

LIHEAP Performance Data Quality: *Verifying the Reliability of Your Data*

LIHEAP Webinar hosted by the Office of Community Services (OCS) in the Administration for Families and Children (ACF) presented by APPRISE under contract to OCS

September 19, 2019

Welcome:
Holly Ravesloot (OCS)



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Welcome

- **Purpose of Webinar**

- Grantees have asked ... *How do I know that my Performance Data is reliable enough to support making changes in my program design or policies?* The purpose of this webinar is to help grantees answer that question.

- **Information Furnished**

- A comprehensive framework to use for data reliability assessment
- New tools that ...
 - Help you prioritize your review and assessment of data reliability
 - Furnish benchmarks that alert you to data reliability issues
 - Show you how to identify the source(s) of data reliability problems

- **Audience for This Webinar**

- LIHEAP Coordinators and program staff who want to use their data for Performance Management
- IT staff who assist with collecting, reviewing, and processing performance data

Background

- OCS has a history of working with grantees to ensure that quality information is furnished to Congress, stakeholders, and the public about LIHEAP.
 - For many years, DEA staff manually reviewed grantee reports and assisted grantees that faced data reliability challenges.
 - More recently, DEA has implemented several steps to help grantees with data reliability, including:
 - Conducting annual training webinars on completing required reports
 - Adding automatic data validations in OLDC to assist grantees with identifying issues prior to report submission
 - Developing data checking procedures and resources
 - Contracting with APPRISE to conduct report reviews and furnish grantees with technical assistance

Background

- In FFY 2016, Grantees began collecting and reporting new Performance Measures data.
- In 2018, the Performance Management Implementation Work Group (PMWIG) established a Data Reliability Team.
- Data Reliability Team Goals:
 - Provide case study examples of how grantees have examined the reliability of their data.
 - Develop a framework to assist grantees with understanding data reliability.
 - Produce new tools to help grantees assess their data and determine if the data are sufficiently reliable for making programmatic decisions.

Webinar Overview

- **Structure of The Webinar**

- 90 minutes to review:

- Data Reliability Case Study: Montana

- Introduction to the ***Data Reliability Guide***

- o Overview of the Data Reliability Assessment Framework

- o Setting Priorities for Data Reliability Assessment

- o Demonstration of the Data Reliability Assessment Tool

- Slides available for download now under “Handouts” in the GoToWebinar Sidebar.

- The webinar is being recorded and will be published on the ACF YouTube channel.

Webinar Speakers

PMIWG Data Reliability Team Members:

- Jenni Sullivan (PMIWG, Montana)
- Lorraine Portis (PMIWG, Mississippi)
- Casey Killion-Letran (PMIWG, Oklahoma)
- Kinisha Floyd (PMIWG, Tennessee)

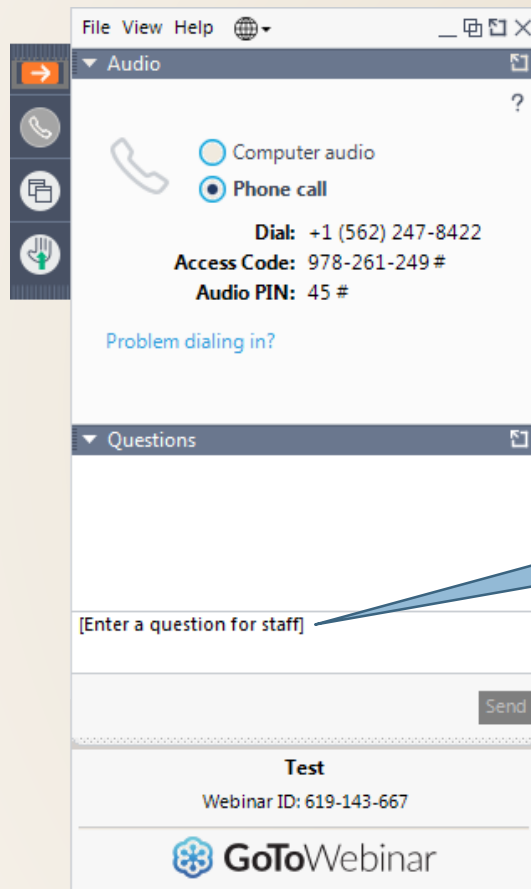
APPRISE PMIWG Support Team:

- Melissa Torgerson (Verve Associates)
- Dan Bausch (APPRISE)
- David Carroll (APPRISE)
- Kevin McGrath (APPRISE)

Have a Question?

- You are encouraged to ask questions as you have them by typing them into the GoToWebinar “Question” box.
- Submitted questions will be discussed at the end of each part of the Webinar.
- You can also click the “raise your hand” button at the end of each part of the Webinar to be called on to ask a question over the phone.

GoToWebinar Question Box



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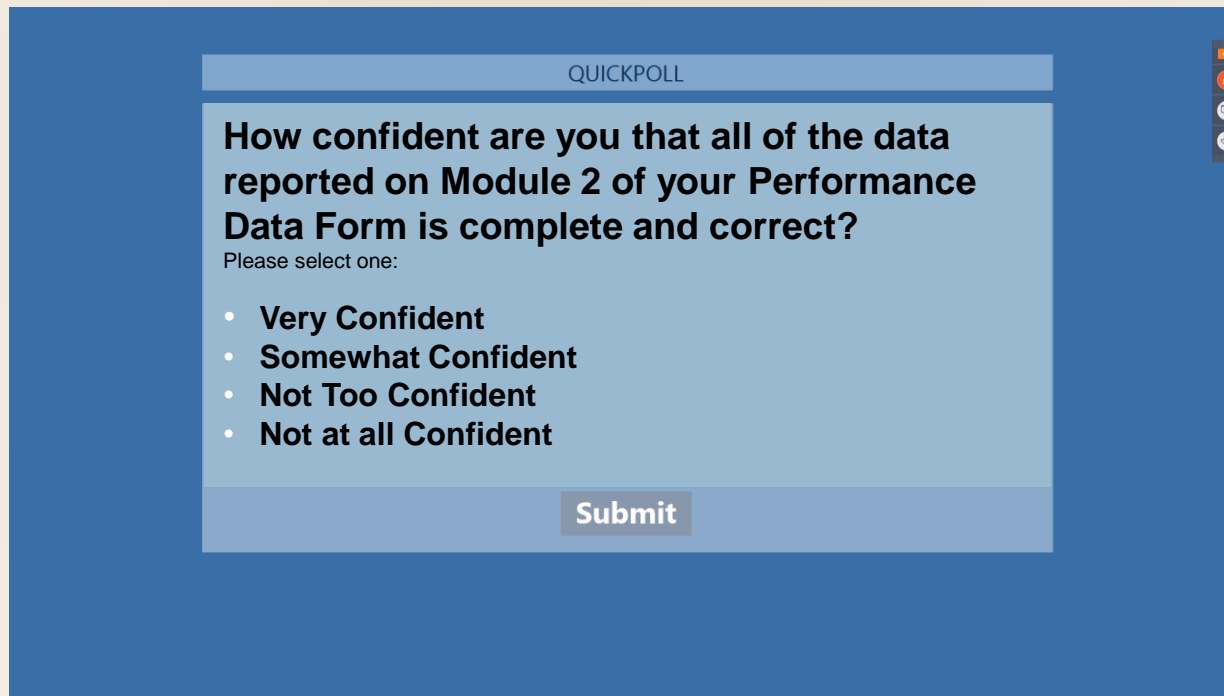
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Audience Poll Question #1

- How confident are you that all of the data reported on Module 2 of your *LIHEAP Performance Data Form* is **complete and correct**?



QUICKPOLL

How confident are you that all of the data reported on Module 2 of your Performance Data Form is complete and correct?

Please select one:

- **Very Confident**
- **Somewhat Confident**
- **Not Too Confident**
- **Not at all Confident**

Submit

The screenshot shows a blue-themed poll interface. At the top, it says 'QUICKPOLL'. The main question is 'How confident are you that all of the data reported on Module 2 of your Performance Data Form is complete and correct?'. Below the question, it says 'Please select one:' followed by four radio button options: 'Very Confident', 'Somewhat Confident', 'Not Too Confident', and 'Not at all Confident'. At the bottom of the poll area is a 'Submit' button. On the right side of the poll area, there is a vertical toolbar with icons for back, forward, and other navigation functions.

Audience Poll Question #1

Review Audience Poll Responses

Data Reliability Case Study: *Montana*



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Montana's Data Reliability Case Study

Background

- For the FY 2016 Performance Measures, Montana collected complete energy burden information to report in Section V for almost 10,000 households.
- Montana successfully collected and reported data for more than 900 propane main heat households.
- Montana had confidence in the Performance Measures results, but identified a result that raised questions about their propane benefit amounts and the data reliability.

Montana's FY 2016 Performance Measures

Executive Summary

MONTANA FY 2016 LIHEAP PERFORMANCE MEASURES EXECUTIVE SUMMARY

In FY 2016, Montana furnished LIHEAP bill payment assistance to 17,769 households. They collected energy burden data for 9,781 households (55%)

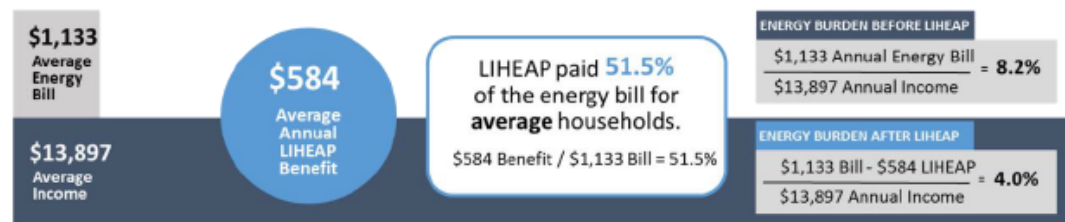
Does LIHEAP furnish higher benefits to higher burden households?

→ **Yes.** In Montana, the total LIHEAP benefit received by high burden households in FY 2016 was about **\$194 (33%) more** than the total LIHEAP benefit received by the average recipient household.

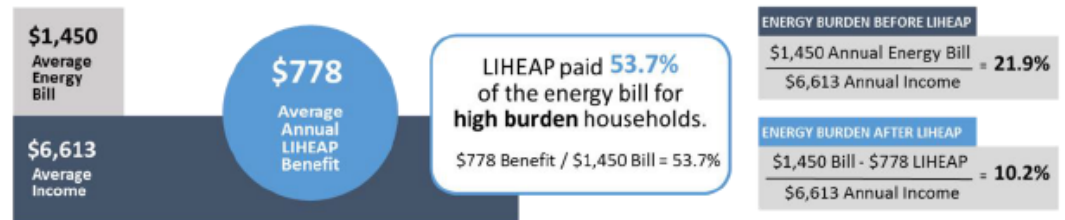
Does LIHEAP pay a larger share of the home energy bill for high burden households?

→ **Yes.** In FY 2016, LIHEAP paid **51.5%** of the energy bill for average households in Montana, while LIHEAP paid **53.7%** of the energy bill for high burden households.

All Households



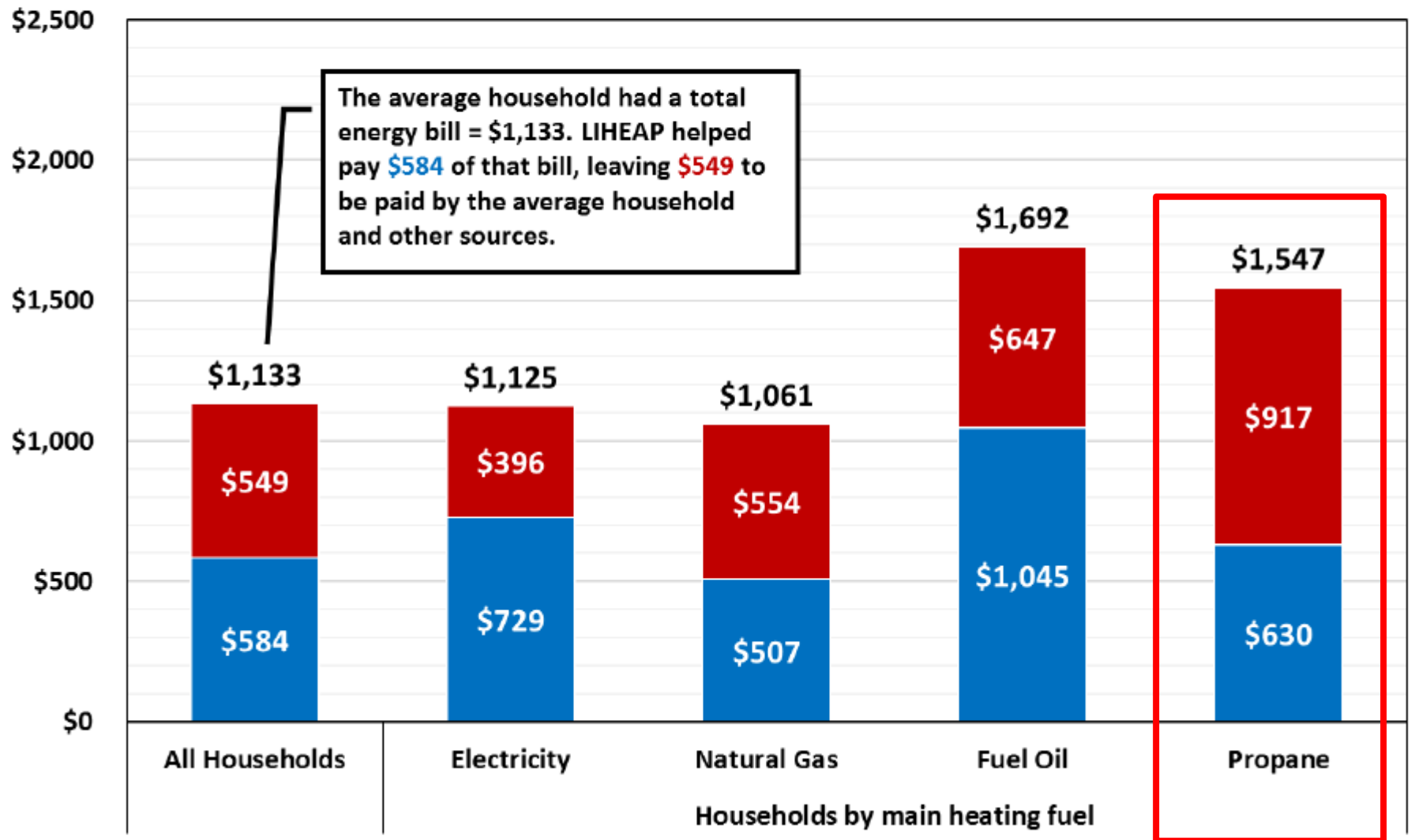
High Burden Households



- Overall, Montana furnished higher benefits to high burden households and paid a larger share of the home energy bill for high burden households.
- *What about results by main heating type?*

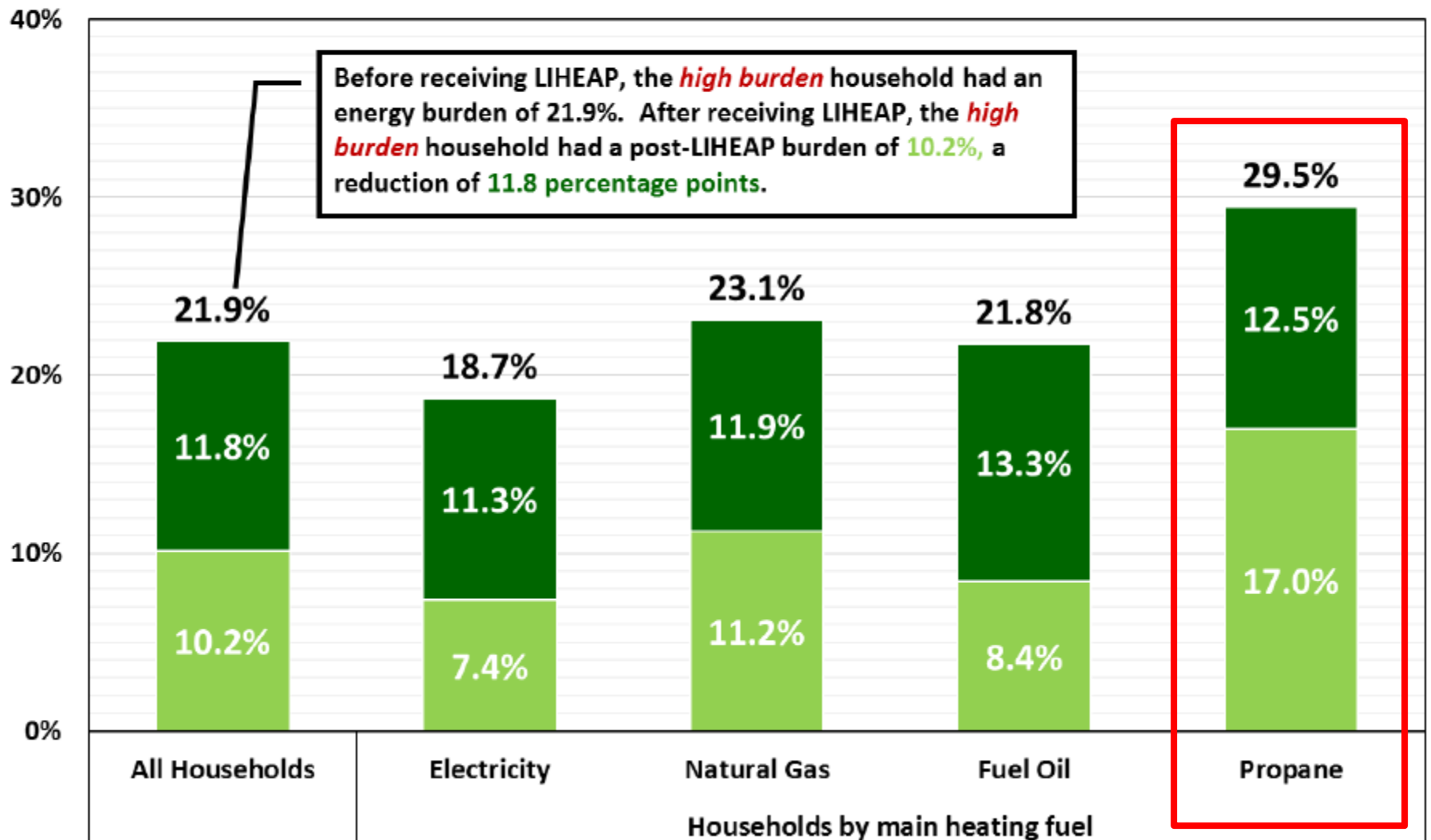
Average Households (Section B) Average Energy Bill and LIHEAP Benefits

■ Ave. Annual Benefit ■ Ave. Annual Net Bill



High Burden Households (Section C) Pre and Post-LIHEAP Energy Burden

■ Post-LIHEAP Burden ■ Reduction in Energy Burden (percentage point)



Montana's FY 2016 Performance Measures

Results for Propane Households

- **Before LIHEAP assistance...**

- Propane households had an average energy burden similar to fuel oil households.

- **LIHEAP Assistance:**

- The average benefit provided to propane households was significantly lower than the benefit amount provided to fuel oil households.

- **After LIHEAP assistance...**

- Propane households had a lower share of the bill paid by LIHEAP than for fuel oil households.
- Propane households had the highest average post-LIHEAP energy burden.
- The differences were more pronounced for the high burden households.

Conclusion: The data indicated that propane households did not have an equivalent reduction in energy burden to other fuel groups.

Presenter(s):
Dan Bausch

Montana's Data Reliability Assessment Questions

To further investigate, Montana worked with APPRISE to address the following questions:

1. Was the **propane expenditure data** MT reported correct, or was there a data reliability issue?
2. Was the **LIHEAP benefit data** MT reported correct, or was there a processing or reporting error?
3. If the reported Performance Data is correct, **what data does MT use to determine propane benefit levels**, and is that data reliable or is there a data quality issue?

Montana's Data Reliability Assessment Results

- **Was the *propane expenditure data* MT reported correct, or was there a data reliability issue?**
 - Did we collect the annual propane expenditure data from propane vendors? **YES**
 - Did we collect the annual electricity expenditure data for the same propane households? **YES**
 - Did we process the data correctly to calculate the average expenditure amounts? **YES**
- **Was the *LIHEAP benefit data* MT reported correct, or was there a processing or reporting error?**
 - Did we accurately record the benefit amounts each household received? **YES**
 - Did we include all benefits the household received during the fiscal year? **YES**
 - Did we process the data correctly to calculate the average expenditure amounts? **YES**

Montana's Data Reliability Assessment Results

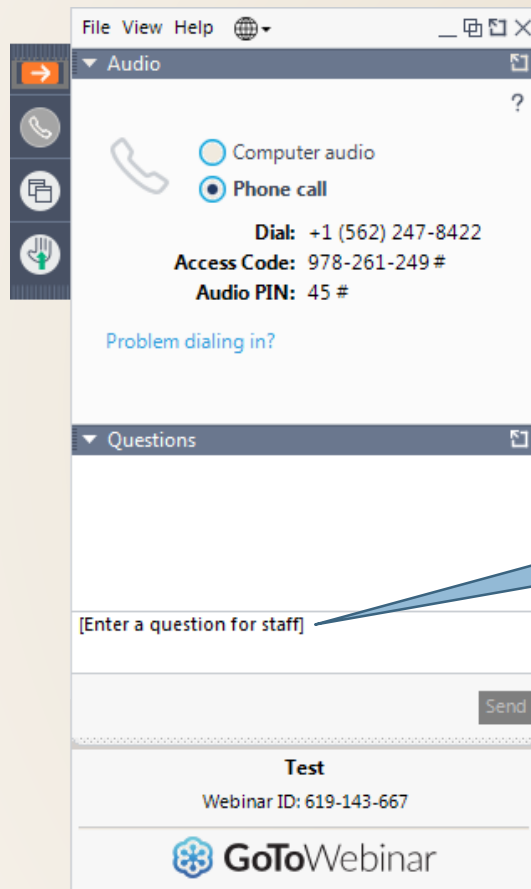
- **If the reported Performance Data is correct, *what data does MT use to determine propane benefit levels?***
 - MT used projected propane prices for the upcoming winter to define propane benefit levels for the subsequent fiscal year.
 - These estimates were furnished by a sample of propane vendors.
- **Is that data reliable? NO**
 - The analysis found that the projected prices were lower than the actual prices during the heating season and were not a reliable approximation for the actual propane bills.

Montana's Data Reliability *Program Improvement*

As a result of the Analysis, Montana made the following change to their approach for determining propane benefit levels:

- **Initial Change:**
 - For FY 2018, Montana used a special process to provide additional supplemental benefits to their propane clients.
- **Long term Change:**
 - For FY 2019, Montana changed their policy for determining propane benefit amounts in their benefits matrix.
 - Montana now uses EIA fuel price data for Rocky Mountain Region, rather than projected future propane fuel prices from a survey of vendors.

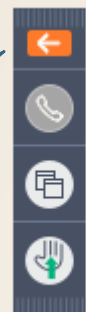
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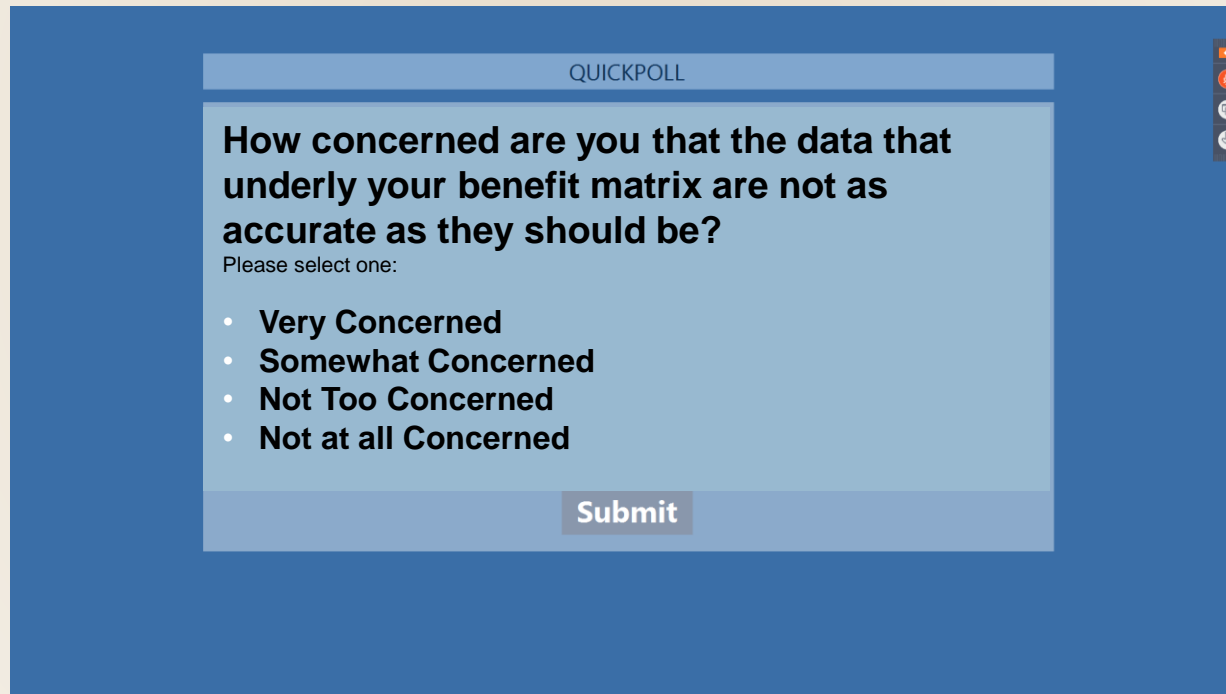
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Audience Poll #2

- How concerned are you that the data that underly your benefit matrix are not as accurate as they should be?



QUICKPOLL

How concerned are you that the data that underly your benefit matrix are not as accurate as they should be?

Please select one:

- **Very Concerned**
- **Somewhat Concerned**
- **Not Too Concerned**
- **Not at all Concerned**

Submit

Audience Poll #2

Review Audience Poll Responses

Introduction to the *Data Reliability Guide*



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Approaching Data Reliability

Data Reliability Team Plans

- **Original Plan** – Develop Data Reliability Case Studies
- **Updated Plan** – Develop a Systematic and Comprehensive Approach to Assessment of Data Reliability
- **Rationale** – When stakeholders ask whether the Performance Measure data are adequate to use to make program changes, grantees need to be able to state clearly what they have done to make sure that their data are reliable
- **Approach** – Outline a procedure that shows how to look the entire process of collecting and reporting your data

Approaching Data Reliability Challenges

- The Team identified multiple challenges with developing an approach:
 - We collect many different data elements. *How do we begin to approach verifying the quality of our data with so many different pieces?*
 - How do we make sure that each of our many intake agencies are coding the data correctly?
 - We have a lot of different energy vendors with different types of IT systems. How do we make sure they are giving us the right data?
 - We do not have a dedicated IT staff for our program. How can we be sure that they understand what we are requesting?
- **We needed a systematic approach and turned to Melissa to help develop one for us...**

Data Reliability Assessment Framework

- Five key data elements that need to be of good quality to have reliable information on energy burden targeting:
 - 1. Main Heating Fuel**
 - The fuel that the client says they use most to heat their home.
 - 2. Annual Household Income**
 - Gross income for households receiving bill payment assistance.
 - 3. Total LIHEAP Bill Payment Assistance**
 - The total amount of benefits during the target fiscal year.
 - 4. Main Heating Fuel Bill**
 - The total amount billed for main heating fuel for a 12-month period.
 - 5. Electricity Bill**
 - The total amount billed for electricity for a 12-month period.

Data Reliability Assessment Framework

- To assist grantees, the Team developed a **Data Reliability Assessment Framework**.
- The goal is to provide a simple, but comprehensive framework for data quality assessment.
- Four Key Steps in Data Quality Assessment:
 1. Defining
 2. Collecting
 3. Recording
 4. Checking

Data Reliability Framework: *Defining*

Defining – Are we clear about what data should be collected?

- **Review the OCS Action Transmittal and Form Instructions**
 - The OCS AT furnishes instructions for completing the Performance Data Form.
- **Examine your Model Plan and Policy Manual**
 - Model Plan provides important specifications about the types and forms of data collected and reported in your state.
 - Policy Manual is likely to contain guidance on key Performance Management data elements like income and main heating fuel.

Data Reliability Framework: *Collecting*

Collecting – Are we collecting the best possible data for each household?

- **Check your Instrument**

- Review your state's data collection instrument(s) to ensure that it employs consistent language, clear question wording and precise questions to obtain the data you need.

- **Information from Different Systems**

- If you get information from more than one source, make sure that you are getting the same data from each system.

Data Reliability Framework: *Recording*

Recording – How are we using our system(s) to enter, track, and retrieve data?

- **Review Staff Training**

- Review training protocols for the staff that collects Performance Measures Data to ensure that they are appropriate and comprehensive.

- **Assess your Information Systems**

- Review that your data entry system is constructed in a way that reduces errors.

Data Reliability Framework: *Checking*

Checking – How are we identifying and preventing data errors?

- **Monitoring Procedures**

- Ensure that you have systematic procedures for reviewing case records and comparing the information reported by the client to the information that is stored in the information system(s).
- Ensure that you have a feedback system that diagnoses and remediates what appear to be systematic problems.

- **Information Validations**

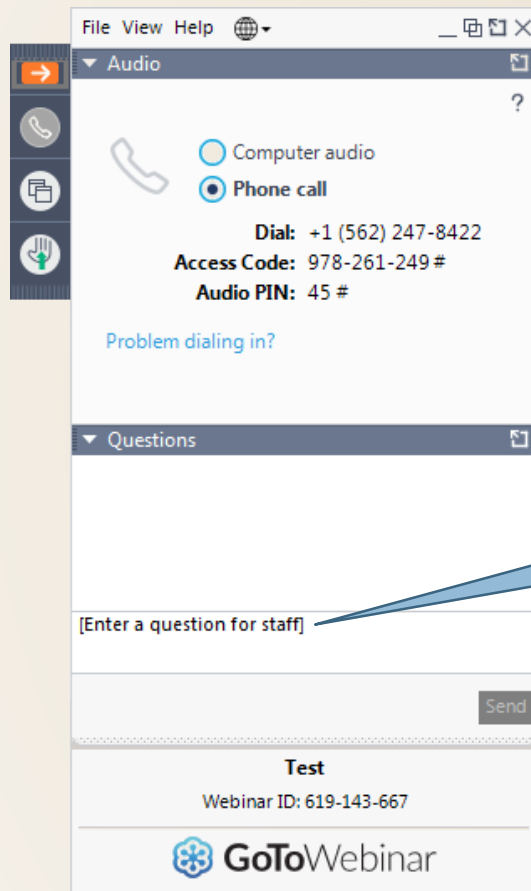
- Set up value range and consistency checks that will identify potential problems with key data elements.
- Ensure that you have a procedure for reviewing the output from those checks that help to both improve the current data and future data collection procedures.

Energy Burden Data Reliability Guide

Show Data Reliability Guide

- **Data Reliability Guide – Overview – Page 1**
- **Data Reliability Guide – Assessment Framework – Pages 2 and 3**

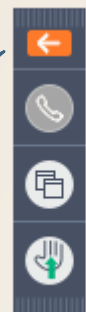
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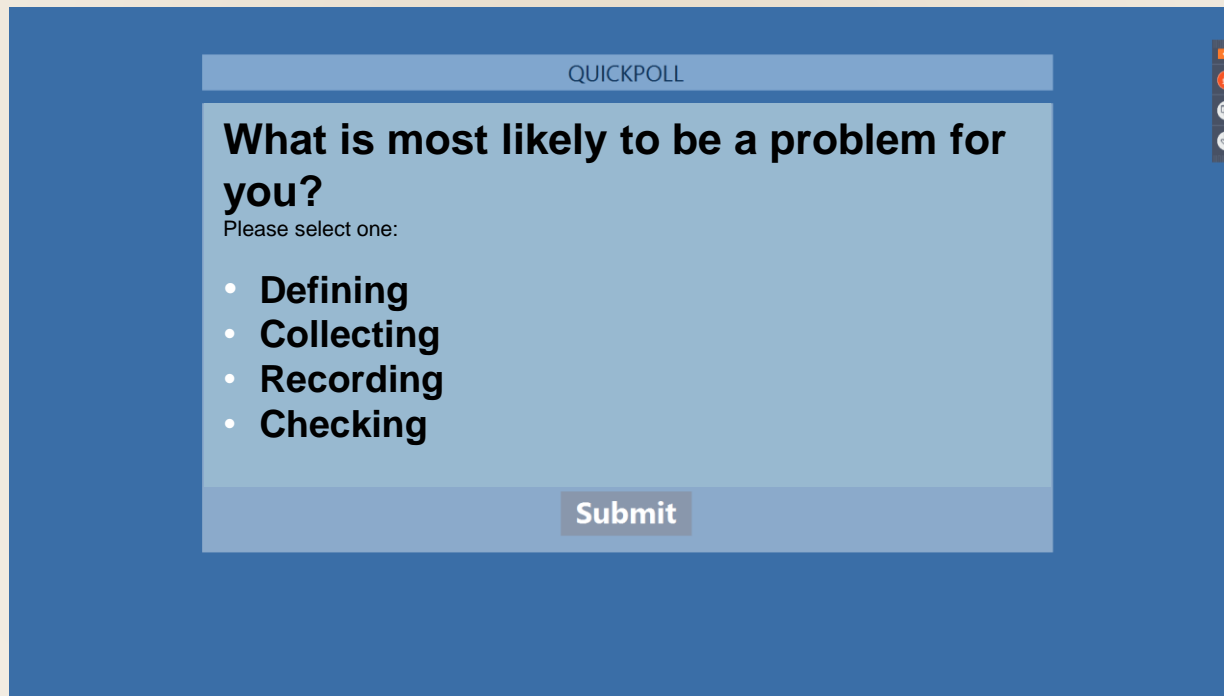
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Audience Poll Question #3

- What is most likely to be a problem for you?



QUICKPOLL

What is most likely to be a problem for you?

Please select one:

- **Defining**
- **Collecting**
- **Recording**
- **Checking**

Submit

The screenshot shows a poll interface with a blue background. At the top, it says 'QUICKPOLL'. Below that is the question 'What is most likely to be a problem for you?' followed by 'Please select one:'. There are four bullet points: 'Defining', 'Collecting', 'Recording', and 'Checking'. At the bottom of the poll area is a 'Submit' button. On the right side of the poll area, there are three small circular icons: a red one with a white arrow, a white one with a red circle, and a green one with a white circle.

Audience Poll #3

Review Audience Poll Responses

Data Reliability Guide: *Using the Assessment Tool to Set Priorities*



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Data Reliability Assessment

Setting Priorities

- **What should I focus on first?**
 - **Which Data Element?** – Main Heating Fuel? Household Income? Total LIHEAP Bill Payment Amounts? Heating Fuel Expenditures? Electric Expenditures?
 - **Which Type of Data Reliability Issue?** – Defining? Collecting? Recording? Checking?
- **Data Reliability Team Recommendations:**
 - **Be Comprehensive** – Do as much as you can, subject to resource availability
 - **Prioritize** – Focus on the data that has had the least attention from your staff

Data Reliability Assessment

APPRISE Recommendations

- **Data Element Priorities**

- **Grantee Priorities** – Do what you are most concerned about first!
- **APPRISE Recommendations** – In order ... Main Heating Fuel Bill ... Electric Bill ... Annual Household Income ... Main Heating Fuel ... LIHEAP Bill Payment Assistance

- **Type of Data Reliability Issue / Assessment Tool**

- **Overall Assessment** – Directs the grantee to areas that might have problems.
- **Issue by Issue Approach** – Guide and Assessment Tool will help to alert to the specific problems that you may have with your data.

Energy Burden Data Reliability Guide

Show Data Reliability Guide – Page 4

- **Data Reliability Guide – Setting Priorities**

Data Reliability Assessment Tool

- **Five Tabs**
 - Overall Reliability Assessment
 - Defining Data Requirements
 - Data Collection
 - Recording and Processing Data
 - Data Checking Routines

Data Reliability Assessment Tool

Show Data Reliability Assessment Tool

- **Overall Reliability Assessment**
 - Assessment #1 – Defining Data Requirements Alerts
 - Assessment #2 – Data Collection Alerts
 - Assessment #3 – Recording and Processing Data Alerts
 - Assessment #4 – Data Checking Routine Alerts

Energy Burden Data Reliability Guide

Show Data Reliability Guide – Page 5

- **Recording Overall Reliability Assessment**
 - Assessment #1 – Defining Data Requirements Alerts
 - Assessment #2 – Data Collection Alerts
 - Assessment #3 – Recording and Processing Data Alerts
 - Assessment #4 – Data Checking Routine Alerts

Energy Burden Data Reliability Guide

Show Data Reliability Guide – Page 7

- **Recording Data Reliability “Action Plan”**
 - Defining Data Requirements Actions
 - Data Collection Actions
 - Recording and Processing Data Actions
 - Data Checking Routine Actions

Data Reliability Materials – Next Steps

- **Energy Burden Data Reliability Guide**
 - Format = “Fillable PDF” for “Permanent Record” / Continue Development and Post on PMW by 10/15
- **Energy Burden Data Reliability Assessment Tool**
 - Continue Development and Post on PMW by 10/31
- **Restoration and Prevention Materials**
 - Develop and Post on PMW by 12/31

Data Reliability Materials – Training

- **Data Reliability Materials PMIWG Testing**
 - Will work with PMIWG Team to test procedures
- **Data Reliability Materials Beta Testing**
 - Looking for Volunteers to participate in Beta Test
- **Development of Tutorial**
 - Will develop Tutorial to demonstrate step by step how to use materials

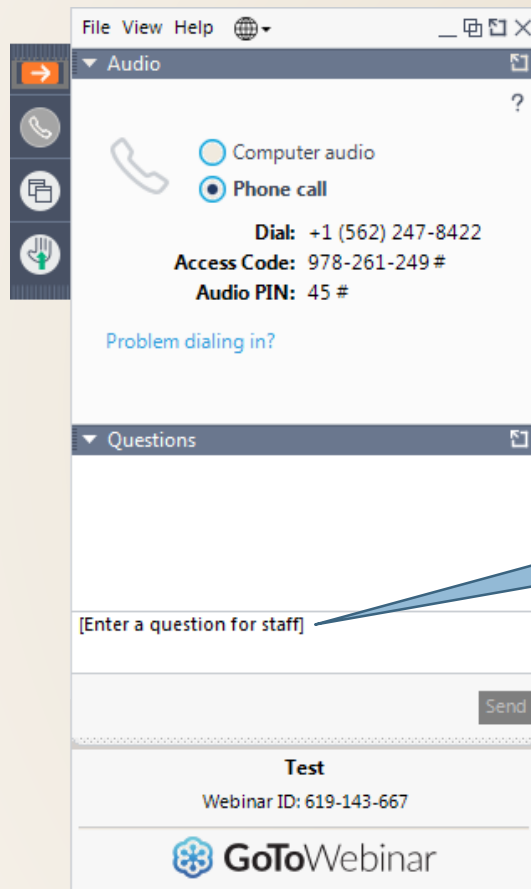
Data Reliability Assessment

Lessons from the Field

- **Tennessee Data Reliability Assessment for Refunds and Program Invoices**
 - **Purpose** – Like many other states, Tennessee worked with the NEADA team to review program operations procedures and to use data to assess whether the program was meeting requirements.
 - **Experiences** – Worked closely with Melissa and learned the value of conducting this systematic review.
- **Comments on Data Reliability Guide**
 - **Assessment Framework** – Like the systematic approach to Assessing Performance Data Reliability
 - **Assessment Tool** – Plan to Use to Verify Our Data

Presenter(s):
Kinisha Floyd

GoToWebinar Question Box



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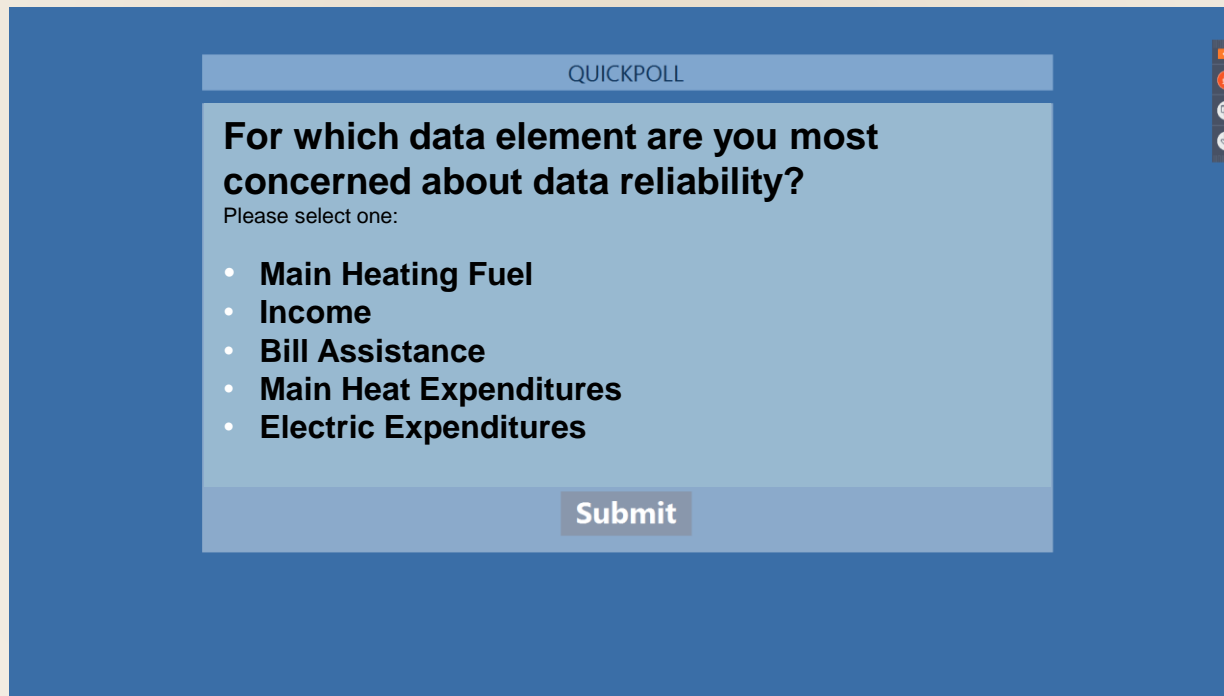
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Audience Poll Question #4

- For which data element are you most concerned about data reliability?



QUICKPOLL

For which data element are you most concerned about data reliability?

Please select one:

- **Main Heating Fuel**
- **Income**
- **Bill Assistance**
- **Main Heat Expenditures**
- **Electric Expenditures**

Submit

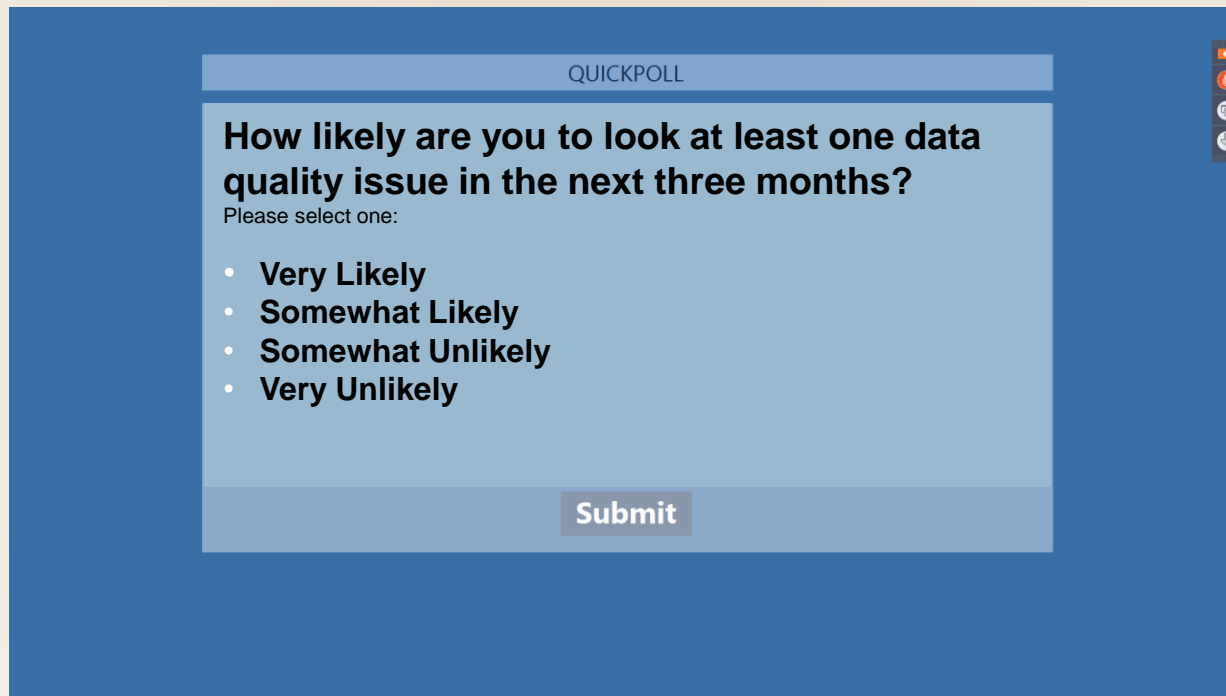
The screenshot shows a blue-themed poll interface. At the top, it says 'QUICKPOLL'. Below that is the question: 'For which data element are you most concerned about data reliability?'. Underneath the question is the instruction 'Please select one:'. There are five bullet points with bold text: 'Main Heating Fuel', 'Income', 'Bill Assistance', 'Main Heat Expenditures', and 'Electric Expenditures'. At the bottom right of the poll area is a 'Submit' button. On the far right edge of the poll window, there is a vertical toolbar with several small icons.

Audience Poll #4

Review Audience Poll Responses

Audience Poll Question #5

- How likely are you to look at least one data quality issue in the next three months?



QUICKPOLL

How likely are you to look at least one data quality issue in the next three months?

Please select one:

- **Very Likely**
- **Somewhat Likely**
- **Somewhat Unlikely**
- **Very Unlikely**

Submit

The image shows a screenshot of a 'QUICKPOLL' interface. The question is 'How likely are you to look at least one data quality issue in the next three months?'. Below the question, it says 'Please select one:' followed by four radio button options: 'Very Likely', 'Somewhat Likely', 'Somewhat Unlikely', and 'Very Unlikely'. At the bottom of the poll area is a 'Submit' button. On the right side of the poll area, there is a vertical toolbar with icons for back, forward, and other navigation functions.

Audience Poll #5

Review Audience Poll Responses

Contact Information

- **PMIWG Data Reliability Team**

- Peter Edelman, Peter-Edelman@acf.hhs.gov, 202-401-5292
- Jenni Sullivan, Jenni.Sullivan@ngc.com, 406-443-8693
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- Casey Killion-Letran, Casey.Letran@okdhs.org, 405-306-3123
- Kinisha Floyd, Kfloyd@thda.org, 615-815-2197

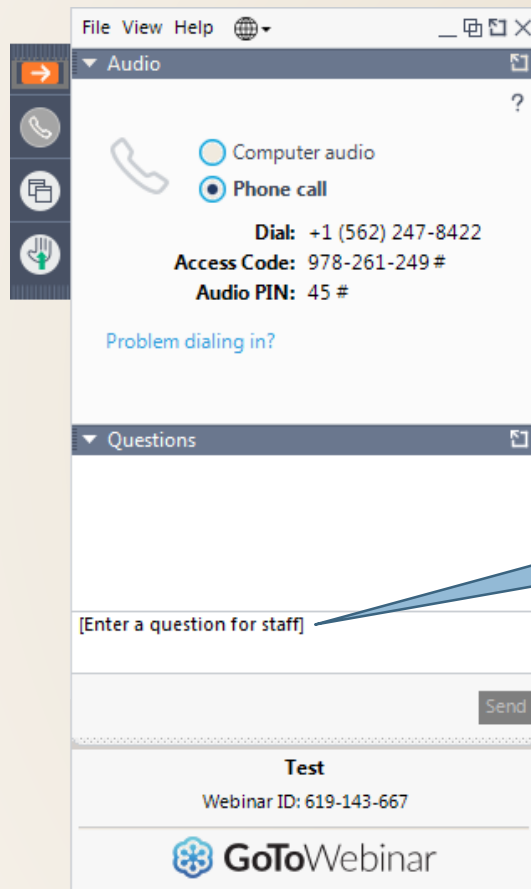
- **APPRISE Team**

- Kevin McGrath, Kevin-McGrath@appraiseinc.org; 609-252-2081
- Daniel Bausch, Daniel-Bausch@appraiseinc.org; 609-252-9050
- Pragya Chauhan, Pragya-Chauhan@appraiseinc.org; 609-252-9057
- Melissa Torgerson, melissa@verveassociates.net; 503-706-2647
- David Carroll, David-carroll@appraiseinc.org; 609-252-8010

Presenter(s):
Melissa Torgerson

Thank you for attending!

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