University of Hawai'i at Mānoa
Healthy Hawai'i Evaluation Team
Office of Public Health Studies

Coverdell Strategy C2 Supplemental Brief

Strategy C2: Establish and expand state-wide data infrastructure through an integrated data management system that links pre-hospital, hospital, and post-hospital follow up data for measurement, tracking, and assessment of quality of stroke care data.

Background: The Healthy Hawai'i Evaluation Team (HHET) conducted interviews June 22 – July 12, 2022. The focus of the interviews was to capture information about the Year 1 implementation of Strategy C2 for CDC reporting. The Department of Health (DOH) also requested that HHET ask additional questions to support the C2 work including: *What about the data system worked well prior to Coverdell? What needed to be improved? What role DOH should play in a data system?* and *How data abstraction is conducted in each hospital?* Responses were coded for common themes and are summarized by question in this supplemental brief.

Participants: The DOH State Trauma Coordinator provided a list of potential stakeholders. HHET contacted 10 people and seven agreed to participate. Participants were from 2 O'ahu hospitals, 2 neighbor island hospitals, DOH Emergency Management Services Injury Prevention System Branch (EMSIPSB), and the City and County of Honolulu EMS. Participants held various positions in their organizations from leadership to stroke coordinators.

What worked well about the data management system for stroke prior to Coverdell?

- There is good reporting from all the hospitals to the Get With the Guidelines (GWTG) database.
- DOH Neurotrauma Program has provided DOH EMSIPSB access to a GWTG registry superuser account, which has enabled the data to be examined by facility, age, gender, county, etc.
- DOH EMSIPSB has historically reported data to the Hawai'i Stroke Coalition (HSC) annually, which has assisted the HSC to examine the data for disparities between institutions and to discuss best practices.
- Hospitals have been able to use the data as a benchmark to compare their performance to others in the state.

What were the challenges with the data management system prior to Coverdell?

- The GWTG database does not seem to capture all of the stroke cases presented at hospitals. Also, some records entered by facilities into GWTG have no EMS data entered.
- Hospitals have different data abstraction methods (e.g., sampling or reporting all stroke cases), and staff capacities (e.g., smaller hospitals do not have dedicated data abstractors), which impacts data quality.
- There is often a lag time between when a patient presents at an institution and when their records are entered in the GWTG registry.
- The data is useful for benchmarks and comparisons, but sometimes does not represent facilities accurately.
- There is no proactive monitoring of the data at the state level to know whether all facilities have entered their data until the annual HSC data review.
- The HSC board seems to drive the data analysis, so reporting reflects the HSC priorities, which may not necessarily be the metric priorities of the stroke coordinators or those providing stroke care.

> *"**I think it's [the GWTG registry] not capturing all the strokes that do come to a given facility.** And I'm basing that on what we know from the billing database of Laulima. If you were to use that I believe to enumerate a given number of strokes, wherever, it's going to be a higher total than what the registry would tell you."*

How can the data system be improved?*

- One stakeholder wanted more real-time data examination to catch missing facility data and more frequent data sharing to foster collaboration and sharing of best practices.
- One stakeholder felt GWTG data should be validated with hospitals before reporting to the HSC and that during the presentation information should be given on who to contact about errors.

> *"**I wish that there was the ability to have access to like all Hawai'i hospitals or some sort of access more than just having someone else report out on it twice a year. Because I do think you know people that are working in like performance improvement or stroke coordinators** like if they see you know Kaiser's doing really great at this one thing…**we can reach out and say, 'hey, what are you doing that's working?'"***

*Few participants had feedback on improving the data system, but provided other feedback below.

Feedback about the potential future uses of the data system:

- One participant would like to see a small data validation project in which the statewide data can be compared to what stroke centers, using third party vendors, report to the Joint Commission.
- One participant wants the data to be used to evaluate needs and available resources for stroke care to ensure statewide access to care.
- One hospital participant wants the data to provide feedback to EMS paramedics about patient outcomes as their time-saving efforts help to improve stroke outcomes.

> *"I think utilizing stroke data in order* ***to evaluate not only market capabilities based against population in catchments****... I think it's really important* ***to really maximize our statewide ability to provide care in its totality for stroke patients here in Hawai'i****."*

How does stroke data abstraction work within your organization?

- One hospital has a dedicated nurse data abstractor who enters 100% of stroke cases in real time.
- Another hospital enters 100% of stroke cases. Data is abstracted both concurrently by the quality department, and post-hoc by the corporate quality office, who abstracts data for a third-party vendor's submission to Medicare and the Joint Commission. This hospital reviews data in multiple stages to evaluate their care.
- Another hospital pulls a sample that is close to, but not 100% of stroke cases. They use a third-party entity, Quintiles, that pulls information and submits it to GWTG. Data is validated by the stroke coordinator.
- One small rural hospital shared that because they are not a stroke center, they were unsure of the data sharing process, but thought that an affiliated hospital on O'ahu shared their data.

What do you think DOH's role is in developing and maintaining a statewide integrated data management system for stroke?

- Two people believed the DOH should use the data to support the neighbor islands, who have fewer resources than O'ahu.
- One stakeholder stated that DOH should function as independent arbiters to encourage data sharing and best-practices between competing hospitals.
- One stakeholder believed DOH should regularly report on the quantity of strokes in the state and survival rates. This data should be accessible on the DOH website so stroke coordinators and other stakeholders can target initiatives.
- One stakeholder thinks that because state funds (i.e., Medicaid) support many stroke patients, it is DOH's fiduciary responsibility to use the data to help evaluate best practices including pre-hospital care, length of hospital stay, and post-acute rehabilitative services, and should use the information to assist in driving prevention activities.

> ***"I would think that DOH would play an integral role in looking at some of the outcomes in the other communities on Kaua'i or Maui****- or whatever county...and just kind of trying to look at that and see how they can implement some of the same things that we're doing on O'ahu on some of the other islands."*

Considerations

- The list of potential stakeholders provided by DOH included important stroke partners, but did not include many people with knowledge of Coverdell, which was the purpose of the interviews. Four interviewees specifically noted their lack of awareness of the grant and two confused it with the Queen's Medical Center Health Resources and Services Administration (HRSA) grant. Furthermore, one person declined to be interviewed because they lacked Coverdell knowledge. Thus, the data in this brief is not representative of all key stroke stakeholders. Additional interviews with representatives from hospitals who did not participate, regardless of their Coverdell knowledge, are necessary to fully understand data abstraction practices, and their perspectives on what DOH's role should be in a statewide data system for stroke.
- Related to the lack of Coverdell knowledge, there were only a few participants who knew about the intended data management system for stroke. Most comments were about GWTG data. Everyone, however, is excited for the data that will come out of Coverdell, so they can continue to make the pre-hospital processes more efficient to improve stroke outcomes. Participants who knew about the data system also see opportunities to use the data to improve upstream stroke prevention activities/services.

This Strategy C2 Brief was written in September 2022 by Alena K. Shalaby and Meghan McGurk.
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