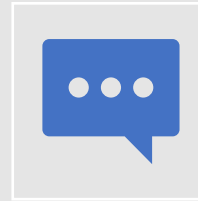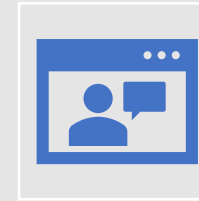# Housekeeping

We'd love to know who is here!

Please introduce yourself using the chat function

Ask questions at any time using the Q&A function

Share your comments or "aha" moments via the chat box

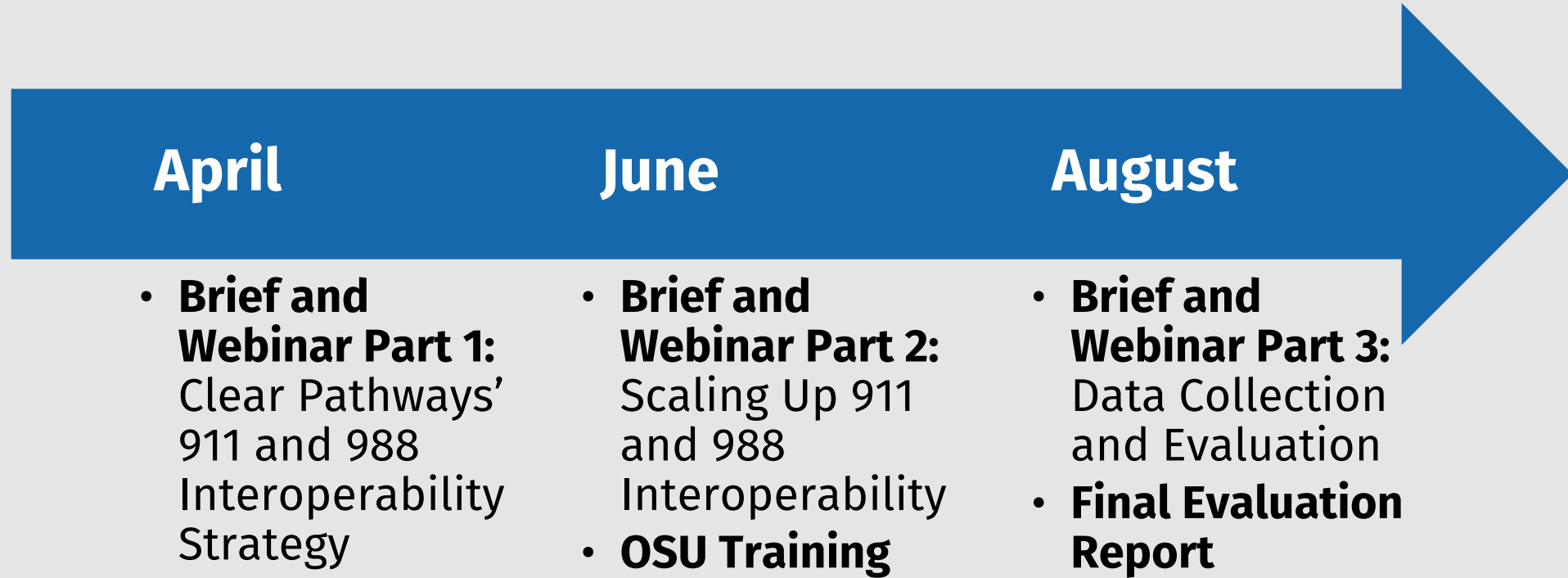A recording and sides will be available

# Mission + Vision

- **Mission:** assist local, state, and national partners with accelerating implementation of best practice crisis response to reduce reliance on jails and hospitals, ensuring adults in behavioral health crises have a clear path to getting person-centered help.

- **Vision:** for people experiencing behavioral health crises to have a path to help, across Ohio and the nation.

# 3-Part Series

## April

- **Brief and Webinar Part 1:** Clear Pathways' 911 and 988 Interoperability Strategy

## June

- **Brief and Webinar Part 2:** Scaling Up 911 and 988 Interoperability
- **OSU Training**

## August

- **Brief and Webinar Part 3:** Data Collection and Evaluation
- **Final Evaluation Report**

# Interoperability

Interoperability formalizes interconnectedness between systems so that the connection extends beyond simple coordination to include formal protocols, procedures, or agreements that allow for the transfer of calls between 911 and 988

(Brooks Holliday, 2024).

# Crisis Response Pilot

## Strategy Focus

Governance and Standard Operating Procedures (SOPs) for warm transfers from 911 to 988

## Pilot Participants & Timeline

12 months across 5 diverse Ohio sites, each minimally including: PSAPs, 988 crisis centers, behavioral health boards

## Preliminary Findings

Strategy improvements that Clear Pathways will test with future sites to build evidence for interoperability best practices

**Topics**

1. Clear Pathways' measurement framework
2. Metrics development and reporting
3. Implications for interoperability
4. Implications for broader crisis system research and evaluation

August 28, 2025

Visit our website at https://www.mathematica.org/

# Meet Our Evaluation Team

**Robin Lindquist-Grantz**
Project Director

**Nicola Lowry**
Project Manager

**Natalie Porter**
911/988 Interoperability Co-Task Lead

**Keep Nathanson**
Data Analytics Developer

**Katie Hancock**
911/988 Interoperability Co-Task Lead

**Crystal Blyler**
Senior Advisor

**Rachel Miller**
Medicaid Analysis Task Lead
Financing Evaluation Task Lead

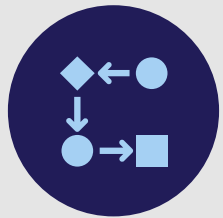**Jonathan Brown**
Senior Advisor

# Purpose of the Evaluation

**To help Clear Pathways and others understand the following:**

How does the working group development strategy advance the governance component of 911/988 interoperability?
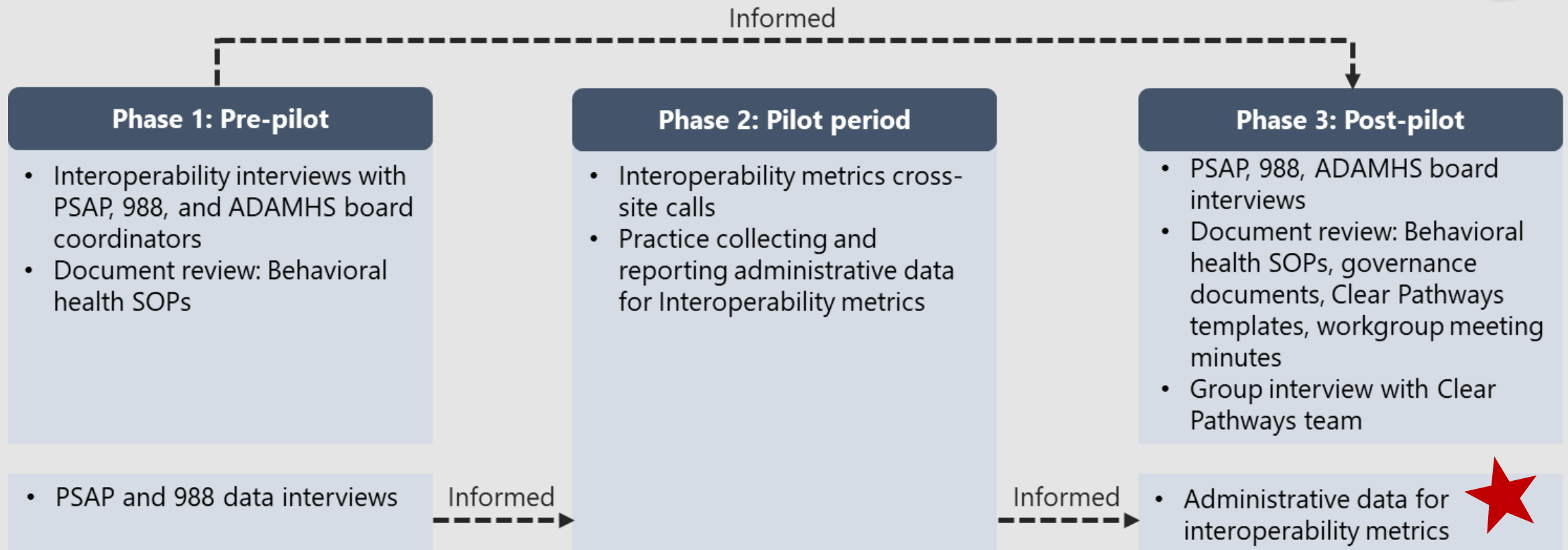
How does the policy and procedure development strategy advance the standard operating procedures (SOP) component of 911/988 interoperability?

How does advancing the governance and SOP components of interoperability impact call transfers from 911 to 988?

# Evaluation Activities

## Multi-stage mixed methods design

Informed

| Phase 1: Pre-pilot | Phase 2: Pilot period | Phase 3: Post-pilot |
|---|---|---|
| • Interoperability interviews with PSAP, 988, and ADAMHS board coordinators<br>• Document review: Behavioral health SOPs | • Interoperability metrics cross-site calls<br>• Practice collecting and reporting administrative data for Interoperability metrics | • PSAP, 988, ADAMHS board interviews<br>• Document review: Behavioral health SOPs, governance documents, Clear Pathways templates, workgroup meeting minutes<br>• Group interview with Clear Pathways team |
| • PSAP and 988 data interviews | Informed | • Administrative data for interoperability metrics |

# Clear Pathways Measurement Domains

| Desired Outcome | Potential Data Sources | Current Data Sources |
|---|---|---|
| Decreased 911 BH-related calls | • PSAP data | • Data reported by Crisis Response Pilot PSAPs and 988 call centers |
| Decreased law enforcement involvement in BH-related incidents | • Aggregate state and national data<br>• Law enforcement jurisdictional data<br>• Jail jurisdictional data | • 911 response data<br>• National Incident-based Reporting System (NIBRS)<br>• Ohio Incident-based Reporting System (OIBRS) |
| Decreased BH-related ED visits and hospitalizations | • Medicaid, Medicare, and other health insurance claims data | • Transformed Medicaid Statistical Information System  (T-MSIS) |
| Decreased deaths by suicide | • Centers for Disease Control and Prevention (CDC) Vital Statistics<br>• CDC Suicide Data and Statistics | N/A |
| Improved patient and family experience with crisis incidents | • Surveys and qualitative data collection with patients, families, program staff, or advocates | • Interviews and focus groups with peer-run and advocacy organizations and organizations serving  populations |

# The Need for Metrics Development

**Quality standards, data, and performance monitoring for a high-quality system of care**

- Emerging 911/988 interoperability field is still figuring out implementation, best practices, and crisis system integration
- Continuous quality improvement (CQI) processes that use metrics can strengthen implementation to produce better outcomes
- PSAPs and 988s have industry-specific quality metrics and standards but no interoperability metrics

# Principles for Metrics Development[1]

Data should be feasible for call takers to collect during emergency situations

Metrics should be developed in collaboration with experts from 911 and 988

Metrics should provide actionable insights to help improve coordination

[1]Adapted from: Hopper, K., Pinheiro, A., Shoyinka, S., Parks, J., Minkoff, K., Shaw, B., Goldman, M. L., & Balfour, M. E. (2024). Multidimensional approaches to quality measurement and performance improvement in the ideal crisis system. *Psychiatric Clinics of North America*, 47(3), 457–472. https://doi.org/10.1016/j.psc.2024.04.002

# Metrics Development Process

- Prior to Crisis Response Pilot:
  - Metrics conceptualized within measurement framework

- During Pilot:
  - Interviews with data points of contact to understand current data collection and reporting
  - Used input from sites to finalize the proposed set of metrics
  - Collaborated with sites to determine appropriate categories for 988 referrals and transfers to other services (for example: outpatient treatment)

# 911/988 Interoperability Metrics

| Call Flow Step | PSAP Metrics | 988 Metrics |
|---|---|---|
| Initiation | 911 calls received | 988 calls received |
| Processing | 911 calls that were BH-related | |
| Transfer | 911 calls transferred to 988* | 988 calls received through transfer from 911* |
| | 911 calls transferred to 988 that 988 transferred back to 911* | 988 calls received from 911 that 988 transferred back to 911* |
| | | 988 calls received from 911 that were resolved by 988 |
| Additional response | | 988 calls received from 911 that 988 referred or transferred elsewhere |

*Complementary metrics to compare the number of transfers to total calls received by each agency and identify whether calls were being dropped during transfer.

# Preparation for Metrics Reporting

## Data workbooks

- Customized tool to:
  - report aggregate data
  - track data system challenges, potential solutions and progress,
  - guide future CQI processes

## 4 Cross-site calls

- Technical assistance to:
  - prepare for data collection
  - discuss common challenges and potential solutions
  - report data at the end of the pilot
  - plan for doing CQI together

## 2 Road tests

- Opportunity to:
  - practice collecting and reporting data,
  - troubleshoot challenges prior to final data submission

# Metrics Reporting Results

| | Site 1 | Site 2 | Site 3 | Site 4 | Site 5 |
|---|---|---|---|---|---|
| **PSAP metrics** | | | | | |
| 911 calls received | 448,718 | 215,194 | 5,919 | NA | 13,327 |
| 911 calls that were behavioral health–related | 9,602 (2) | 3,790 (2) | 192 (3) | NA | 119 (1) |
| 911 calls transferred to 988 | 0 | 58 | 0 | NA | 0 |
| 911 calls transferred to 988 that 988 transferred back to 911 | 0 | NA | 0 | NA | 0 |
| **988 metrics** | | | | | |
| 988 calls received | 13,254 | 6,241 | 7,338 | 5,426 | 2,891 |
| 988 calls received through transfer from 911 | 0 | 7 (<1) | 0 | 0 | 22 (1) |
| 988 calls received from 911 that were resolved by 988 | 0 | 5 (71) | 0 | 0 | 22 (100) |
| 988 calls received from 911 that 988 transferred back to 911 | 0 | 2 (29) | 0 | 0 | 0 |
| 988 calls received from 911 that 988 referred or transferred elsewhere | 0 | 0 | 0 | 0 | 0 |

# Reporting on the Metrics

| Call Flow Step | Metrics Included | Degree of Difficulty |
|---|---|---|
| Initiation | • 911 calls received<br>• 988 calls received | ✅ • PSAP and 988 data systems already tracked these calls<br>• The data were easy for them to report |
| Processing | • 911 calls that were BH-related | ❗ • It was hard for PSAPs to identify BH-related calls in existing data systems. |
| Transfer | • 911 calls transferred to 988*<br>• 988 call received from 911 that 988 transferred back to 911*<br>• 988 calls received from 911 that were resolved by 988 | ➖ • PSAPs and 988s made minor changes to their data systems to track these<br>• Some sites manually identified call transfers within their data files, which was time consuming |
| Additional response | • 988 calls received from 911 that 988 referred or transferred elsewhere | ✅ • 988s could track these with no or minor changes to their data systems |

*The overlapping PSAP and 988 metrics have been consolidated in this table.

# Metrics Reporting Challenges

- PSAPs identifying behavioral health-related calls
  - Likely underreported during the pilot
  - Limited available classification "nature" codes in computer-assisted dispatch (CAD) system does not capture nuance and level of risk
  - Narrow range of codes initially limited PSAP thinking about transfers to 988

- Technology and data system limitations
  - Field-specific and regional variation in call system software
  - Pilot sites spent a lot of time figuring out how to navigate system differences
  - Manual processes like "backdoor" numbers are more burdensome and error prone
  - Limited information about caller characteristics and the call transfer process

- Differences in data protections
  - 988 emphasis on confidentiality, lack of geocoding
  - PSAP requirements for public transparency, liability concerns

# Recommendations for 911/988 Interoperability

# Call Identification Recommendations

- Improve protocols for identifying behavioral health-related calls to 911
  - Including when a behavioral health condition may underly the primary call reason

- Develop standardized 911 primary codes that capture a range of behavioral health risk levels

# Interoperability Process Recommendations

- Capture and report additional metrics and data that may further support interoperability
  - Duration of 911 BH calls compared to other 911 calls
  - Total duration between 911 call initiation, transfer to 988, and 988 call completion
  - Types of 911 to 988 call transfers
  - Call abandonment rate

- Explore ways to systematically record caller characteristics given unique 911 and 988 barriers to obtaining information

- Provide guidance on how 988s can manage partnering with multiple PSAPs

# Technology and Data System Recommendations

- Introduce metrics early to identify data gaps, as well as technology and data system limitations

- Engage with 911 technology vendor community to develop 911/988 interoperability software

- Allocate resources to PSAPs and 988s to support uptake of new technology and data systems

# Data Linkage Recommendations

- Standardize data collection and reporting on quality metrics and costs

- Build data linkages within and across the crisis services continuum

- Allocate resources to support local uptake of systems to support statewide data linkages

# Benefits for Research & Evaluation

Standardized call codes and definitions enable better assessment of behavioral health-related call volume and produce higher quality data

Improved data quality enables accurate performance measurement for continuous quality improvement processes and the evaluation of outcomes

Improved assessment of service access through interoperability sets the stage for understanding the effects on other services in the crisis care continuum

Improved data linkages supports assessment of service access and utilization across the crisis services continuum and outcomes in multiple domains

# Benefits for PSAPs & 988s

Standardized call codes and metrics reduce burden on local jurisdictions and promotes consistency, especially if 988s partner with more than one PSAP
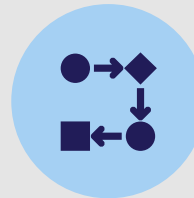
Discussing the data needed for the metrics helps to advance call identification and transfer protocol development

Improved data quality and monitoring helps to identify areas for improvement so that client outcomes are achieved

Accurate reporting helps to assess and secure the funding and resources needed to implement interoperability protocols

# Benefits for Systems
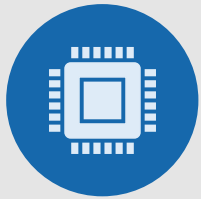
Standardization supports a comprehensive performance measurement and evaluation framework

A comprehensive performance measurement and evaluation framework supports a coordinated and high-quality behavioral health system of care

Improved data quality allows for accurate examination of needs, service delivery, costs, and potential savings in multiple systems

Improved data linkages allow for rigorous evaluations to support program expansion and policy development

# Q&A

# 3-Part Series

## April
- **Brief and Webinar Part 1:** Clear Pathways' 911 and 988 Interoperability Strategy

## June
- **Brief and Webinar Part 2:** Scaling Up 911 and 988 Interoperability
- **OSU Training**

## August
- **Brief and Webinar Part 3:** Data Collection and Evaluation
- **Final Evaluation Report**

# New Brief – Measuring and Evaluating 911/988 Interoperability

# Evaluation Report – Findings from the Crisis Response Pilot
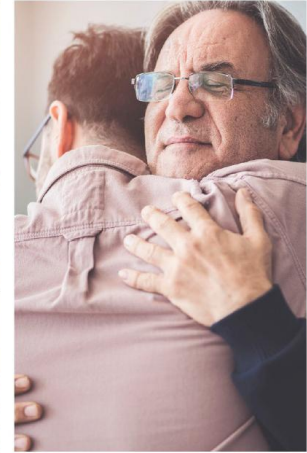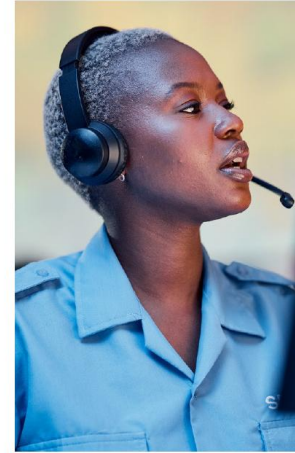
# We Want to Hear from You!

- **Please complete a brief survey to:**
  - Let us know what feedback you have for us
  - Suggest future Lunch & Learn topics or speakers

# Thank You! Contact Us

**Robin Lindquist-Grantz, PhD, LISW-S**
Mathematica, Senior Researcher
Clear Pathways, Director of Measurement and Evaluation
RLindquistgrantz@mathematica-mpr.com

**Cal Jenkins, MS**
Clear Pathways, Assistant Director of
Research and Systems Innovation
cjenkins@pegsfoundation.org

**clearpathwayscollaborative.org**