Welcome to Data Academy. Data Academy is a series of online training modules to help Ryan White Grantees be more proficient in collecting, storing, and sharing their data.

Let’s get started with the module “Essential Data Steps: A Self-Assessment.”
The purpose of this module, “Essential Data Steps: A Self Assessment” is to help you identify your data-related technical assistance and training needs. To do this, we will follow a framework of seven essential steps for working with data.

The seven steps comprise key data-related activities. We will give an explanation of the activities included in each step, followed by a list of questions to help you assess if you – or your organization - need to build capacity in that area.
Learning Objectives

• Recognize the seven essential data steps
• Identify areas within these steps where:
  • you can improve your skills
  • your organization may need technical assistance
• Find relevant training and technical assistance resources

At the end of this module, you will be able to:
• Recognize the seven essential data steps,
• Identify areas within the steps where you can improve your skills,
• Identify areas within these steps where your organization may need technical assistance, and
• Find relevant training and technical assistance resources.
Background

Why were the Data Steps developed?
- Many Ryan White grantees need data TA
- Unable to describe what they need help with

How can the Data Steps help you?
- Common language for data collection, data quality, reporting, and use
- Identify data strengths and weaknesses
- Articulate your organization’s TA needs

In a 2007 assessment of Ryan White HIV/AIDS program grantees’ data needs, 90% of surveyed grantees reported that they needed help with data. However, few were able to describe what kind of help they needed.

In response, the Seven Essential Steps were developed to provide grantees and TA providers with common language about data collection, data quality, reporting, and use.

In this module, we aim to help you assess both your personal and organizational training needs. By working with data one step at a time, you will be better able to identify your specific strengths and weaknesses and be able to clearly articulate your data-related TA needs.
Here is a diagram showing the seven essential steps for working with data. Let’s walk through this list before we go through each step in detail:

Step 1: Identify and Define Data Elements
Step 2: Identify Data Sources
Step 3: Collect Data
Step 4: Implement Procedures to Ensure Data Quality
Step 5: Report Data
Step 6: Communicate about Data, and
Step 7: Use Data

The steps provide a framework to help you assess your data TA needs, but it’s important to note that they don’t always happen in chronological order. For example, you may need to communicate data to a planning body or advisory committee before you have to report data to HRSA.

Also, keep in mind that the other Data Academy modules are not designed to correspond directly to each of these seven steps. Instead, as we discuss the seven steps in this module, we will direct you toward related Data Academy modules as well as other resources.
Data Steps Checklist

- Keep track of the areas where you need support.
- Make a note of resources you are interested in.
- Write down the details of your TA needs.

Before you continue, you may wish to print a copy of the data steps checklist. Use this tool to keep track of your responses and to help you identify areas where you need extra support. The “notes” field gives you a place to write down specific resources you are interested in, and to write down the details of your particular TA needs.
Now let’s begin.

The first step is to identify and define *what* variables, or data elements, you need to collect. This means figuring out what you are required to report, and what data you need to collect for other program purposes.
Identify and Define Data Elements

Create a list of data elements

- HRSA reporting requirements
  - Instructions and definitions on TARGET Center website
- State, Federal funding agencies and other entities
- Program purposes

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The best place to start is to create a list of all the data you need to collect for reporting purposes. This includes program data for the Ryan White Services Report as well as any other HRSA required data, like for the AIDS Drug Assistance Program, and the Minority AIDS Initiative. You can find instructions and definitions for all Ryan White HIV/AIDS Program data reporting on the TARGET Center website. The TARGET Center is the central source of TA and training resources for Ryan White grantees.

You may be required to report data to a state or other entity, like to the Centers for Disease Control and Prevention.

You probably also use data for a variety of program purposes. Data are used to inform decision-making and help with the coordination of clients’ care, monitoring and evaluation, quality improvement activities, and grant writing.
Once you have a complete list of data elements, determine if the *same* data can be used to meet more than one purpose. By organizing your data needs before you actually start collecting data, you can streamline your data collection and increase the likelihood that the data you collect are useful.
Let’s look at an example of how identifying and defining your data needs can improve your data collection process.

The RSR requires that you report “year of birth” for each of your clients. Meanwhile, your local health department asks that you report your data in aggregate, using age categories like under 18, 18 to 24, and so on.” However, you already collect date of birth for all of your clients as part of their intake process, and you can easily get clients’ “year of birth” as well as their “age” from this data element. This means that you only need to collect date of birth – you don’t need to collect the year or the age separately.
A data inventory can help you:
- Keeps track of data elements
- Avoid collecting same data twice
- Keep track of who needs to collect each data element
  - Programs
  - Sites
  - Contracted service providers

Example: Improving Data Collection

One way to coordinate and simplify your data collection activities is to use a data inventory. A data inventory keeps track of all the data elements you need to collect, and will help you avoid collecting the same data twice. A data inventory can also help you keep track of who needs to collect each data element, across programs, sites and contracted service providers.
What data do you need to collect?

Can you identify:
- the data you need for reporting requirements?
- additional data for program needs?

Do you have a standardized list of:
- variables?
- definitions?
- response options?

Can you define what data your contractors need?

To determine if you need help defining what data elements you need to collect, ask yourself the following questions:

Can you identify the data you need for all your reporting requirements?

Can you identify the additional data you need for other program purposes? This includes data for monitoring, quality assurance activities, and planning.

Do you have a standardized list of data variables, their definitions, and their response options?

Can you define what data your contracted service providers need to collect for reporting?

You can learn more about identifying and defining your data needs, and about creating a data inventory, in the module “Simplify your Data Collection”.

Now, let’s discuss the second step: Identifying Data Sources. Once you have defined what data you need to collect, the next step is to identify where you can find the data.
Where can you find the data you need? Sometimes the data are already being collected.

Start by reviewing the data that your program collects electronically and on paper forms. If you are part of a larger institution, look for data being collected by other departments. For example, you may be able to find what you need in a hospital electronic medical record or laboratory database.

If the data you need are not already collected by your program or institution, look to outside sources before you develop a new data collection plan. Identifying other sources of data can help you streamline your data collection.

Whenever you share data with external organizations, be sure to document the details of when you’ll need the data, along with exactly what data you need, and in what electronic format.

Make sure that you have appropriate access to the data, and follow procedures to ensure secure transmission and storage of the data. You may need a data sharing agreement such as a contract, MOU or business associate agreement.
To determine if you need help identifying data sources, consider the following questions:

Do you know where to get the data you need? And once you find it, do you know how to request it?

Do you and your data sharing partners have procedures in place to ensure that your clients' data are stored, handled and transmitted securely?

Can you determine whether you need a data sharing agreement such as a contract, MOU or business associate agreement?
To learn more about identifying other data sources, refer to *Getting Data from Existing Sources*. To find out about how to create successful data sharing relationships, see *Building Data Partnerships with Staff and Contractors*.

To learn more about how to treat your clients' data securely, see *Ensuring the Security of your Clients' Data*. And to determine whether you are required under HIPAA to develop a data sharing agreement, see *HIPAA and Data Sharing*.
Now that you have determined what data you need to collect, and where you will get the data, the third essential step is to determine how the data will be collected.
How will you collect your data?

Ensure consistency across staff, sites, programs
  • Develop procedures and protocols

Provide guidance to staff and contractors
  • Definitions of data elements and response options
  • How to collect and submit data

How will you collect your data?

Begin by making sure that all your data collection tools are consistent across staff, sites, and programs.

Develop procedures and protocols to make sure that data are collected correctly.

Provide guidance to data collection staff and contractors. This information should include definitions of data elements and response options, as well as instructions on how to collect and submit data.
How will you collect your data?

Provide training
• Collect, enter, store, and submit data
• Regular intervals to all staff

Ensure confidentiality, privacy, and security

It’s important to provide training on how to collect, enter, store, and submit data. These trainings should be offered at regular intervals for all staff.

Keep in mind that you have an obligation to protect your clients’ information. Be sure to implement data collection practices that ensure the confidentiality, privacy, and security of your clients’ data.
To determine whether you need TA on developing effective data collection practices, consider these questions.

Do you have a standardized data collection process?

Do you provide routine data collection training to staff and contractors? This includes training new staff and updating experienced staff.

Do you ensure the confidentiality of your clients’ data? If so, how? Do you have protocols to ensure privacy? Are your staff and contractors trained on these protocols?
To learn more about how to implement data collection procedures, see *Building Data Partnerships with Staff and Contractors*. To learn more about ensuring confidentiality of client data, see *Ensuring the Security of Your Clients’ Data*, and *HIPAA and Data Sharing*. 
The fourth essential step is to ensure the quality of your data.

Data quality is directly related to the first three steps, because the key elements of data quality – timeliness, completeness and accuracy – are directly related to how data are defined and collected.
Programs – and federal agencies like HRSA – depend on sound and accurate data to make good public health decisions. Good data accurately reflect what you are trying to measure or report.

Begin by confirming that you have completed the first three essential steps. Once you have identified and defined what data you need to collect, determined where you will get the data, and developed standard practices for data collection, make sure that the data are collected with plenty of time for you to conduct a through review.

Examine your data carefully. As you receive the data, check for completeness. If data are missing, find out why and determine if this is due to a larger issue with your data collection process.

Make sure the data accurately reflect the services that are being provided by the program. If the data are different from what you expected, find out why. Determine if the data reflect a real change in program activities, or whether the problem is related to how the data are collected.

Provide feedback to staff that collect and enter data to show that you value the data, and to prevent the same mistakes from happening again. Provide positive reinforcement as data quality improves.
Do you need help with data quality? Ask yourself these questions to find out.

Do you have standard procedures to ensure that data are collected correctly and consistently?

Do you receive data in time to review it carefully before it is submitted? If you do review your data, do you provide feedback to staff and contract agencies about the quality of the data?

Do you review data for completeness? Do you review the data to make sure the data accurately reflect the services that are being provided?
Do you need help with data quality?

See module “Fundamentals of Data Quality.”

See module “Building Data Partnerships with Staff and Contractors.”

To learn more about ensuring data quality, explore *Fundamentals of Data Quality*. And for more information on how to providing feedback to staff and contractors on data quality, see *Building Data Partnerships with Staff and Contractors*.
The first four steps have focused on how to identify and collect the data you need, and ensure that your data are timely, complete, and accurate.

Steps five, six and seven will focus on how to use your data. Let’s begin with step five, Data Reporting.
As a grantee, it is important to know where and how to submit data correctly and completely.

At a national level, HRSA – and other federal agencies – use data from grantees to inform public health decision-making, justify current levels of funding, and to demonstrate need for additional funds to Congress.

These data also help your project officer to understand how your program is doing in terms of the services you deliver and the populations you serve. By reviewing and discussing the data with you, your project officer can use your data to help identify resources to improve the work you do.
Familiarize yourself with the reporting requirements of all your funders. These requirements include what data you need to report, when it is due, and the details of how the data should be submitted.

There may be a specific process to submit the data. For example, you will need to create a specific type of data file to HRSA for RSR reporting, and you will submit the file by uploading it to a secure website.

You should know how to confirm that the data have been received. It’s also useful to know who to contact if you have trouble submitting your data.

Even if you have been through the reporting process before, it’s important to review the guidelines on a regular basis in case they are revised.

Finally, be sure to train your staff and contractors on these reporting requirements, and on your expectations for how data should be collected and submitted.
Do you need help reporting data?

- Do you know what data you need to report?
  - To HRSA?
  - For other funding agencies?
- Do you know when and how to submit required data?
  - Know about resources to help you submit data more efficiently?
- Do you review reporting requirements regularly?
- Do you provide training to staff and contractors on reporting requirements?

To find out if you need additional training or TA for reporting the RSR, or the Ryan White HIV/AIDS Program Service Report, to HRSA, consider these questions:

- Do you know what data you need to report to HRSA and other funding agencies?

- Do you know when and how to submit required data? Do you know about HRSA resources to help you submit your data more efficiently?

- Do you review reporting requirements on a regular basis? And do you provide training to staff and contractors on these reporting requirements?
Visit the TARGET Center website to learn about a variety of data support resources for Ryan White grantees.
The sixth essential step is to Communicate about Data.

Communicating about data has to do with how to effectively present your program data to show how your program is doing.
Communicating about data involves using your data to effectively share information about your program and the work that you do.

You don’t have to collect new data to communicate how your program is doing. You can use the data you already collect for reporting and other program purposes.

You may communicate information about your program and the work you do by giving a presentation or developing a report. Start by identifying your audience, and clarify the purpose of your presentation or report. Are you sharing the data with administrators, clinicians, consumers, or a planning committee? Tailor the style and content of your presentation to your audience, and focus on what they want to know about your program.

Consider what kinds of tables, charts or graphs will be most effective with your target audience. For example, clinicians may be interested in charts and figures that demonstrate clinical outcomes. On the other hand a group of consumer advisory board members, may appreciate simple visuals that illustrate the types of services delivered and clients served.

As you prepare your presentation or report, highlight outcomes and achievements. You may wish to point out areas where improvements can be made.
Need help communicating data?

- Do you know how to adapt presentations and reports to appeal to different audiences?
- Do you know how to determine what data to include in each presentation?
- Do you know how to visually present the data to communicate your key points?

Ask yourself these key questions to determine if you need help with communicating your data:

- Do you know how to adapt presentations and reports to appeal to different audiences?
- Do you know how to determine what data to include in each presentation?
- Do you know how to visually present the data to communicate your key points?
In the first step of this module, we talked about the importance of figuring out how data will be used in order to determine what you need to collect.

This seventh, and final step, is about using the data you collect to guide decision-making and improve service delivery.
Ryan White grantees and providers use data in many ways:
Data can be used to inform quality improvement and program evaluation activities, as well as clinical decision-making, toward improving service delivery.
Data for Decision-making

How do you use your data?

- Support program decision-making
  - Planning
  - Allocations
  - Program Expansion

Data are also used to support program decision-making, to inform planning, allocations and program expansion decisions.
To support all of these activities, you need to be able to interpret the data you have collected. This means defining what you need to know, and examining your data to find information. One way to do this is by establishing specific goals and objectives, and then measuring your progress.
Consider the following example.
Let’s say your objective is to improve your Hepatitis B vaccination rate from 50 percent to 80 percent. After three months, Hepatitis B vaccinations have increased from 50 percent to 60 percent of your clients.
Although your target is 80 percent, this is actually a significant improvement because your clinic serves a very challenging population of clients, and you have been short-staffed for the past six months.
You and your staff are encouraged by this progress, and resolve to increase your vaccination rate by at least the same amount by the end of next year.
Do you need help using data?

Do you know how to interpret your data?
Do you know how to use your data to inform decision-making and improve service delivery?
Do you look at data in the context of specific goals and objectives?
Are you able to use your data to guide improvements in your program?

Consider these questions to determine if you want to learn more about using data to inform decision making and guide service delivery:

Do you know how to examine your data to find the information you need?

Do you know how to use data to inform decision-making and improve service delivery?

Do you look at data in the context of specific goals and objectives?

Are you able to use your data to guide improvements in your program?
To learn more about how to use data for program improvement, visit the TARGET Center and the National Quality Center websites.
Now that we have presented the Seven Essential Data Steps, you may be wondering what’s next.

As we said at the beginning, these steps provide a framework for collecting, reporting and using data.

Take a look at the checklist you started at the beginning of the module. Have you identified skills that you personally would like to strengthen? How about technical assistance you need for your program?

Share what you’ve learned with your colleagues as well as your HRSA project officer.

Take a look at the related Data Academy Modules – on your own or as a group - to get started. And visit the TARGET Center to learn about a variety of data-related training and technical assistance resources available from HRSA.
You have now reached the end of this module. We hope that you enjoyed the module and that it helped you build skills for collecting, reporting, using and sharing data. To view more Data Academy modules, visit the Data Academy home page. And to learn about other resources for Ryan White HIV/AIDS Program grantees, visit the TARGET Center website.