Appendix A: PCNASP Interview Guides

VERBAL CONSENT

Thank you for making time to speak with us today. We are researchers from Research Triangle Institute (RTI), International evaluating the Paul Coverdell National Acute Stroke Registry Program on behalf of the Centers for Disease Control and Prevention. We are specifically interested in the 2021-2024 cooperative agreement.

In this discussion, we are interested in hearing your perspective on your Coverdell program's key strategies and activities to improve stroke systems of care across all stroke patients and specifically for patients at highest risk of stroke events. We'd also like to learn about the partnerships formed, the various factors that have impacted planning and implementation, any early outcomes, and lessons learned so far.

Please note that I have reviewed the program documents [state] has submitted to CDC. I realize that a few of my questions today may seem redundant with information/data that you have already reported to CDC. However, part of our intention with these interviews is to clarify and confirm our understanding. We also believe that, given your role as [ROLE], you have a unique perspective on the program and may be able to provide us with a greater understanding of your Coverdell efforts.

Our evaluation is being funded by the Centers for Disease Control and Prevention. Your decision to participate is voluntary and, if you do not wish to participate in this interview or answer specific questions, please let us know.

We believe there are minimal risks to you from participation, and every effort will be made to protect your confidentiality. To support ongoing program improvements, we will share de-identified transcripts with CDC and summarize findings in reports. We want to assure you that we will not quote you by name or organization.

While there are no direct benefits to you from participating in this study, your insights will be used by CDC to

- improve the program;
- build the evidence and support for other states' work in these areas; and
- inform the development of tools and resources for implementation and evaluation of stroke systems of care.

RTI's Institutional Review Boards (IRB) has reviewed this research protocol.

Finally, we would like to record our conversation, to ensure our notes from today are complete.

Do I have your permission to audio record our conversation today? (**Yes**/No)

Do you agree to participate in this study? (**Yes**/No)

Do you have any questions before we begin? (Yes/**No**)

[If CDC is on the call] We also have [name] listening on the call today. Is that okay with you? (**Yes/No**)

Interview Guide Questions for Coverdell Quality Improvement Specialist

Interviewer Note: *Many of these questions may have been partially or fully addressed from the Document Review. In preparation of each interview, tailor questions and probes accordingly based on findings from the Document Review. Year 2 interview questions will build on responses to the Year 1 interviews. In both rounds, RTI will prioritize questions about health equity and efforts to reach and support those at highest risk.*

Health Equity: Health equity is when all members of society enjoy a fair and just opportunity to be as healthy as possible. Some of the inequities in the social determinants of health include: discrimination, healthcare access and use, occupation, educational, income, and wealth gaps, and housing.

Highest Risk: people at highest risk for stroke events include those who have had a stroke before, but they may also be at greater risk due to other demographic factors including SES, race/ethnicity, zip code, etc. Also includes those who are not patients but are at greater risk.

Community-Clinical Linkages: connections between community and clinical sectors to improve population health

Capacity and Planning

1. Can you briefly describe the goals of the 2021-2024 Coverdell program, in your own words?
    a. *Probe if previously funded*: how is this funding cycle different compared to the past?

2. [Briefly summarize Coverdell strategies from APR and ask the following only if not already covered in the Document Review].

    In what additional ways is [state Coverdell program/organization working with state Coverdell program] working to improve SSoC for people at highest risk of stroke events (e.g., expand its reach in addressing the health care needs of people at highest risk of stroke events)?
    a. *Probe for all (if needed)*: In what ways is your program working to improve stroke systems of care for patients and individuals at highest risk by...
        i. **Intrapersonal:** changing patient knowledge, attitude, practices (e.g. patient education, navigation, awareness campaigns)
        ii. **Interpersonal:** strengthening patient & social support (e.g. offering services for individuals at highest risk, family support groups, screenings)
        iii. **Organizational:** improving care practices and organizational systems/infrastructure (e.g. quality improvement and training, care coordination) and removing barriers to improve access
        iv. **Community:** increasing community involvement in stroke care and stroke prevention (e.g., community health workers, linkages with faith-based communities)
        v. **Policy:** changing laws and regulations to improve stroke care (e.g., local, regional, state policies about data sharing, etc)

3. **Community Context:** I'd like to hear more about what went into planning the activities and strategies you've just described. How have existing community partners and resources influenced

or informed your program's approach towards reaching and supporting stroke patients in each of these settings (e.g., community partners' reach, capacity, resources)?

   a. *If time allows*: What other contextual factors have been critical to consider?

Core Strategy: Linking and Using Data

4. What strategies have been implemented to collect **pre-hospital** data specifically from those at highest risk?

   a. *If collecting data on highest risk*: How is this data being used to address the healthcare needs of those at highest risk (e.g., identify patients at highest risk, informing their care, and tracking post-hospital referrals)?

   b. *Probe if needed*: What are the barriers you've encountered related to securing and using data for patients at highest risk?

   c. *If not collecting data on highest risk:* What steps have been planned or taken to facilitate pre-hospital data collection to identify patients at highest risk?

   d. *If time allows*: What are the key accomplishments/milestones so far in linking, accessing and using **pre-hospital data**?

5. What strategies have been implemented to collect **in-hospital** data specifically from those at highest risk?

   a. *If collecting in-hospital data on highest risk*: How are you using this data to address the healthcare needs of those at highest risk (e.g., identify patients at highest risk, informing their care, and tracking post-hospital referrals)?

   b. *Probe if needed*: What are the barriers you've encountered related to securing and using data for patients at highest risk?

   c. *If not collecting data on highest risk:* What steps have been planned or taken to facilitate in-hospital data collection to identify patients at highest risk?

   d. *If time allows*: What are key accomplishments/milestones so far in accessing and using **in-hospital data**?

   e. *If time allows*: How are the data being used to inform stroke care decisions or implement data-driven QI?

6. What strategies have been implemented to collect **post-hospital** data specifically from those at highest risk?

   a. *If collecting data on highest risk*: How are you using this data to address the healthcare needs of those at highest risk (e.g., identify patients at highest risk, informing their care, and tracking post-hospital referrals)?

   b. *Probe if needed*: What are the barriers you've encountered related to securing and using data for patients at highest risk?

   c. *If time allows*: What are key accomplishments/milestones so far in accessing and using **Post-hospital data**?

   d. *If little or no post-hospital data collection*: What steps have been planned or taken to facilitate post-hospital data collection among participating hospitals?

e. *If implementing some post-hospital data collection*: How are post-hospital data being used to inform stroke care decisions or implement data-driven QI (e.g., healthcare extenders, post-hospital referrals)?

Core Strategy: Using Team-Based Approaches to Coordinate Stroke Care

7. [***Note:*** *select 1-2 activities to improve SSoC targeted towards a high risk population; Activities may include efforts to improve protocols for highest risk patients; workforce development efforts to improve recognition of health disparities.*]

   Now I'd like to learn about the implementation process for [activity #1]. What have been the successful strategies to implement this activity?
   a. *Probe if needed*: Can you please tell me about the steps taken to implement this activity?
   b. *Probe if needed*: Who have been the key partners in implementing this activity?
   c. *Probe if needed*: How are these partners involved with implementing this activity?
   d. *Probe if needed*: What have been the facilitators so far?
   e. *Probe if needed*: What have been the challenges so far? How have you overcome or worked towards addressing these challenges?

8. [***Note:*** *Repeat questions for 2nd activity; if unable to talk about strategies to reach highest risk, ask about strategies to reach general population*] What have been the successful strategies to implement [activity #2]?
   f. *Probe if needed*: Can you please tell me about the steps taken to implement this activity?
   g. *Probe if needed*: Who have been the key partners in implementing this activity?
   h. *Probe if needed*: How are these partners involved with implementing this activity?
   i. *Probe if needed*: What have been the facilitators so far?
   j. *Probe if needed*: What have been the challenges so far? How have you overcome or worked towards addressing these challenges?

9. Which Coverdell-initiated QI activities have been most instrumental so far in improving stroke systems of care for patients and individuals at highest risk for stroke events?
   a. *Probe if needed*: For example, how are QI activities increasing access to care for patients at highest risk?
   b. *If time allows*: what about for stroke patients in general?

10. What have been the key partnerships for your program's efforts to improve stroke systems of care for those at highest risk for stroke events (e.g., improving access to care across the SSoC)?
    a. *Probe if needed*: In what ways has [state Coverdell program] facilitated collaboration among the different partners?
    b. *If time allows*: what about for stroke patients in general?

11. What factors have facilitated your ability to use data to inform your data-driven QI efforts to improve care and reduce health disparities for patients at highest risk?
    a. *If time allows*: What about for stroke patients in general?

12. What other barriers has [the state Coverdell program] experienced so far in implementing data-driven QI to improve care and reduce health disparities for patients at highest risk?

13. What are examples in which your organization's leadership facilitated or hindered the Coverdell program in its efforts to:
    a. *Newly funded:* prioritize addressing health equity?
    b. *Existing recipients:* pivot and place a greater emphasis on addressing health equity?

14. In what ways has program staffing and capacity supported or hindered your program's efforts to address health equity

15. What are your lessons learned in implementing team-based approaches to coordinate stroke systems of care improvements, especially to address health equity?
    a. *If time allows:* What are the key ingredients to implementing QI activities to reach and support those at highest risk for stroke events (i.e., to address stroke disparities)?

Core Strategy: Providing Community Resources Across Stroke Systems of Care

16. What steps has [state Coverdell program] taken to build **community-clinical linkages** to support those at highest risk across the stroke systems of care (i.e., describe efforts to link community resources and clinical service)?
    a. *Probe if needed*: can you please describe efforts to link community resources and clinical services?
    b. *Probe if needed*: In what ways has [state Coverdell program] engaged patient navigators/community health workers to better manage those at highest risk?

17. What are some of the challenges to building these linkages and what partial solutions have you been able to identify?
    a. *Probe if needed*: What supports or additional resources would better help you to measure health equity at your program/organization?
    b. *If time allows:* What is [state Coverdell program] hoping to achieve by building community-clinical linkages?
    c. *If time allows:* What are the next steps to build these linkages?
    d. *If time allows:* What needs to be in place to build community-clinical linkages?

18. How has [state Coverdell program] engaged partners to mobilize **community resources** to improve stroke care for those at highest risk across the SSoC (e.g., pre-, in-, and post-hospital referrals, use of health care extenders, navigators)?
    a. *Probe if needed*: Which partners have been instrumental and how?
    b. *If time allows:* How have these partnerships helped to increase or build trust and relationships within underserved communities?
    c. *If time allows:* What are key ingredients to being able to mobilize community resources to reach and support those at highest risk?

19. What has made these partnerships successful so far?

a. *Probe if needed*: How does the size and structure of [PARTNER ORGS] facilitate or hinder implementation of activities to improve SsoC infrastructure? (e.g. size of organization, mix of occupations, unit organization, employment status of providers and staff, etc.)

20. What are your lessons learned in engaging partners to establish community-clinical linkages and provide community resources to patients across the stroke systems of care?

Closing

21. What needs to be in place for [organization] to effectively collaborate with [state Coverdell program] to improve stroke related care and outcomes for patients at highest risk as well as statewide across SSoC?
    a. *Probe if needed*: What resources do [PARTNER ORGS] need to successfully implement activities to improve SSoC infrastructure? (staff, equipment, facilities, etc.)
    b. *Probe if needed:* What else needs to be in place for [state Coverdell program] to move forward in improving health equity as part of the Coverdell program?
    c. *Probe if needed*: What needs to be in place for these collaborations to continue beyond the Coverdell funding period?

22. In closing, what recommendations do you have for others attempting to implement data-driven QI to improve access and quality of care for those at highest risk of stroke events?
    a. *Probe if needed*: to use data to identify patients at highest risk and to inform and track their care?
    b. *Probe if needed*: to implement QI to improve protocols for highest risk patients?
    c. *Probe if needed*: to engage health care extenders (e.g., CHWs) in pre-, in-, and post-hospital care and referrals for those at highest risk?
    d. *If time allows*: what opportunities do you see for replication?
    e. *If time allows:* what opportunities do you see for sustaining these efforts beyond the Coverdell funding period?

That's all the questions I have for you today. Thank you for your time and valuable feedback.

END OF INTERVIEW