



to the QI BOOSTer Series Session #2

Thursday, May 20th, 2021

The session will be recorded for educational purposes, if there are any concerns with this, please send a direct message to Angie Semple/CfE BOOST (host)



Welcome and Introductions

We would like to begin by acknowledging that the land on which we gather is the unceded and traditional homelands of the Coast Salish peoples.

We also want to acknowledge that others may be joining from different traditional homelands today

ZOOM Control Panel







Thank you to all our funders and partners, including patient partners and family voices

The views expressed herein do not necessarily represent the views of Health Canada



Make Knowledge Powerful – Use Data Visualization to Drive Improvements

Thursday, May 20, 9:00-10:00AM PST

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CLEMENS M. STEINBÖCK

Introductions

Please chat in the following:

- Your name and agency
- What is the one tip or trick I want to learn about data visualization in this session?



Objectives

- Understand the importance of sharing data with your target audiences to generate momentum for quality improvement
- Learn strategies to prepare visually effective data reports
- Learn about simple quality improvement tools to present your performance data



Less is more effect

Which city is bigger?

- Study: testing of German and American students which cities in Germany and the US are larger
- Findings: American cities got 71% of American cities right and 73% German cities right
- Conclusion: a less knowledgable group often makes better or equal inferences than a more knowledgable group less knowledgable group



[Goldstein, Psychological Review 109, 75-90, 2002]



What's Wrong with this Picture?





What's Wrong with this Picture?

- There are too much data...
- Don't get distracted from all the noise focus on the core findings
- Set priorities you can not do everything!
- Communicate clearly tell folks what is important!



The Value of Data Visualization Video





What is Data?

- Data (n) (plural): Facts or information used usually to calculate, analyze, or plan something
- Remember:
 - Data are the improvement language!
 - Variation is the voice of the system!





What is Data Quality?

• Data is generally considered high quality if, "they are fit for their intended uses in operations, decision making and planning."

Joseph M. Juran





Key Points - Presenting Data

- A picture is worth a thousand words
- Design presentations that are easy to digest
 - What you <u>SEE</u> and hear sticks with you longer than what you just hear
- Design to Shine
 - Make an impression
 - Easy to understand
 - Should facilitate further discussion and decisions









What we want to avoid......





Find a Balance between Measurement and Improvement





Tools to Analyze Data

- Run Chart
- Histogram
- Pie Chart
- Pareto Diagram



Run Chart





Run Chart





Histogram









Stages of Coping with Data (Don Berwick)

Stage I: "The data are wrong...."
Stage II: "The data are right, but it's not a problem..."
Stage III: "The data are right, it's a problem, but it's not my problem..."
Stage IV: "The data are right, it's a problem, it's my problem..."

Basic Tips for When Reviewing Data Graphs

- Understand the numerator and denominator of the indicator
- When you look at a percentage, ask for the "n," the number of cases involved
- Keep in mind, a significant data trend is defined as 8 data points in one direction
- Pay attention to units and scales to avoid misinterpretation



Options for Actions



- Do nothing!' if results are within expected ranges and goals, frequently repeat measurement
- 'Take Immediate Individual Action' followup on individual pts (missed appointments, pts not on meds, etc.) and/or provider
- 'Quick PDSA' develop a quick pilot test
- 'Launch QI Project!' set up a crossfunctional team to address identified aspects of chronic care





"While deciding what to measure and how to measure it are important challenges, an equally important challenge lies in determining the appropriate reaction to the measurement once we have it."

Paul E. Plsek



'Death by Slides' – Edward Tufte

- Average data points/numbers per graph:
 - 120 in New York Times
 - 53 New England Journal of Medicine
 - 12 PowerPoint graph
- 100-160 spoken words per minute vs 15 words per slide
- To show content PowerPoint templates use on 30%-40% of the space available on a slide



Military parade, Stalin Square, Budapest, April 4, 1956.







A PowerPoint diagram meant to portray the complexity of American strategy in Afghanistan succeeded in that aim. Upon seeing it, Gen. Stanley A. McChrystal said, "When we understand that slide, we'll have won the war," an adviser recalled.

We Have Met the Enemy and He Is PowerPoint Parties Dig In

By ELISABETH BUMILLER

WASHINGTON - Gen. Stanley A. McChrystal, the leader of American and NATO forces in Afghanistan, was shown a Power-Point slide in Kabul last summerthat was meant to portray the complexity of American military strategy, but looked more like a howl of spaghetti.

"When we understand that slide, we'll have won the war," General McChrystal dryly remarked, one of his advisers recalled, as the room erupted in laughter.

the Microsoft presentation program of computer-generated charts, graphs and bullet points, has made it a running joke in the Pentagon and in Iraq and Afghanistan.

"PowerPoint makes us stupid," Gen. James N. Mattis of the Marine Corps, the Joint Forces commander, said this month at a military conference in North Carolina. (He spoke without Power-Point.) Brig. Gen. H. R. McMaster, who banned PowerPoint presentations when he led the successful effort to secure the north-The slide has since bounced ern Iraqi city of Tal Afar in 2005,

near obsession. The amount of General McMaster said in a teletime expended on PowerPoint, phone interview afterward. "Some problems in the world are not bullet-izable."

In General McMaster's view, PowerPoint's worst offense is not a chart like the spaghetti graphic, which was first uncovered by NBC's Richard Engel, but rigid lists of bollet points (in, say, a presentation on a conflict's causes) that take no account of interconnected political, economic and ethnic forces. "If you divorce war from all of that, it becomes a targeting exercise," General McMaster said. Commandern say that behind

all the PowerPoint jokes are seri-

On Reform Bill For Wall Street

By DAVID M. HERSZENHORN and EDWARD WYATT

WASHINGTON - Senate Republicans, united in opposition to the Democrats' legislation to tighten regulation of the financial system, voted on Monday to block the bill from reaching the floor for debate. As both sides dug in, the battle has huge ramifications for the economy and for their political prospects in this year's midterm elections.



27

Data Visualization

space required to transport 60 people





Viral Load Every 6 Months

Indicator Definition: Percentage of eligible patients who had a VL during each 6month interval (n = 11,131 eligible NYS patients in 2007)

Key Findings:

- Consistently high; no improvement since 2003
- Over 50% of NYS sites scored above 90%





ehivqual

HIV Quality of Care Program Substance Use Management

Review Period: 1/1/2008	- 12/31/2008	CD4: ALL	VL: ALL	Gender: ALL
Sample: Eligible Only	Age: ALL	State: ALL	Race: ALL	Risk: ALL
Program: ALL		On ARV: All Inclusive	Funding: ALL	Facility: ALL

Patients in Sample: 71



Data, the other way... (2007)

- Out of 11,131 pts with 2 or more annual medical visits, 614 pts did **NOT** have a documented VL during the last 6 months of the year (5.5%)
- Based on a sample of 2,209 pts with a CD4 count less than 200, 246 pts were NOT on PCP prophylaxis (11.1%)
- 1,313 out of 4,269 female patients did NOT receive a GYN exam last year (30.8%)



TOT Participants by Zip Code (n=299) ASKA Fairbanks al LUUM Regina O N ARIO Charlottetown т Winnipeg N.B. Thunder ng Sea Bay ASHINGTON Gulf of Alaska MONTANA **Montréal** MINNESOTA lena NORTHDAKOTA Portland lugusta Ottawa Duluth Bismarck Concord Great **IDAHO** Boston Syra OREGON Sheridan inneapolis Lales Toronto, MICHIGAN WIS. SOUTH DAKOTA Sioux Boise WYOMING NEW YORK Fals Intford Mwaukee Detroit н New York Daff в Chicago Reno hiladelphia Omaha Chevenne NEBR. Lake City NEVADA Indianapolis Columbus whington, **henver** UTAH **ILLINOIS** W. VA. Kansas 🖓 Honolulu Virginia Beach COLORADO St. Georg St. Louis **KENTUCKY** KANSAS Rocky Mountains Atlantic CALIFORNIA Wichita Las Vegas Santa Fe Nashville Ocean Oklahoma City emphis Los Angeles ARIZONA OKLA. San Diego Phoenix cific Ocean ARKAN NEW MEXICO **Jiants** G A. Savannah lackson AL ABAMA Jacksonville TEXA toble allaha Austin Hermosillo Tampa Houston Cluded Obregón FLORID Chihuahua Antonio Nassau liomi. Monciova. Hidaigo del Parral THE BAHAMAS Culacán ۲ Monterrey Satilo Isabela Ca San Juan San Seb evita Carolina Utuado Hormigueroe

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PUERTO RICO (U.S.) Guayama

Cabe R

Humacal

Cayer

First Regional Workshops

First Onsite TA Consultation

First Exhibit First Steering Meeting

200

2005

Sept

Initial Meeting with HAB in DC Initiation of IHI/NQC website First Consumer Advisory Meeting Initiation of National TA Calls

	San Juan Part A		Ponce Part A		Caguas Part A		Puerto Rico Part B	
	April 19	June 20	April 19	June 20	April 19	June 20	April 19	June 20
Written Quality Management Plan	•	•	•	•	•	•	•	•
QI Committee	•	Ŧ	t	t	•	•	•	•
Consumer on Committee	•	Ð	•	Ð	•	Ð	•	÷
Quality Indicators	•	+	•	t	•	•	•	•
QM Required in Subcontracts	•	t	•	•	•	t	•	•
Organizational Assessments Conducted	•	÷	•	÷	•	÷	•	÷
Participation in QM Workshops	•	t	•	t	•	t	•	+
QM Trainings for subcontractors	•	•	•	+	•	+	•	+
Participation in NQC TOT	•	+	•	t	•	+	•	+







Cost of Food Pantry Selection Using the USDA 2005 Dietary Guidelines for Americans for a Los Angeles County Food Pantry System Serving Low Income People with HIV Infection

Marcy Fenton MS RD,¹ Janelle L'Heureux MS RD,² Miriam R Cohen MS RD,³ Janejira Asvatanakul⁴

¹Office of AIDS Programs & Policy, Los Angeles County Department of Public Health, Los Angeles, CA, ²Necessities of Life Program, AIDS Project Los Angeles, Los Angeles, CA, ³Consulting Dietitian, North Hollywood, CA, ⁴Department of Nutrition, Case Western Reserve University, Cleveland, OH



BACKGROUND

Documenting the nutritional value of emergency food is necessary in the initial stage of food system change.¹

In 2006, the Los Angeles County Commission on HIV approved Standards of Care (SOC) to establish minimum quality expectations for food particles funded by the Office of AIDS Programs and Policy serving geople with HIV infection (PWH). One standard specified that food provided meet at least 50% of the 2005 USDA Dietary Guidelines for Americans (DGA) at the 2,000-calorie level. Adjustments were made for increased protein and for AC rioh fruits.

AIDS Project Los Angeles (APLA), providing groceries to PWHI for over 20 years, adopted the SOC in 2006. APLA pre-bags groceries for over 2300 eligitile clients at nine food pantry sites in Los Angeles County. Clients may receive food once a week, four weeks a month. APLA procures donated and purchased food via:

Food drives

- Los Angeles Regional Food Bank
- Emergency Food Assistance Program
- USDA commodities
- Local food purveyors

OBJECTIVES

 -Verify if APLA met the SOC that food provided meet at least 50% of the 2005 USDA Dietary Guidelines for Americans (DGA) at the 2,000-calorie level and at what food cost.

METHODS

 Nicrosoft Excel spreadsheets were developed to catalog
 Northly food lists according to DGA food groups, subgroups, & selected nutrients
 Costs of purchased food

Three food lists were determined to be evaluated:

-A: one month in 2005, randomly selected before the SOC was adopted
 -B: two months in 2008 randomly selected after the SOC was adopted and averaged

-C: adjustment of B to ketter meet the SOC

 The USDA Food Buying Guide for Child Nutrition Programs was used to determine the edible portion of foods provided.

 Food lists were analyzed using The Food Processor SQL version 10.5 (ESHA Research).

 Costs of food purchased by APLA were collected from computerized inventory and invoice records. Food cost was assigned zero dollars if donated.

Additional comparison were derived from:

 -Retail costs for food lists B & C collected and averaged at 3 to 5 stores commonly used by APLA clients in 2009.
 -Monthly Cost using the "thrifty plan" for males (20-50 years) in Official USDA Food Plans: Cost of Food at Home Four levels, US Average, June 2005 & June 2008.



Figure 1. % SOC met for food groups and subgroups, A, B, & C Meeting goals for food lists A & B was inconsistent and better met for food list C



-Calories remained relatively equal +Higher amounts of cholesterol, sodium, and saturated fat were found in A & B compared to C -A & B contained protein exceeding the SOC, and included more convenience and processed foods



Figure 4. Percent of food dollars spent, B Largest expenditures in 2008 were for (1) high quality protein, \$10.96; (2) dairy, \$5.75; (3) other vegetables, \$3.24; and (4) fruits that are excellent sources of vitamin A and/or C, \$3.16.

\$111.00 \$104.78 \$100.00 \$80.00 \$72.05 APLA Costs \$60.00 Average Retail Costs CAR I USDA Thrify Food Plan (50%) \$40.00 \$22.42 \$22.0 \$20.00 \$0.00 Food List B c А Figure 3. Monthly estimated costs of food for APLA, retail in 2009

RESULTS

Figure 3. Monthly estimated costs of food for APLA, retail in 2009 dollars, and 50% Thrifty Food Plan for males 20-50 years, June 2005 for males 19-50, June 2008

Yearly estimated food costs to APLA are - B: \$384.24 per individual and \$883,752 for 2,300 clients - C: \$547.44 per individual and \$1,259,112 for 2,300 clients, an additional \$375,360 per year. -At maximum food expenditure of \$883,752 per year, only 1614 clients (704) sould receive food meeting SOC



Figure 5. Percent of food dollars spent, C Largest expenditures to better meet the SOC would be for (1) dairy \$17.02; (2) other finits, \$6.10; (3) high quality protein, \$5.81; and (4) finits that were excellent sources of vitamin A and/or C, \$4.76

	A % SOC	B % SOC	C % SOC	B % cost	C N cost
Whole grains	0%	9%	100%	1%	6%
Grains, other	453%	315%	108%	2%	0%
Fruits A/C	115%	70%	101%	10%	11%
Fruits, other	162%	36%	102%	8%	14%
Vegetables, dark green	64%	97%	101%	4%	4%
Vegetables, orange	161%	54%	101%	1%	1%
Legumes	100%	88%	98%	3%	3%
Vegetables, starchy	72%	91%	101%	5%	4%
Vegelables, other	266%	221%	104%	11%	3%
Dairy	56%	43%	102%	19%	37%
Protein, high quality	103%	267%	107%	36%	13%
Protein, mixed other	31%	19%	99%	2%	4%

Table 1. Percent SOC met for A, B, & C by food category, and percent of total food dollars spent by food category for B & C.

CONCLUSION

 APLA did not meet SOC goals for all categories, koth nutrients and food groups and subgroups after adopting it

 APLA provides its clients economical value and nutrition support through its ability to procure food through various means

 The SOC reflects quality of food provided and not just the quantity of food provided.

Barriers in purchasing and procuring food to meet SOC include:
 Budget constraints

-Changes in prices, i.e., sharp increase in the cost of milk in 2008 -Changes in availability of foods

 Clientele with limited cooking capability and personal preferences for convenience items

 Menu planning may increase ability to better meet SOC within budget constraints
 The SOC can guide APLA to focus time, money and energy to procure foods that meet the SOC and assist PWHI to meet the DGA

RECOMMENDATIONS

 Contrast percent of SOC with current spending by food category to redistribute spending from categories that exceed the SOC to the categories that are below the SOC.

 Monitor that foods provided meet the SOC through ongoing nutritional analysis
 Incorporate best practices to purchase, receive, store, inventory, distribute, and coordinate costs with menu planning

CONTACT INFORMATION

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Lessons Learned about Data Reports



- Tell a story 'designer formats will not salvage weak content'
 - Summarize major points you want to make
 - Use color to highlight key findings
 - Avoid technical jargon/define unfamiliar terms

Know your audiences and their data needs

- Plan data display with key stakeholders
- Use different graphs for different audiences
- Post graphic displays in hallways and waiting rooms for staff/patients



Lessons Learned about Data Reports



- Be aware we all have a different data literacy
 - Define each indicator
 - Label charts and tables clearly (show 0% to 100%)
 - Identify data source(s) and dates
 - Stratify data by demographics/other characteristics
 - Note limitations

• Find balance: simple messages vs complex data

- Begin analyses with questions/hypotheses
- Limit the display to the points you need to make
- Provide handouts with more data points
- Provide comparisons over time, benchmarks, established targets



Key Lessons Learned

- Allow audience to absorb data and graphs
- Watch out for defensiveness
- Watch out for paralysis by analysis
- Rotate the functions of data reporting among staff
- Share reports at QM committees and at staff, provider and consumer meetings
- Share detailed data report, if needed



Key Lessons Learned

- Stratify statewide data by race/ethnicity, region, etc.
- Develop individual provider reports to share data and compare with aggregate statewide data
- Show not only mean/median, but top 25%, bottom 25%, etc.
- Use maps and other pictorial strategies
- Consider blinded vs. unblinded data reports

Aha! Moments and Reflections



Contact Information

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Link in Chat



THANK YOU!

CONTACT US: boostcollaborative@bccfe.ca

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