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CHRONIC DISEASE DIRECTORS
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**SME
Webinar**

Data Visualization: Telling the Story

Tuesday, July 14, 2026 | 1 pm EDT

What's On Your Desk: The Data Viz Challenge

INSTRUCTIONS:

Find an item on your desk that represents a data concept.

You have exactly **60 seconds** to grab one object on your desk that represents an **outlier** - something completely random, unexpected or quirky that stands out from your normal work tools.

GO! Type what you grabbed into the chat box.

Type what you grabbed into the chat box.

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The views expressed by speakers and moderators during this event do not necessarily reflect the official policies or views of the National Association of Chronic Disease Directors.

The “Enhancing Cancer Program Grantee Capacity through Peer-to-Peer Learning” project is supported by the Centers for Disease Control and Prevention of the U.S. Department of Health and Human Services (HHS) as part of a financial assistance award totaling \$525,000 with 100 percent funded by CDC/HHS. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by CDC/HHS, or the U.S. Government.



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Agenda



- Welcome and Introductory Remarks
- Data Visualization: Telling the Story
 - Dr. Sandte Stanley, NACDD
- Q&A
- Resources
- Upcoming Meetings: July 2026 Call Series
- Evaluation Poll
- Adjourn

Learning Objectives



- Understand the principles of effective data visualization and how they apply to communicating cancer screening program results.
- Identify common pitfalls and challenges in data visualization.
- Gain knowledge of best practices and available resources for creating accurate, meaningful, and audience-specific data visualizations.

Meet Abby Nellis!



Abby Nellis, MPH

Program Manager, Peer-to-Peer Program
National Association of Chronic Disease Directors



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Meet the Speaker



Sandte Stanley, PhD, MPH, MA

Associate Director of Evaluation

Evaluation Department

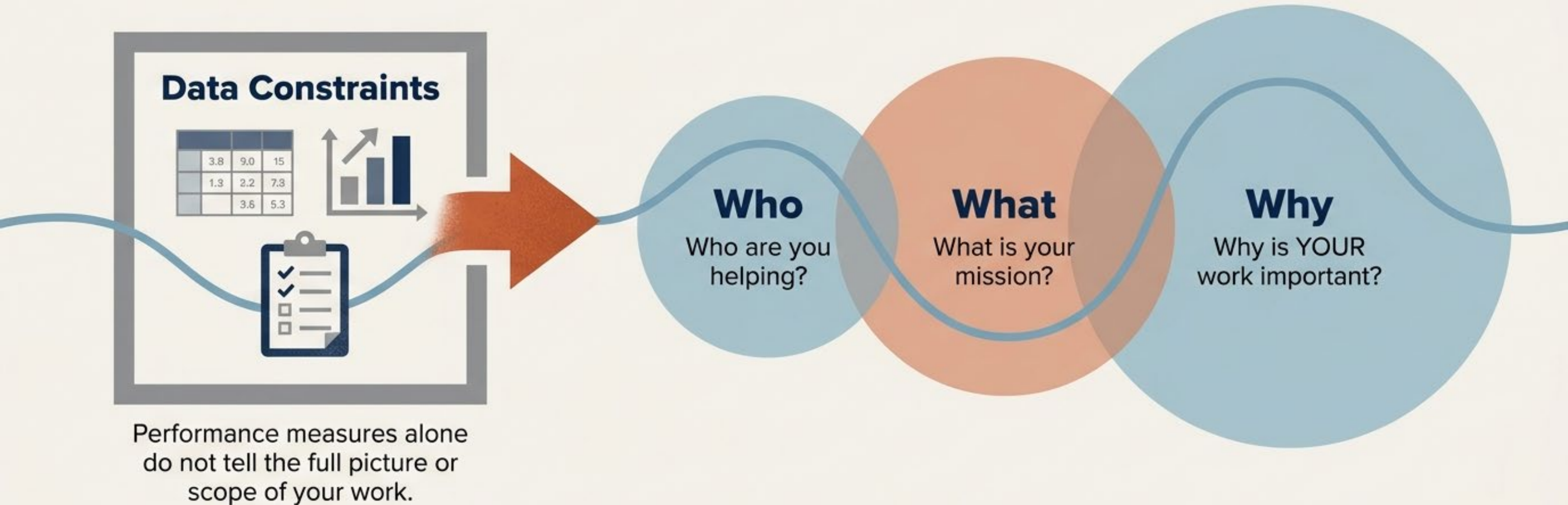
National Association of Chronic Disease Directors

Transforming Cancer Programmatic Data into a Storytelling Journey

Effective Data Visualization, Best Practices, and Application

Based on insights by Dr. Sandte Stanley, PhD, MPH, MA |
National Association of Chronic Disease Directors (NACDD)

Effective visualization starts with purpose, not just performance measures.



Putting everything together requires retaining your voice, story, and purpose, moving beyond just the prescribed metrics.

High-quality data is the essential bedrock of your storytelling journey.



Tailor your narrative tone and chosen medium directly to your audience.

		
Funders / CDC	General Public	Internal Teams
No-frills story.	Narrative story.	Comprehensive overview.
Direct and metric-driven.	Engaging and accessible.	Detailed and exploratory.
• Formal Reports • Concise 1-Pagers • Success Stories	• Webpages • Video Shorts/Reels • Photos • Audio	• Presentations • Callout boxes in internal reports • Charts/Figures

Pro Tip: A large, comprehensive report can serve as the foundational basis to generate all these smaller, targeted communication products.

Differentiate immediate program outcomes from long-term systemic impact

Outcomes (Short-Term Actions)

- ✓ Increased knowledge of screening recommendations
- ✓ Increased adherence to screening
- ✓ Patients successfully completed recommendations
- ✓ Increased access to screening for underserved populations

Impact (Long-Term Change)

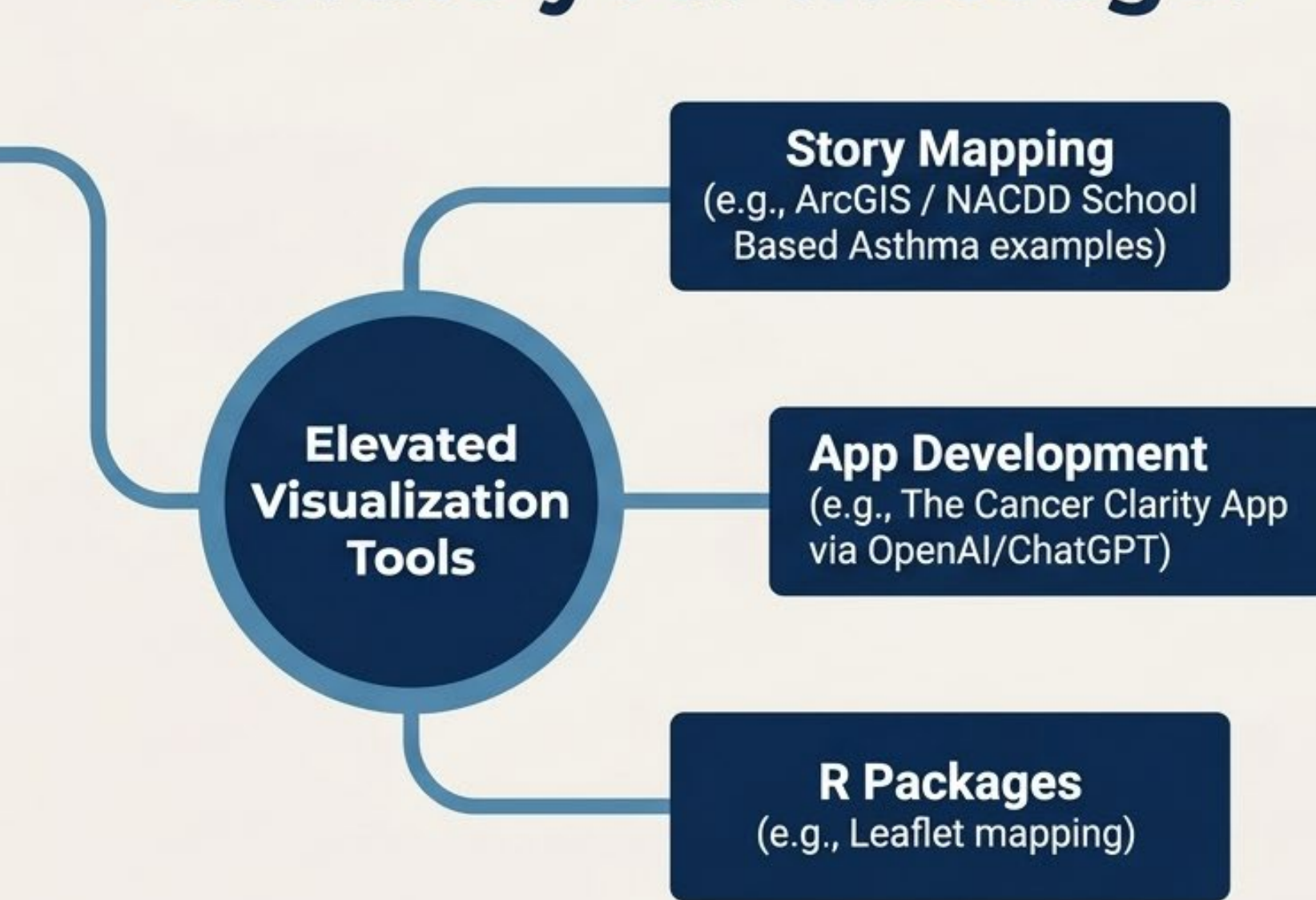
Reduced geographic & SES disparities in cancer outcomes

Improved survival rates

Increased early-stage diagnoses

Higher overall rates of screening

Leverage AI and interactive tools safely to elevate your message.



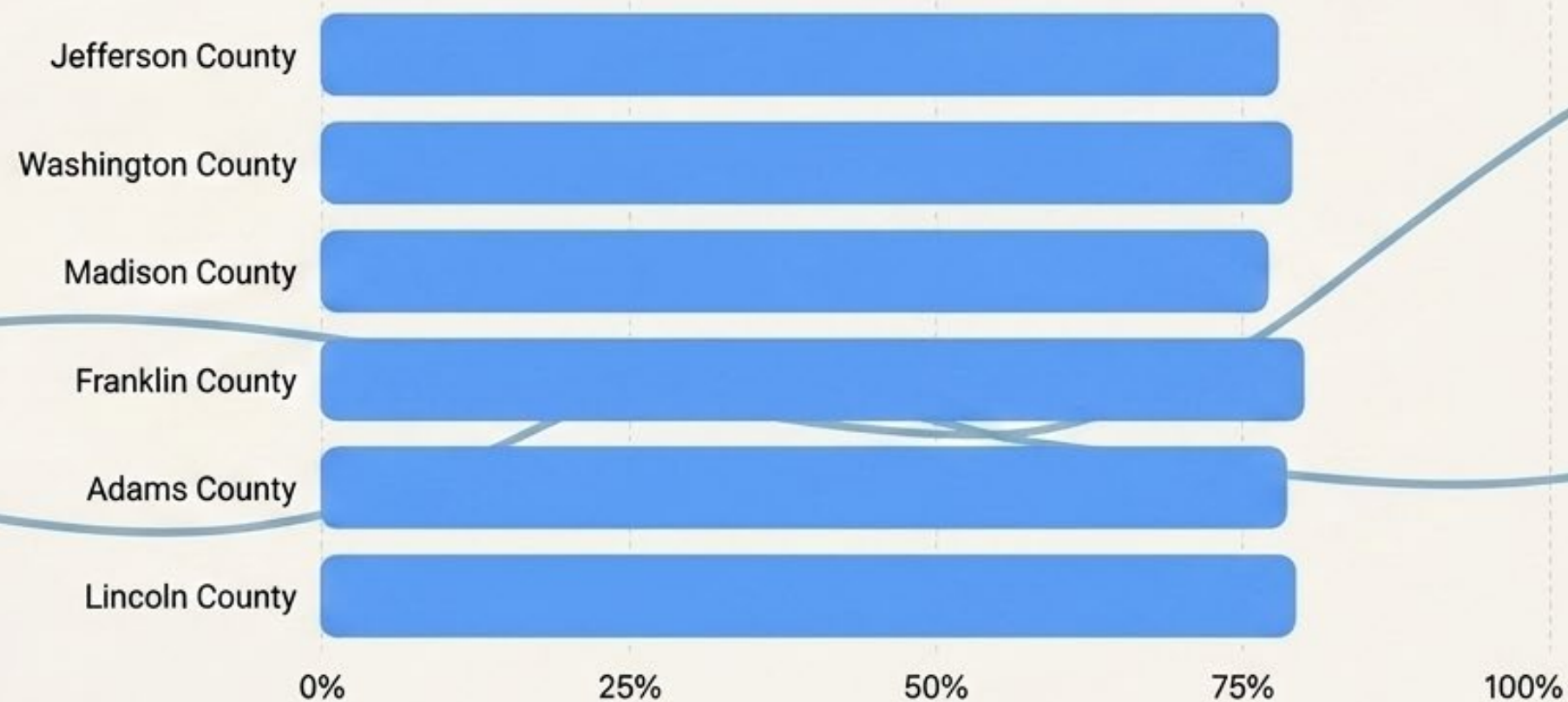
AI Dashboarding & Governance (e.g., Claude)

-  **Warning 1:** Ensure data governance policies are followed. Best practice is utilizing publicly available data.
-  **Warning 2:** Hallucinations happen—ALWAYS check the data manually.
-  **Warning 3:** Dashboard quality is directly dependent on the quality of your prompts.

Avoid common design mistakes that obscure your data's meaning.

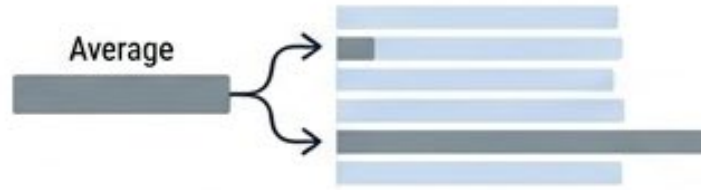
Breast cancer screening rates by county (Poor Example)

Example intentionally designed with common visualization mistakes.



Avoid common pitfalls that obscure the true meaning of your screening data.

⚠ Hiding Disparities



Using broad averages masks critical inequalities. Ensure your chosen chart types do not flatten the nuance of your populations.

⚖ False Equivalencies



Avoid combining disparate measures in one figure. Never mix process measures directly with outcome measures, and always distinguish between raw screening counts versus rates.

🔍 Unreliable Relationships



Parallel trends do not guarantee a direct relationship. Furthermore, drawing massive conclusions from micro-populations distorts reality.

🕒 Static Timelines



Failing to account for changes over time—or omitting contextual events that impacted the data—leaves your audience without the full story. Always highlight key takeaways.

TAKEAWAY

Use a rigorous final check to ensure your communication is clear and actionable.



Cognitive Clarity



Is the primary message immediately clear?



Are the titles and labels descriptive?



Would someone entirely unfamiliar with the project understand the message?



Visual Consistency



Is the layout clean and uncluttered?



Are fonts, colors, and formatting universally consistent?



Are the charts appropriate for the specific data?



Is the overall visualization accessible?



Actionable Impact



Are the data sources and exact time periods included?

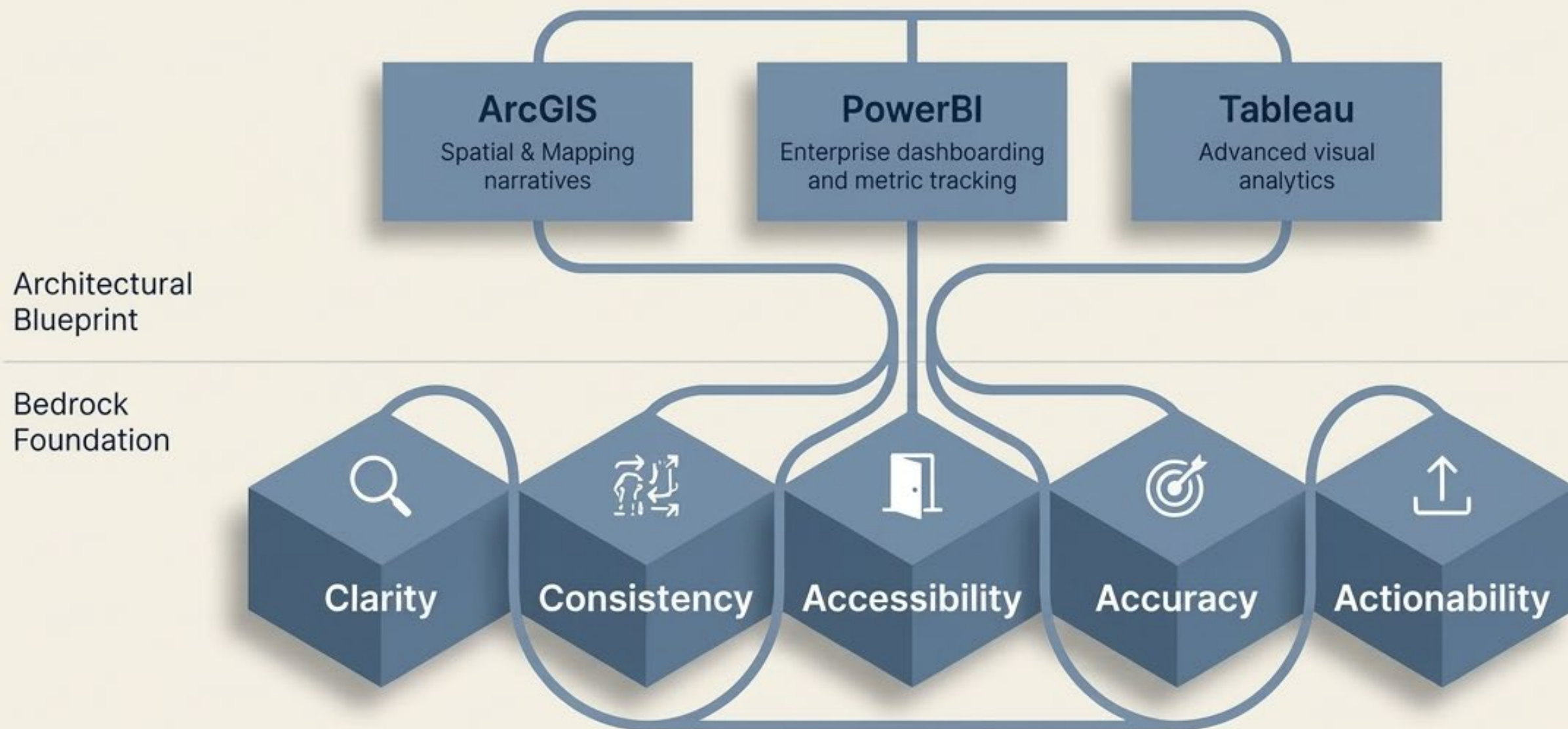


Are the most important findings visually highlighted?



Does the final product actually support decision-making?

Ground your storytelling in five core principles



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Q&A



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Presenting to Funders

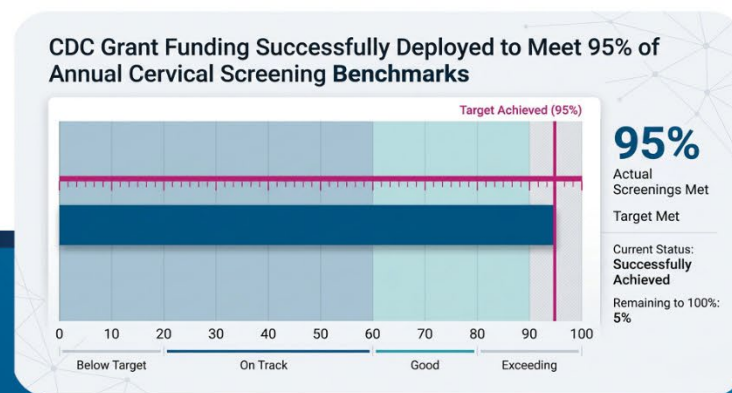
FOCUS: Compliance and Return on Investment

Funders want to see exact accountability, return on investment (ROI), and how effectively their resources are being deployed to meet grant benchmarks.

- **The Tone:** Formal, rigorous, and highly precise.
- **The Strategy:** Use structured data that emphasizes compliance, targets met, and fiscal responsibility. Use tables for multi-metric updates, and dual-axis charts to tie funding to outcomes.

Creative yet Professional Formats:

- **The Progress-to-Goal Tracker:** A clean, horizontal bullet graph (not a generic progress bar) that overlays actual screenings achieved against the formal grant target line.
- **The “Cost Per” Visual Matrix:** A simple grid layout pairing total expenditures alongside numbers served to clearly demonstrate a low cost-per-patient metric.
- **Sample Headline Title:** “CDC Grant Funding Successfully Deployed to Meet 95% of Annual Cervical Screening Benchmarks.”



Presenting to Leaders and Executives

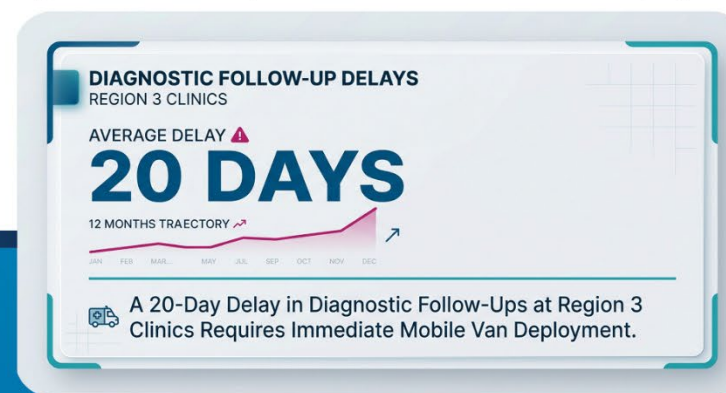
FOCUS: Strategy and Decisions

Hospital executives, state health officers, and board members have very little time. They need high-level overviews to make immediate, strategic operational decisions.

- **The Tone:** Objective, high-level, and action-oriented.
- **The Strategy:** Highlight systemic bottlenecks, operational efficiency, and regional gaps. Use color strategically to signal performance (e.g., gray for stable clinics, bright blue for an underperforming regional hotspot that needs resources).

Creative yet Professional Formats:

- **The Executive Dashboard Card:** A structured layout containing one massive key metric, a small trend sparkline showing the 12-month trajectory, and a single-sentence recommendation text block below it.
- **The 2x2 Priority Matrix:** A quad-chart mapping clinics by “Volume of Uninsured Patients” (X-axis) versus “Current Screening Rate” (Y-axis) to visually isolate which sites need immediate intervention.
- **Sample Headline Title:** “A 20-Day Delay in Diagnostic Follow-Ups at Region 3 Clinics Requires Immediate Mobile Van Deployment.”



Presenting to the General Public

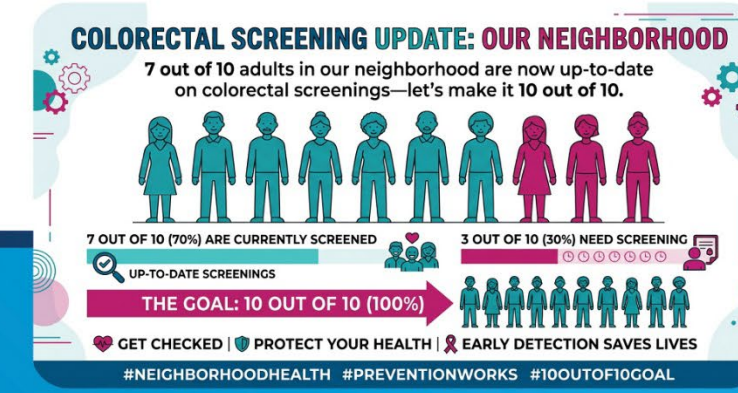
FOCUS: Awareness and Empathy

Community members, patient advocates, and local media need a human-centric approach. They will disengage from dense charts, complex statistical terms, and acronyms like NBCCEDP or CRCCP.

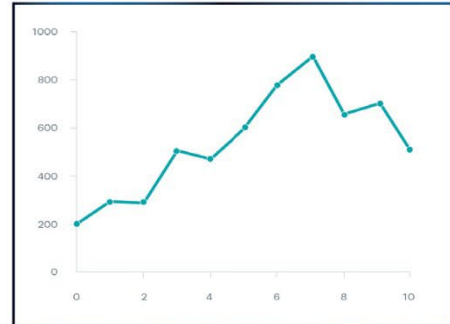
- **The Tone:** Warm, accessible, empowering, and easy to understand.
- **The Strategy:** Translate abstract percentages into real human lives. Avoid clinical or technical jargon. Focus on equity, community health, and hope.

Creative yet Professional Formats:

- **The Pictogram (Icon Array):** Instead of a pie chart, use a grid of 100 simple person-icons where 70 are colored in. It immediately communicates the message without requiring data literacy.
- **The Quote-and-Stat Split:** A visually striking split layout. On the left side, put a massive statistic. On the right side, place a brief, powerful quote from a patient whose cancer was caught early.
- **Sample Headline Title:** “7 out of 10 adults in our neighborhood are now up-to-date on colorectal screenings—let’s make it 10 out of 10.”

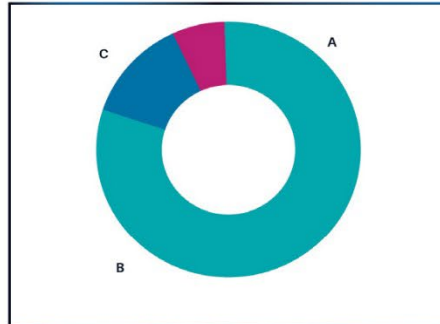


Line Graph



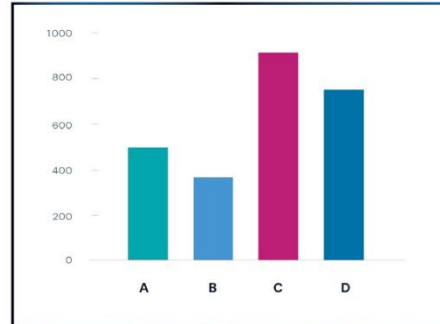
Series of data points connected by straight line segments.

Donut Chart



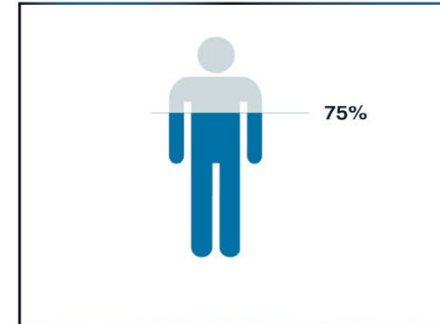
Identical to pie chart, but can be used to display more data in the center.

Bar Chart (Vertical)



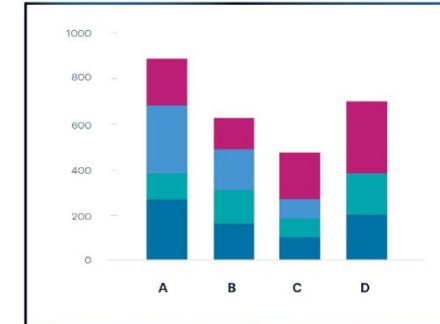
Visual presentation of qualitative data grouped into discrete categories.

Pictorial Percentage Chart



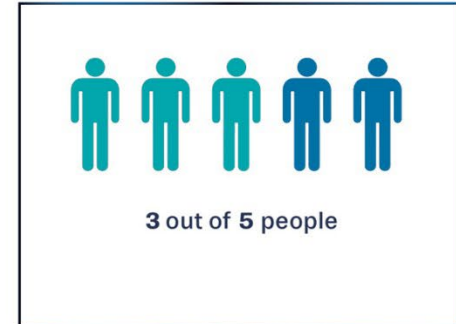
Simple way of displaying data using creativity, illustrations, typography, etc.

Stacked Bar Chart



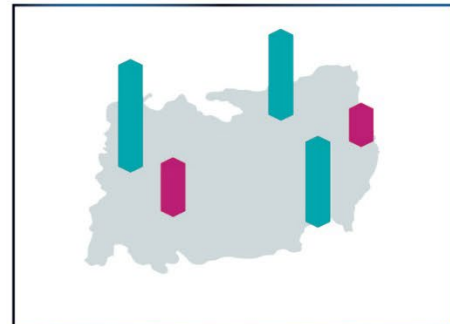
Multiple datasets on top of each other showing smaller data relation to total.

Pictorial Fraction Chart



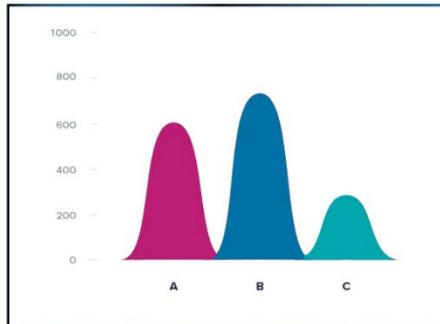
Uses pictograms (icons, pictures, illustrations) to show fractions.

Bar Chart on a Map



Useful for presenting geospatial data values to represent a city or location.

Curved Bar Chart



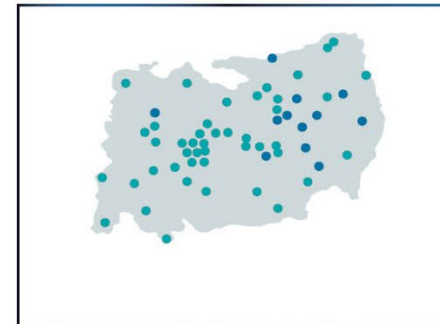
Height of each curved is proportional to the value; used in infographics.

Word Cloud



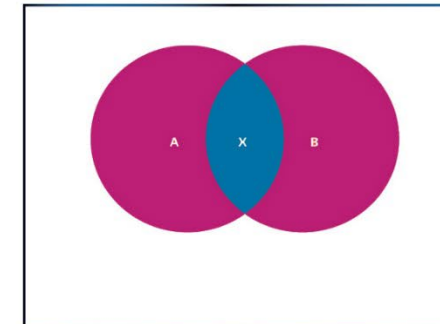
Visual representation of text data with size and color showing importance.

Dot Density Map



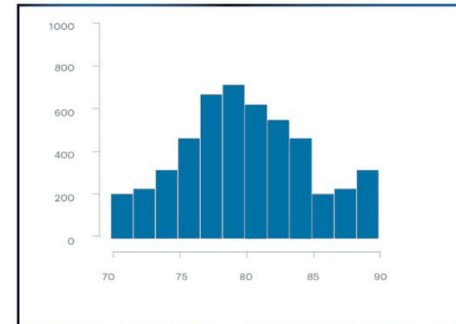
Uses a dot or other symbol to show a feature of phenomenon.

Venn Diagram



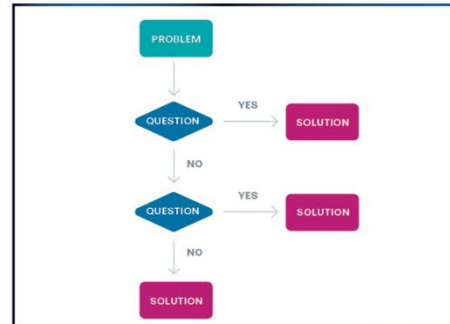
Shows set relationships between a finite collection of sets.

Histogram



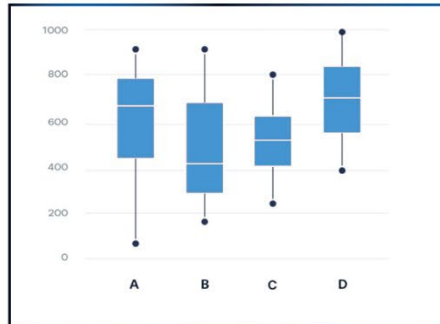
Groups numeric data into bins as segmented columns.

Flow Chart Diagram



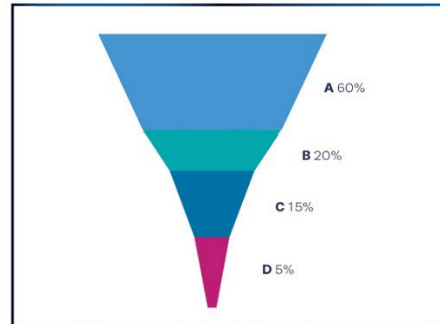
Represents a process or workflow showing a solution to a given problem.

Boxplot



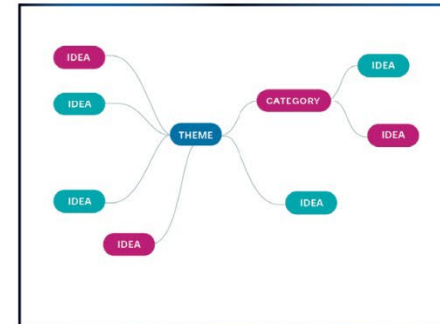
Graphically depicting groups of numerical data through their quartiles.

Funnel Chart



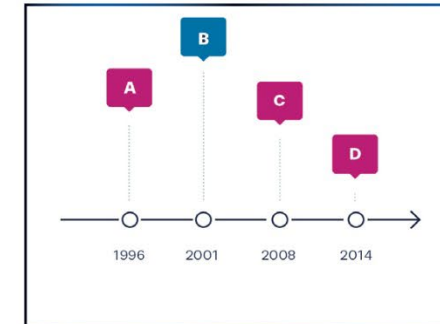
Shows streamlined data; each slice represents a process with filtered data.

Mind Map



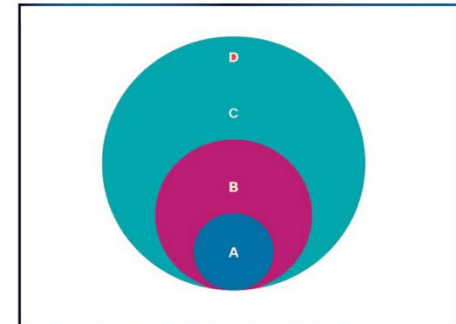
Used to visually organize information; created around a single concept/idea.

Timeline



List of events in chronological order on a scale or sequence.

Nested Proportional Area Chart



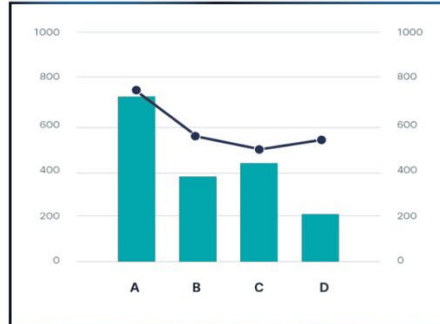
Used to compare proportions for a quick overview of the relative data size.

Gantt Chart



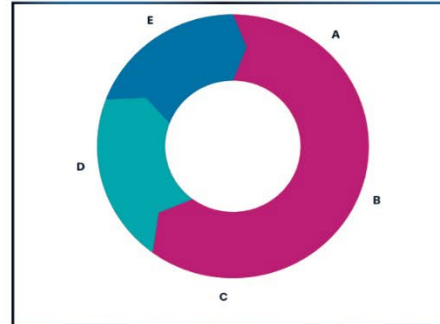
Illustrate the start and finish time in time period blocks.

Pareto Chart



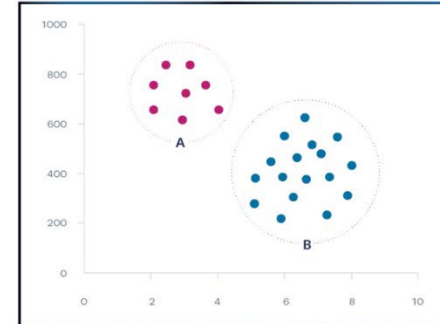
Highlight the most important thing among a set of factors.

Cycle Diagram



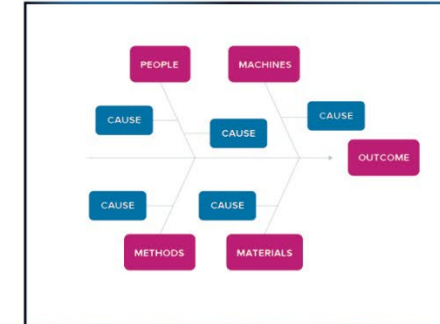
Shows how a series of events interact with no start or end.

Cluster Analysis



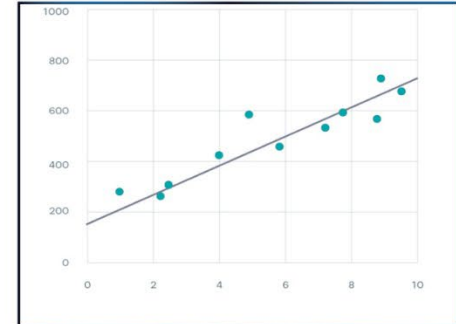
Grouping a set of objects in the same group.

Fishbone Diagram



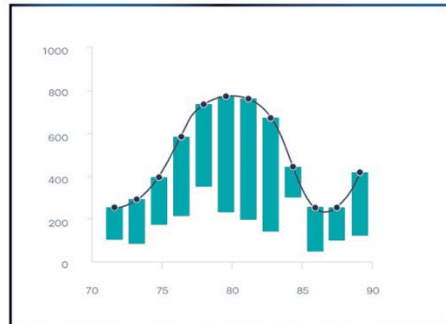
Show the causes of a specific event.

Trendline



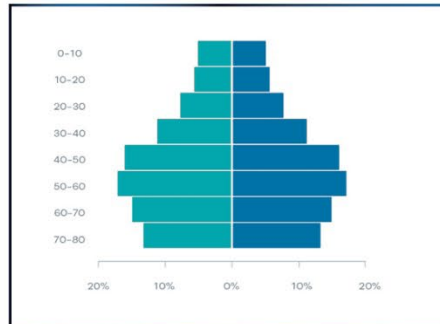
Show the general course or tendency of something.

Hanging Rootogram



Comparison of observed results from theoretical curve.

Population Pyramid



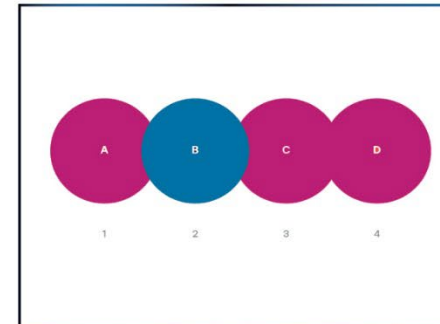
Shows the distribution of age groups; forms a pyramid when growing.

Parallel Coordinates



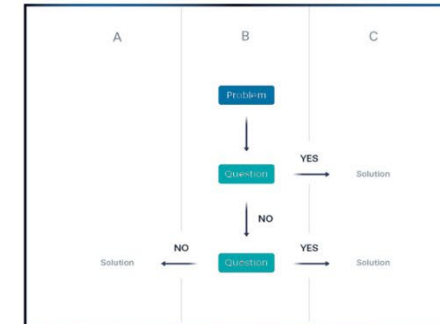
Visualizes high dimensional geometry and analyzing multivariate data.

Process Diagram



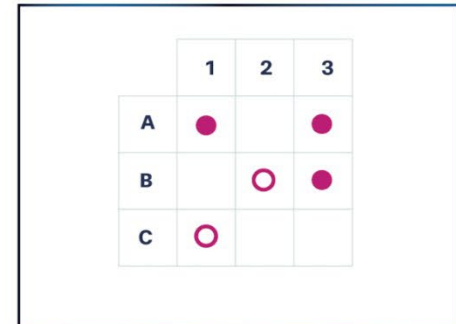
Displays a process with start and end point; visualized in many shapes.

Venn Diagram



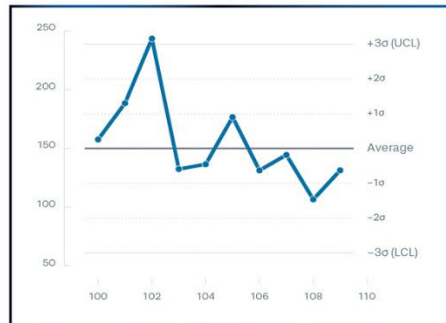
Documents steps or activities across boarder and to whom they belong.

Matrix Diagram



Shows the relationship, like strength or roles between items.

Control Chart



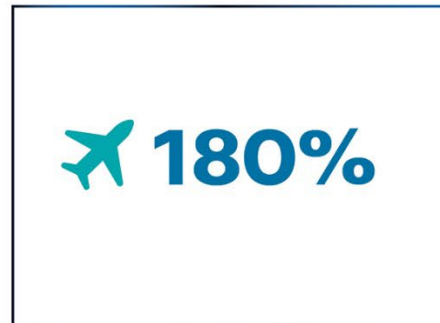
Line graph with control lines to monitor how the process behaves.

Solid Gauge Chart



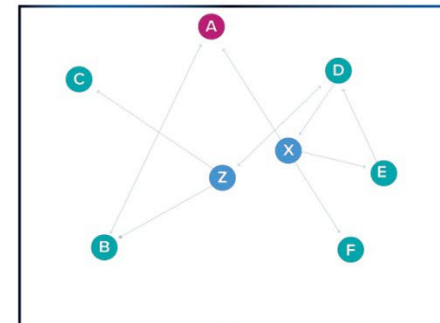
Useful for indication of index of if something is good/bad, high/low, etc.

Icon and Number



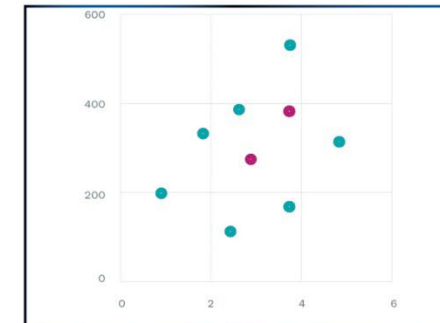
Used in infographics to emphasize a single data.

Sociogram



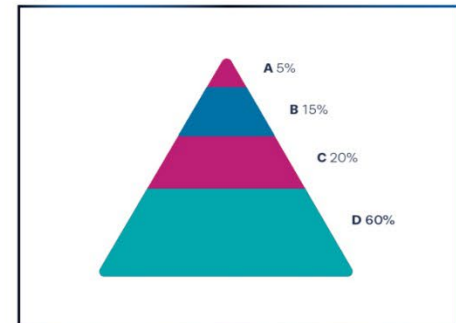
Social links that a person has; social relations, lines of communications.

Scatter Plot



Cartesian coordinates to display values for two variables for a set of data.

Pyramid Chart



Inverted funnel representing data as portions of 100% to represent a whole.



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Wrap Up Announcements

Upcoming Opportunities

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JULY 2026
Call
SERIES

Obtaining Reliable Data

NBCCEDP
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July 15, 2026
1 - 2 PM EDT

**West Coast &
Pacific Islands**

July 15, 2026
7:30 PM EDT
3:30 PM AKDT

NBCCEDP

July 16, 2026
11- 12 PM EDT

CRCCP

July 16, 2026
2 - 3 PM EDT

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Do You
Think?**

Help us improve!



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Thank you

Please complete the poll.

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