

## Introduction

- Stroke is the third leading cause of death in 2021 and continues to be a global health concern (GBD 2021 Stroke Risk Factor Collaborators, 2024; Institute for Health Metrics and Evaluation (IHME), 2024).
- Stroke-related mortality rates and health disparities continue to rise in highly diverse Asian American communities, emphasizing the importance of health promotion initiatives amongst minority groups.
- The six largest Asian American subgroups in the United States are Chinese, Asian Indian, Filipino, Korean, Japanese and Vietnamese with an increase in age-standardized mortality rate (ASMR) for stroke in Asian American subgroups between 2003 and 2017 (Shah et al., 2022; United States Census Bureau, n.d.)
- Mortality patterns observed to be higher in Asian Indian and Vietnamese American women, as well as Filipino, Japanese, and Vietnamese American men when compared to non-Hispanic men and women (Shah et al., 2022).
- Language barriers and socioeconomic factors among ethnic minorities play an important role in access to care and treatment (Clark, Batra, & Liotta, 2022; Frisullo et al., 2024; Nowrin et al., 2023).
- The average recurrence rate of stroke was 20.83% between the fifth and tenth year after initial stroke onset with the highest recurrence rate occurring in patients with primary education or lower (Li et al., 2023).
- Health promotion and educational intervention is an effective approach to stroke prevention (Cao et al., 2021; Khan et al., 2021; Nowrin et al., 2023).
- Gap in stroke awareness and resources available to survivors and caregivers throughout the care continuum.

### Community Partner:

- REHAB Hospital of the Pacific (RHOP) is the only independent Inpatient Rehabilitation Facility (IRF) in Hawaii, providing high-quality comprehensive services to individuals with physical and cognitive disabilities, including stroke, traumatic brain injury, spinal cord injury, complex orthopedics and more.

## Project Description

To create multilingual stroke educational resources including a comprehensive resource guide for survivors and caregivers navigating life after stroke.

This project aligns with Hawaii Pacific University's (HPU) core values of Aloha, Kuleana, Pono, Kokua and Laulima by honoring diverse cultural backgrounds, recognizing my responsibility to increase health equity as a community member and providing meaningful support for stroke survivors and caregivers while collaborating with community partners.

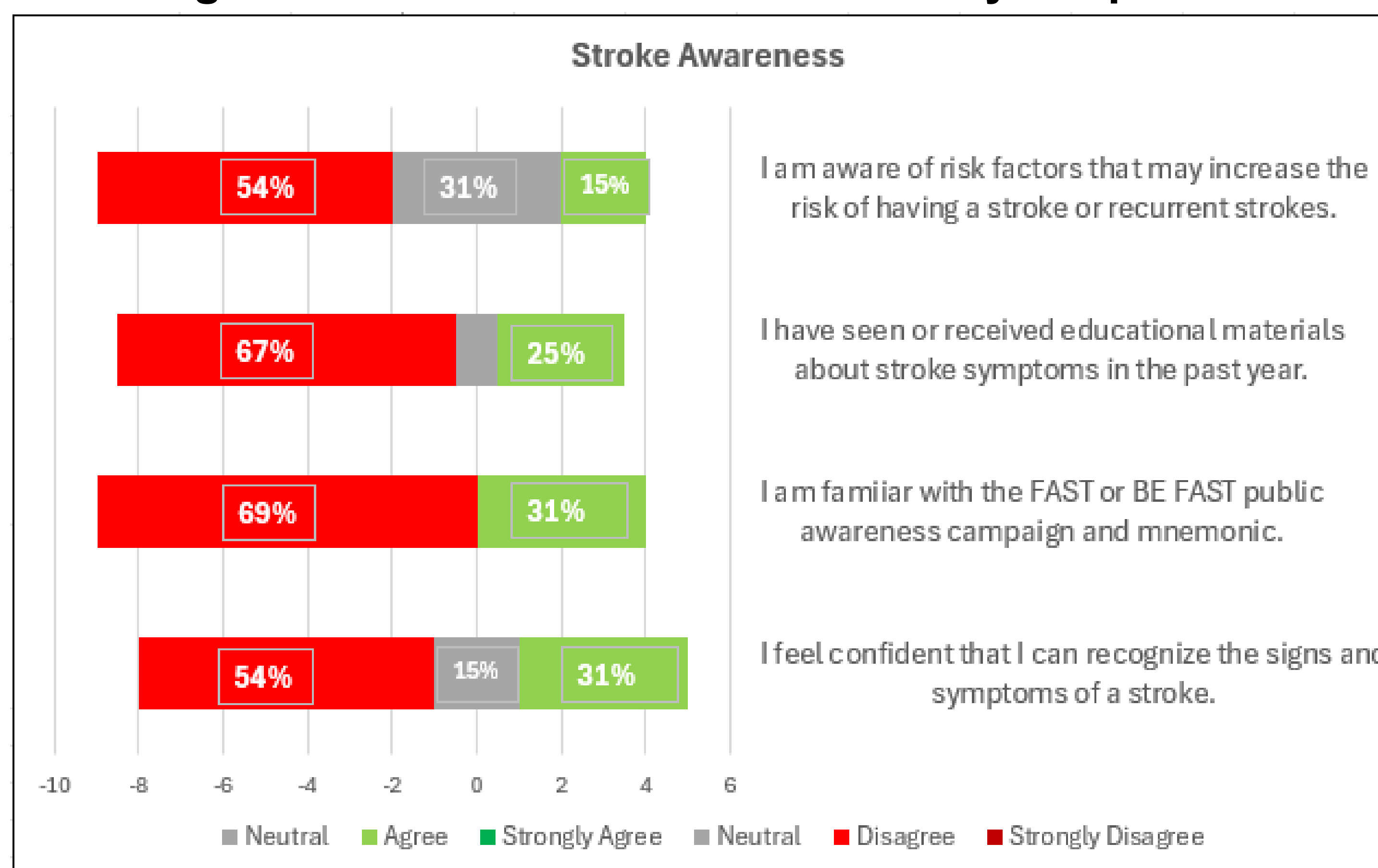
## Purpose/Aims

- To fill the gap by empowering stroke survivors and their caregivers through education, support, and access to essential resources during recovery.
- To expand upon the effectiveness of culturally relevant educational resources in increase stroke awareness.

Figure 1: Pre and Post Survey Questionnaire

QUESTION #	QUESTIONS
1	I have a family member or know of someone who had a stroke
2	I know what a stroke is and how it affects the brain.
3	Stroke is an emergency that requires immediate medical attention.
4	Stroke can affect anyone, regardless of age, gender or race.
5	I feel confident that I can recognize the signs and symptoms of a stroke.
6	If so, please identify the signs and symptoms of stroke.
7	I am familiar with the FAST or BEFAST public awareness campaign and mnemonic.
8	I have seen or received educational materials about stroke symptoms in the past year.
9	I am aware of risk factors that may increase the risk of having a stroke or recurrent strokes.
10	If so, please list the risk factors.
11	More public education on stroke awareness is needed in my community.
12	I understand that rehabilitation is an important step during the recovery process and I feel comfortable in my or my families ability to assist with my post-stroke recovery after discharge.
13	FOR CAREGIVERS ONLY: I understand that rehabilitation is an important step during the recovery process and I feel comfortable and confident in my ability to care for my family member upon discharge.
14	Nearly 1 in 4 stroke survivors will have recurrent strokes. I feel that I have access to enough resources to prevent reoccurrence.

Figure 2: Stroke Awareness Pre Survey Responses



## Results/Outcomes

Survey questions highlighted three categories: stroke knowledge, stroke awareness and stroke education. Caregivers had an additional question regarding their confidence in providing care after discharge. As a result, stroke survivors and caregivers had general knowledge about stroke. However, in terms of stroke awareness, 54% of participants were unable to identify stroke signs, 69% were unfamiliar with the FAST or BE FAST awareness campaign, 67% have not received stroke educational materials in the past year, and 54% were unable to identify stroke risk factors during the pre-survey intake (see Figure 2).

Due to changes in medical status or unknown predetermined discharge dates, only nine participants completed the post survey questionnaire prior to discharge.

## Methods

Data was collected through in-person formal interviews at RHOP from stroke survivors and caregivers between September 2-19, 2025, to determine prior knowledge about stroke signs, symptoms and risk factors. This included thirteen participants, eleven survivors and two caregivers. Seventy percent of participants identified as an Asian American ethnic group. Questionnaire included Likert Scale and open-ended questions (see Figure 1) and transcribed using Microsoft Forms. Educational materials were reviewed and discussed immediately after pre survey questionnaires were conducted. Participants completed the post-survey within three days of discharge date. Support and resources were also provided to REHAB Stroke Support Group attendees between October 10 - December 4, 2025.

## Discussion

These findings demonstrate the increasing need for stroke education not only for stroke survivors and their caregivers, but the local community as well. Survivors and caregivers reported that educational materials provided were beneficial and relevant to their current needs. Despite the small sample size, stroke survivors lacked knowledge of signs and symptoms before admission, but gained confidence in identifying signs, symptoms and risk factors before discharge (see Figure 3). This demonstrates the need for stroke education resources for survivors and caregivers to prevent recurrence. Additionally, only two caregivers were present during the interviews. Further research is needed to capture a larger sample size to ensure statistical significance.

Figure 3: Pre and Post Survey Results



## References and Deliverables

### References



### Deliverables

