A graphic for a coffee break presentation. At the top left, it says "COFFEE BREAKS 2019". To the right is a realistic image of a white coffee cup filled with black coffee. Below that is the main title "THE POWER OF DATA VISUALIZATION: EFFECTIVE REPORTING STRATEGIES FOR PROGRAM EVALUATORS" in bold, followed by "CENTERS FOR DISEASE CONTROL AND PREVENTION" in a smaller font. A central horizontal bar contains four icons: a line graph, a magnifying glass over a bar chart, a person pointing at a presentation board, and a bar chart on a computer monitor. Below the icons, it lists "Nicole Dickerman, MPH | Evaluation and Program Effectiveness Team" and "June 11, 2019". At the bottom, a yellow banner reads "NATIONAL CENTER FOR CHRONIC DISEASE PREVENTION AND HEALTH PROMOTION" and "Division for Heart Disease and Stroke Prevention". The CDC logo is in the bottom right corner.

COFFEE BREAKS 2019

THE POWER OF DATA VISUALIZATION: EFFECTIVE REPORTING STRATEGIES FOR PROGRAM EVALUATORS

CENTERS FOR DISEASE CONTROL AND PREVENTION

Nicole Dickerman, MPH | Evaluation and Program Effectiveness Team
June 11, 2019

NATIONAL CENTER FOR CHRONIC DISEASE PREVENTION AND HEALTH PROMOTION
Division for Heart Disease and Stroke Prevention



MODERATOR:

Welcome to today's Coffee Break presented by the Applied Research and Evaluation Branch in the Division for Heart Disease and Stroke Prevention at the Centers for Disease Control and Prevention.

We are fortunate to have **Nicole Dickerman** as today's presenter. She is an ORISE Fellow from the CDC's Division for Heart Disease and Stroke Prevention and sits on the **Evaluation and Program Effectiveness Team**.

My name is **Sharada Shantharam** and I am today's moderator. I am on the **Applied Research and Translation Team** within the **Applied Research and Evaluation Branch**.

BEFORE WE BEGIN...

- All phones have been placed in SILENT mode.
- Any issues or questions?
 - Use Q & A box on your screen
 - Email AREBheartinfo@cdc.gov



MODERATOR:

Before we begin we have a few housekeeping items.

All participants have been muted. However, to improve audio quality please mute your phones and microphones.

If you are having issues with audio or seeing the presentation, please message us using the chat box or send us an email at AREBheartinfo@cdc.gov

If you have questions during the presentation, please enter it on the chat box on your screen. We will address your questions at the end of the session.

Since this is a training series on applied research and evaluation, we hope you will complete the poll at the end of the presentation and provide us with your feedback.

DISCLAIMER

The information presented here is for training purposes and reflects the views of the presenters. It does not necessarily represent the official position of the Centers for Disease Control and Prevention.

MODERATOR:

The information presented here is for training purposes and reflects the views of the presenters. It does not necessarily represent the official position of the Centers for Disease Control and Prevention.

So, without further delay. Let's get started. **Nicole** the floor is yours.

The slide features a dark blue horizontal bar at the top. Below it, the title is centered in a dark blue, sans-serif font. At the bottom, there is a large dark blue rectangular area, and a thin, multi-colored horizontal bar (yellow, green, red, cyan, blue) is positioned just above the bottom edge of the slide frame.

THE POWER OF DATA VISUALIZATION: EFFECTIVE REPORTING STRATEGIES FOR PROGRAM EVALUATORS

Thank you, **Sharada**. Good afternoon to everyone calling in. I appreciate you joining us for today's presentation on *The Power of Data Visualization: effective reporting strategies for program evaluators*.

Communicating evaluation findings is an integral part of the evaluation process; however, it can often pose some challenges. Evaluators need to consider audience needs, dissemination objectives, any reporting requirements and use tailored strategies to effectively communicate data and evaluation findings to key audiences and stakeholders. During this presentation, I will describe a few effective approaches and available tools to improve evaluation reports and communication of key findings, through the use of data visualization.

I also want to point out that this presentation only gives a brief introduction to data visualization. As this topic continues to grow in popularity, there are many other resources available on the web. At the end of this presentation, I have a few links to some excellent data visualization and evaluation report writing experts that you may find useful.

COMMUNICATING DATA AND EVALUATION RESULTS

- Communicating data is a balancing act!
- Evaluators need to consider:
 - Evaluation purpose
 - Reporting requirements
 - Audience/stakeholder needs
 - Dissemination objectives



Communicating data and evaluation results can be a serious balancing act. Evaluators need to consider the purpose of the evaluation, their audience or stakeholder needs, reporting requirements, and key dissemination objectives, among many other things. It can be extremely challenging given all these factors, plus any resource constraints you may experience in your setting. However, there is no one way to communicate your results. Therefore, it's important to format your evaluation findings strategically.

THERE ARE MANY WAYS TO COMMUNICATE EVALUATION RESULTS

- A few reporting types:



There are several ways to report evaluation findings. In this presentation, I'll discuss four common reporting types, including infographics, executive summaries, traditional evaluation reports, and action-oriented evaluation reports. These are distinct reporting styles that all communicate different levels of data. When communicating evaluation results, it's important to consider your specific setting and how you want your evaluation findings to be used.

EXECUTIVE SUMMARIES

Short document that summarizes a longer report so a reader may rapidly become acquainted with a large body of material without having to read the entire report

- Executive summaries share:
 - Strategic information
 - Overarching findings
 - General progress toward implementation and outcomes
- Executive summaries should:
 - Use graphics and font styles to emphasize key points
 - Leave the reader wanting more
- Intended users can include:
 - Strategic decision makers
 - Partners and stakeholders

DHDSP Example: Coverdell Program 2012-2015 Evaluation Summary



Next we have executive summaries. Executive summaries are short documents that summarize a longer report so a reader may rapidly become acquainted with a large body of material without having to read the entire report. Executive summaries often have more detail than an infographic but less detail than a full evaluation report. They are able to tell “the whole story” of your evaluation, but by synthesizing findings and presenting overarching themes. They are suitable as a stand-alone document that share a bite-sized amount of information about your evaluation findings. They might also share strategic information and depict general progress toward implementation and outcomes.

It’s important to remember that executive summaries may be the only piece of information that the audience will have a chance to read in your report. With this in mind, executive summaries allow an evaluator to communicate a handful of key findings with your evaluation approach, in addition to a few recommendations or conclusions.

TRADITIONAL EVALUATION REPORTS

Comprehensive document detailing evaluation methods and actionable findings for the purpose of informing program improvement.

- Traditional evaluation reports:
 - Add to the knowledge base of evaluation practice
 - Provide detailed contextual information and historical reference
 - Serve as foundation for supplemental reports
 - Provide accountability
- Reports should:
 - Include all methods, data collection instruments, and detailed findings and recommendations
- Intended users can include:
 - Funders
 - Program leadership
 - Partners and stakeholders

The next reporting type I'll talk about are traditional evaluation reports. Traditional evaluation reports are comprehensive documents that detail evaluation methods and actionable findings for the purpose of informing program improvement. They include information about all methods, data collection instruments, and detailed findings and recommendations. Audiences can include funders, program leadership, partners and stakeholders,

However, traditional evaluation reports are not a one-size-fits all approach. Evaluators should try to write traditional evaluation reports that can be broken down into smaller sections that can be disseminated to stakeholders individually. Also, consider organizing reports strategically and places where using other reporting approaches, like infographics and executive summaries might be more useful.

It is often the case that funders require a traditional evaluation report for program accountability and reporting requirement. In such instances, it's important to comply with the reporting requirements specified by the funder.

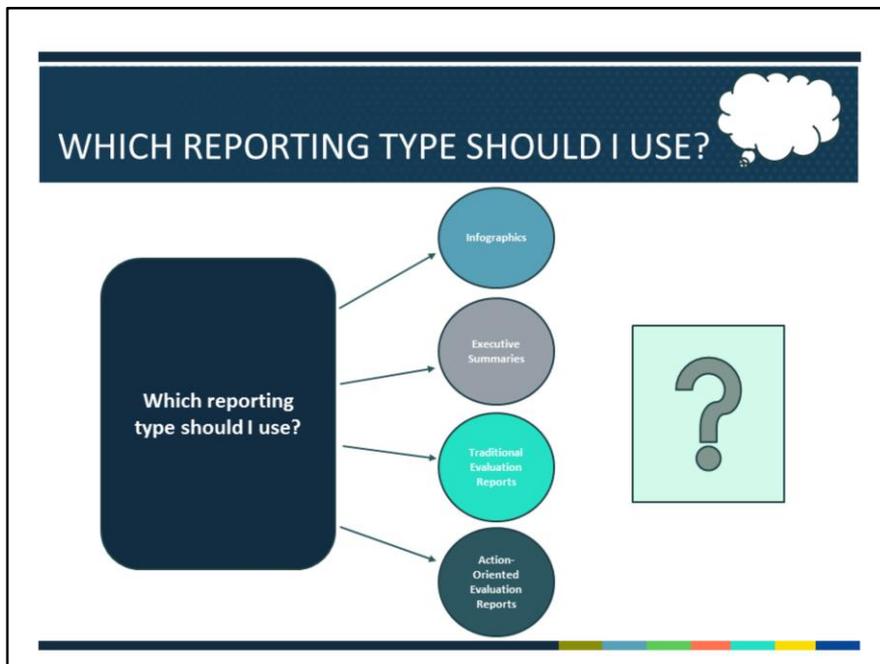
ACTION-ORIENTED EVALUATION REPORTS

Comprehensive document that is shorter than a traditional formal report and is focused, simple, and geared toward a particular audience

- Action-oriented evaluation reports offer:
 - Flexibility of time and creativity
 - Attention to important findings and possible next steps
- Reports can be presented through:
 - Newsletter articles, Webinars, debriefs/town halls, dashboard reports, etc.
- Intended users can include:
 - Program leadership
 - Program staff
 - Public health practitioners, policy makers, evaluators



The last reporting type I'll cover today is an action-oriented evaluation report. Action-oriented reports are intentionally shorter than traditional formal evaluation reports and are focused, simple, and geared toward a particular audience. These evaluation reports offer flexibility in terms of time and creativity. A well-designed action-oriented evaluation report calls attention to important findings and possible next steps. These reports can be presented through various mediums including but not limited to newsletter articles, webinars, debriefs/town halls, dashboard reports. Intended users can include program leadership, program staff, public health practitioners, policy makers, and other evaluators.



Now that I've described 4 common reporting types, I'd like to point out that not all of these are mutually exclusive. It's important for evaluators to note that it may be beneficial to use multiple reporting types to present evaluation findings, especially when taking into consideration which types would be appropriate for different audiences and stakeholders.

No matter which reporting type you choose to use, it's always important to consider how to present your data in an engaging and understandable way.

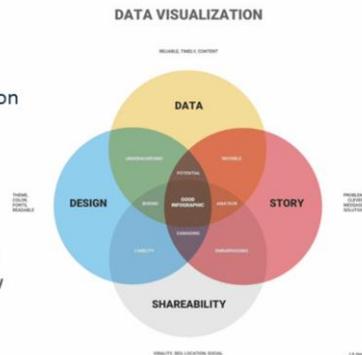
WHAT IS DATA VISUALIZATION?

Data Visualization (Data Viz)- the creation and study of the presentation of the visual representation of data

- The modern equivalent of visual communication
- Integration of data, design, shareability, and story

3 Criterion of Data Viz:

1. Based on qualitative or quantitative data
2. Results in an image representative of raw data
3. Readable by viewers and supports exploration, examination, and communication of data



Which brings me to data visualization and how it can be used to help communicate your evaluation findings. So, what exactly is data visualization? Data visualization, otherwise known as data viz, is the creation and study of the presentation of the visual representation of data. It is also known by several disciplines as the modern equivalent of visual communication. Data viz can also be thought as an integration of data, design, shareability, and story, as seen in the graphic to the right.

According to Azzam et al.'s definition, data viz relies on three specific criterion. The first criterion states that data viz is based on qualitative and quantitative data. The second criterion states that data viz results in an image that is representative of raw data. And the last criterion is that data viz should be readable by viewers and supports exploration, examination, and communication of the data. While these three criteria may seem obvious at first glance, it takes thoughtful consideration and application to successfully achieve them in practice.

EFFECTIVE DATA VISUALIZATIONS...

- Tell a story about your data
- Are clear and easy to understand
- Are selective in the information presented
- Complement text and support key messages
- Avoid jargon and technical language

Visualizations should be used to

- Increase understanding of a program, its context, and history
- Aid in data collection
- Conduct analyses of data
- Communicate to stakeholders

Effective data visualizations should tell a story about your data, be clear and easily understood, be selective in the information presented, compliment text, and avoid jargon and technical language.

Visualizations should be used to increase understanding of a program, its context, and history, aid in data collection, conduct analyses of data, and communicate to stakeholders.

TIPS FOR EFFECTIVE DATA VISUALIZATIONS

Simplify
graphs

Visibly
highlight key
findings

Use
meaningful
colors

Comparison

Labeling

Ordering

So now, I'd like to highlight a few tips for creating effective data visualizations. These include but are not limited to simplifying graphs, visibly highlighting key findings, using meaningful colors, comparison, labeling, and ordering.

SIMPLIFY GRAPHS- EXAMPLE 1

Figure 1. 1305 Strategy 3.1
Intervention Types



Figure 1. 1305 Strategy 3.1 Intervention Types

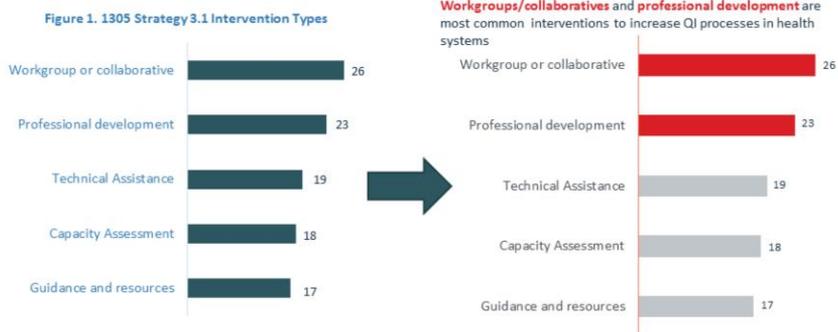


This slide shows an example of how to simplify a graph to make it more effective. This 3-dimensional pie chart shown is attempting to describe intervention types for strategy 3.1 for 1305, which deals with trying to increase implementation of QI processes in health systems. There are a few issues with this graph. First, it's hard to see and distinguish a difference each piece of the pie. For example, one piece of the pie represents 26% and another segment represents 23%, however they look extremely similar. It's also confusing to follow which color relates to which intervention type since the colors in the legend are so small.

So, let's simplify this graph.

I took the same data from the 3-D pie chart and formatted it using a horizontal bar chart in Excel. I ordered the data from greatest to least so the reader can easily distinguish differences between each category and the regression. I also directly labeled each intervention type so that there is no need for a legend.

VISUALLY HIGHLIGHT KEY FINDINGS- EXAMPLE 2



Now let's take this bar chart and see if we can make it better. I want to visually highlight the key findings to share with my stakeholders.

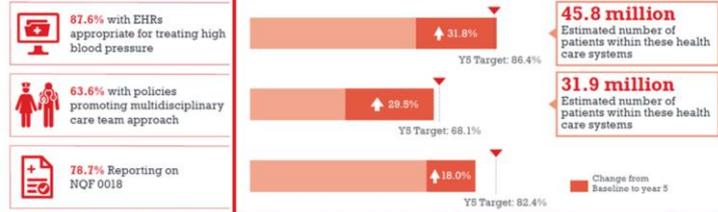
Here is an approach to visually highlighting key findings. Since I want my stakeholders to see that workgroups or collaboratives and professional development opportunities were the most commonly implemented intervention type, I want to make those stand out. Therefore, I colored the top two greatest rows in an eye-catching red color, and I faded out the other rows so the reader is drawn to the data that is most meaningful. I also added a title that summarizes key points from these data.

ORDERING & HIGHLIGHT KEY FINDINGS- EXAMPLE 3

Improved diagnosis and prevention of heart disease & stroke within health care systems

Effective use of electronic health record (EHR) systems and promotion of quality improvement and population reporting of patients aged 18 to 85 years who had a diagnosis of hypertension and whose blood pressure was adequately controlled (less than 140/90 mmHg) during the measurement period (National Quality Forum (NQF) Measure 0018), improves identification and monitoring of diagnosed and undiagnosed patients with uncontrolled high blood pressure. Use of multidisciplinary team care improves the quality of care provided to patients with hypertension.

Percent of health care systems:



62.4% of adults with known high blood pressure have achieved blood pressure control (8.2% improvement from baseline)

Note: The number of grantees reporting and data source types differ for each measure.

Here we have another example. This is the Year 5 Evaluation Snapshot from 1305. In it, there are many data viz techniques used but the ones I want to highlight are the ordering of the graph axis, highlighting the key findings from the evaluation, and the use of a specific color-red to differentiate that these data are for heart disease outcomes.

Ordering is an important tip to remember when communicating patterns in your data. Evaluators should try to order data intuitively by categorizing alphabetically, sequentially, or by value. Order data consistently. And order data evenly by using natural increments on axes (0, 20, 40, 60...and so on).

COMPARISON & LABELING- EXAMPLE 4

Health System Interventions

Health system interventions enhance the quality of health care delivery to improve the diagnosis and management of chronic disease. Grantees have worked to increase the number of health systems that are using electronic health record (EHR) systems, integrated care policies, and other policies to improve the monitoring, management, and diagnosis of hypertension and prediabetes.

% patients in health care systems with



Data visualization can make comparisons and relationships a lot easier to see. Evaluators should try to include a baseline if possible. A baseline allows for some added context for comparison and if small fluctuations in data are meaningful, you may be able to see the difference.

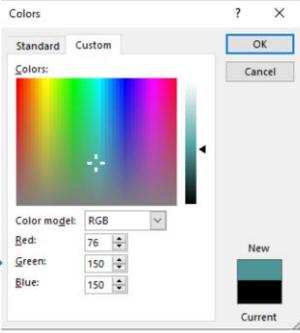
Labeling allows the audience to interpret data, but too many or too few can hinder a visualization's effectiveness. Make sure everything that needs a label has one and that all labels are easily identified with the corresponding data. Also, it's important to not over label. If something needs a label or the value of a data point is important to telling the story, then include a label to enhance comprehension. If not, leave the label out.

In this example, I want to highlight the final 1422 Evaluation Snapshot, which shows the comparison between the baseline and the Year 4 actual value and how we can visualize improvements. It also uses labeling to ensure that each bar in the graph is correctly labeled with the appropriate context and shows what the axis is measuring.

USE MEANINGFUL COLORS

- Use your organization's logo, style guide, or brand standards
- Use a single color to represent the same type of data
- Sufficient contrast between colors
- Select colors appropriately
- Be aware of colors that are color-blind friendly
 - www.colorbrewer.org

Use RGB codes to customize the colors for your data visualizations



The image shows a 'Colors' dialog box with a 'Standard' tab selected. It features a color wheel with a white crosshair, a vertical grayscale slider, and input fields for Red (76), Green (150), and Blue (150). There are 'OK', 'Cancel', 'New', and 'Current' buttons. To the left of the dialog is a text box with an arrow pointing to it, and above it are logos for the CDC and EPET.

Using meaningful colors could also be an effective method when developing visualizations.

When picking out colors, always consider the needs of your audience. Note that some individuals may be colorblind. You can find colorblind compatible color palletes at www.colorbrewer.org. Also consider whether or not your document will be printed in color or greyscale. Some colors, when printed in greyscale, look very similar, therefore making it difficult for your audience to see a clear indication from your visualization.

POLL QUESTION

- What data viz technique(s) do you use when you report your evaluation findings?
 - Simplify graphs
 - Visually highlight key findings
 - Use meaningful colors
 - Comparison
 - Labeling
 - Ordering
 - Other?

CHALLENGES WITH DATA VIZ

1. Causality
2. Reliability of data and information
3. Introducing new or unfamiliar visualizations to stakeholders
4. Understanding the connection between visualization and the evaluation purpose/question

Azzam et al. (2013). Data visualization and evaluation.

While data visualization may have the ability to improve communication of evaluation findings, evaluators should also keep in mind that using data visualization could present some challenges and limitations. The first limitation is related to causality. One of the greatest strengths of data viz is its ability to illustrate deliberate relationships. However, visualizations may easily mislead readers into thinking that relationships or patterns in data exist when in reality they do not.

The second limitation in developing data visualizations is the reliability of data used to create it. For instance, if data contain issues like missing values, unrepresentative samples, or other problems, then it is the evaluators responsibility to acknowledge those limitations transparently to avoid misleading stakeholders.

The third limitation of data visualization is related to introducing new or unfamiliar visualizations to stakeholders. Evaluators need to be thoughtful when introducing new types of visualizations to reduce audience frustration and misinterpretation.

Another limitation is related to understanding the connection between the visualization and the evaluation purpose/question. Evaluations often contain multiple data sources and analyses; however, not every analysis requires a visualization. In determining which

visualizations to create, an evaluator needs to be cognizant of the main evaluation questions and design visualizations that clearly support the answers to those questions.

HOW DO I KNOW IF I CREATED AN EFFECTIVE DATA VISUALIZATION?

Data Visualization Checklist

by Stephanie Evergreen & Ann K. Emery
Feb 2018

This checklist is meant to be used as a guide for the development of high-quality data visualizations. Take each aspect of the data visualization by giving the most appropriate number, when it pertains to the guideline and "N/A" means it was partially met, and "F" means it was not met at all. This should not be used frequently, but instead for when the guideline truly does not apply. For example, a pie chart has no axes lines or tick marks to rate. If the guideline has been met, independently make a point, note it in red and indicate that score from the next possible. Refer to the Data Visualization Analyzing Chart on the left page for guidance on vocabulary and the Resources at the end for more details.

Text	Guideline	Rating
Graphs don't contain much text, so leaving text out can improve your message and save space.	Use 12 word descriptive titles to help identify an upper-left corner. Short titles enable readers to comprehend takeaways messages even while quickly skimming the graph. Rather than generic phrases, use a descriptive sentence that summarizes the graph's findings or "so what?" Reader's cultures start reading in the upper left, so locate the title there.	2 1 0 N/A
	Subtitles and annotations provide additional information. Subtitles and annotations cut out text within the graph can add explanatory and interpretive power to a graph. Use them to answer questions a viewer might have or to highlight specific data points.	2 1 0 N/A
	Text size is hierarchical and readable. Titles and in-graph text are larger than annotations, which are larger than labels, which are larger than axis labels, which are larger than axis labels. Use at least 8-point text size on paper, or 10-point on screens.	2 1 0 N/A
	Text is horizontal. Titles, subtitles, annotations, and data labels are horizontal (not vertical or diagonal). Line labels and axis labels can deviate from this rule and still remain full points. Consider switching graph orientation (e.g., from column to bar chart) to make text horizontal.	2 1 0 N/A
	Data are labeled directly. Proximity alone helps read the data rather than in a separate legend (e.g., on top of or next to bars and next to lines). Dimensioned legends are possible because eye movement back and forth between the legend and the data can interrupt the quick attempts to interpret the graph.	2 1 0 N/A
	Labels are used sparingly. Excess annotation by removing the redundancy. For example, in line charts, label every other year on an axis. Do not add numbers labels "Year" use a year scale, since this is redundant.	2 1 0 N/A

Evaluation Report Layout Checklist

By Melissa D. D'Amico, PhD

This checklist is meant to be used as a diagnostic guide to identify elements of evaluation reports that could be enhanced using graphic design principles such as the combination of graphic design report features that could be used to form strong visual effects with these features.

Legend: F=Fully Met P=Partly Met N=Not Met

Type	Rating	Best Practice	Notes
Text titles are used for caption text.	F P N	Use titles. Nothing is better or greater than the audience. Nothing is better or greater than the audience on the right (2018).	Use only when needed. Consider location.
Language is in 11-point font.	F P N	Use 11-point font. Use 11-point font. Use 11-point font. Use 11-point font.	Why use and where are they? Consider location.
Body text has right-aligned text.	F P N	Use 11-point font. Use 11-point font. Use 11-point font. Use 11-point font.	Why use and where are they? Consider location.
Line spacing is 1.2 points.	F P N	Use 11-point font. Use 11-point font. Use 11-point font. Use 11-point font.	Why use and where are they? Consider location.
Headings and sub-headings are emphasized.	F P N	Use 11-point font. Use 11-point font. Use 11-point font. Use 11-point font.	Why use and where are they? Consider location.
Percentages 3 digits are used.	F P N	Use 11-point font. Use 11-point font. Use 11-point font. Use 11-point font.	Why use and where are they? Consider location.
References are slightly less than 1000 words.	F P N	Use 11-point font. Use 11-point font. Use 11-point font. Use 11-point font.	Why use and where are they? Consider location.

https://datavizchecklist.stephanieevergreen.com/assets/DataVizChecklist_Feb2018.pdf
<http://stephanieevergreen.com/wp-content/uploads/2013/02/ERIC.pdf>

So now that we touched on the potential impact of data visualizations in evaluation research and identified some examples, you may be wondering if there is a way to ensure you're creating an effective data visualization or report. Well, there are a number of ways to answer this question. First and foremost, is your audience receiving what you intended? If yes, then that's a good sign that you're meeting your goals.

Here you see two checklists that provide guidance on both data visualization and evaluation reporting. They were developed by Stephanie Evergreen and Ann Emery, two experts in data visualization and evaluation.

The data visualization checklist, on the left, walks through several components for effective reporting and data communication. The evaluation report layout checklist, on the right, focuses on organization reports using effective strategies that allow the reader to easily access the key findings and take-home points.

At the end of the day, there isn't one way to produce an effective evaluation and communicate data. It ultimately comes down to the combination of these strategies to communicate the needs of your unique data to your stakeholders' needs.

WHAT TOOLS DO I NEED?

- Microsoft Office programs:



- Software packages:



- Images and icons:

- www.iconfinder.com
- www.fontawesome.com
- www.thenounproject.com
- www.flaticon.com

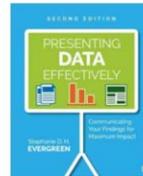
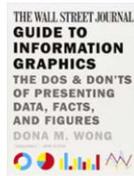


There are several tools and resources available that can aid in creating effective reports with data visualization that powerfully convey our evaluation findings and inspire stakeholders.

There are several Microsoft Office programs, like Excel, PowerPoint and Access) and software packages (Tableau, GIS, and R) that allow evaluators a bit more flexibility and customization when it comes to data visualization.

MORE RESOURCES!

- Data visualization experts and blogs:
 - <http://stephanieevergreen.com/>
 - <http://annkemery.com/>
 - <http://www.storytellingwithdata.com/>
 - <http://www.vizwiz.com/>
- Books:



I also wanted to point out a few websites from a few evaluation and data visualization experts that have great tips for developing effective approaches to communicating and disseminating your data. Including Stephanie Evergreen and Ann Emery's websites.

In addition, here are a few books that may be helpful for guiding straightforward approaches to effective presentation of data.

Evaluation Resources

Tip Sheet: Effective Evaluation Reporting¹

Engage Stakeholders



- ✦ Prioritize stakeholder evaluation needs
- ✦ Decide how best to communicate with stakeholders
- ✦ Involve stakeholders throughout evaluation process

Revisit Evaluation Purpose



- ✦ Draft clear purpose
- ✦ Revisit purpose if there have been changes to:
 - Stakeholders
 - Evaluation priorities
 - Intended users
 - Information needs
 - Program context

Define Target Audience



- ✦ Identify the target audience
- ✦ Identify their media/communication channels
- ✦ Ensure information is clear & culturally appropriate
- ✦ Consider how your audience may interpret the findings

Report Evaluation Findings



- ✦ Choose reporting format
- ✦ Pick best delivery mode (e.g. printed, verbal, electronic)
- ✦ Use active voice & avoid technical language
- ✦ Include graphics & illustrations
- ✦ Highlight important findings & next steps
- ✦ Comply with reporting requirements of funders

Disseminate Your Findings

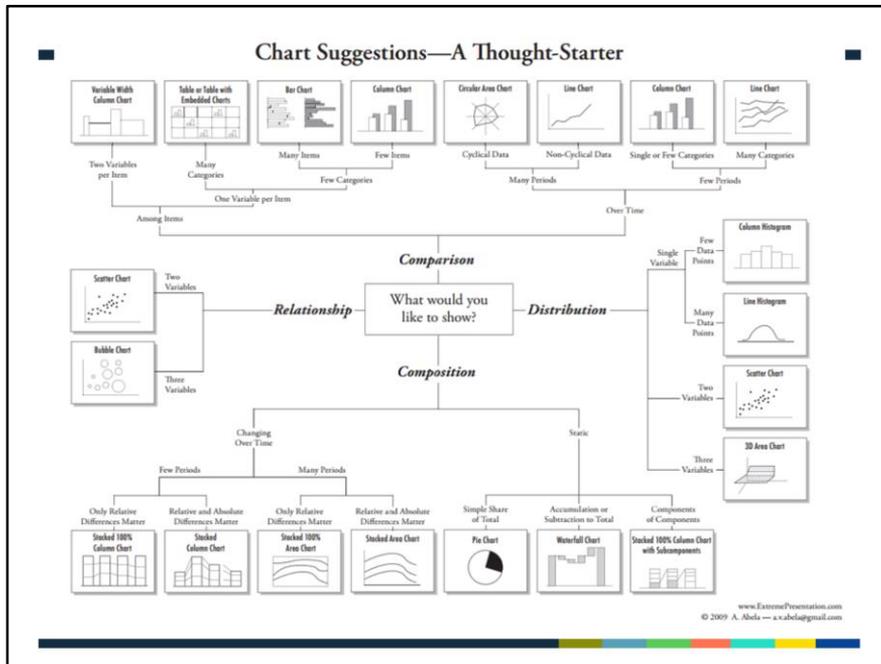


- ✦ Create a dissemination plan
- ✦ Assign someone to oversee plan implementation
- ✦ Take the current social & political situation into account
- ✦ Be aware of timing & frequency of dissemination products
- ✦ Stay involved through events & social media

¹ The full Evaluation Reporting Guide can be found here: http://www.cdc.gov/od/dsp/docs/Evaluation_Reporting_Guide.pdf


Evaluation and Program Effectiveness Team | Division for Heart Disease and Stroke Prevention

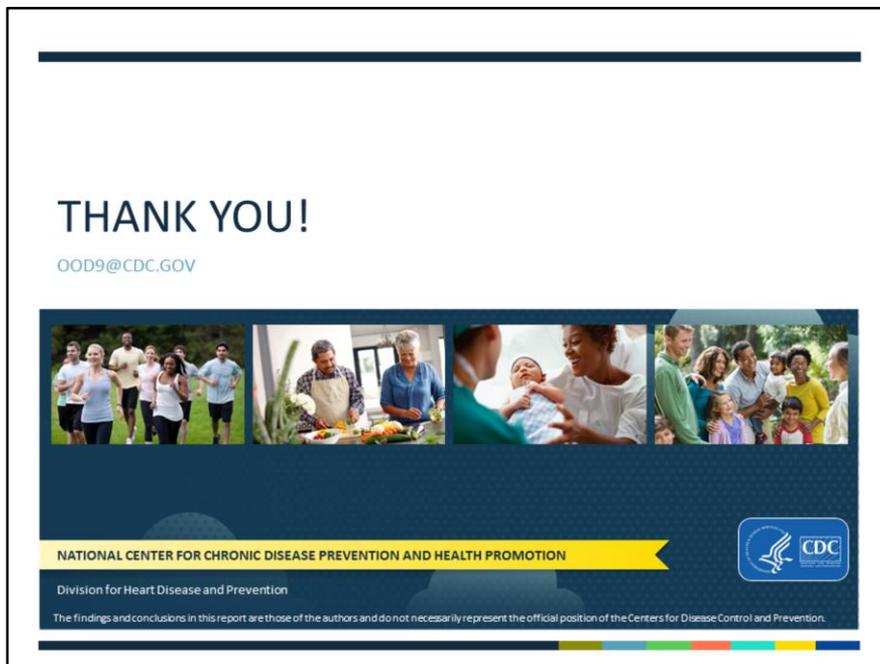

Here we have a tip sheet developed by the Evaluation and Program Effectiveness Team in DHDSP on effective evaluation reporting. It consists of several considerations to include when communicating evaluation results, like engaging stakeholders through the evaluation process, defining a target audience, and many more. For a more in depth dive into effective evaluation reporting, you can also find the full Evaluation Reporting Guide at the link on the screen.



Here is a helpful graphic by Andrew Abela from Extreme Presentations, which may be helpful when deciding what kind of charts and visualization tools to use to communicate evaluation findings for when you're working with quantitative data .

RESOURCES

- Azzam, T., Evergreen, S., Germuth, A. A., & Kistler, S. J. (2013). Data visualization and evaluation. In T. Azzam & S. Evergreen (Eds.), *Data visualization, part 1. New Directions for Evaluation*, 139, 7–32.
- Centers for Disease Control and Prevention. Evaluation Reporting: A Guide to Help Ensure Use of Evaluation Findings. Atlanta, GA: US Dept of Health and Human Services; 2013.
- Lowe Beasley, K. (2016). Strategies for effective reporting and data communication for evaluators. CDC DHDSP Coffee Break. https://www.cdc.gov/dhdsp/pubs/docs/cb_nov2016.pdf
- <http://stephanieevergreen.com/wp-content/uploads/2013/02/ERLC.pdf>
- https://datavizchecklist.stephanieevergreen.com/assets/DataVizChecklist_Feb2018.pdf
- <https://www.columnfivemedia.com/25-tips-to-upgrade-your-data-visualization-design>



Thank you all for your time and participation!

MODERATOR:

At this time, we'll take any questions but first we'll check to see if any questions have come in through the Q&A box.

If we have questions ask the questions posed by the attendees to the presenter

If we do not have questions, proceed with the script below

Since it appears that we have no questions at this time from the audience, we have some questions that we wanted to ask that might be insightful to our participants.

Question 1: What's a good way to get started in integrating data visualization techniques into evaluation reporting?

That's a great question and I wish there was one way to answer that. However, I think it often starts with understanding the purpose of the evaluation, the program and what your stakeholders' needs are. When you're creating deliverables or evaluation reports,

if you see an opportunity to highlight something that will catch the attention of your stakeholders, I think that's a great opportunity to use data viz to showcase those messages. There are also a lot of free software applications I mentioned, like Excel that produce really great visuals that can be a good starting point before purchasing another software application, to see if you even need to spend the money.

Question 2: What does the future of data visualization look like?

Well, I can't say for certain but the data viz space is ever evolving. There are constantly new data viz software packages and techniques coming on the market that will offer innovative approaches to displaying data. I believe it will continue to play a critical role in the evaluation process as well.

REMINDERS!

- All sessions are archived and the slides and script can be accessed at <https://www.cdc.gov/dhdsp/pubs/webcasts.htm>
- If you have any questions, comments, or topic ideas send an email to AREBheartinfo@cdc.gov

MODERATOR:

Thank you for your participation!

As a reminder, all sessions are archived and the slides and script can be accessed at our Division website at the link shown. Today's slides will be available in about 3-4 weeks.

If you have any ideas for future topics or questions, please feel free to contact us at the listed email address on this slide.

NEXT COFFEE BREAK

When: Tuesday, July 9, 2019

Topic: Rigorous Program
Evaluations: What Are They and
How Do I Conduct Them?

Presenters: Aisha Tucker-Brown
and Rachel Davis



MODERATOR:

Our next Coffee Break is scheduled for Tuesday, July 9th and is entitled Rigorous Program Evaluations: What Are They and How Do I Conduct Them?

Thank you for joining us. Have a terrific day everyone. This concludes today's call.