators\_Overview\_Transcript.html</a>
- **9.** Vagi, K, Rothman, E., Latzman, N., Teten Tharp, A., Hall, D. & Breiding, M. Beyond correlates: a review of risk and protective factors for adolescent dating violence perpetration. *J Youth Adolescence*. 2013; 42(2): 633-649.
- **10.** Silverman, J.G., Raj, A., & Clements, K. Dating violence and associated sexual risk and pregnancy among adolescent girls in the United States. *Pediatrics*. 2004: 114(2): e220-e225.
- **11.** Leiderman, S. & Almo, C. Interpersonal violence and adolescent pregnancy. Center for Assessment and Policy Development, Conshohocken, PA; 2006
- **12.** Kann, L., McManus, T., Harris, W., et al. Youth Risk Behavior Surveillance United States, 2015. MMWR Surveill Summ. 2016; 65(6).
- **13.** Moylan, C.A., Herrenkohl, T.I., Sousa, C., Tajima E.A., Herrenkohl, R.C., & Russo, M.J. The effects of child abuse and exposure to domestic violence on adolescent internalizing and externalizing behavior problems. J Fam Violence. 2011; 25(1): 53-63.
- **14.** Temple, J.R., Shorey, R.C., Fite, P., Stuart, G.L., & Le V.D. Substance use as a longitudinal predictor of perpetration of teen dating violence. J of Youth and Adolescence. 2013; 42(4): 596-606.
- 15. Youth.gov. Risk factors. N.D. Retrieved October 13, 2017 from http://youth.gov/youth-topics/teen-dating-violence/risk.
- **16.** Silverman, J.G., Raj, A., Mucci, L.A., & Hathaway, J.E. Dating violence against adolescent girls and associated substance use, unhealthy weight control, sexual risk behavior, pregnancy, and suicidality. *J American Medical Association*. **2001**; 286(5): 572-579.
- 17. Haynie, D. L., Farhat, T., Brooks-Russell, A., Wang, J., Barbieri, B., & Iannotti, R. J. Dating Violence Perpetration and Victimization among US Adolescents: Prevalence, Patterns, and Associations with Health Complaints and Substance Use. *Journal of Adolescent Health*. 2013; 53(2): 194–201.
- **18.** Halpern, C.T., Spriggs, A.L., Martin, S.L., & Kupper, L.L. Patterns of intimate partner violence victimization from adolescence to young adulthood in a nationally representative sample. *Journal of Adolescent Health.* 2009; 45: 508-516.

- **19.** Reed, E., Miller, E., Raj, A., Decker M.R., Silverman, & J.G. Teen dating violence perpetration and relation to STI and sexual risk behaviors among adolescent males. *Sexually Transmitted Infections*. 2014; 90: 322-324.
- 20. Committee on Quality Measures for the Healthy People Leading Health indicators; Board on Population Health and Health Practice; Institute of Medicine. Toward Quality Measures for Population Health and the Leading Health Indicators; 2, Criteria for Selecting Measures. Washington (DC): National Academies Press (US). 2013. Available from: <a href="https://www.ncbi.nlm.nih.gov/books/NBK202189">https://www.ncbi.nlm.nih.gov/books/NBK202189</a>.
- 21. Centers for Disease Control and Prevention. *Principles of Epidemiology in Public Health Practice*. 2012. Retrieved October 13, 2017 from https://www.cdc.gov/ophss/csels/dsepd/ss1978/SS1978.pdf.
- 22. Centers for Disease Control and Prevention. Community Health Assessment for Population Health Improvement: Resource of Most Frequently Recommended health Outcomes and Determinants. Atlanta, GA: Office of Surveillance, Epidemiology, and Laboratory Services. 2013.
- 23. Institute of Medicine, Committee on Public Health Strategies to Improve Health, Board on Population Health and Public Health Practice. For the Public's Health: The Role of Measurement in Action and Accountability. Washington, D.C., National Academies Press. 2011. Available from: https://download.nap.edu/catalog.php?record\_id=13005
- 24. Erwin, P. C., Harris, J. K., Smith, C., Leep, C. J., Duggan, K., & Brownson, R. C. Evidence-based public health practice among program managers in local public health departments. *Journal of Public Health Management and Practice : JPHMP*. 2014; 20(5), 472–480. Retrieved October 16, 2017 from <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/">https://www.ncbi.nlm.nih.gov/pmc/articles/</a>
  PMC4703040/pdf/nihms-742488.pdf.
- **25.** Centers for Disease Control and Prevention. *Understanding Evidence*. N.D. Retrieved October 16, 2017 from <a href="https://vetoviolence.cdc.gov/apps/evidence/Default.aspx">https://vetoviolence.cdc.gov/apps/evidence/Default.aspx</a>.
- 26. Honeycutt S, Leeman J, McCarthy WJ, Bastani R, Carter-Edwards L, Clark H, et al. Evaluating Policy, Systems, and Environmental Change Interventions: Lessons Learned From CDC's Prevention Research Centers. *Prev Chronic Dis.* 2015;12:150281. Retrieved October 16, 2017 from <a href="https://www.cdc.gov/pcd/issues/2015/15\_0281.htm">https://www.cdc.gov/pcd/issues/2015/15\_0281.htm</a>
- 27. Niolon, P. H., Kearns, M., Dills, J., Rambo, K., Irving, S., Armstead, T., & Gilbert, L. *Preventing Intimate Partner Violence Across the Lifespan: A Technical Package of Programs, Policies, and Practices.* Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. 2017.

## **Appendix I: Promising Health Indicators for Teen Dating Violence**

Indicator Category	Indicator	Source
Pregnancy and/or Birth Rates	Birth rate to women under the age of 20	National Vital Statistics System Power to Decide Local Health Departments
	Pregnancy rate by age	National Vital Statistics System Power to Decide Local Health Departments
	Abortion rate	Abortion Surveillance System
Exposure to Violence and Abuse	Percent of high school students reporting being physically hurt on purpose by someone they were dating or going out with during the past 12 months	Youth Risk Behavior Surveillance System
	Percent of high school students who were in a physical fight one or more times during the past 12 months	Youth Risk Behavior Surveillance System
	Percent of adolescents reporting parent being treated violently	Child Trends Databank Indicator
	Percent of adolescents reporting being witness to violence	Child Trends Databank Indicator National Survey of Children's Health
Mental Health	Percent of high school students who felt so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities during the past 12 months	Youth Risk Behavior Surveillance System
	Percent of high school students who seriously considered attempting suicide during the past 12 months	Youth Risk Behavior Surveillance System
	Percent of high school students who made a plan about how they would attempt suicide during the past 12 months	Youth Risk Behavior Surveillance System
	Percent of high school students who attempted suicide one or more times during the past 12 months	Youth Risk Behavior Surveillance System
	Percent of high school students who made a suicide attempt during the past 12 months that resulted in an injury, poisoning, or overdose that had to be treated by a doctor or nurse	Youth Risk Behavior Surveillance System

Indicator Category	Indicator	Source
Sexual History	Percent of high school students reporting first intercourse before the age of 13 years	Youth Risk Behavior Surveillance System
	Percent of high school students who ever had sexual intercourse	Youth Risk Behavior Surveillance System
	Percent of high school students reporting no condom used at the last intercourse	Youth Risk Behavior Surveillance System
	Percent of high school students reporting substance use before last intercourse	Youth Risk Behavior Surveillance System
	Percent of high school students who had sexual intercourse with four or more people during their life	Youth Risk Behavior Surveillance System
	Percent of high school students who reported experiencing sexual teen dating violence in past 12 months	Youth Risk Behavior Surveillance System
	Percent of high school students forced to have sex	Youth Risk Behavior Surveillance System
	Rate of 13-24 year olds who have been diagnosed with a sexually transmitted infection	AtlasPlus
Substance Use	Percent of high school students who had first drink/drug use before the age of 13	Youth Risk Behavior Surveillance System
	Percent of high school students who reported consuming five or more drinks in a row in the past 30 days	Youth Risk Behavior Surveillance System
	Percent of high school students who reported cocaine use (ever)	Youth Risk Behavior Surveillance System
	Percent of high school students who used marijuana one or more times during their life	Youth Risk Behavior Surveillance System
	Percent of high school students who reported substance use before last intercourse	Youth Risk Behavior Surveillance System

## **Appendix II: Publicly Accessible Data Sources**

Dataset	Description
Abortion Surveillance System – Centers for Disease Control and Prevention www.cdc.gov/reproductivehealth/data_stats/abortion.htm	CDC documents the number and characteristics of women obtaining legal induced abortions. CDC compiles the information reporting areas collect to produce national estimates.
American Community Survey <a href="https://www.census.gov/programs-surveys/acs/">https://www.census.gov/programs-surveys/acs/</a>	The American Community Survey provides vital information on a yearly basis about the United States and its people.
Area Health Resources Files – Health Resources and Services Administration Data Warehouse datawarehouse.hrsa.gov/topics/ahrf.aspx	The Area Health Resources Files (AHRF) data are designed to be used by planners, policymakers, researchers, and others interested in the nation's health care delivery system and factors that may impact health status and health care in the United States. The AHRF data includes county, state, and national-level files in eight broad areas: Health Care Professions, Health Facilities, Population Characteristics, Economics, Health Professions Training, Hospital Utilization, Hospital Expenditures, and Environment.
AtlasPlus – Centers for Disease Control and Prevention <a href="https://www.cdc.gov/nchhstp/atlas/index.htm">https://www.cdc.gov/nchhstp/atlas/index.htm</a>	AtlasPlus is an interactive website that produces rates of HIV, viral hepatitis, STDs (including early latent syphilis, chlamydia, gonorrhea, primary and secondary and congenital syphilis) and tuberculosis by age group, race/ethnicity, and geographic region.
Bureau of Labor Statistics www.bls.gov/	The Bureau of Labor Statistics of the U.S. Department of Labor is the principal Federal agency responsible for measuring labor market activity, working conditions, and price changes in the economy.
Child Trends Databank Indicator www.childtrends.org/databank-indicators/	Research and data monitoring examining more than 120 indicators of children's well-being.
Community Health Status Indicator – Centers for Disease Control and Prevention www.cdc.gov/CommunityHealth	CHSI is an interactive web application that produces health profiles for all 3,143 counties in the United States. Each profile includes key indicators of health outcomes, which describe the population health status of a county and factors that have the potential to influence health outcomes, such as health care access and quality, health behaviors, social factors and the physical environment.
County Health Rankings www.countyhealthrankings.org/	The County Health Rankings measure vital health factors, including high school graduation rates, obesity, smoking, unemployment, access to healthy foods, the quality of air and water, income inequality and teen births in nearly every county in America.
Data.gov www.data.gov	Data.gov is the U.S. Government's open data resource, where nearly 200,000 data sets are available, at no cost, to download. The resource also includes tools and resources to conduct research, develop web and mobile applications, and design data visualizations.
Health Indicators Warehouse www.healthdata.gov	The Health Indicators Warehouse is a collection of health indicator data categorized by topic, geography, and initiative.

Dataset	Description
National Center for Education Statistics nces.ed.gov/ccd/schoolsearch	The National Center for Education Statistics (NCES) is the primary federal entity for collecting and analyzing data related to education in the U.S. and other nations. NCES collects, collates, analyzes, and reports complete statistics on the condition of American education; conducts and publishes reports; and reviews and reports on education activities internationally.
National Center for Health Statistics – Centers for Disease Control and Prevention www.cdc.gov/nchs	The National Center for Health Statistics provides quick access to statistics on topics of public health importance and is organized alphabetically. Links are provided to publications that include the statistics presented, to sources of more data, and to related web pages.
National Environmental Public Health Tracking Network – Centers for Disease Control and Prevention ephtracking.cdc.gov	The National Environmental Public Health Tracking Network (Tracking Network) is a system of integrated health, exposure, and hazard information and data from a variety of national, state, and city sources. The Tracking Network, provides maps, tables, and charts with data about: chemicals and other substances found in the environment, some chronic diseases and conditions, and the area where people live.
National Violent Death Reporting System – Centers for Disease Control and Prevention www.cdc.gov/violenceprevention/nvdrs/	National Violent Death Reporting System (NVDRS) provides states and communities with a clearer understanding of violent deaths to guide local decisions about efforts to prevent violence and track progress over time. Forty states currently receive funding to implement NVDRS.
NHANES Youth Fitness Survey – Centers for Disease Control and Prevention www.cdc.gov/nchs/data/series/sr_02/sr02_163.pdf	Survey and data analysis of physical activity in children ages 3 to 15 and used to determine health status of this age group.
Power to Decide <a href="https://powertodecide.org/">https://powertodecide.org/</a>	State and City Teen Pregnancy Rates data as well as public opinion data since its inception in 1996.
School Health Policies and Practices Study* (SHPPS) www.cdc.gov/healthyyouth/data/shpps/ index.htm	A national survey periodically conducted to assess school health policies and practices at the state, district, school, and classroom levels.
Statistical Briefing Book – Office of Juvenile Justice and Delinquency Programs www.ojjdp.gov/ojstatbb/	The OJJDP Statistical Briefing Book (SBB) enables users to access online information about juvenile crime and victimization and about youth involved in the juvenile justice system. In addition, the data analysis and dissemination tools available through SBB give users quick and easy access to detailed statistics on a variety of juvenile justice topics.
U.S. Census Bureau www.census.gov/en.html	The Census Bureau collects and analyzes social, economic, and geographic data. It provides information about the conditions of the United States, states, and counties.

Dataset	Description
Youth Risk Behavior Surveillance System (YRBSS) – Centers for Disease Control and Prevention nccd.cdc.gov/youthonline/app/default.aspx	High school (and middle school) data for schools with good survey completion rates.
500 Cities Project – Centers for Disease Control and Prevention https://www.cdc.gov/500cities/index.htm	The 500 Cities Project reports city and census tract-level data for 27 chronic health conditions, behaviors, and risk factors for the 500 largest American cities.

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