

# Using Program Evaluation Data for Continuous Quality Improvement (CQI)

CHRISTOPHER DUCKWORTH, MPH  
KENTUCKY INITIATIVE FOR COLLABORATIVE CHANGE  
VICTORY OVER VIOLENCE CONFERENCE  
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CHRISTOPHER.DUCKWORTH@EKU.EDU



# Purpose

To gain an understanding of the continuous quality improvement process and expand your practical understanding of data utilization for CQI.

# Participants Will Learn:

- The key components of an effective CQI process
- What types of program evaluation data are available to facilitate CQI in systems of care
- Where to begin:
  - Data Literacy
  - Data-Driven Decision Making
- Strategies for developing and implementing a CQI assessment process in any program

# Continuous Quality Improvement

CQI is . . .

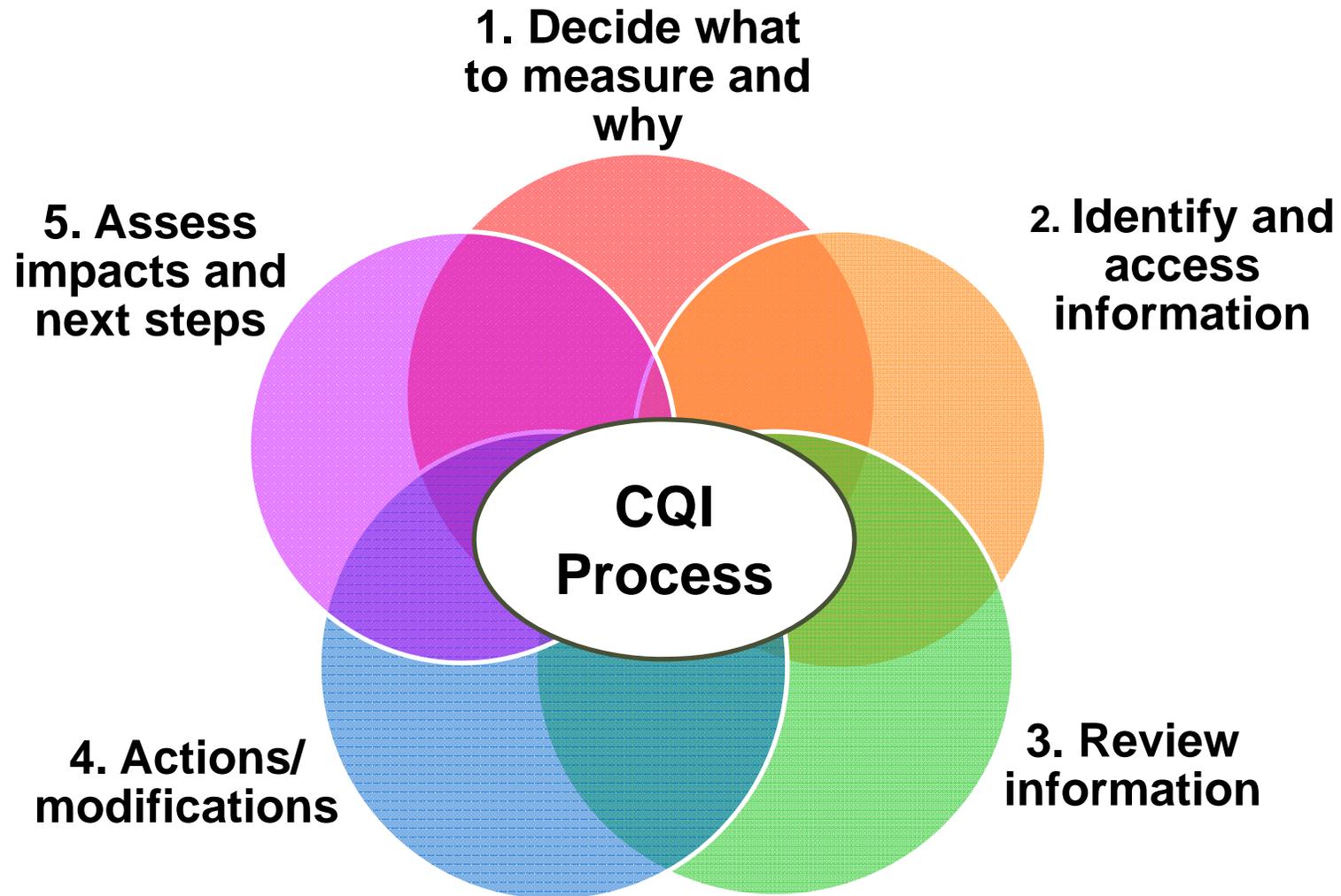
- A process for making quality improvements
- A means of using data to assess progress on specific goals
- An ongoing activity

# Continuous Quality Improvement

CQI is **not** . . .

- Just any kind of random change to improve things
- Just evaluation by another name
- A one-time activity

# A Model for CQI



# Decide What to Measure and Why

- Who should be involved?
- What are our goals?
- How will we know if we are meeting our goals?
- What do we want to know and why?
- How do we get buy-in to CQI?

# Identify and Access Information

- Who should be involved?
- What information do we already have?
- What other information do we need?
- How can we access existing information?
- What types of data would be most useful?

# Review Information

- Who should be involved?
- What are we looking for in the data?
- How do we translate findings into recommendations?
- How can we communicate results to decision makers?
- What is the most effective way to present data?

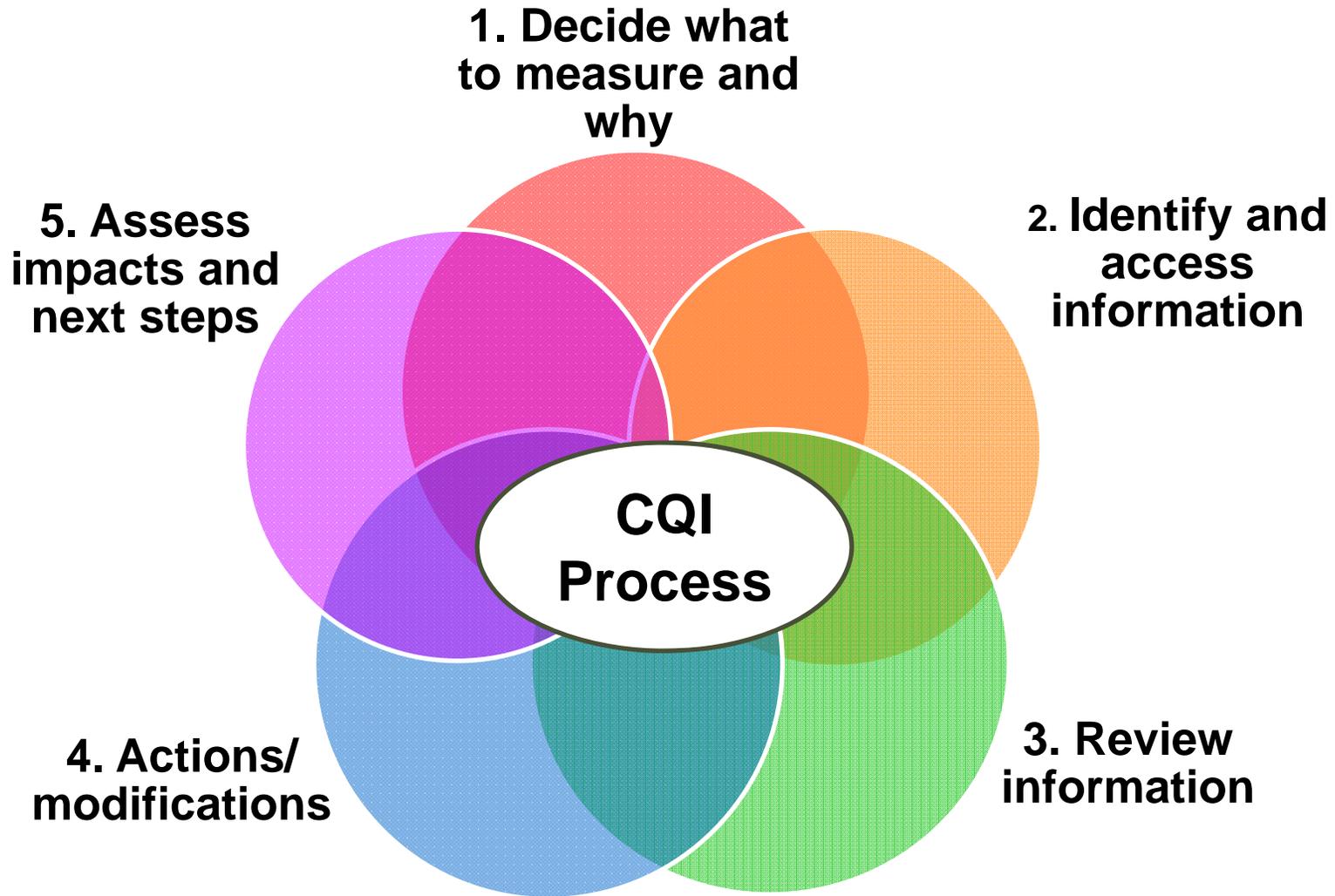
# Actions / Modifications

- What changes are needed?
- Who can make the changes?
- When will the changes be made?
- What sort of technical assistance support would be helpful?
- How will we know whether the changes worked?

# Assess Impacts and Next Steps

- Are changes made having the desired effects?
- What additional changes are needed?
- When is something “good enough”?
- Is the overall CQI process effective?
- How can the process be improved?

# Remember This Model for CQI



# Fears

- We will find out that I am doing a bad job.
  - CQI doesn't focus on individual people—it is concerned with improving processes.
- We will learn that our program doesn't work.
  - Not likely—however, you may learn how to make your program work better.

# More Fears

- Not all things that matter can be measured.
  - True, so we won't waste time measuring those things.
- We will waste money on a passing fad.
  - CQI has been working very well for many decades, and it will save money in the long run.

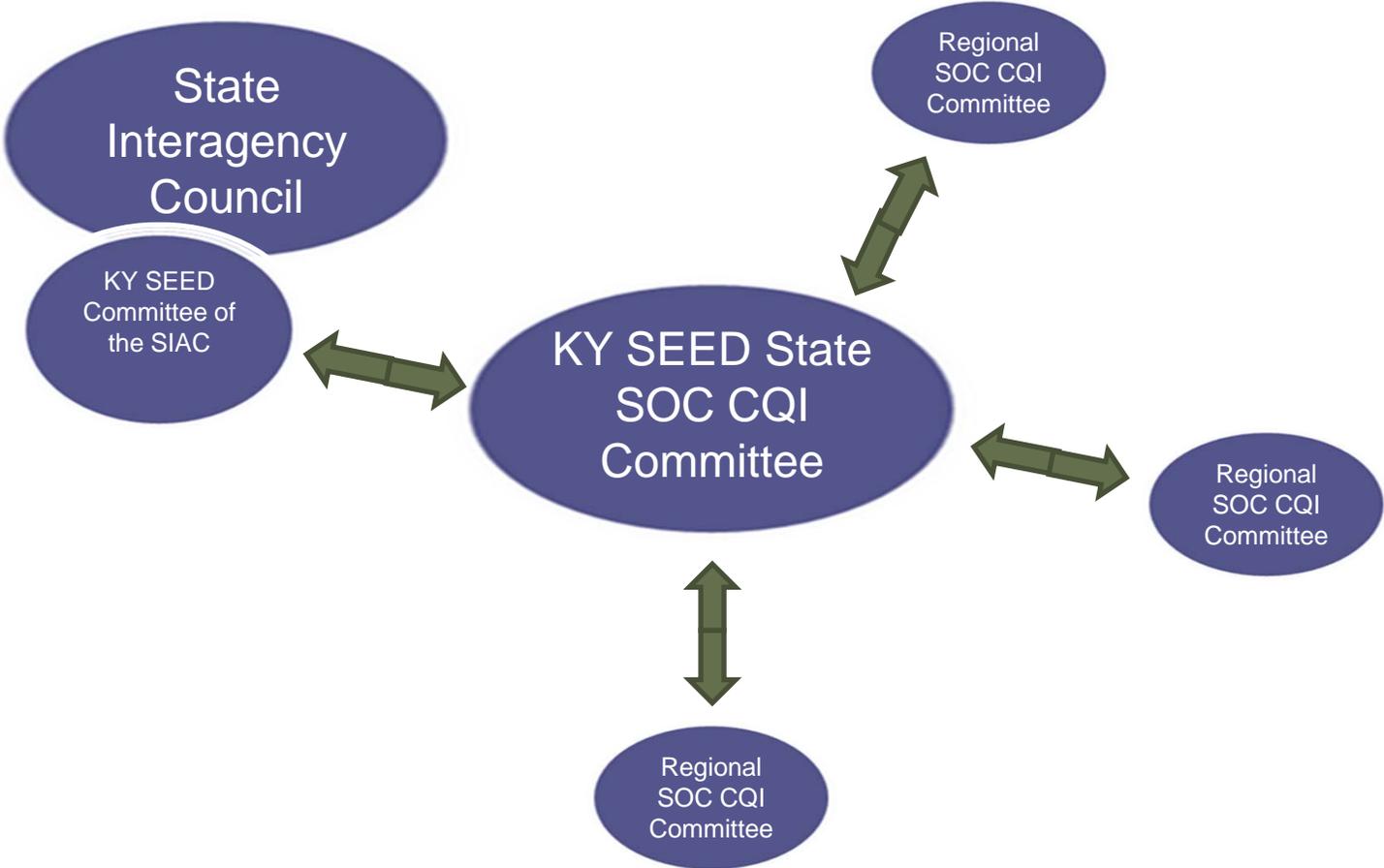
# Why CQI for Systems of Care?

- Ensures that we continually move toward program goals and desired outcomes
- Is a data-driven resource to manage program development
- Ensures quality of program outputs and outcomes

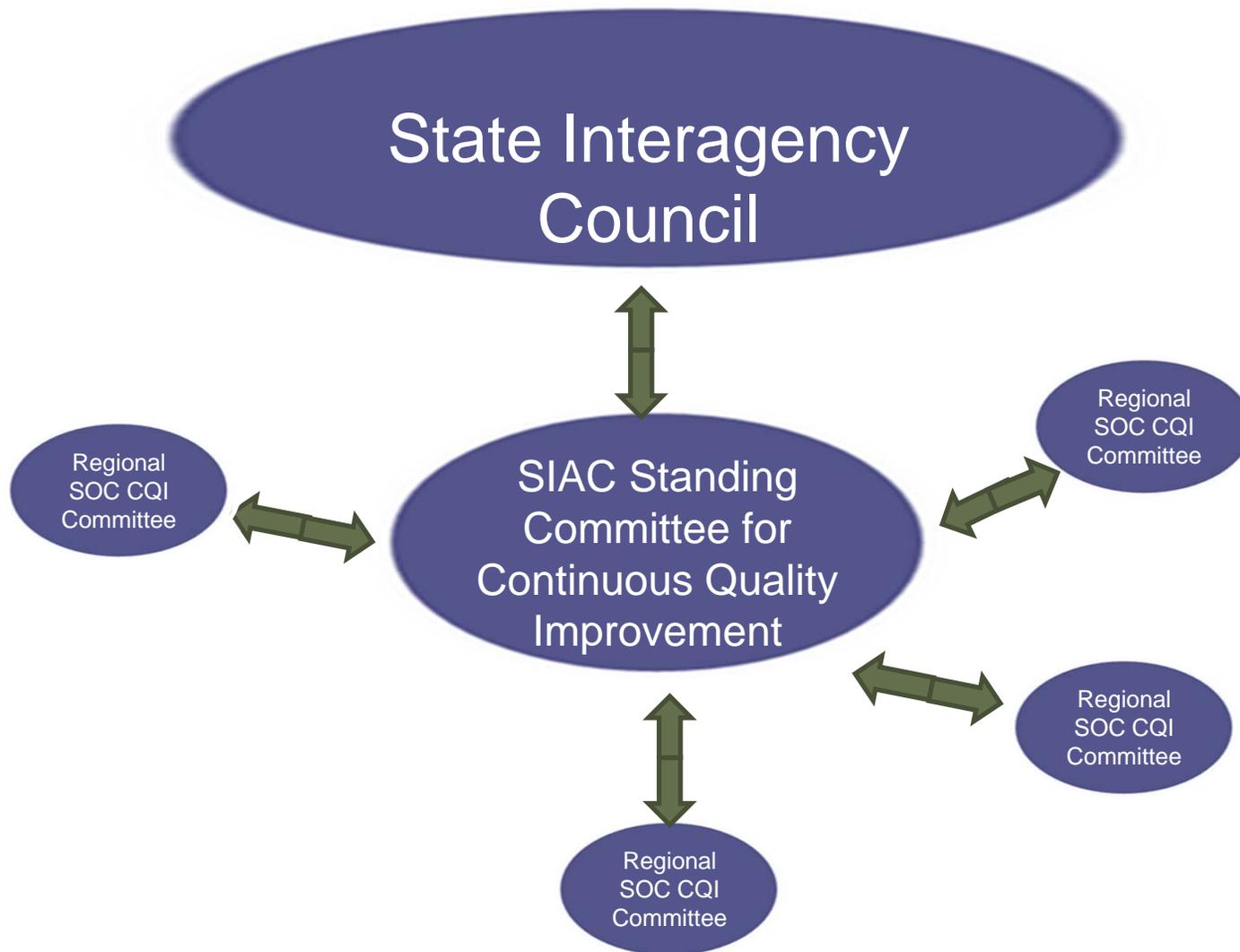
# What Does CQI Do for Systems of Care?

- Describes what we are doing and how well we are doing it
- Tracks progress
- Supports informed decision making about what is working and what is not working
- Supports action planning and allocation of resources where they are needed

# Kentucky's SOC CQI Development



# Kentucky's SOC CQI Development



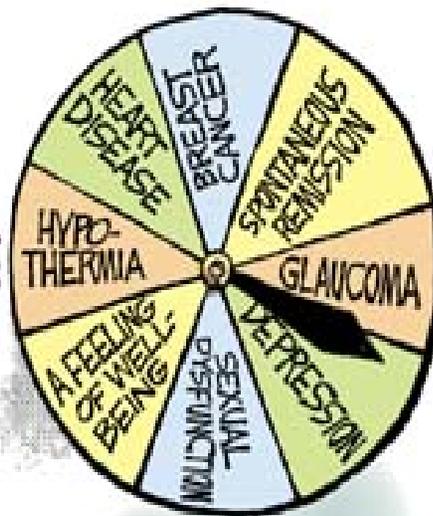
# Today's Random Medical News

from the New England  
Journal of  
Panic-Inducing  
Gobbledygook

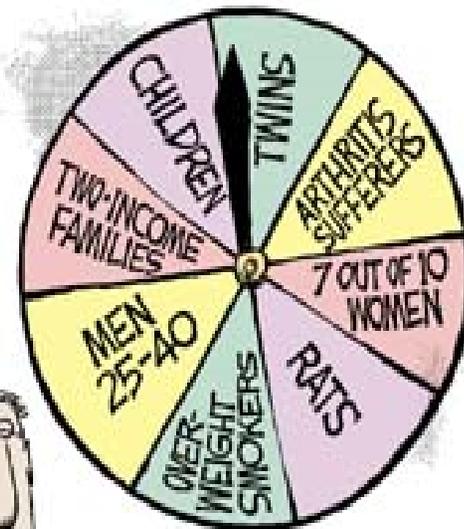
JIM SPERMAN



CAN CAUSE



IN



ACCORDING TO A  
REPORT RELEASED  
TODAY....

NEWS



# Data Literacy

Everybody  
can become  
data literate!

# Data Literacy

- Data literacy refers to one's level of understanding of how to find, evaluate, and use data for quality improvement, to make decisions, and to guide practice.
- A data literate person possesses the knowledge to gather, evaluate, and share information and data to support decision-making.
- Agencies are often *data rich and information poor* – drawers and computers full of spreadsheets, reports, surveys, databases all holding *data*.
- How do we know whether our clients are improving? That we are using the right intervention for the right family?
- You must become data literate to answer these questions.

# Example of Data Literacy Need

A study of 163 program managers regarding data literacy found that most of them had only basic data utilization skills.

In fact, 12 of 25 program managers interviewed in depth did not know how well their particular program had performed in the previous year.

Similarly, only 6 of these managers knew their best and poorest performing agencies.

The results of this study suggested

- 1) Training in data utilization is critical for improving services; and
- 2) Data intended for the use of program managers need to be presented in simple ways.

Loevinsohn, B.P. (1994). Data utilization and analytical skills among mid-level health programme managers in a developing country. *International Journal of Epidemiology*, 23 (1), 194-200.

# Data Literacy

To become data literate you must:

- a. Develop skills that help you ask significant questions,
- b. Devise sensible and efficient ways to answer these questions, and
- c. Respond to the answers with changes to practice.

A data literate person considers relevant data when making important decisions, which we call *data-driven decision making*.

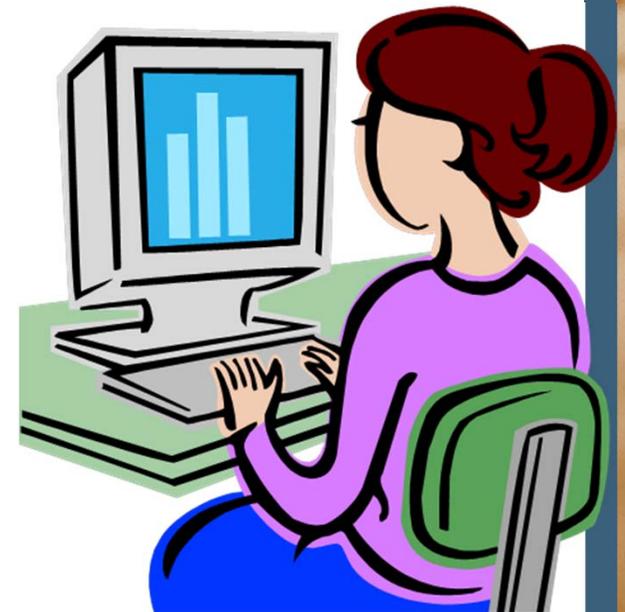
This involves systematically collecting and analyzing various types of data to guide a range of decisions with the aim of helping improve the success of clients.

# Data-Driven Decision Making



# Data-Driven Decision Making

Data-driven decision making is defined as the “process of collecting, analyzing, reporting, and using data for quality improvement” (Dahlkemper, 2002)



# Data-Driven Decision Making

- Data-driven decision making is about
  - Collecting appropriate data
  - Analyzing the data
  - Getting the data to the people who need it
  - Interpreting data
  - Using the data to increase efficiencies and improve outcomes
  - Communicating those decisions to key stakeholders
- Data can be used to assess therapeutic practices, effectiveness, client progress, and organizational needs.
- In order to utilize data properly, we must establish strong **correlations or connections** between data and the decision made.
- **Data-driven decisions must be based on data**, not on personal opinion or belief.

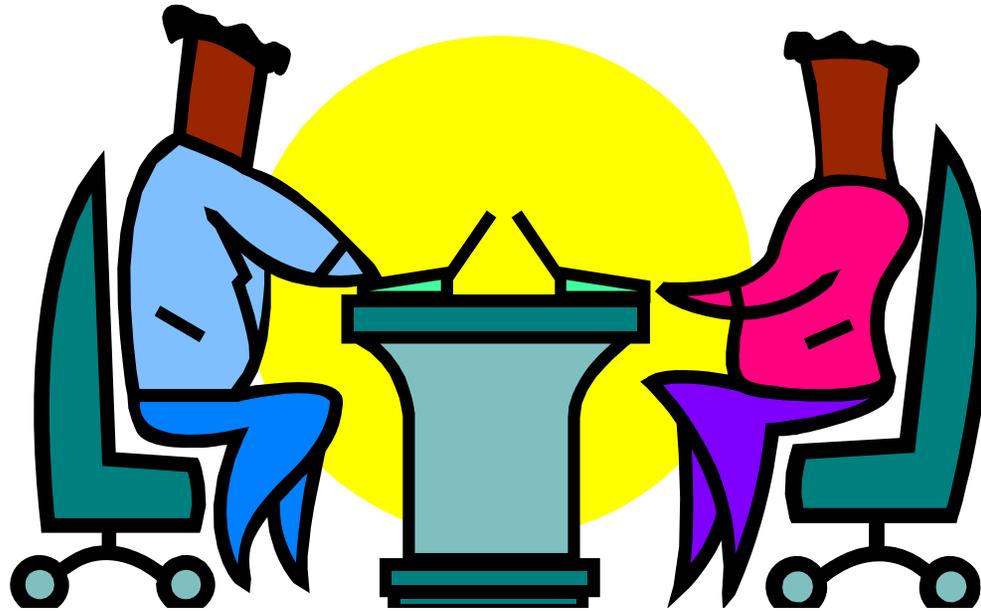
# Multiple Uses of Data

- Drives decisions and funding
- Ensures that you are reaching the individuals who need to benefit from your program
- Creates an urgency for change
- Creates the energy for change
- Serves as a catalyst for focused attention
- Challenges existing policies
- Engages decision makers, district leaders, communities in data driven decision making
- Surfaces evidence of access, equity, and disparity issues
- Focuses resources where they are most needed
- Supports grant writing efforts
- Debunking myths and stories in the public

# Types of Data

The four basic data types:

1. **Demographic data:** Descriptive information about the community such as gender, ethnicity, economic status, employment, school suspensions, and behavioral problems
2. **Process data:** Defines the program, intervention strategies, implementation strategies, evidence-based practices in place at an agency; may be useful in making informed decisions about future program choices
3. **Perception data:** Tells us what clients, staff, and others think about the agency environment; may include questionnaires, interviews, surveys, and observations. Collecting and evaluating perception data allows us to pay attention to the opinions and ideas of the community [ These are not outcome data]
4. **Outcome data:** Includes achievement or assessment data and can be used to determine the success rate of level of achievement in a particular content area or intervention



# Exploring Data at Your Fingertips

# Public Data Source Examples

- Census Data <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>
- County Level Health Rankings <http://www.countyhealthrankings.org/>
- Behavioral Risk Factor Surveillance System (BRFSS)  
<http://chfs.ky.gov/dph/info/dpqi/cd/brfss.htm>
- ICPSR – Social Science Datasets through University Consortium  
<http://www.icpsr.umich.edu/icpsrweb/landing.jsp> (Main Page)
- Kentucky Health Facts <http://www.kentuckyhealthfacts.org/data>
- Kentucky Health Facts <http://www.kentuckyhealthfacts.org/data>
- Kentucky Census Quick Facts <http://quickfacts.census.gov/qfd/states/21000.html>
- Kentucky and Rural Demographics  
<http://www.uky.edu/Education/NCATE/demographics.html>
- Kentucky Data Warehouse for Substance Abuse Prevention  
<http://sig.reachoflouisville.com/>
- Kentucky Department of Education State, District, and School Report Cards  
<http://applications.education.ky.gov/SRC/Default.aspx>
- Kentucky Educational State Profile <http://nces.ed.gov/nationsreportcard/states>

# Public Data Source Examples

Kentucky Dept of Education School Retention and Attendance Rates

<http://education.ky.gov/AA/Reports/Pages/Nonacademic-Data.aspx>

KIDS COUNT 2013 Dataset <http://datacenter.kidscount.org/>

National Center for Educational Statistics (this offers many datasets)

<http://nces.ed.gov/help/sitemap.asp>

National School Climate Survey – includes Kentucky Specific information

<http://GLSEN.org/nscs>

<http://glsen.org/sites/default/files/Kentucky%20NSCS%20Snapshot%202011.pdf>

Pew Research Center Datasets <http://www.pewresearch.org/data/download-datasets>

U.S. Department of Education <http://www.ed.gov/rschstat/facts.html>

Williams Institute - Gay, Lesbian, Bisexual, Transgender, Queer Questioning (GLBTQQ) statistics

<http://williamsinstitute.law.ucla.edu/wp-content/uploads/KentuckyCensus2000Snapshot.pdf>

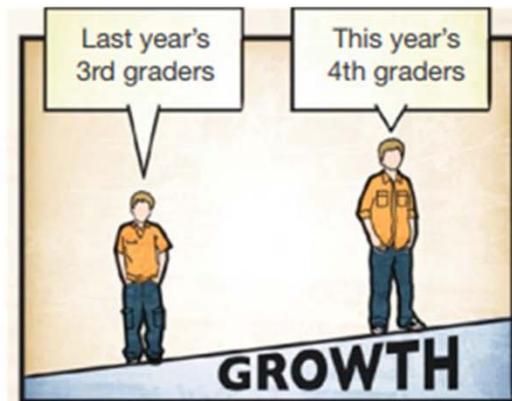
Youth Risk Behavior Surveillance System (YRBS)

<http://education.ky.gov/curriculum/CSH/Pages/Youth-Risk-Behavior-Surveillance-System-%28YRBS%29.aspx>

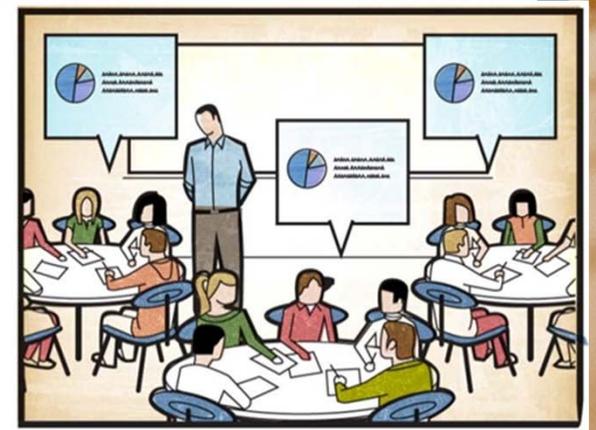
# Examples of Data for CQI



**PAST:  
COMPLIANCE**



**PRESENT:  
ACCOUNTABILITY**



**FUTURE:  
CONTINUOUS  
IMPROVEMENT**

# Where do we begin?

**Starting with a Question**



**Starting with the Data**





Starting  
With  
a  
Question

# Starting with a Question

- Crafting a clear and answerable research question is important.
- Questions may arise from problems raised during a client session, observations in the community, personal experiences, media stories, and discussions with co-workers.
- You may find you ask very broad questions at first or have a series of unrelated questions in mind.
- Narrow it down to a specific or related set of questions by considering specific pieces of the problem. Questions should be stated so that they are answerable, specific, not vague, and realistic.

# Examples of Questions

**Too Broad:** Why is there emotional suffering in Campbell County?

**Answerable:** How are children with depression and asthma being treated in the behavioral health system in Campbell County?

**Too Broad:** What causes poverty among DCBS clients?

**Answerable:** What are the economic disparities most prevalent among the youth at our agency who are involved with DCBS?

**Too Broad:** How do we stop young adults from abusing drugs in Kentucky?

**Answerable:** Among youth in our regional prevention area, what do youth state is most helpful to them regarding prevention of drug use?

# Starting with a question example

Example from Public Health and CMHC regional meetings -  
broad question posed

*What is the incidence of comorbid behavioral health  
and physical health issues in Kentucky?*

Purpose of asking this question was to engage local public health and behavioral health providers in a dialogue around potential areas for collaboration to improve client-level outcomes.

- Identifying datasets to use (CMHC, population-based)
- Data request format
- Honing question elements
- Results

# Prevalence of Self-Reported Chronic Conditions among Adults (aged 18+) with and without a Diagnosed Depressive Disorder

## Medicaid Managed Care Organization (MCO) Region 4

Source: Kentucky Behavioral Risk Factor Surveillance System (BRFSS), 2011

	Adults with a Diagnosed Depressive Disorder		Adults without a Diagnosed Depressive Disorder	
	%	95% CI	%	95% CI
Arthritis	52.6	42.9 – 62.2	29.8	26.2 – 33.5
Asthma	28.1	19.5 – 36.7	8.1	5.9 – 10.3
COPD	26.9	19.2 – 34.5	10.1	7.5 – 12.7
Diabetes	18.1	12.0 – 24.3	8.8	6.9 – 10.8
Heart Disease	11.5	6.7 – 16.2	4.0	2.8 – 5.2
Hypertension	59.1	49.6 – 68.5	34.9	31.0 – 38.8
Obesity	43.4	33.6 – 53.2	25.5	21.9 – 29.2

### Definition of Diagnosed Depressive Disorder:

Adults who answered YES to BRFSS Question: *Has a doctor, nurse, or other health professional ever told you that you had a depressive disorder, including depression, major depression, dysthymia, or minor depression?*

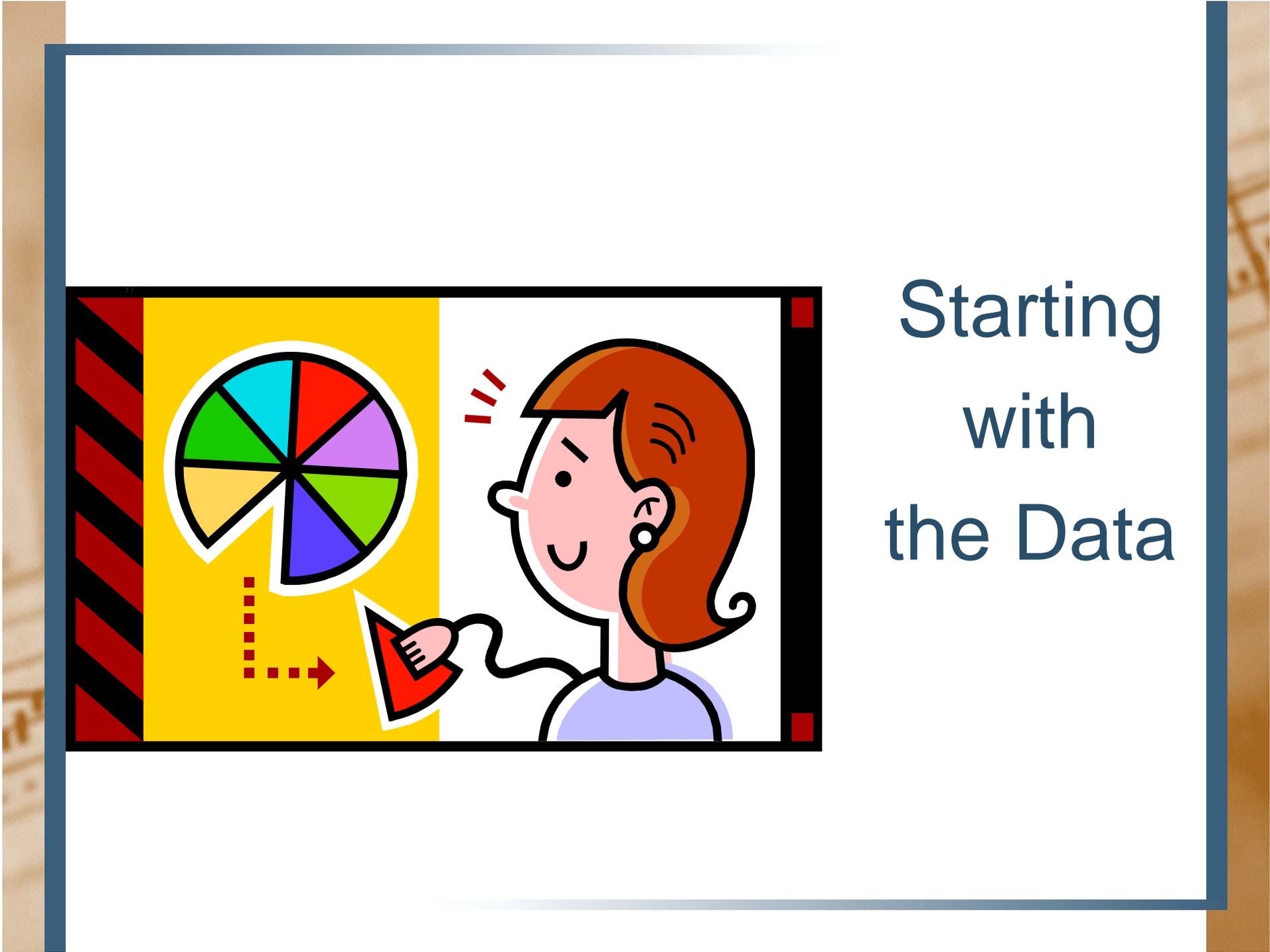
CI = Confidence Interval

COPD = Chronic Obstructive Pulmonary Disease

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**“You can’t keep adjusting the data  
to prove that you would be the best  
Valentine’s date for Scarlett Johansson.”**



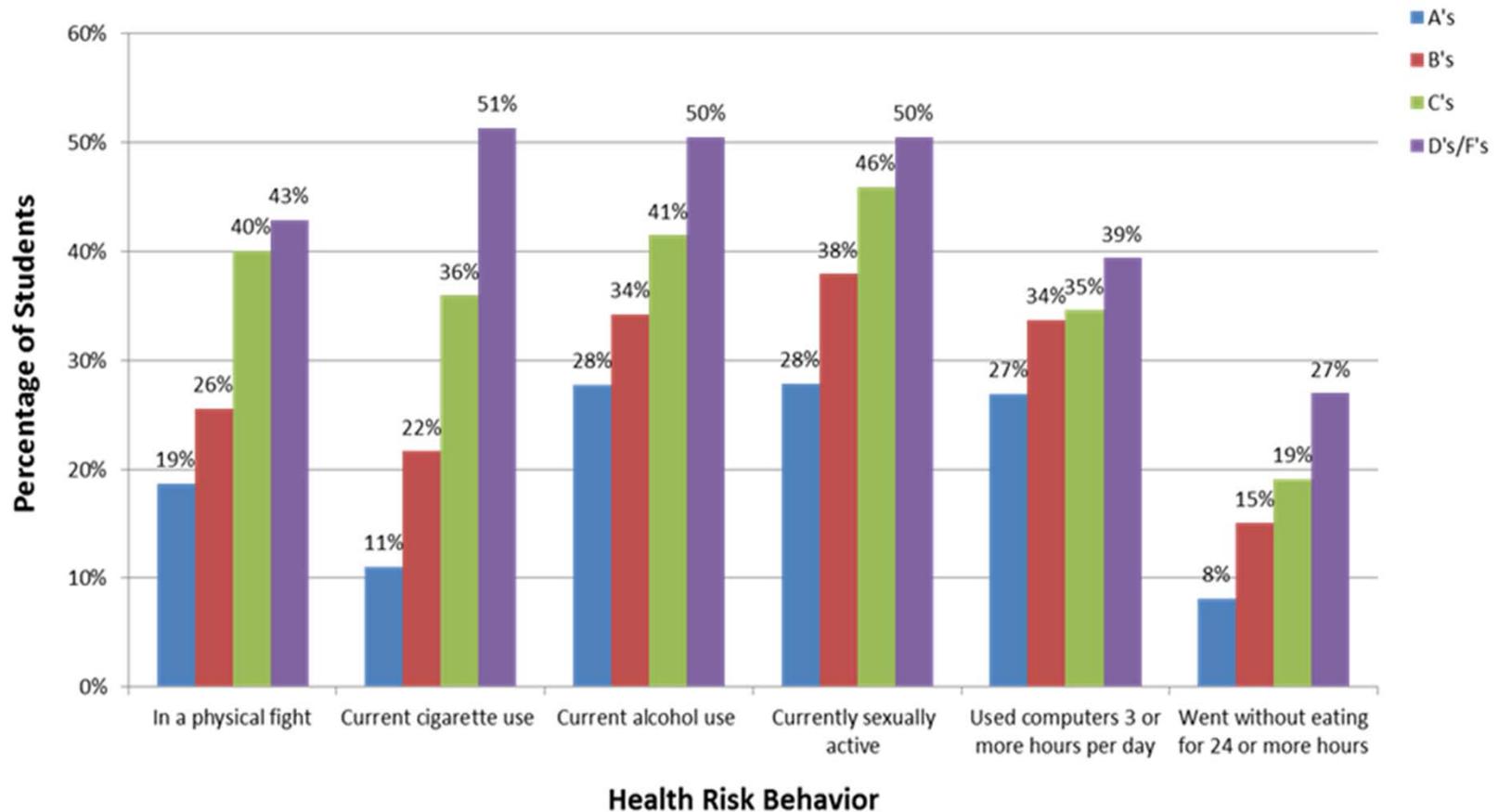
Starting  
with  
the Data

# Starting with the Data

- We've just looked at how to start with a question and use data to help answer the question.
- Another method of data driven decision making is to look at available data on your clients, agency, or county/region.
- This may lead you to questions about your clients or agency protocols which you may not have seen otherwise.

# What questions arise?

## KY High School Students' Health Risk Behaviors & Academic Achievement



\* 2011 Kentucky High School YRBS

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# Review

- What are the two main methods of examining data for CQI that we discussed today?
- Give an example of important things to consider when posing a research question.

# Summary

Effective and doable CQI plans and processes are

- Unique to individual program needs and goals
- Statements of desired outcomes at multiple levels
- Inclusive of benchmarks, mile markers, or other indications of measured progress
- Descriptive illustrations that help us
  - Know where we are going
  - Know whether we are on track along the way
  - Know when we get there

# CQI Planning Activity

Identify strengths and challenges in your agency, program or community's CQI process

- Decide what to measure and why
- Identify information sources
- Review information
- Take action and implement modifications
- Assess impacts and next steps

# CQI Planning Activity

- Identify action steps from the strengths and challenges assessment to improve your agency, program or community's CQI process.
- Which step in the CQI process do you think your agency, program or community should focus on improving?
- Develop specific action steps that may help improve your CQI process; include who and when.