Understanding Measurement Tools and Processes

Part of the
ROMA Next Generation
Series of Workshops

Results-Oriented Management and Accountability

Family Agency Community

Workbook Content

- Basic Concepts about Measurement
- Considering Output and Outcome Measurement Tools
- Understanding How Collection Processes Impact the Quality of Data
- Next Steps: Analysis of the Data

Basic Concepts About Measurement

Data to be Measured

Measurement Tools

Measurement Processes

Basic concepts about measurement:

- Measurement is about collecting data

  You must know what data you want to collect and why you want to collect it.
  - Why is measurement important?
  - What does it prove?
- Measurement Tools

  You must identify the right tool to measure the right data.
  - What measurement tools are you using?
  - What data are you collecting?
- Measurement Processes
  - Who uses the tool? Are they trained to use it?
  - How often is measurement done?
  - What happens to the data that is produced by the tool?

Why is measurement important?

We want to know our actions matter!!

What do we want to prove?

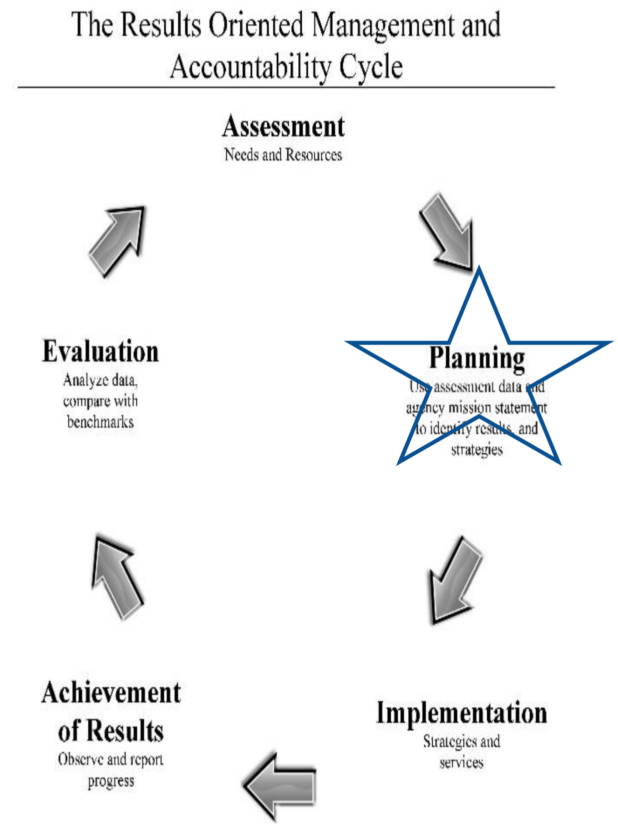
- CAAs want to show that they are **effective** and **efficient.**
- And that they are **accountable** for the federal resources they are awarded.

Without proof, we don’t know what happened!

Because we are **results oriented**, we must be able **to prove that our intervention resulted in a positive change!**

During Planning:

When you identify the success you expect to achieve, and the services or strategies that will lead to the success, THAT is **the time to consider what data you need and how you will collect it.**



Measurement Tools

What are you measuring?

What measurement tools are you using?

What data are you collecting?

Remember,

“What we measure and how we measure it determines what will be considered relevant and thereby determines not just what we see but what we and others do.” *Drucker Self Assessment Workbook, 1999, p. 59 and 60*

ACTIVITY-What comes to mind when we say “measurement tool”?

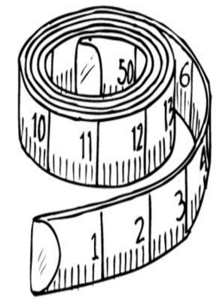
What you use to measure	What you are measuring
• Yardstick	• The length of something (cloth, distance along a wall, etc.)
• Bathroom scale	• The weight in pounds of the person standing on the scale
• Test	• Knowledge about a subject
• Bank Statement	• Amount of deposits, withdrawals and funds available

Success is determined by the agency

It is up to each agency to identify what they expect to successfully achieve,
AND also to assure that they have clear understanding of the documentation ("evidence") needed to prove that success.

In Community Action,

- The kind of measurement tools we need are those that will provide the data to prove:
    - what we have done
    - and what has happened




Measurement Tools Produce Data

Documentation of proof that something happened

What is “data”?

A set of well defined distinct objects that can be used for some practical purpose.

Data can be observed, measured, collected and aggregated

What is data?

- Numbers
- Facts
- Figures
- Stories

Can you think of an example of each of these kinds of data?
Numbers:
Facts:
Figures:
Stories:

Another way to think about data:

Qualitative

- Language/Letters
- Stories
- Notes

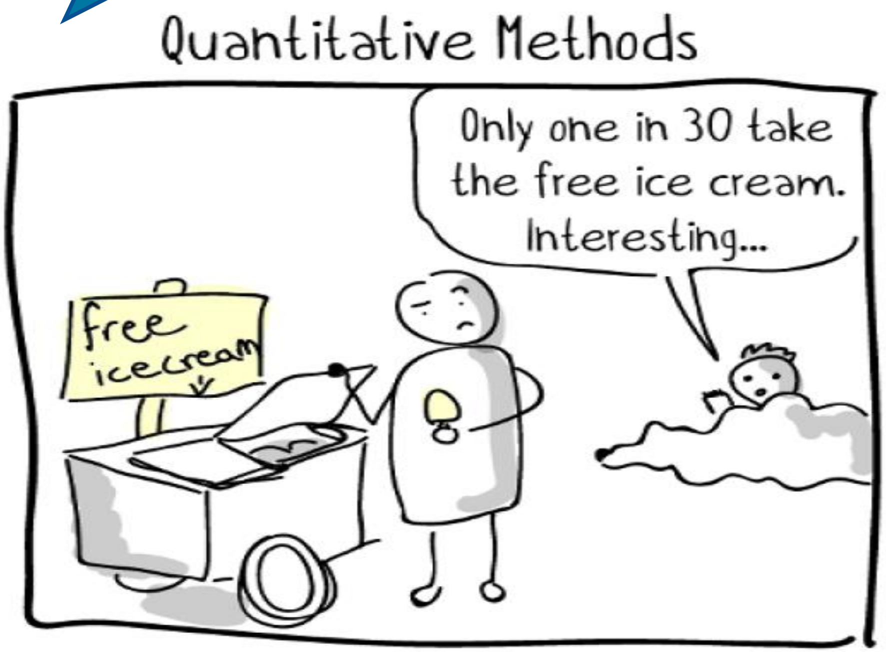
Quantitative

- Numbers
- Statistics
- Charts
- Graphs

Measuring different things!

How many?

What did you experience?



Do you have the right tool?

Be sure you have the RIGHT tool: the tool that is measuring **what you want to know**.

- You don't use a thermometer to measure height.
- Attendance records for a class would not be a good tool to document how many individuals got a job.

What are you measuring?

Basic ROMA Questions

1. How many individuals or families are you serving?
2. Who are they?
3. What services do you give them?
4. What happens (what changes) as a result of the service?

Where does the data come from?

- How many are you serving?
  - Who are they?

- Consider the difference between:
  - the number of individuals/families applying for service,
  - the number being eligible for service,
  - the number being accepted for service
  - and the number who actually receive the service.
- What "proof" do you have for each of these?

The Case Record

Storage – not measurement tool

Data gets entered into the case record

- The case record is where data is stored.
- But where does the data come from?

- Family member report (in person or via phone)
- Email with information from family member
- Other service partner provides a report
- Copy of a measurement tool…

The Intake Form

What evidence does this produce?

What does the intake process provide?

- 1. Demographic data so you know who you are serving. Y or N
- 2. Documentation of the number of people who applied for service. Y or N
- 3. Identification of eligibility for a specific service. Y or N
- 4. Identification of other services that are needed. Y or N
- 5. A way to document the number of people who were served. Y or N

What does the intake process provide?

- 1. Demographic data so you know who you are serving. Y or N
- 2. A way to document the number of people who applied for service. Y or N
- 3. Identification of eligibility for a specific service. Y or N
- 4. Identification of other services that are needed. Y or N
- 5. A way to document the number of people who were served. Y or N

The Intake Form

- What does it prove?
- Usually, the Intake form is used to collect the demographic data and situation description for each person/family applying for service.
- May also include “approved” status showing that the family was found eligible for a service.
- Typically does not show that the family received a service or multiple services. Where does that proof come from?

Output Measurement Tools

Document services and process provided by the agency or done by the customer.

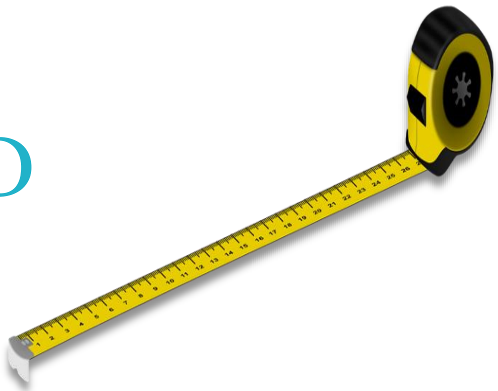
Tool	What it measures	What it doesn't measure
• Intake Form • Copy of voucher or check (for tangible assistance) • Log of Payment • Roster of Individuals Receiving Food	• Number of People Applied and Enrolled • Amount of all Rent Payments Issued; Amount of Payment Received (by family, or landlord, or…) • Number of food boxes or amount of food distributed; • Verification that an individual or family received food.	• What happened as a result of service? • Was housing secured or maintained? • Was family able to meet food needs? Reduce food insecurity?

Examples
Service
Tools

SPREADSHEET HANDOUT

How will you know that something has changed?

OUTCOMES = CHANGES, PROGRESS TOWARD CHANGES



Assume?

Sometimes we assume that the provision of a service results in a positive outcome, or change.

But is that assumption true?

Example:

Service:

100 families will receive a food box from our agency's food pantry 1x a month for six months.

Assumed outcomes:

- Increased Nutrition
- Decreased Hunger
- Increase food security
- Frees up money to spend on other needs

But ASSUMING is not MEASURING!

How would you know the impact of a family receiving a food box?

- Follow up to ask for family report
- Other?

OUTCOME Measurement Tools

Documents the change that has happened and/or the progress that has been made towards goals.

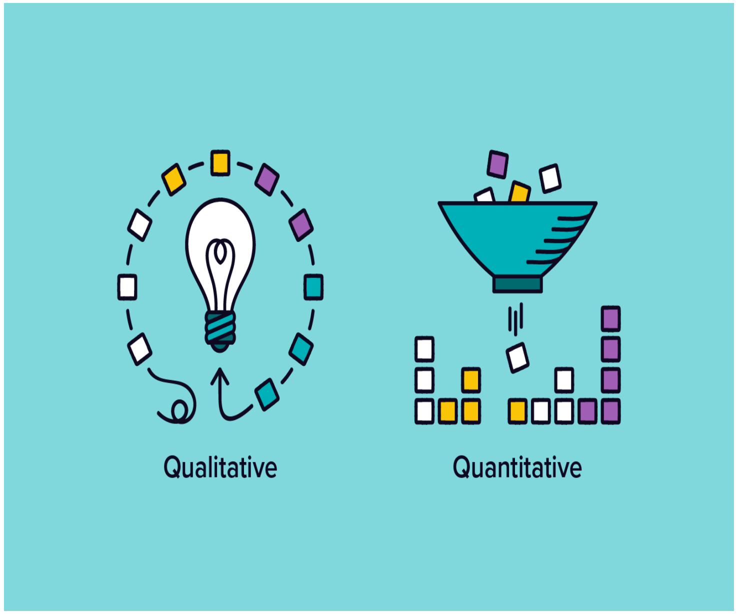
Tool	Documented Outcome
• Pre-test and Post-test (or pre/post survey) • Follow up phone call (to family receiving rent payment) • Questionnaire (at food distribution site asking prior recipients about their prior experience).	• Was there a change in knowledge? Or skill? Or belief/attitude? • What is the housing status? How long have they maintained housing? • Did the family achieve food security?

Examples – *Indicator* Tools

SPREADSHEET

Thoughts on Surveys and Questionnaires

Surveys can provide both qualitative and quantitative data.



Example - Survey
Survey Questions Used by USDA to Assess Household Food Security

1. "We worried whether our food would run out before we got money to buy more." Was that often, sometimes, or never true for you in the last 12 months?
2. "The food that we bought just didn't last and we didn't have money to get more." Was that often, sometimes, or never true for you in the last 12 months?
3. "We couldn't afford to eat balanced meals." Was that often, sometimes, or never true for you in the last 12 months?
4. In the last 12 months, did you or other adults in the household ever cut the size of your meals or skip meals because there wasn't enough money for food? (Yes/No)
5. (If yes to question 4) How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?
6. In the last 12 months, did you ever eat less than you felt you should because there wasn't enough money for food? (Yes/No)
7. In the last 12 months, were you ever hungry, but didn't eat, because there wasn't enough money for food? (Yes/No)
8. In the last 12 months, did you lose weight because there wasn't enough money for food? (Yes/No)
9. In the last 12 months did you or other adults in your household ever not eat for a whole day because there wasn't enough money for food? (Yes/No)
10. (If yes to question 9) How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?
11. What else do you want to say about your family experience related to food security? (Open ended response)

Example Questionnaire

CFPB FINANCIAL WELL-BEING SCALE

Questionnaire

NAME OR NUMBER

Part 1: How well does this statement describe you or your situation?

This statement describes me	Completely	Very well	Somewhat	Very little	Not at all
1. I could handle a major unexpected expense	☐	☐	☐	☐	☐
2. I am securing my financial future	☐	☐	☐	☐	☐
3. Because of my money situation, I feel like I will never have the things I want in life	☐	☐	☐	☐	☐
4. I can enjoy life because of the way I'm managing my money	☐	☐	☐	☐	☐
5. I am just getting by financially	☐	☐	☐	☐	☐
6. I am concerned that the money I have or will save won't last	☐	☐	☐	☐	☐

2. Find the financial well-being score

How old is the person?

☐ 18-61 ☐ 62+

How did the person take the questionnaire?

☐ Self-administered

☐ Administered by someone else

Because scores vary based on age and how the questionnaire was administered, you must convert the total response value to a financial well-being score.

a. Find the row that corresponds to the total response value.

b. Follow that row across to the column that corresponds to the person's age and how the questionnaire was administered.

c. Record the final score.

Financial well-being score: ____________

Total response value	Questionnaire self-administered		Questionnaire administered by someone else	
	18-61	62+	18-61	62+
0	14	14	16	18
1	19	20	21	23
2	22	24	24	26
3	25	26	27	28
4	27	29	29	30
5	29	31	31	32
6	31	33	33	33
7	32	35	34	35
8	34	36	36	36
9	35	38	38	38
10	37	39	39	39
11	38	41	40	40
12	40	42	42	41
13	41	44	43	43
14	42	45	44	44
15	44	46	45	45
16	45	48	47	46
17	46	49	48	47
18	47	50	49	48
19	49	52	50	49

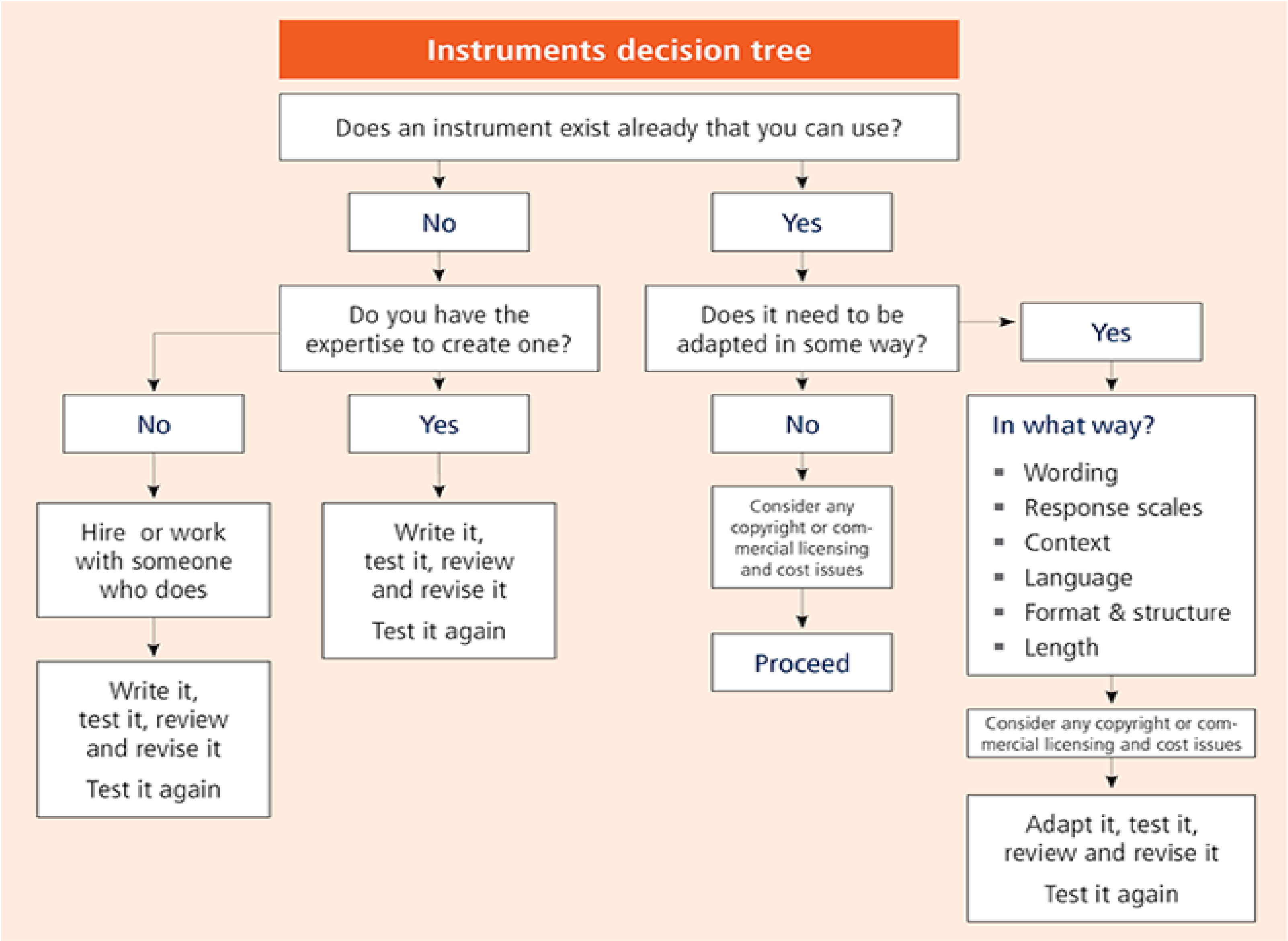
Measurement Tools and Processes - Activity

First identify if the item is an output or an outcome.
Then think of what you might suggest to use as Measurement Tools and Processes.

<u>Adult Basic Ed Program:</u> **Statement**	Output or Outcome	Measurement tool
Outreach and recruitment		
Enrolls in A.B.E. class		
Attends A.B.E. class		
Completes A.B.E. class (meets attendance requirements)		
Achieves competency in basic, math, reading, and writing skills		
Receives certificate or diploma		

After you are finished, you can pull up the “Examples” version of this document that has some ideas for each of the statements.

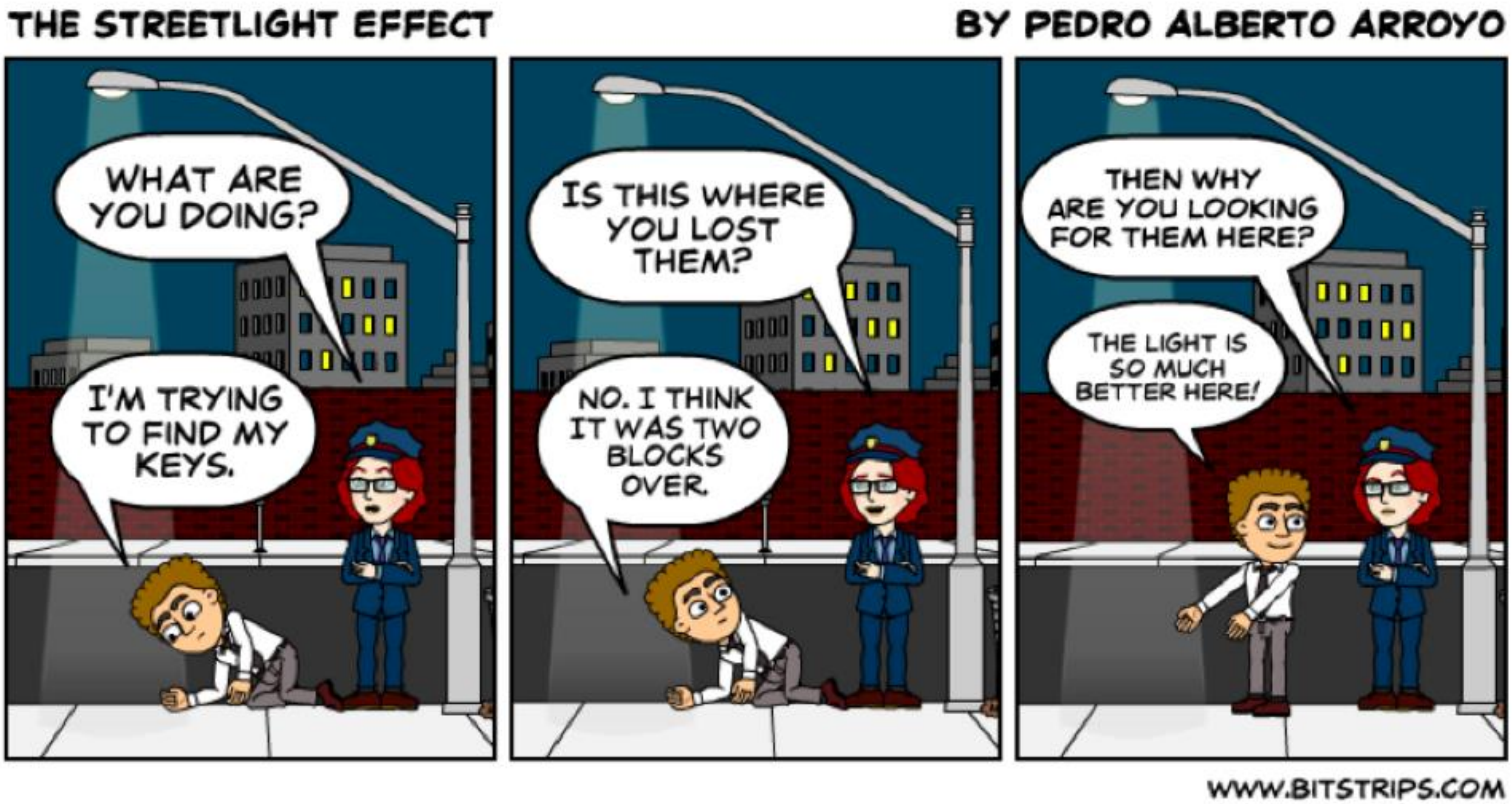
Flow chart to identify available tools

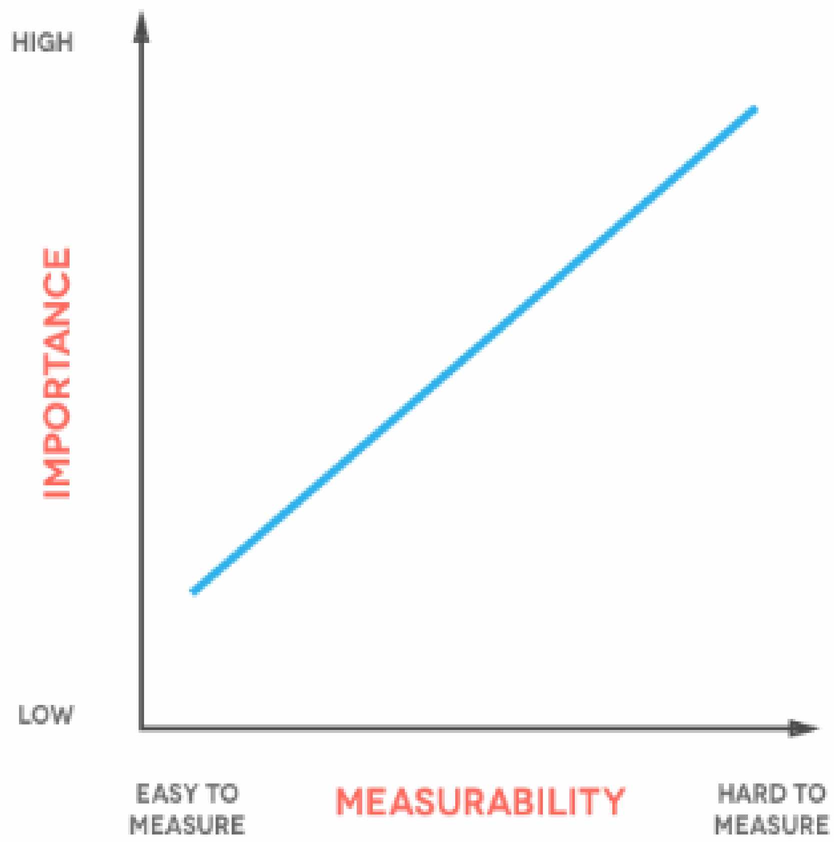


What are you not measuring?

What are you NOT measuring?

- “The agency is reporting on services without reporting on outcomes.”
- Why might that be happening?
- Consider the Streetlight effect


THE STREETLIGHT EFFECT
BY PEDRO ALBERTO ARROYO
WHAT ARE YOU DOING?
I'M TRYING TO FIND MY KEYS.
IS THIS WHERE YOU LOST THEM?
NO. I THINK IT WAS TWO BLOCKS OVER.
THEN WHY ARE YOU LOOKING FOR THEM HERE?
THE LIGHT IS SO MUCH BETTER HERE!
WWW.BITSTRIPS.COM



How Hard is it to Collect the Data?

How Important?

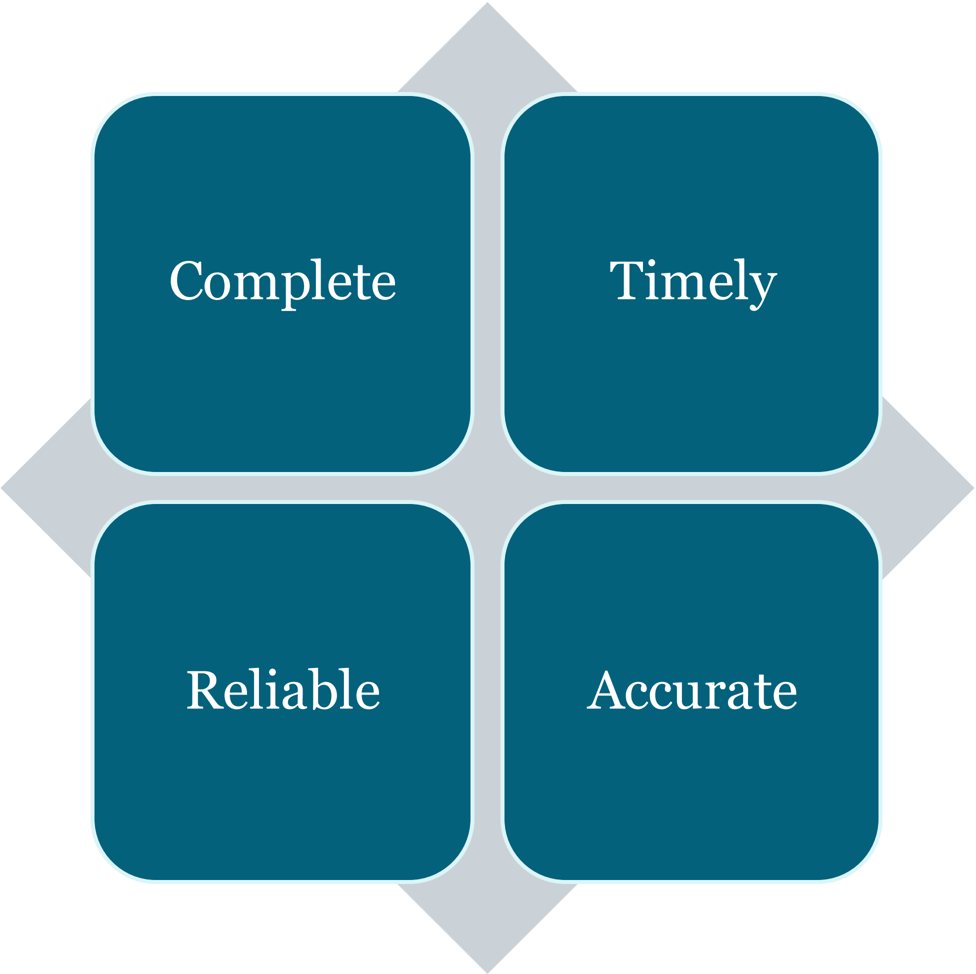
Measurement Processes

Assure you have high quality data!

Data Quality Is Important

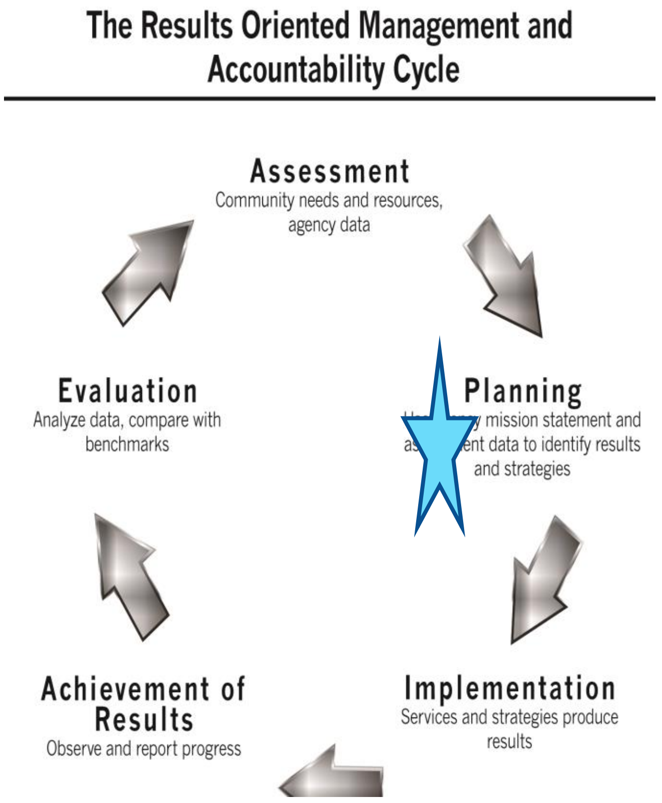
The right tool will help you have the right data.

The right process will make sure the data can be trusted.



Plan for the Processes

Measurement processes need to be determined in the planning stage.

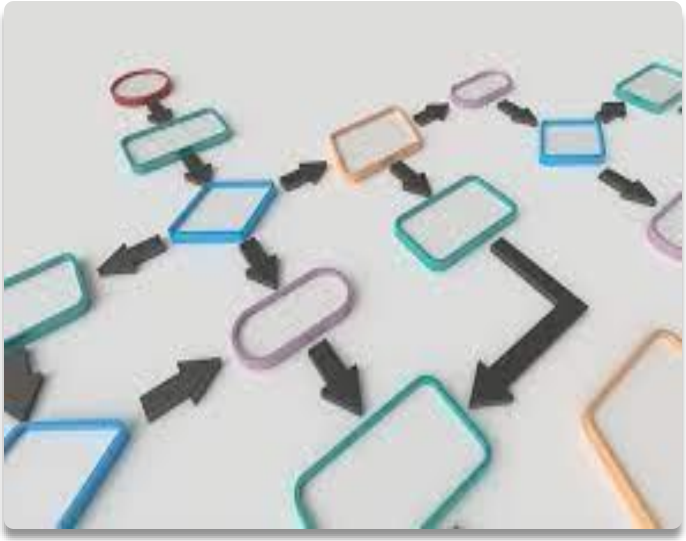


ROMA Logic Model – Family Level

Identified Problem, Need or Situation	Service or Activity	Outcome *General statement of results expected*	Projected Indicator *# to achieve/# to be served; %; time frame*	Actual Indicator *# achieved/# served; %; time frame*	Measurement Tool	Data Procedures *Who collects? How is it done? Where is data stored?*	Frequency *Of Data Collection and Reporting*

Measurement Processes

- Who uses the tool? Are they trained to use it?
- How often is it used?
- What happens to the data that is produced by the tool?



Questions to Answer to Clarify the Measurement Processes

- Who is responsible for collection of the measurement data?
  - Who measures? Is the person skilled in using the tool?
- How is the collection done?
  - When are the measurement tools used?
    - How frequently are the measurements taken?
    - End result? Point in time?
  - How do they do it? (paper, computer, at office, in field, etc.)
- What do they do with the data after they collect it? (enter it, bring it to someone else to enter, etc.)
- How is the data stored?

How do we ensure that the data we get is complete, accurate, reliable and timely?

Staff must be ready for measurement

- Staff should be informed, assigned and equipped
- Measurement process must be standardized to assure reliable data is collected

Staff Readiness for Measurement

- First, Staff has to understand the measurement process and their role in the process
- Then, staff should have these skills:
  - Ability to communicate with a broad range of people
  - Cultural sensitivity
  - Ability to treat everyone with the same degree of respect
  - Commitment to keeping all individuals' information confidential

The Agency Must Have Policies and Procedures Related to Data

- To assure quality data the agency must have well defined systems to collect, store, and retrieve such things as
  - Client demographics
  - Services to individuals and families
  - Community and agency level strategies
  - Outcomes at family, agency, community level

Include Measurement Tools and Process

The last columns of the logic model ask for details about measurement data

Data Source	**Frequency**
Who:	Data collection:
How:	
Where stored:	Reporting:

Data Process
Where it is stored
Agency database
Banking partners
Case notes
Centralized database
Computer spreadsheets
File cabinets
Individual case records
Manual tallies
Public database
School records database
Specialized database
Tax Assessor database
Work plan reports
Agency Scales/matrices

Personnel
Agency staff (various)
Partner reports

Procedures
Home visits
Office appointments
Phone follow up

Examining Data Collection

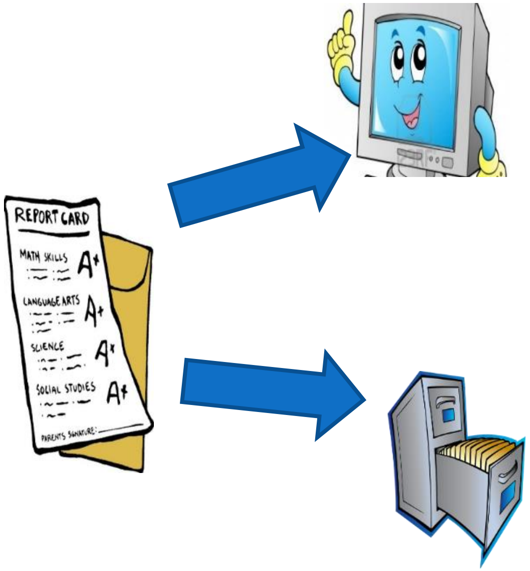
- Think about the **data collection** process at your agency.

Considering Storage

- Where is the data from the measurement tool stored?
  - Is it siloed? Each program keeping its own measurement data.
- Who has access to the stored data?
  - Who can run reports?
  - Is it available to direct service staff?

Storage of Measurement Data

- It is important to distinguish between the measurement tool itself and the place the data from the measurement tool is stored.
  - The data base (or the file cabinet) is where you document what you found when you used the measurement tool.



What goes into a case record?

- Notes from family reports
- Staff observations
- Copies of documents
- Record of attendance at (receipt of) services
- Progress notes
- Other ????

How are you tracking progress?

One way is to use scales and matrices.

An Outcome Scale is a continuum that describes different states or conditions of status and is used to identify and measure incremental change in families, agencies and communities.

A Matrix is a series of Scales that, taken together show conditions in multiple domains.

Scale Conditions
Thriving
Safe
Stable
Vulnerable
In-Crisis

Scales can be used to show progress as well as success

Employment
Full time employment, with benefits
Full time employment, no benefits (9/30)
Part time employment
Unemployed, some work history (5/15)
Unemployed, no work history

5/15 -Initial Baseline data collected when John comes to the agency with a goal to become employed.

John enrolls in the agency's self sufficiency program where he creates a resume, practices interview skills, and receives a suit to wear on his job interview.

What measurement tools would prove those services were provided?

9/30 – At a scheduled meeting with John, he reports that he is now employed full time, but has no benefits.

What is the proof that will show that he gained employment? What about the benefits?

Sample Family Outcome Matrix --
1st Assessment–Feb. 1, 2nd Assessment–May 1, 3rd Assessment–Aug. 1

In each domain, the status of the family is indicated by the date that is in the box below the statement.

Domains Benchmarks	Income	Employment	Housing	Education and Training	Transportation	Childcare
Thriving (9-10)	> 200% of poverty adjusted for family size.	Full-time work above minimum wage with employer-provided benefits.	Home Ownership Condominium Ownership Co-Op Home Ownership Non-subsidized rental housing	Post-Secondary degree: Masters or doctorate. Post-Secondary degree: bachelors, associates.	Family members always have transportation needs met through public transportation, a car, or a regular ride.	Child enrolled in unsubsidized, licensed childcare setting of own choice.
Safe (8-9)	Between 176%-200% of poverty adjusted for family size.	**Full-time work above minimum wage without employer-provided benefits.**	Safe and secure non-subsidized housing, choices limited due to moderate income.	Post high school vocational education, non college business, or technical or vocational training, or some college credits	**Family members have most transportation needs met through public transportation, a car, or a regular ride.**	Child enrolled in licensed, subsidized childcare
		Aug 1			Aug. 1	May 1 / Aug 1
Stable (5-6)	**Between 126%-175% of poverty adjusted for family size.**	**Full-time work at minimum wage without employer- provided benefits.**	**Safe and secure subsidized rental apartment.**	**High school diploma or G.E.D.**	**Family members have some transportation needs met through public transportation, a car, or a regular ride.**	Child provided childcare by a family member or friend. Child provided childcare by various caregivers
	Aug. 1	May 1	Aug 1	Feb. 1 / May 1 / Aug 1	May 1	
	Prevention Line		Prevention Line		Prevention Line	
Vulnerable (3-4)	Between 100%-125% of poverty adjusted for family size.	Part-time employment	Safe and secure transitional housing	Reading, writing, and basic math skills present, no high school diploma or G.E.D.	Family members have few transportation needs met.	Child on waiting list for enrollment in childcare.
	May 1	Feb 1	Feb. 1 / May 1		Feb. 1	Feb. 1
In-Crisis (0-2)	Between 50%-100% of poverty (by family size.)	Unemployed	Living with relatives Substandard or unsafe Homeless	Reading, writing, and basic math skills absent.	Family members do not have public transportation, a car, or regular ride	Child not enrolled in childcare.)
	Feb. 1					

Frequency for collection
Daily
Weekly
Monthly
Quarterly
Biannually
Annually
Upon incident

Frequency for reporting
Daily
Weekly
Monthly
Quarterly
Biannually
Annually

Don't forget about frequency!

Some Basic Ideas

Tool Purpose of Tool	Data Collection Process (who collects, how often, where is data stored, etc.)
➢ Letter/E-mail Offering Employment • Proof that individuals got the job	• Employment counselor follow up; data entered into XYZ data base
➢ Pre and Post Test • Identify Parent Relationship Skill Level	• Family Advocate enters into data base.
➢ Weatherization Completion Record • Documents work done	• Weatherization staff following service

Activity – Add More Detail

Tool	Purpose of Tool	Data Collection Process (who collects, how often, where is data stored, etc.)
Letter/E-mail Offering Employment	Verify that individuals got the job	employment counselor follow up with participant; data entered into XYZ data base

Activity – Add More Detail

Tool	Purpose of Tool	Data Collection Process (who collects, how often, where is data stored, etc.)
Letter/E-mail Offering Employment	Verify that individuals got the job	employment counselor follow up with participant; data entered into XYZ data base

Additional Tool: Paystub		After job interview, counselor follows up with participant via Phone call; participant takes picture of pay stub or offer letter – text or email picture to counselor; data entered into XYZ data base by counselor and/or printed off and stored in participant file

Activity – Add More Detail

Tool	Purpose of Tool	Data Collection Process (who collects, how often, where is data stored, etc.)
Pre and Post Test	Identify Parent Relationship skill level	Family Advocate enters into data base.

Activity – Add More Detail

Tool	Purpose of Tool	Data Collection Process (who collects, how often, where is data stored, etc.)
Pre and Post Test	Identify Parent Relationship skill level	Family Advocate enters into data base.

		At first class session, Family Advocate (FA) administers and collects hard copy of pre test. From paper copy, FA enters pre test and observation results into data base. FA administers post test on last night of class, collects hard copy, then enters results into database

Activity – Add More Detail

Tool	Purpose of Tool	Data Collection Process (who collects, how often, where is data stored, etc.)
Weatherization Completion Record	Documents work done	WAP staff following service

Activity – Add More Detail

Tool	Purpose of Tool	Data Collection Process (who collects, how often, where is data stored, etc.)
Weatherization Completion Record	Documents work done	WAP staff following service

Work Order; Audit; receipts of materials purchased; receipts of labor; energy bills before and after service	Documents change in energy usage	WAP Auditor completes Work Order and Initial Audit; WAP co-Ordinator collects initial energy bill at time of customer application, and then month after WAP measures completed; WAP staff file receipts of materials in customer file; WAP staff collect invoice from Labor Contractors at time service is delivered, then gives to WAP Coordinator to copy and place in customer file Weatherization staff following service

Measurement Tools and Processes – Activity Follow Up

Go back to the earlier activity and think about what you might suggest to use as Measurement Tools and Processes.

Adult Basic Ed Program: Statement	Output or Outcome	Measurement tool	Process
Outreach and recruitment			
Enrolls in A.B.E. class			
Attends A.B.E. class			
Completes A.B.E. class (meets attendance requirements)			
Achieves competency in basic, math, reading, and writing skills			
Receives certificate or diploma			

Data Collection Process
Write It Down!

Data is collected at many different places and times in your agency

<u>Here are just a few things you want to know</u>:

Who gathers data?

Receptionists, case managers, etc…

When is the data collected?

At first visit? After enrollment is approved? Many times during the provision of services?

How is it stored?

Who gets to see the data?

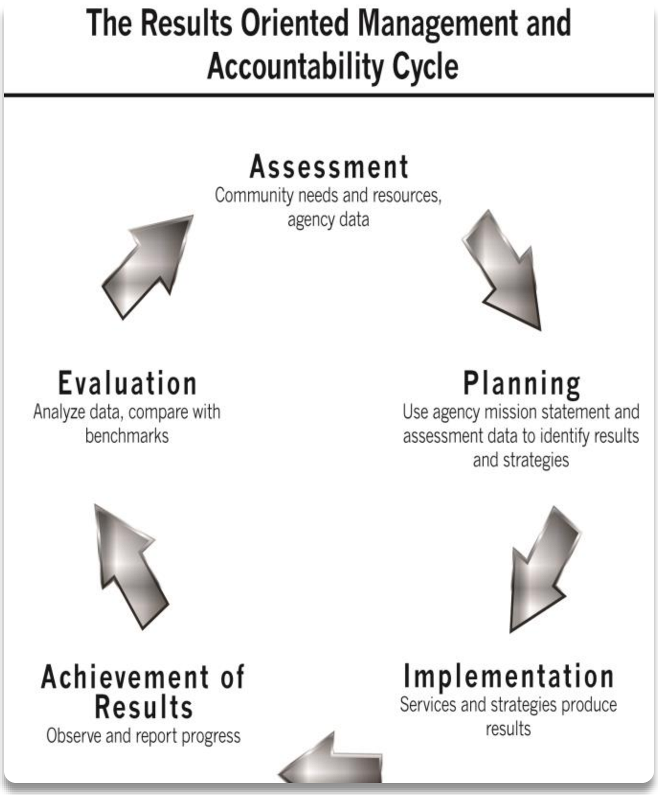
Analysis of Data

Measurement Process Ends and Then?

Next Step: Analysis.
The processes for analysis and use of the data should be clearly defined during the planning phase.

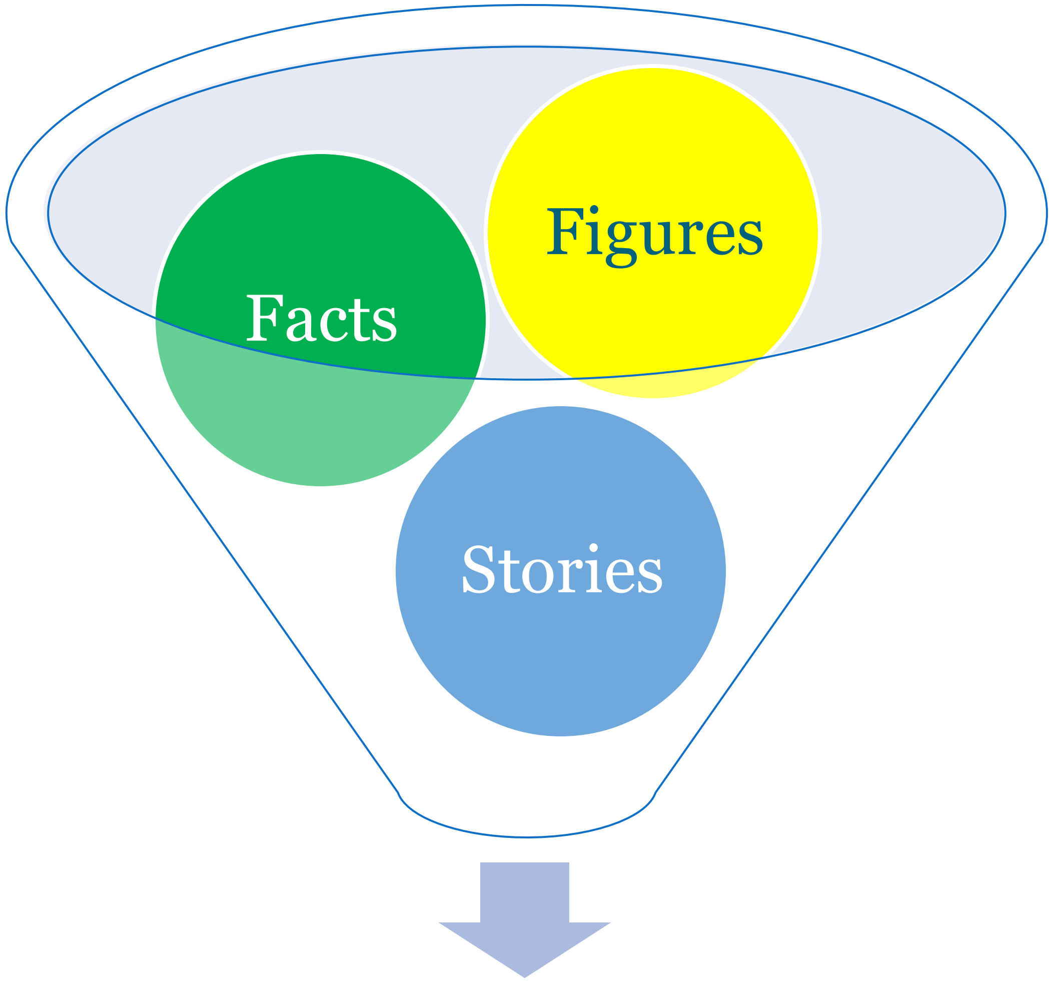
The work is not done when the data is stored!!

The processes for analysis and use of the data should be clearly defined during planning.



In the Analysis Process, Data Becomes Information

- <u>Data</u> is the facts that are observed, measured, collected and aggregated
- Data only becomes <u>information</u> for decision making once it has been analyzed in some fashion



Useful Information

A Quick Review of Data Analysis Techniques

- Count
- Compare
- Identify the factors
- Consider the trends

Your agency's plan should include a description of the analysis activities to be done.

Think about this:
How often is data aggregated and analyzed in your agency?

How often is it turned into information?

Activity – Is the statement a fact or is it information?

1. Unemployment has increased from 5% to 7% F or I
2. Families are unemployed because of job shutdowns F or I
3. # of families receiving rental assistance last year was 30 per month F or I
4. # families requesting rental assistance this year is 50 per month F or I
5. We expect the need for our rental assistance service to increase as long as there are job shutdowns. F or I
6. We will have to extend our service hours and may need to have additional staff to meet the increased demand. F or I

Is the statement a fact or is it information?

1. Unemployment has increased from 5% to 7% — F or I
2. Families are unemployed because of job shutdowns — F or I
3. # of families receiving rental assistance last year was 30 per month — F or I
4. # families requesting rental assistance this year is 50 per month — F or I
5. We expect the need for our rental assistance service to increase as long as there are job shutdowns. — F or I
6. We will have to extend our service hours and may need to have additional staff to meet the increased demand. — F or I

In Analysis of Data, You Must Know What You Want to Know

- Establish what you want to know
- Identify who has the data necessary to tell you what you want to know and where the data is located,
- Consider what "buckets" or different data classifications you want to examine.
- Is this driven by internal or external reporting requirements?
- Is this driven by Local Theory of Change validation?
- Agency staff? Partners?
- Demographics? Community statistics?

A Series of Questions You Want To Answer With Your Data

- Did we do what we thought we would do?
- Did we serve the population we thought we would serve?
- Did we make an impact on the identified needs?
- Can we tell what services (or set of services) produced the best opportunity for results?
- Are some populations achieving outcomes at different rates than others?
- Did we recruit and enroll sufficient numbers to allow us to achieve our target outcomes?
- Do we need additional resources?
- Was there something unexpected that influenced the outcomes?

Use of Data

Preview to Next Workshop

We are accustomed to using data for “reporting.”

This should not be the primary reason to “measure” anything!

Do we have the right data?

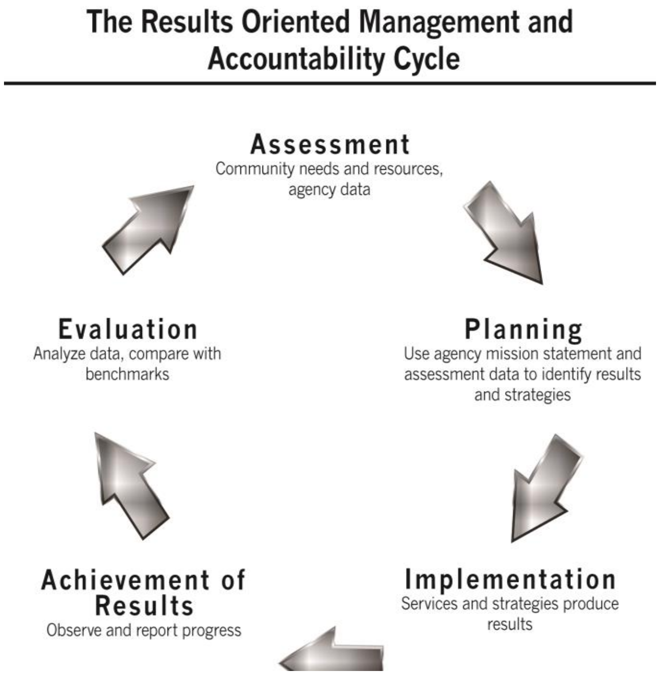
The analysis of data can lead to changes in the measurement tool and process if it is not providing the right information (enough information, etc.)

We can identify things we want to know beyond what we have thought about in the past!!

Use of Data collected

Purpose of tool	Data Utilization Process (how is the data from this tool used in the program?)
Individuals got the job	Use to identify the employers who hired, demographics about participants
Identify Parent Relationship Skill Level	How much parents know about their role in child development ? What do the need to know?
Documents work done; document change in bills	Used in reporting

Use the Data!



The ROMA Cycle = CQI

- Continuous Quality Improvement (CQI) includes putting analysis of your measurement tools and processes **into action**.

Next Steps

- Consider sharing the things that you learned during this workshop with your peers.
- How might you apply your learning to your agency?
- Identify a plan of action!!

For more information

Barbara Mooney
barbaramooney@windstream.net
Carey Gibson
careylgibson@gmail.com
Maribeth Schneber-Rhemrev
mschneberrhemrev@communityactionpartnership.com

This presentation was created by the National Association of Community Action Agencies – Community Action Partnership, in the performance of the U.S. Department of Health and Human Services, Administration for Children and Families, Office of Community Services Grant Number, 90ET0469. Any opinion, findings, and conclusions, or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the U.S. Department of Health and Human Services, Administration for Children and Families.

Website:
www.communityactionpartnership.com