



Best Practices In Low-Income Programming

Jackie Berger

NEUAC Conference
June 7, 2016

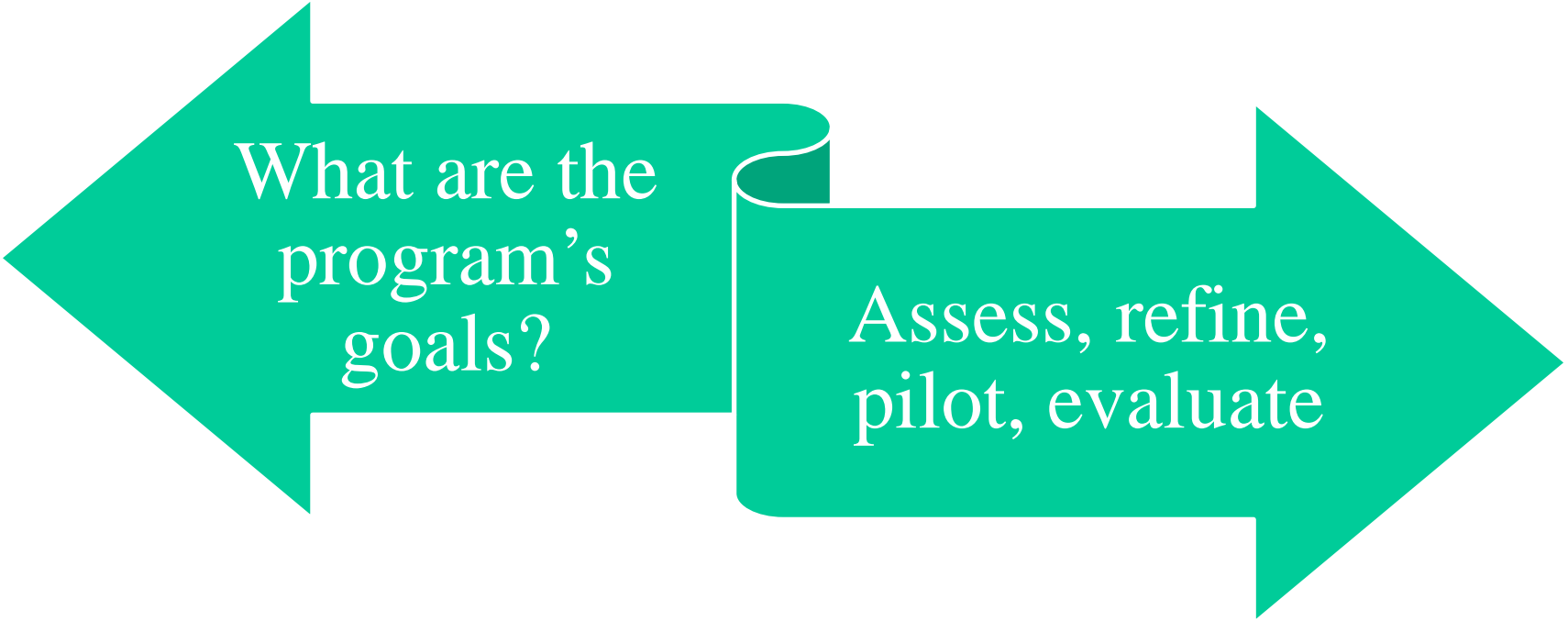
Presentation Outline

Design Elements

- Program Goals
- Eligibility and Targeting
- Services
- Energy Education
- Service Delivery Organizations
- Data Management
- Quality Control
- Evaluation

Recommendations

Key Ideas



What are the
program's
goals?

Assess, refine,
pilot, evaluate

PROGRAM GOALS

Program Goals Examples

Save 10% of pre-treatment
energy usage

Achieve a benefit-cost ratio of
1.25

Treat 2,000 homes per year

Program Goals Options

Inputs

- \$ Spent
- Innovative Methods

Outputs

- Homes Treated
- Vulnerable Customers Served
- Measures Installed

Outcomes

- % Saved
- \$ Saved on Energy Costs
- \$ Saved on Ratepayer Subsidy
- Benefit-Cost Ratio
- Avoided Emissions

Program Goals

Advantages & Disadvantages

- Amount spent per home

- *Advantages*

- Ensure that a certain number of homes can be served within the allocated budget.

- *Disadvantages*

- May not allow enough flexibility to address homes with severe problems.
 - May be leaving savings opportunities unaddressed.

Program Goals

Advantages & Disadvantages

- Innovative usage reduction measures
- Innovative program delivery systems
 - *Advantages*
 - Allows for testing of these new measures and systems that may prove to be cost-effective in the long-run.
 - May lead to more effective program.
 - *Disadvantages*
 - Due the to learning curve, program may not be as cost-effective.
 - Need opportunity to pilot test.

Program Goals

Advantages & Disadvantages

- Serve high need customers
 - *Advantages*
 - Provides benefits to those who may suffer most from unaffordable energy bills.
 - *Disadvantages*
 - May not provide the most cost-effective program if these are not the highest energy users.

Program Goals

Advantages & Disadvantages

- Energy Savings

- *Advantages*

- Sets concrete standards of measurement for program and contractor.

- *Disadvantages*

- Particular level of savings may be difficult to reach depending on condition of customer homes and budget constraints.
 - Time lag to estimate impacts based on billing data.

Program Goals

Advantages & Disadvantages

- Cost-Effectiveness

- *Advantages*

- Concrete
 - Justifiable

- *Disadvantages*

- Which formula – TRC, Utility, Societal...
 - Difficulty and controversy in measuring benefits – health impacts, environmental, etc.

Program Goals Best Practices

Relates to program's mission

Outcome measure

Concrete

- Save X ccf/kWh on average per home served
- Reach 1.25 benefit-cost ratio

Measurable

- Plan for how you are going to measure

Challenging, but achievable

- Based on past results or other benchmark

ELIGIBILITY TARGETING

Eligibility and Targeting Examples

Eligibility

- Income below 150% of poverty level
- Usage above 1,200 ccf/year

Targeting

- Treat highest users first
- 80% must participate in payment assistance program

Eligibility and Targeting Examples

- PGW – one contractor initially targeted highest users, but found too many barriers in home.
- PGW – good savings with very high usage customers.
- OH REACH – additional services delivered to customers with health problems.
- NJ Comfort Partners & PPL – customers at subsidy limit can benefit.

Eligibility and Targeting Options

Related to
Need

Poverty Level

Energy Burden

Vulnerable Households

Related to
Potential
Savings

Energy Usage

Home Ownership

Related to
Ratepayer
Benefit

Participation in payment assistance program

Payment-troubled

Eligibility and Targeting Advantages & Disadvantages

- Poverty Level

- *Advantages*

- More restrictive limits mean that those with the least ability to pay their bills receive services.

- *Disadvantages*

- More restrictive limits may mean that the highest use customers are may not be served.

Eligibility and Targeting Advantages & Disadvantages

- Vulnerable households (young children, elderly, disabled)
 - *Advantages*
 - Reduce energy usage for those who are sensitive to temperature extremes.
 - Nonprofit agency can prioritize these households for service delivery.
 - *Disadvantages*
 - May not result in greatest usage reduction.
 - May restrict opportunity to coordinate with utility programs.

Eligibility and Targeting Advantages & Disadvantages

- Energy Usage

- *Advantages*

- Usually results in greatest energy savings.
 - Utilities can develop lists sorted by usage.

- *Disadvantages*

- May not focus on needs due to other characteristics – vulnerability, burden, other.
 - Conditions in highest usage homes may prevent major measures.

Eligibility and Targeting Advantages & Disadvantages

- Home Ownership

- *Advantages*

- Home owners may be more likely to remain in home and see benefits over time.
 - Landlord permission is not needed.

- *Disadvantages*

- Reduces pool of eligible households.
 - Some needy or high usage households are not served.

Eligibility and Targeting Advantages & Disadvantages

- Participation in bill payment assistance programs
 - *Advantages*
 - Reductions in usage result in reduction in subsidies that burden the ratepayers.
 - *Disadvantages*
 - Other needy customers not served.
 - May be less incentive for participants to take energy-saving actions.

Eligibility and Targeting Advantages & Disadvantages

- Payment-troubled customers

- *Advantages*

- May increase bill payment coverage rates.
- Customers may be motivated to reduce usage.
- Utility can target customers who express need for assistance.
- WAP agency can target customers who received LIHEAP.

- *Disadvantages*

- May not result in greatest usage reduction.
- Some households may be better served with energy assistance (low usage, lowest income.)

Eligibility and Targeting Best Practices

Review goals

Assess other available programs

- May try to reach population that is not served by other programs

Revisit over time

- After several years, may need to revise pre-treatment usage guideline down

SERVICES

Services Example

- CO Energy Efficiency Programs
 - Targeted based on usage
 - Full cost
 - Low cost in home
 - Kit with postcard
 - Kit sent to list
- PPL WRAP
 - Targeted based on usage and customer type
 - Full cost
 - Water heating
 - Baseload

Services Options

Maximize Savings

- Comprehensive
- Varied, depending on energy usage

Treat Target Number of Households

- Cost threshold
- Minimal services

Services

Advantages & Disadvantages

- Comprehensive

- *Advantages*

- Maximize usage reduction for homes served. More major measures result in greater savings.
 - Minimize administrative expenses as a percentage of total costs.
 - Reduce need for another program to return to home.

- *Disadvantages*

- Fewer homes may be served.

Services Vary By Customer Usage

- *Advantages*
 - Service level is targeted to need.
 - Cost-effectiveness maximized in each home.
- *Disadvantages*
 - Households are not treated equally.

Services

Advantages & Disadvantages

- Cost threshold

- *Advantages*

- Serve a greater number of households.
 - Ensure that a minimum number of households are served.

- *Disadvantages*

- Does not take individual household circumstances into account.
 - May spend too little in some homes and too much in others.
 - May spend more than what is cost-effective in some homes.

Services Advantages & Disadvantages

- Minimal

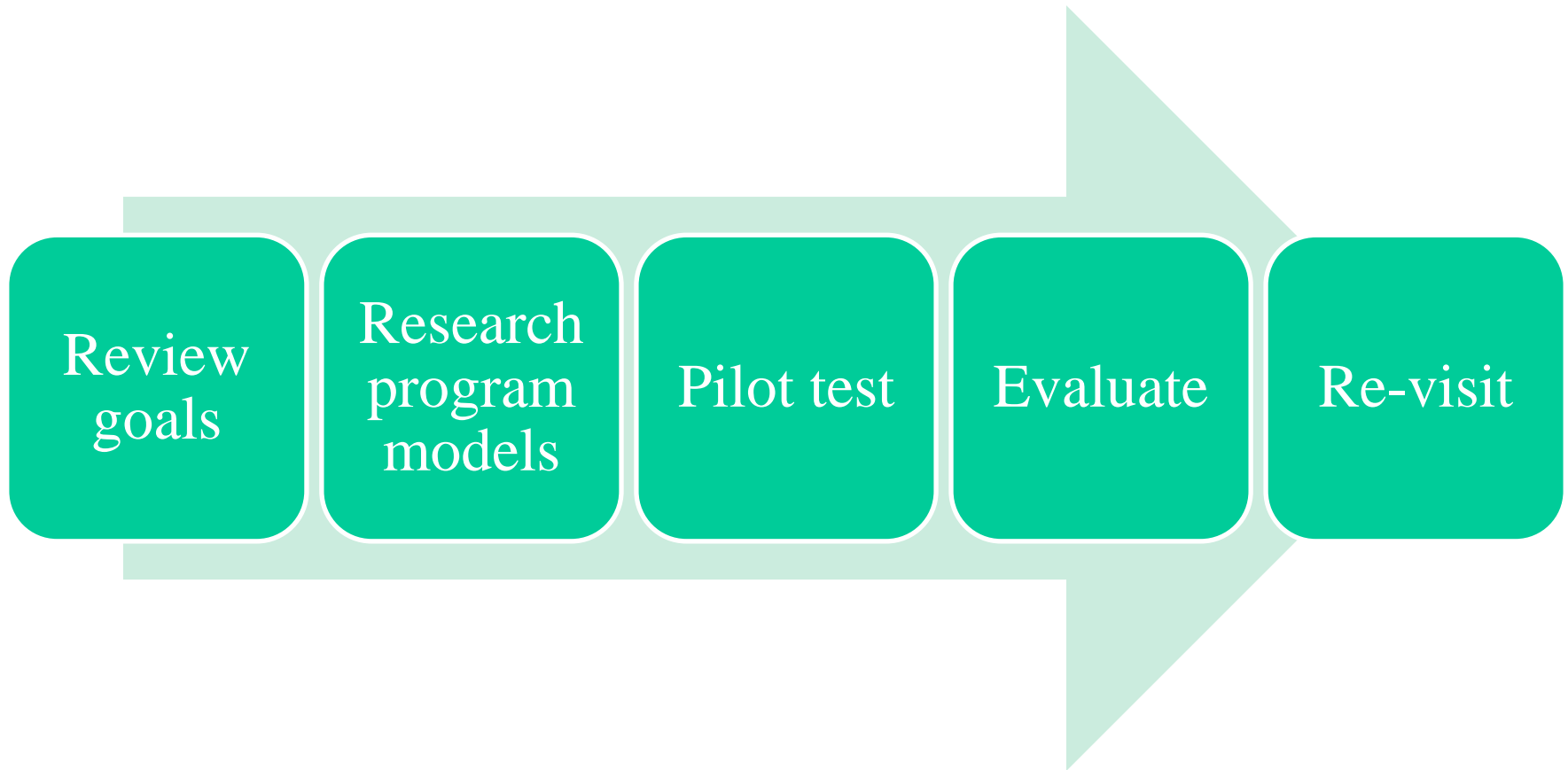
- *Advantages*

- Increase number of households served.

- *Disadvantages*

- Customers may not receive significant savings.
 - Administrative costs are duplicated when other programs return to serve the household.

Services Best Practices



ENERGY EDUCATION

Energy Education Examples

- NJ Comfort Partners
 - Energy education notebook
 - 2 hours allocated
- PECO
 - Energy education in home
 - Monthly follow-up letters

Energy Education Options

Partnership between program/educator and customer

Understanding the energy bills

Energy use and costs around the home

Customer goals for usage reduction

Customer action plan

Follow-up

Energy Education Advantages & Disadvantages

- Partnership between program /educator and customer
 - *Advantages*
 - If successful, customer has more motivation to take steps to reduce energy usage.
 - *Disadvantages*
 - Takes skilled and dedicated auditor to make it work.

Energy Education Advantages & Disadvantages

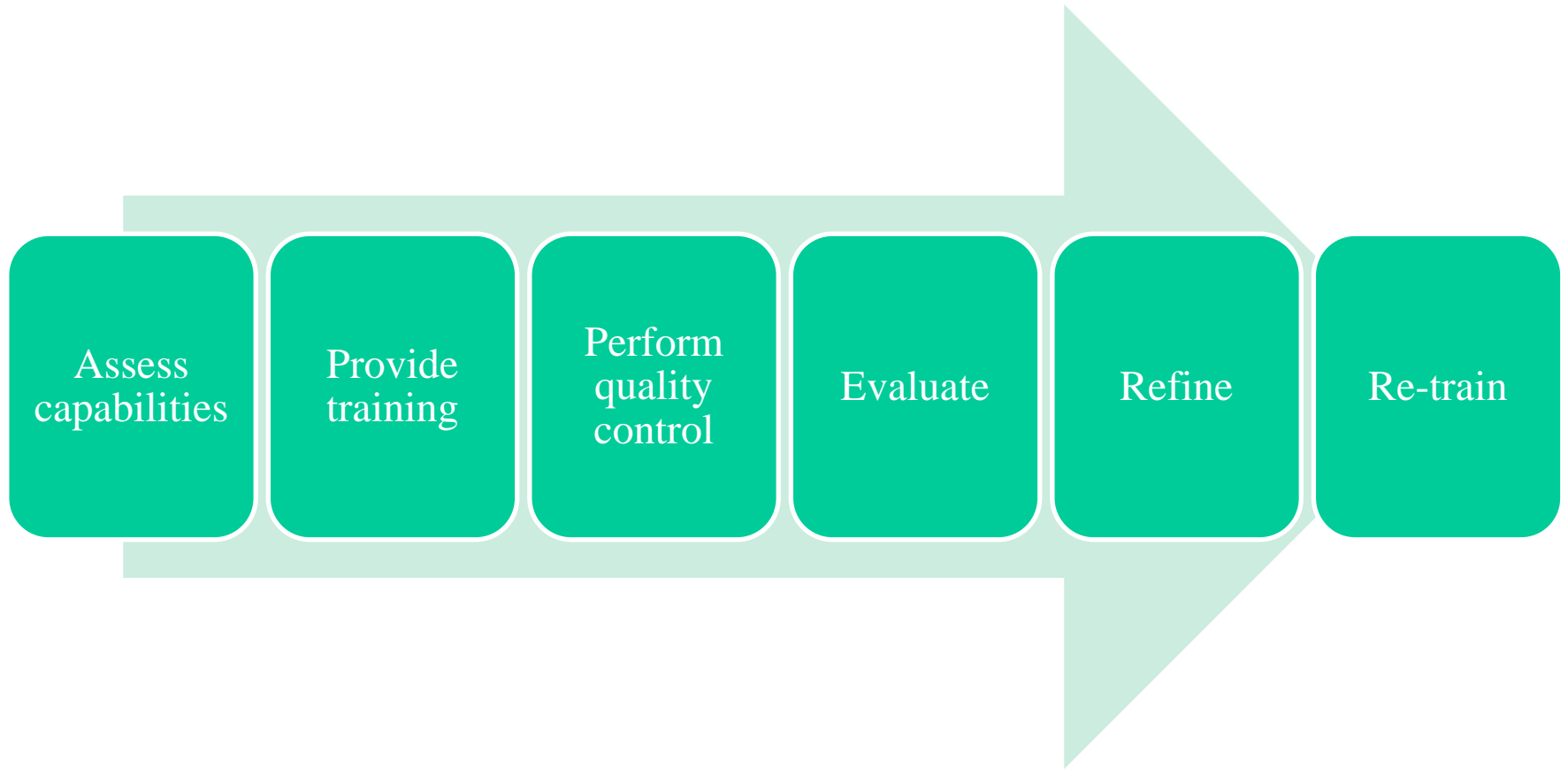
- Understanding the energy bills
- Energy use and costs around the home
 - *Advantages*
 - If the customer understands how to read the bill and determine when usage is decreasing, it provides positive re-enforcement for energy-saving actions.
 - Allows customer to make decisions about energy usage based on the costs of those uses.
 - *Disadvantages*
 - Requires auditor with good communication skills.
 - Increases length of audit.

Energy Education

Advantages & Disadvantages

- Customer goals for usage reduction
- Customer action plan
 - *Advantages*
 - Provides motivation for customer to reduce energy usage.
 - Provides direction for customer.
 - *Disadvantages*
 - Some customers will not be interested.
 - Auditors must be skillful and willing to take the time required.

Energy Education Best Practices



SERVICE DELIVERY ORGANIZATIONS

Service Delivery Options

- Private contractors
- Weatherization agencies
- Community Action Agencies
- Other nonprofit
- Mix of the above groups

Service Delivery Advantages & Disadvantages

- Private contractors

- *Advantages*

- Cash flow management.
 - Data management capabilities.
 - Ability to hire additional staff.

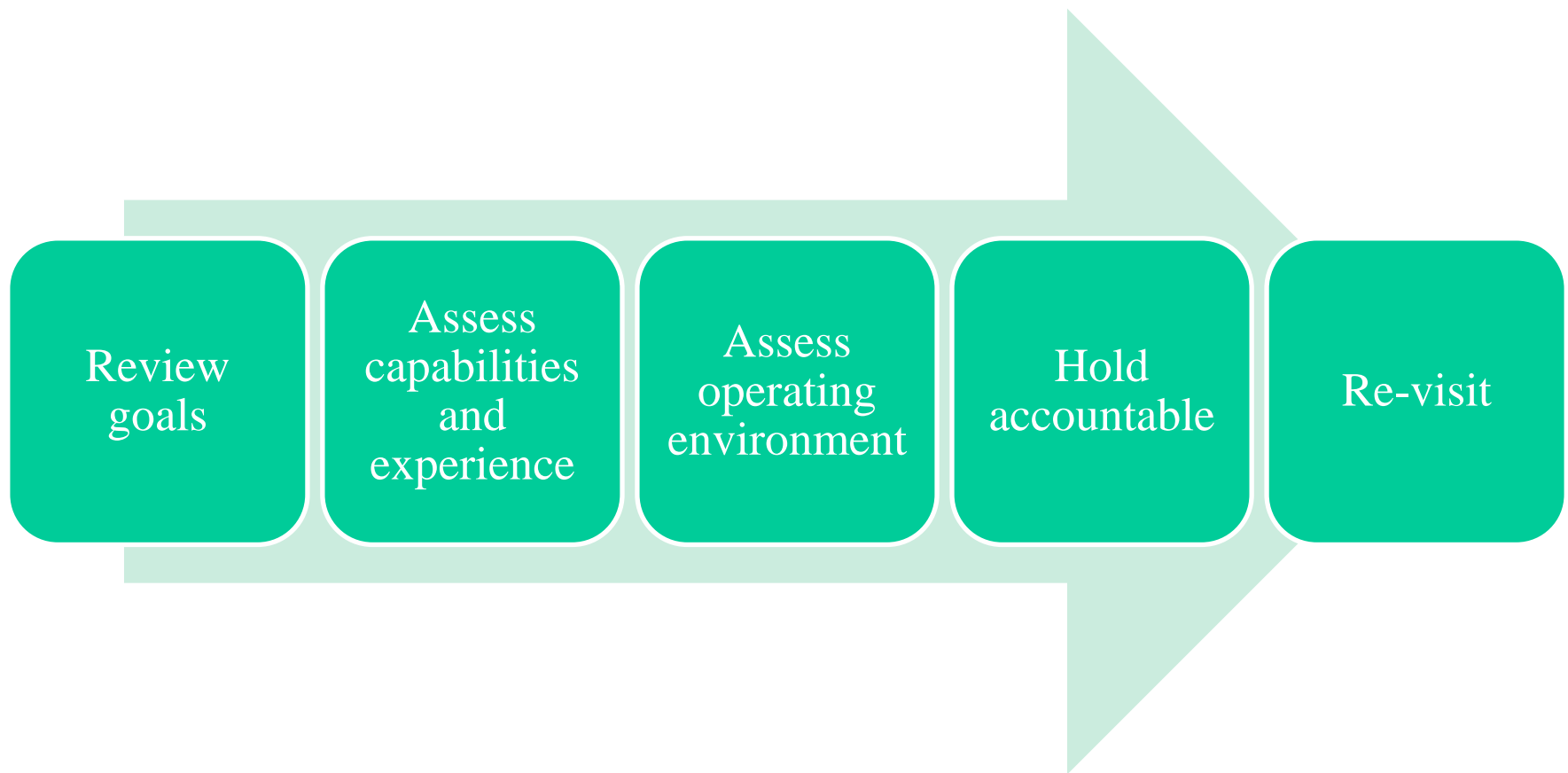
- *Disadvantages*

- May have less knowledge/experience with other public programs.
 - May be too focused on profit.

Service Delivery Advantages & Disadvantages

- Weatherization Agencies
- Community Action Agencies
- Other nonprofit
 - *Advantages*
 - Ability to provide joint service delivery of multiple utility programs and/or WAP.
 - WAP agencies already have consistent policies, procedures, training that can be applied in utility program.
 - *Disadvantages*
 - May not have experience with contract work.

Service Delivery Best Practices



DATA MANAGEMENT

Data Management Options

- Paper Data Collection
 - Data collected on paper at the customer's home.
 - Data entered by contractor after the visit.
- Computerized Data Collection
 - Customer data loaded into software.
 - Data entered in laptop or tablet while in the customer's home.
 - Data uploaded to data management system.

Data Management

Advantages & Disadvantages

- Computerized data collection
 - Advantages
 - Auditor can have customer data (including usage) available on site.
 - Data entry is not necessary following the visit.
 - Software can calculate cost-effectiveness based on customer usage and other characteristics.
 - Auditor can print report for customer on site.
 - Disadvantages
 - Computer can interview with customer relationship.
 - Data can be lost.
 - Providers may be resistant.

Data Management Best Practices

Assess data
needs

- Management
- Operations
- Evaluation

Assess
capabilities
and
experience

Assess
operating
environment

Perform
cost-benefit
analysis

Provide
training

QUALITY CONTROL

Quality Control Options

- Internal/External
 - State or utility personnel
 - Third party inspectors
- Sampling
 - Percent of jobs inspected
- Targeting
 - Job types
 - Equal/random inspection of each contractor
 - Focus on contractors who have shown problems in the past

Quality Control Advantages & Disadvantages

- External quality control

- *Advantages*

- More time may be devoted to quality control.
 - May have more systematic procedures for quality control.
 - May be more objective.

- *Disadvantages*

- May be more expensive.
 - Inspectors may not have good understanding of program design and procedures.

Quality Control Best Practices

Assess
provider
capabilities
and experience

Develop
systematic
procedures

Collect and
review data

Re-visit based
on findings

EVALUATION

Evaluation Options

Internal/External

- Conducted by state/utility
- Conducted by third party evaluator

Impact

- Energy usage
- Bill payment
- Environmental
- Economic

Process

- Efficiency/effectiveness of program
- On-site observation and inspections of completed jobs
- Why is the program achieving the outcomes

Evaluation Advantages & Disadvantages

- External

- *Advantages*

- More time may be devoted to evaluation.
 - Evaluation expertise.
 - May have more systematic procedures for evaluation.
 - May be more objective / less biased.

- *Disadvantages*

- More expensive.
 - May not have an understanding of the program and components.

Evaluation Best Practices

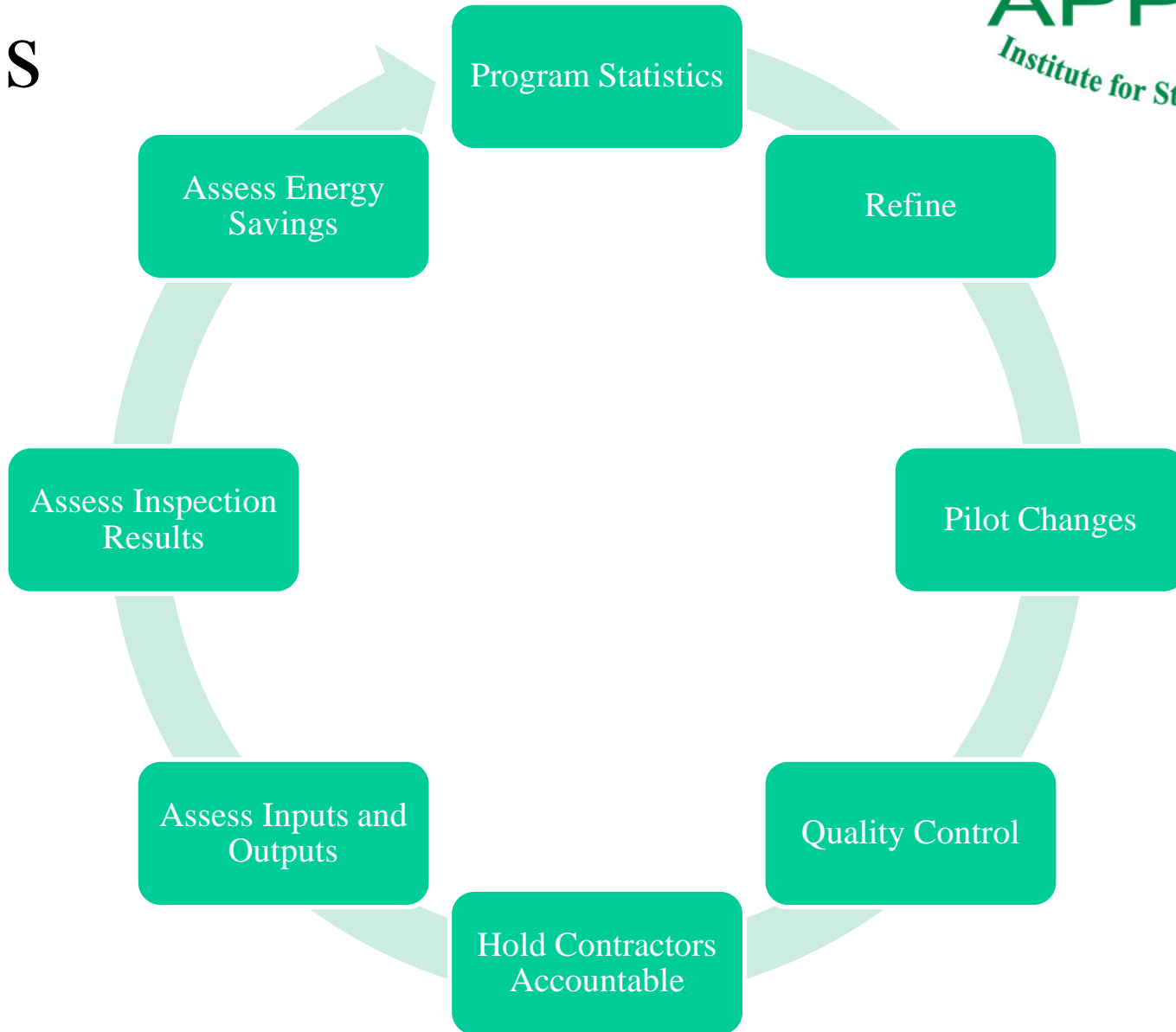
Assess information needs

Design evaluation

Use results to improve performance

- Policies and procedures
- Systems and tools
- Training
- Quality Control

Performance Measurement Steps



SUMMARY

Summary

Recommendations

- **Identify and prioritize goals**
- Recognize unique characteristics of environment
 - Geography/weather
 - Political/social
 - Resources
- Review program models
- Pilot test before implementing
- **Evaluate and improve**

Contact

Jackie Berger

APPRISE

32 Nassau Street, Suite 200

Princeton, NJ 08540

609-252-8009

jackie-berger@appriseinc.org

www.appriseinc.org