



Mission: Lifeline Stroke South Dakota

Stroke Quality Metrics



Objectives:

- Provide an overview of South Dakota's statewide stroke data
- Review the treatment goals for guide-based stroke care
- Provide a connection between each part of the stroke system of care

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1. Provide an overview of South Dakota's statewide stroke data
2. Review treatment goals for guideline-based stroke care
3. Provide a connection between each part of the stroke system



Registry Participation

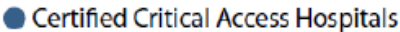
Hospitals Participating in GWTG-Stroke per Year				
Year	Total	CAHs	Community Size	Tertiary Stroke Receiving Hospitals
2023	3	0	0	3
2024	5	2	0	3
2025	25	16	6	3



- Official kick-off was October 15, 2024
- Hospitals have until 90 days after the current quarter to complete the current quarter's abstraction, so this is not a complete picture of 2025, but provides a glimpse of how SD is trending in stroke care, specifically in the rural parts of the state.

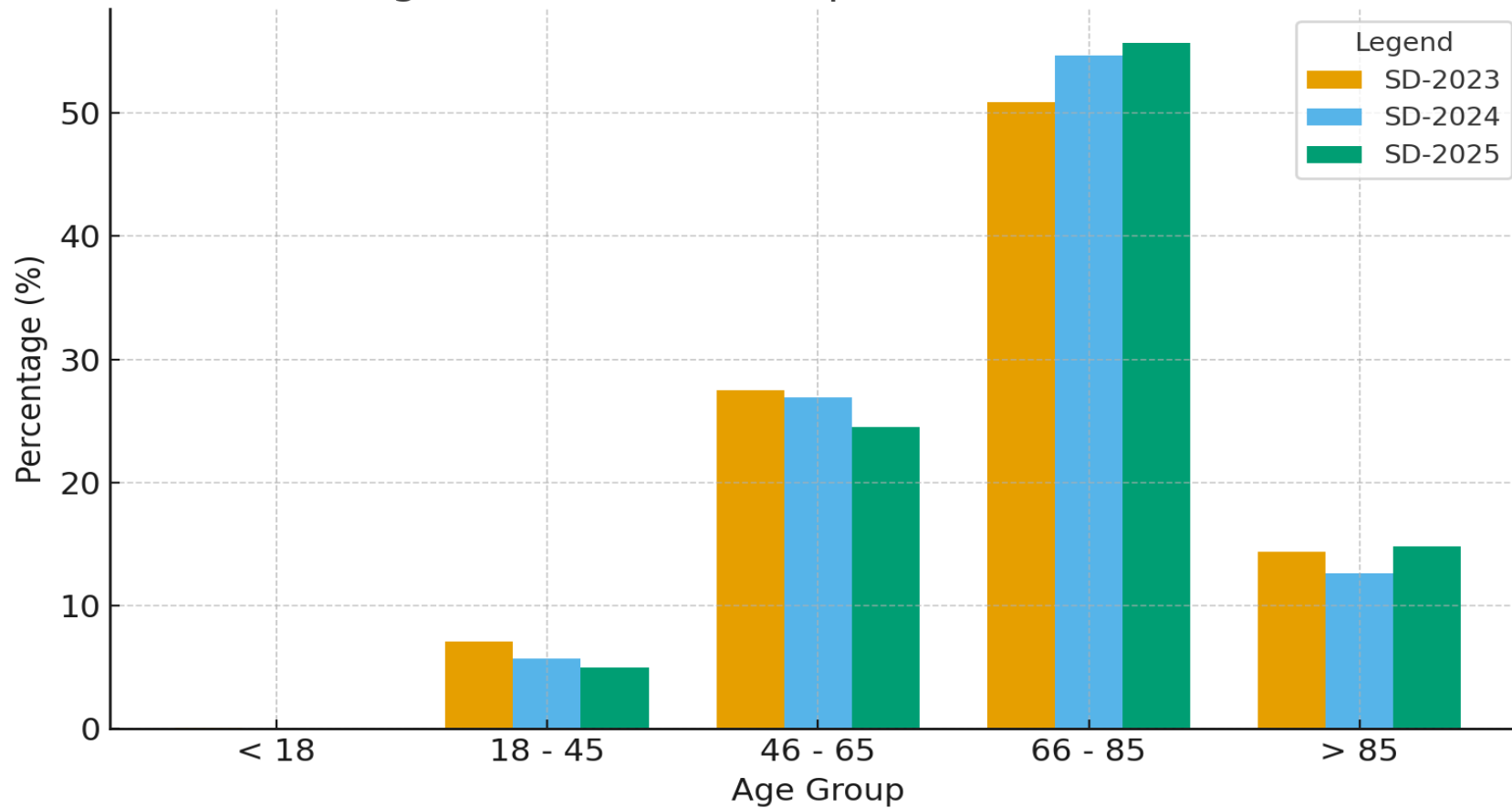
A large dark blue circle with a white border. Inside the circle, the text "SD Hospitals Participating in GWTG" is written in white, centered. The background of the slide is a lighter blue with a subtle grid pattern.

SD Hospitals
Participating
in GWTG



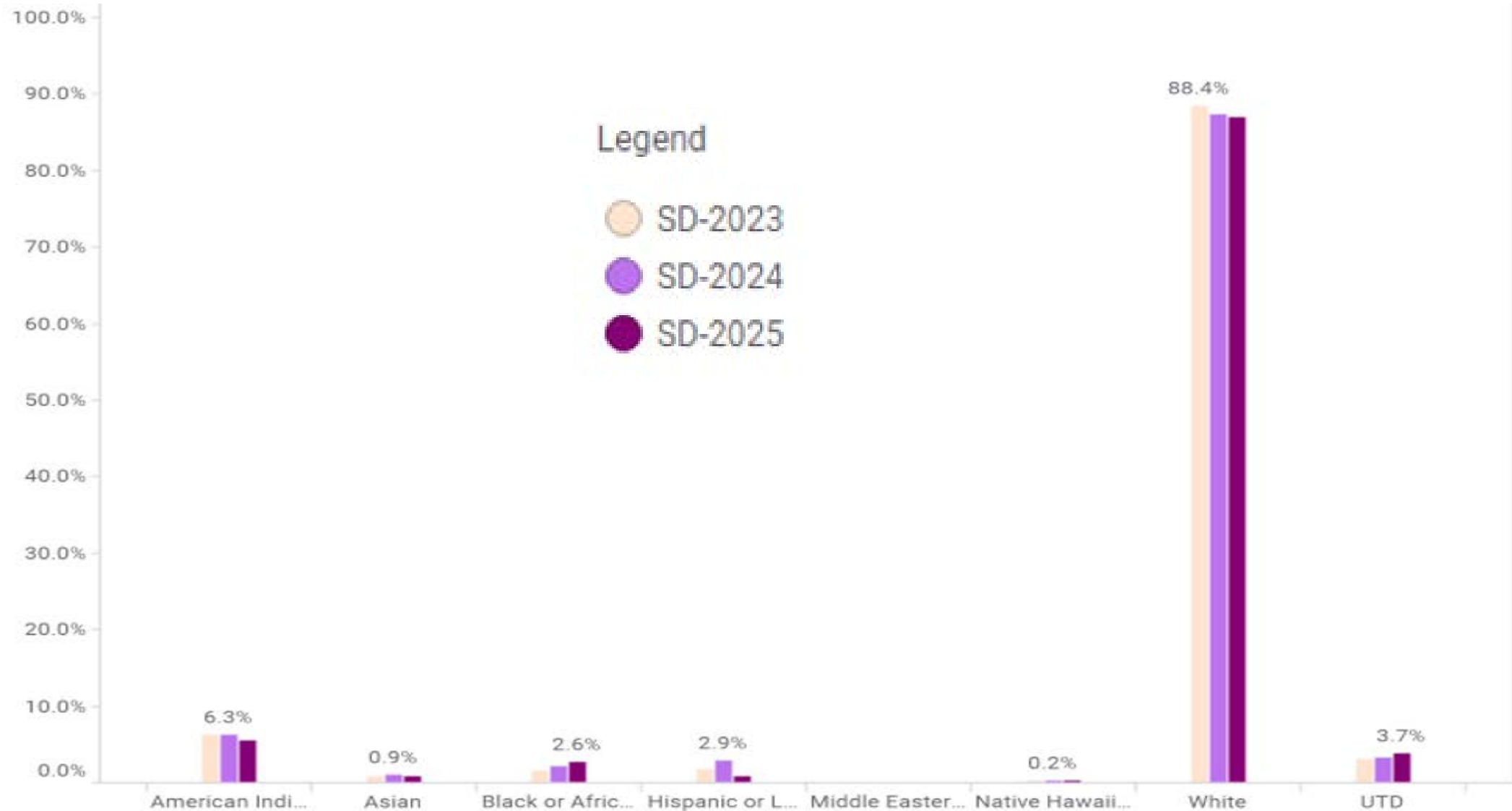
Source: South Dakota Department of Health, Office of Rural Health

Age Distribution Comparison (2023-2025)



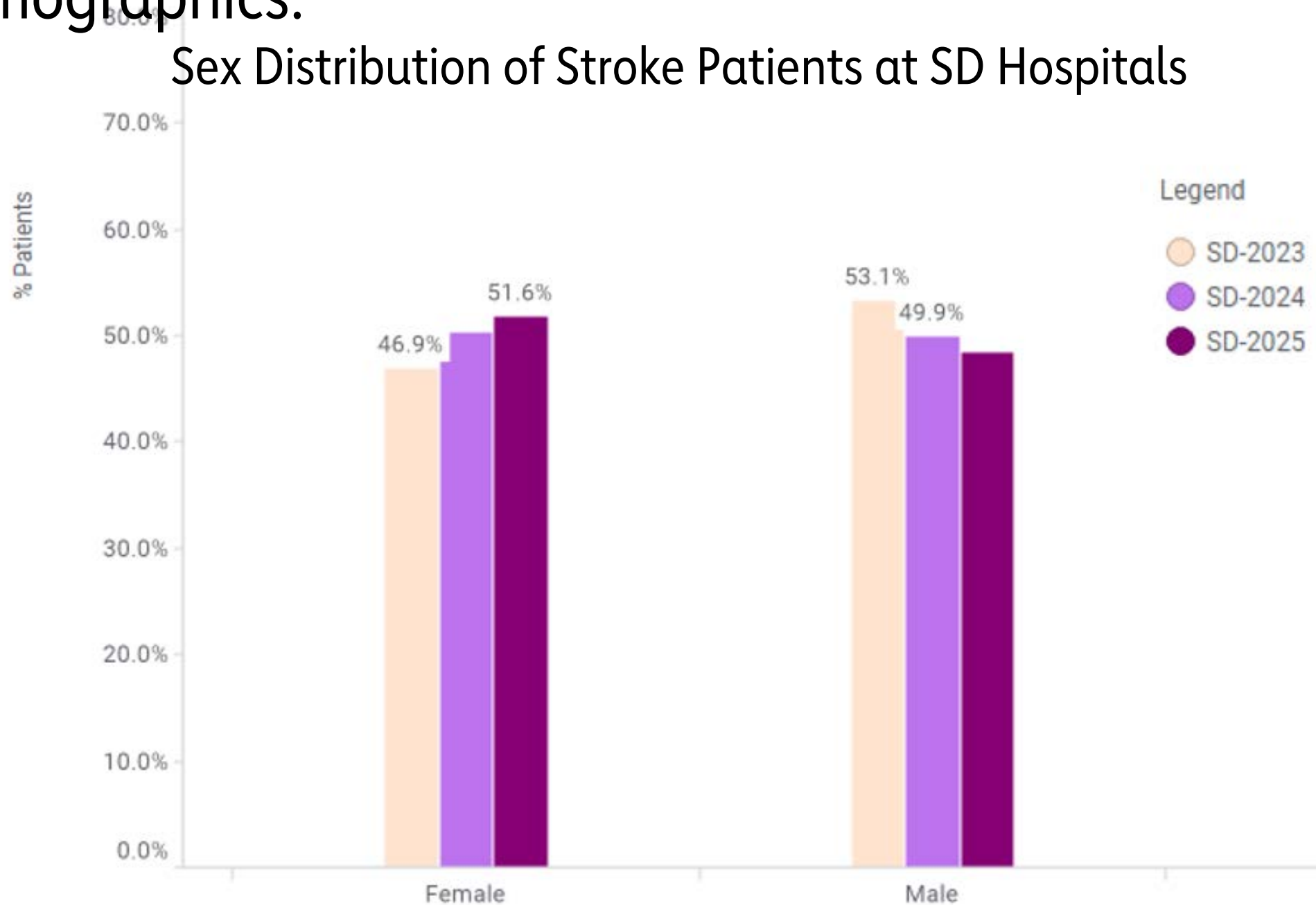
Demographics:

Race/Ethnicity Distribution of Stroke Patients at SD Hospitals

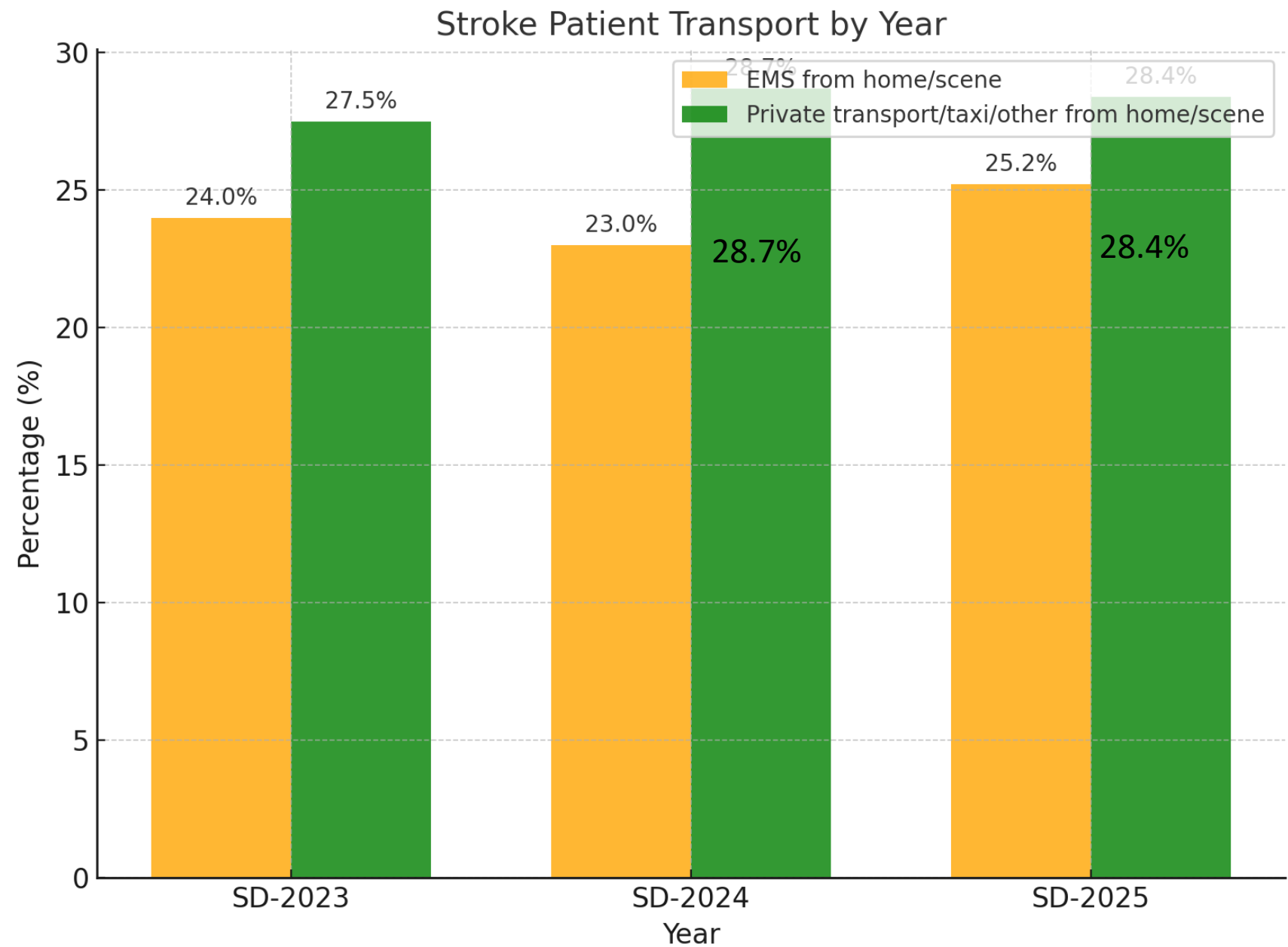


Demographics:

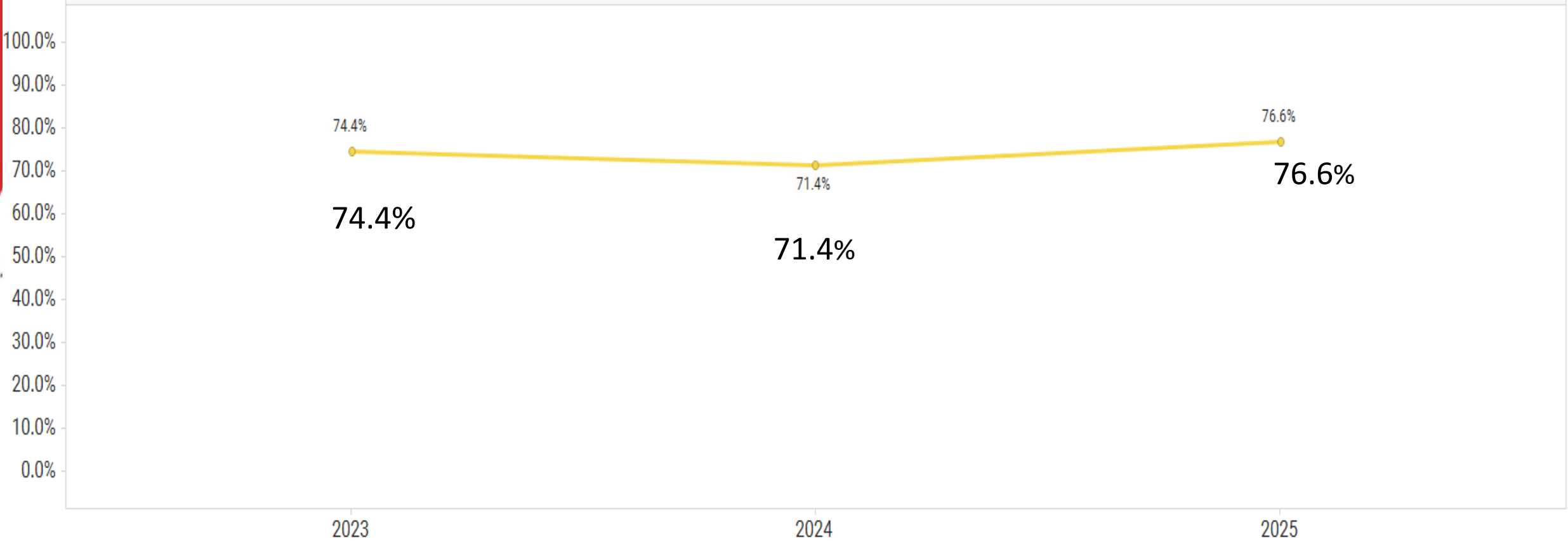
Sex Distribution of Stroke Patients at SD Hospitals



Patient Arrival Mode

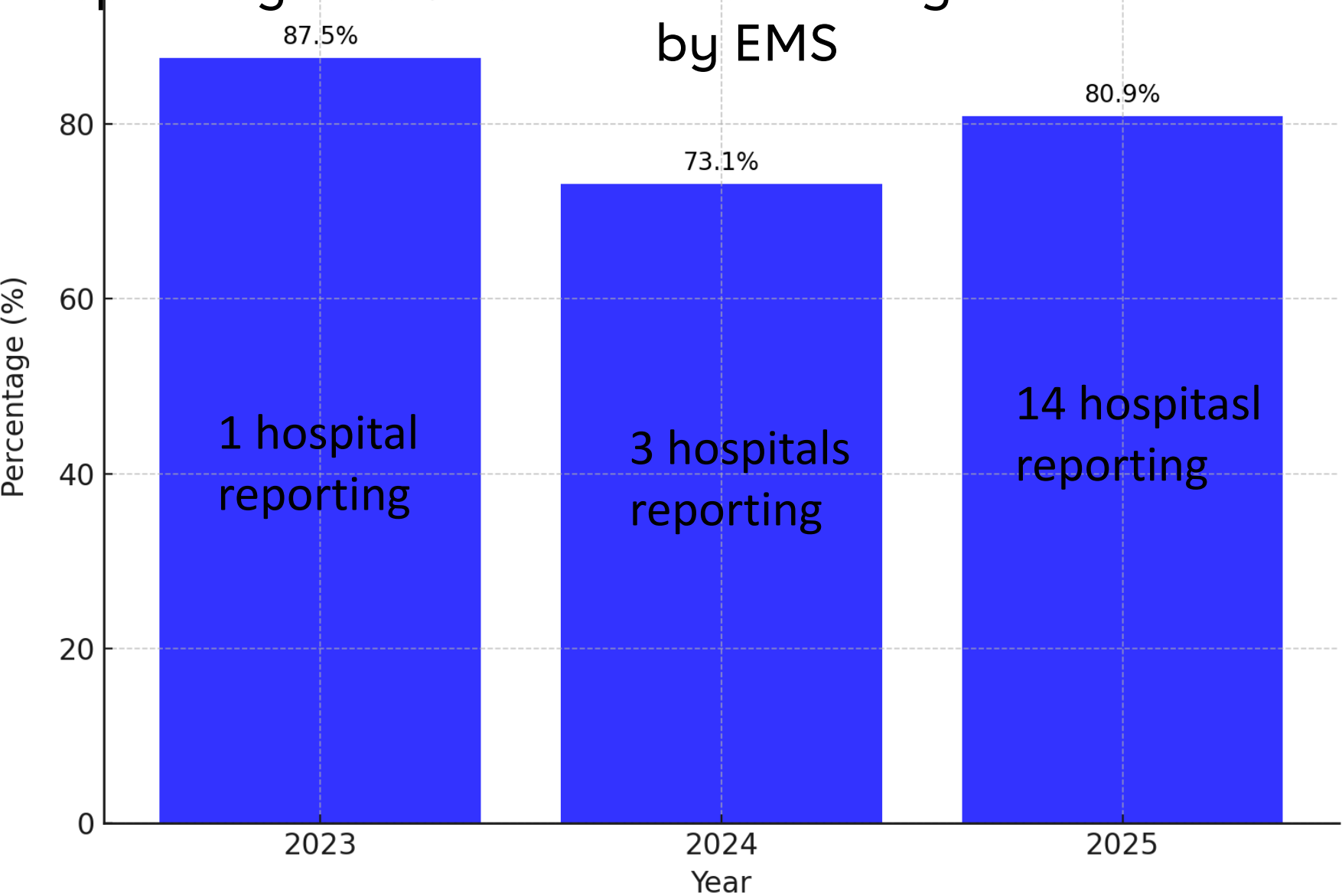


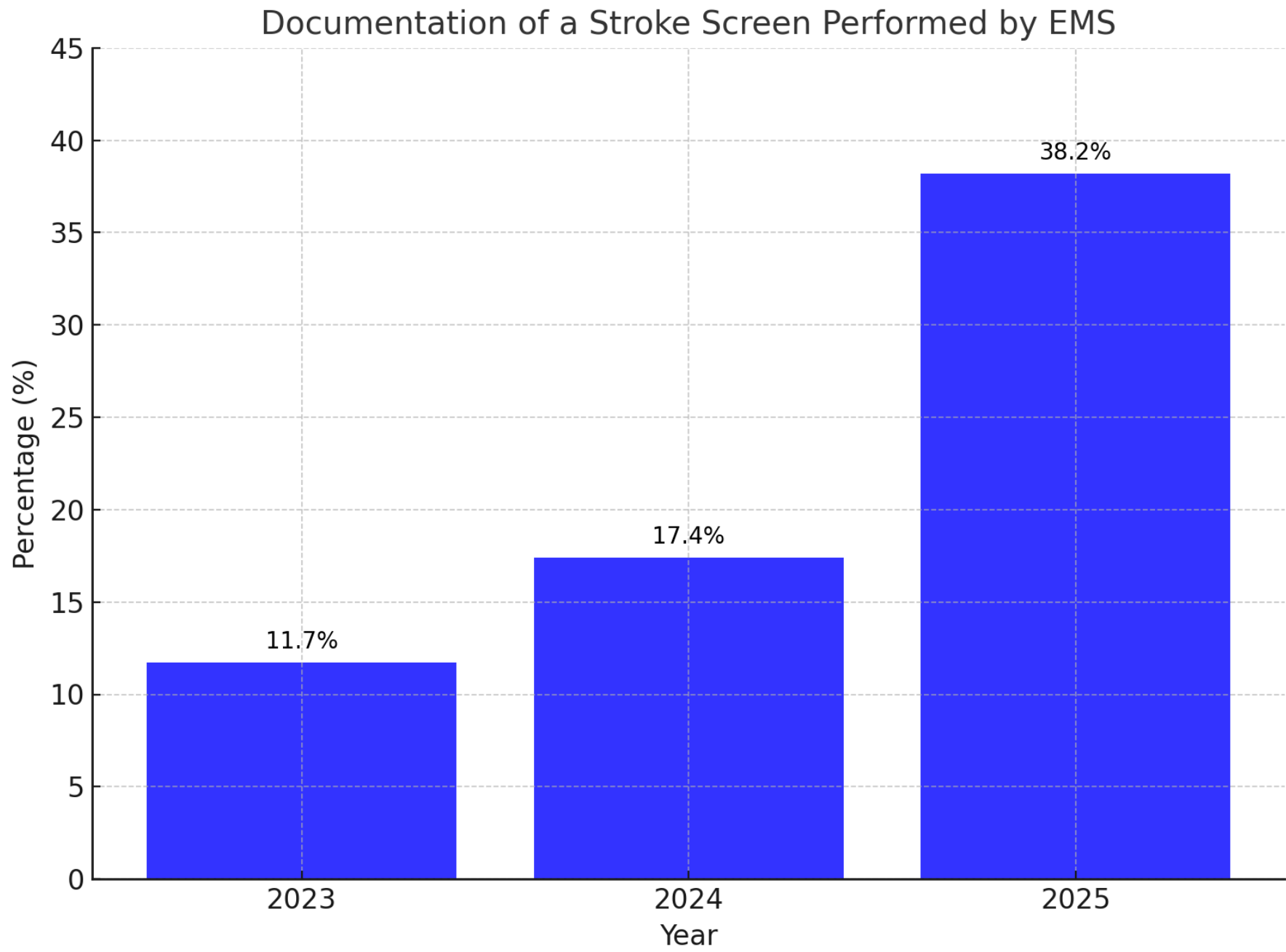
Pre-Notification from EMS-Percent if cases of advanced notification by EMS for patient's transported by EMS from scene for all South Dakota



Pre-Hospital Evaluation of Blood Glucose

Percentage of confirmed stroke patients transported to your hospital by EMS & for whom a blood glucose was evaluated by EMS





Median # of Minutes for Patient Last Known Well (LKW) Time to ED Arrival Time

LWK to Arrival by EMS/Private Vehicle^		
	<i>N=</i>	<i>Median # of Minutes</i>
All SD Hospitals - 2023	766	162
All SD Hospitals - 2024	1038	193
All SD Hospitals - 2025	751	183.5

^Median last known well time to arrival at hospital among patients who arrived by EMS or private vehicle; not hospital transfers



2025

HOSPITAL RECOGNITION CRITERIA

(based on 2024 data)



Eight or more consecutive quarters and ≥ 2 stroke or TIA records annually



Four consecutive quarters and ≥ 2 stroke or TIA records annually



One calendar quarter and ≥ 1 stroke or TIA record per quarter

Rural Acute Stroke Composite Score Criteria: At least 75% Compliance

Time to Intravenous Thrombolytic Therapy ≤ 60 minutes (AHASTR13)

Door-In/Door-Out Time at First Hospital Prior to Transfer for Acute Therapy ≤ 90 Minutes (AHASTR27)

National Institutes of Health Stroke Scale (NIHSS) Reported (AHASTR10)

Door to CT ≤ 25 min (AHASTR305)

Dysphagia Screen (AHASTR306)

Documentation of Last Known Well or Time of Discovery of Stroke Symptoms (AHASTR270)

IV Thrombolytic Therapy Arrive by 3.5 Hours Treat by 4.5 Hours (AHASTR5)

EMS Pre-notification (AHASTR39)

Non-Contrast Brain CT or MRI Interpreted Within 45 Minutes of Arrival (AHASTR272)

Stroke Consultation Done (AHASTR307)



Eligible Hospitals

Federally Designated Critical Access Hospitals or Short Term Acute Care Hospitals within Rural Urban Commuting Areas (RUCA) geographically classified as large rural, small rural or isolated.





American
Heart
Association.

The American Heart Association and
American Stroke Association proudly recognizes

Platte Health Center Averá
Platte, SD

Get With The Guidelines® - Rural Stroke BRONZE
Achievement Award Hospital

The American Heart Association recognizes this hospital for its continued success
in using the **Get With The Guidelines®** program.
Thank you for applying the most up-to-date evidence-based treatment guidelines
to improve patient care and outcomes in the community you serve.*

Nancy A. Brown

Nancy Brown
Chief Executive Officer
American Heart Association

Keith B. Churchwell

Keith Churchwell, M.D., FAHA
President
American Heart Association

*For more information, please visit Heart.org/GWTGQualityAwards.



American Heart Association
Get With The Guidelines.
Stroke



American
Heart
Association.

**RURAL
STROKE**

**2025
BRONZE**

**GET WITH THE
GUIDELINES.**



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St. Michael's Hospital Averá
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American Heart Association
Get With The Guidelines.
Stroke



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**RURAL
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**2025
BRONZE**

**GET WITH THE
GUIDELINES.**



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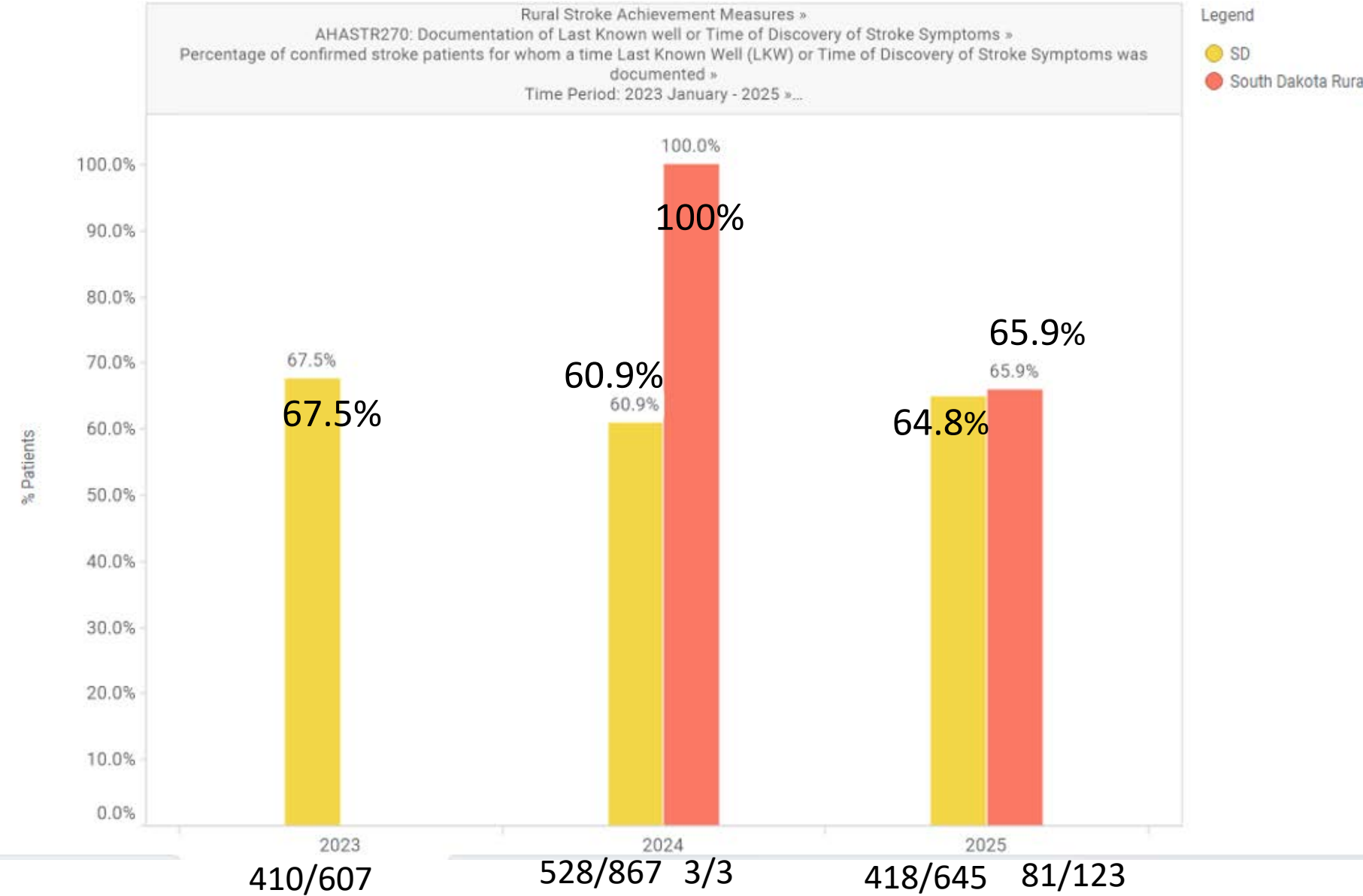
Each minute of untreated ischemia = ~1.9 million neurons lost.

This translates to the equivalent of 3.1 weeks of aging per minute.

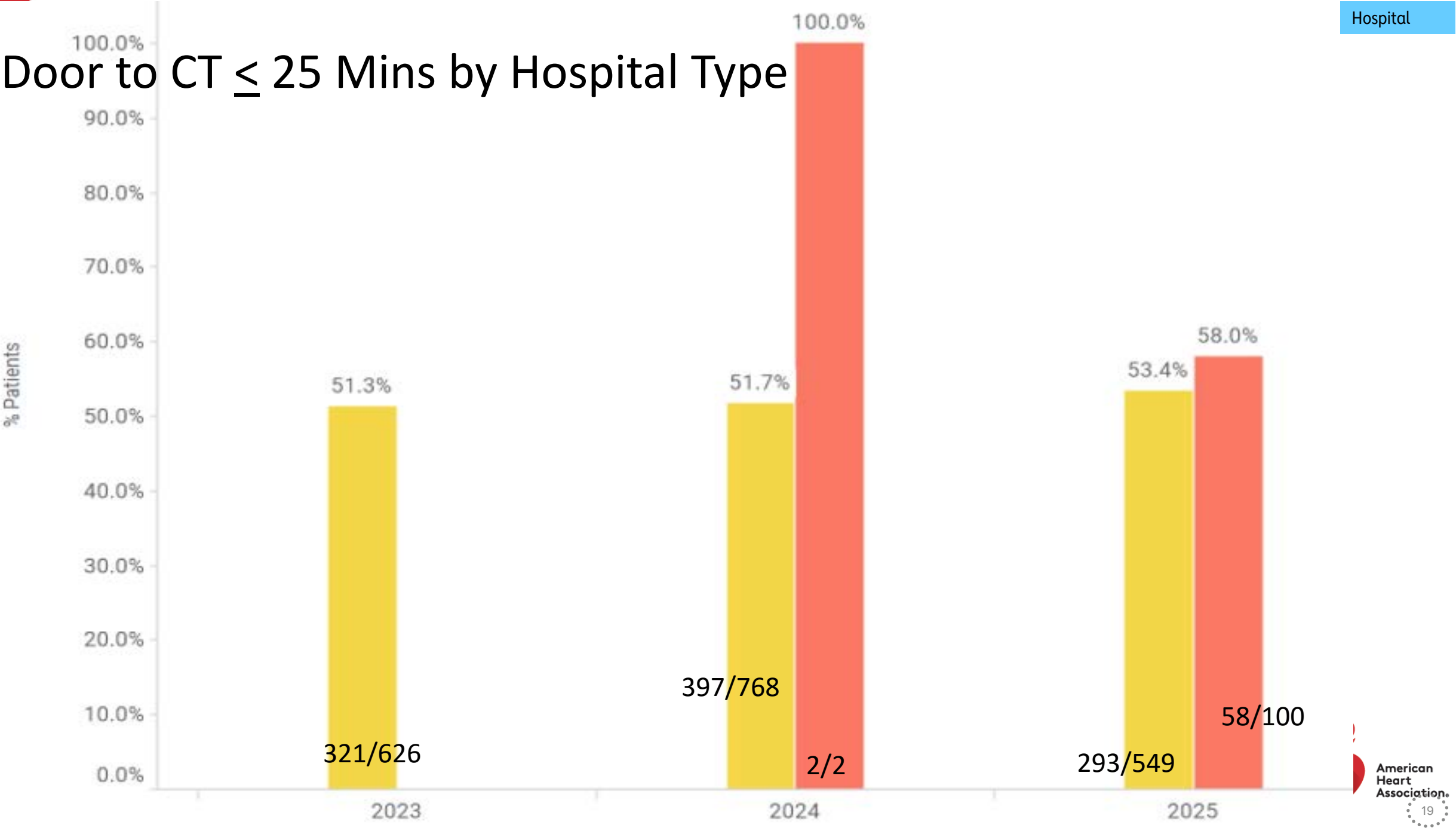
Over 1 hour untreated = ~3.6 years of normal brain aging.

**4.5 Hours
untreated =
36 years of
aging**

Documentation of LKW or Discovery of Symptoms



Door to CT ≤ 25 Mins by Hospital Type



Median Door to CT Times by Hospital Types

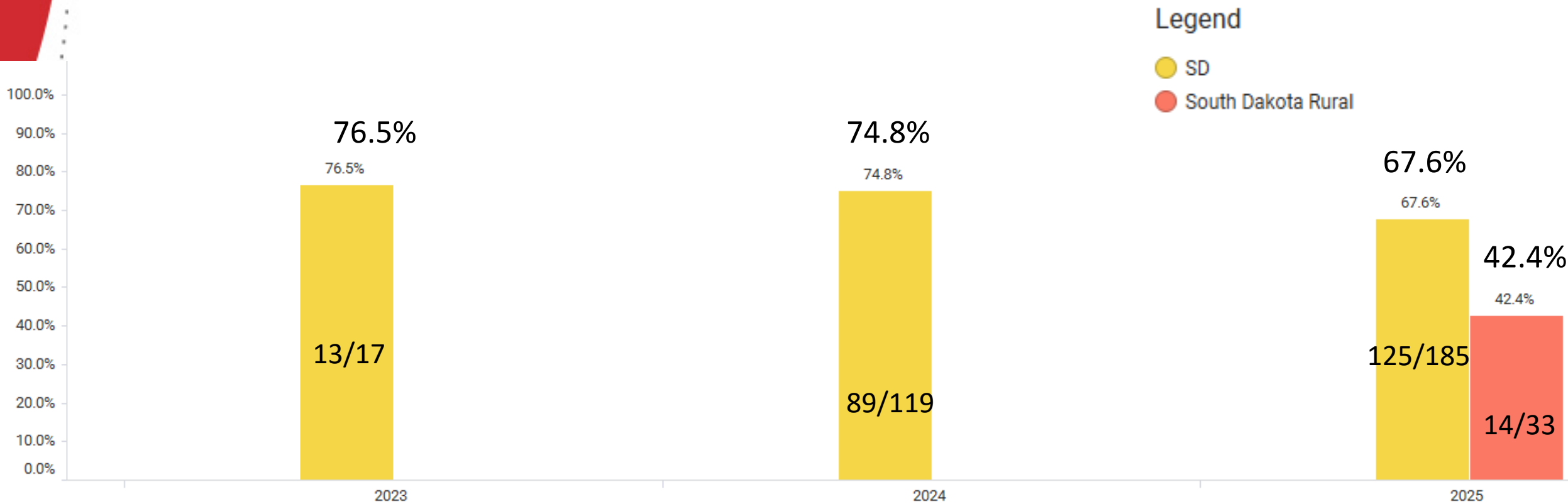
	All SD Hospitals	Rural SD Hospitals
2023	12 mins (299 patients)	No Data
2024	12 mins (314 patients)	No Data
2025	13 mins (238 patients)	13 mins (49 patients)

Rural Stroke Achievement Measures »

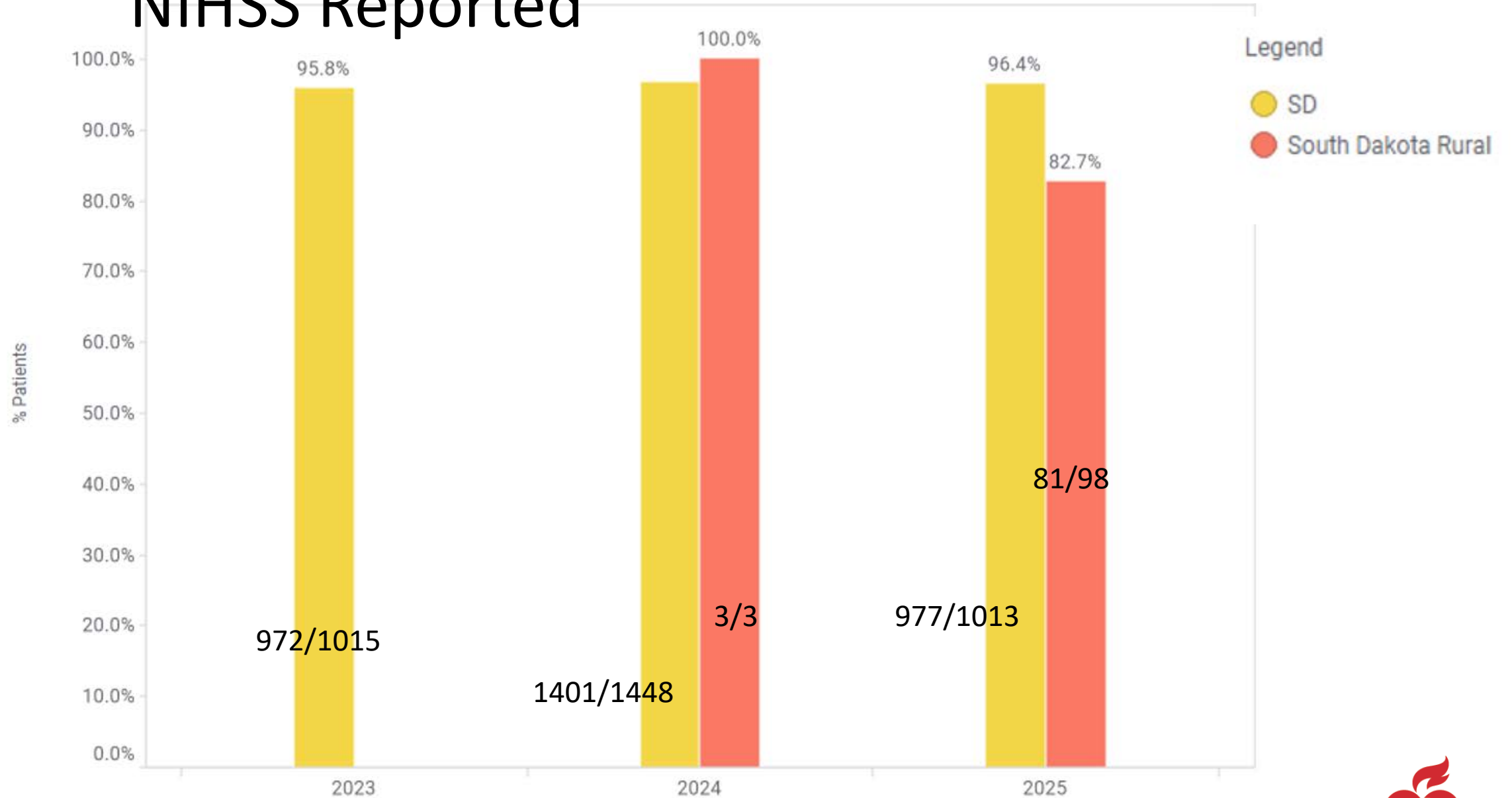
AHA STR272: Non-Contrast Brain CT or MRI Interpreted within 45 Minutes from Presentation »

Patients age 18 years and older with a final clinical diagnosis of ischemic stroke »

Time Period: 2023 January - 2025 »



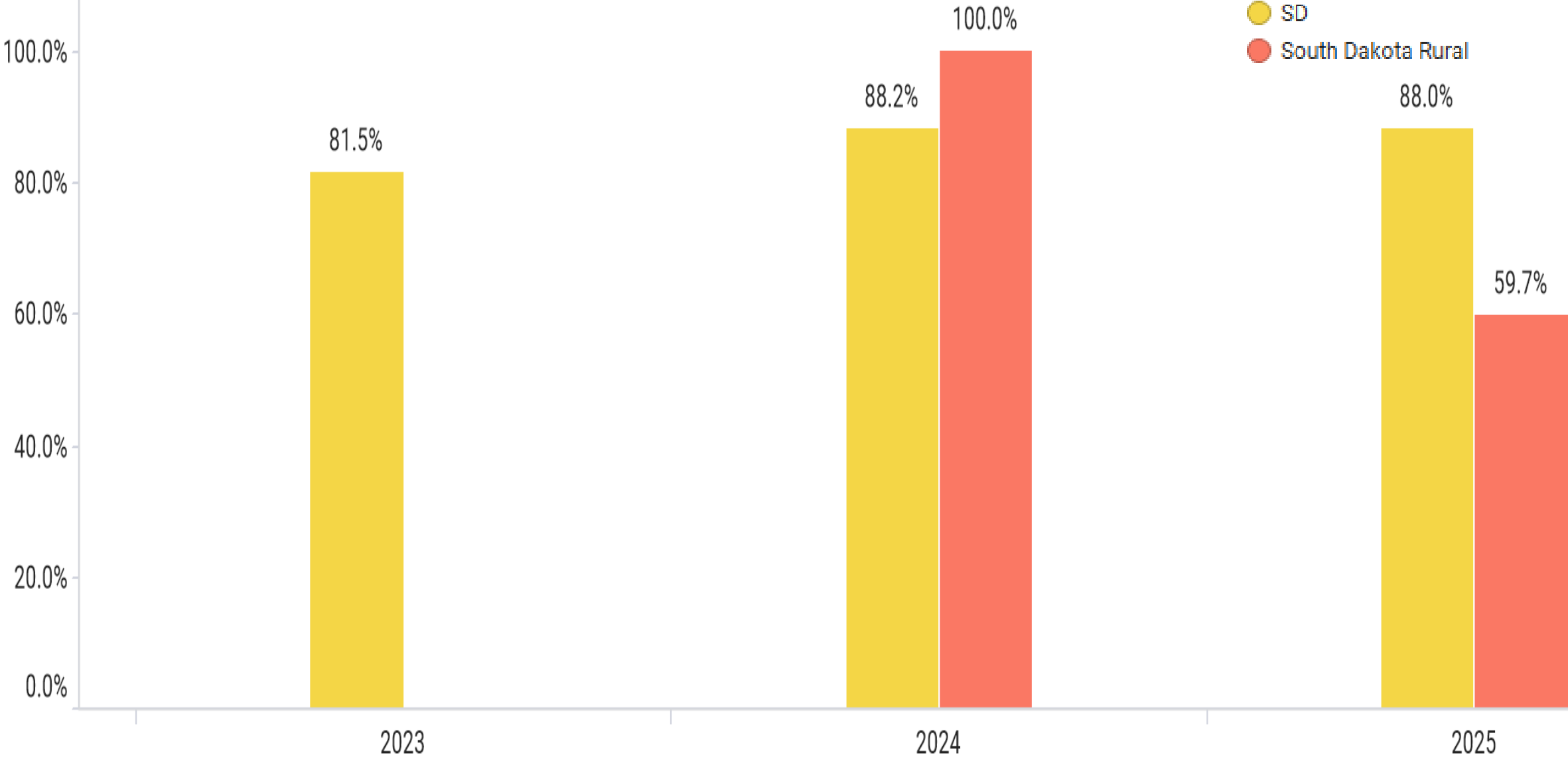
NIHSS Reported



Dysphagia Screen

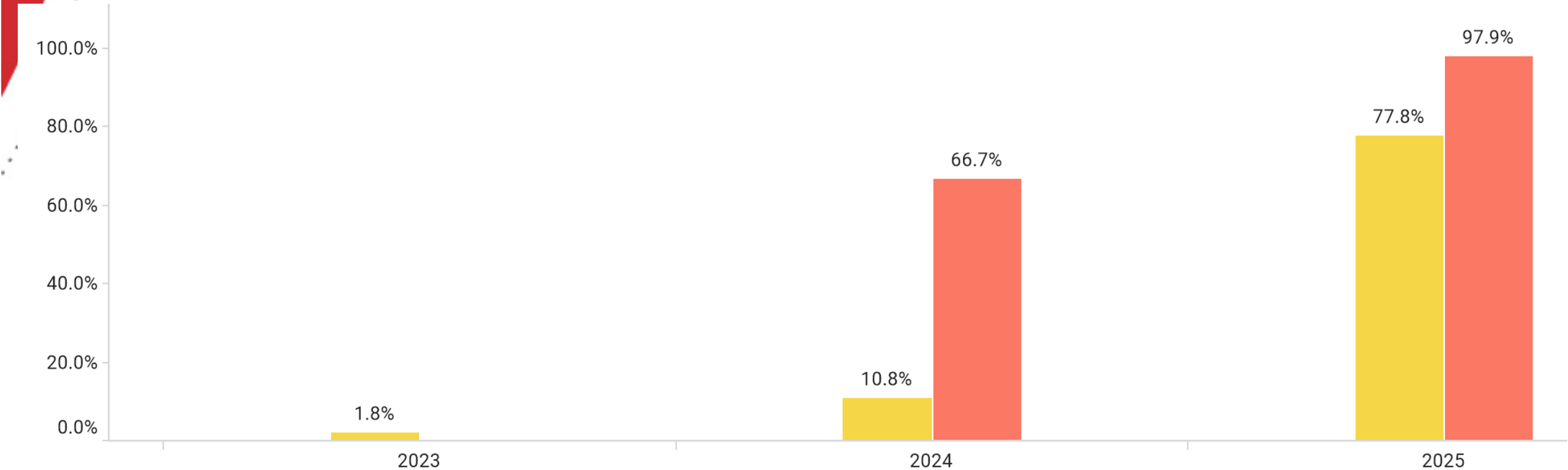
Legend

- SD
- South Dakota Rural



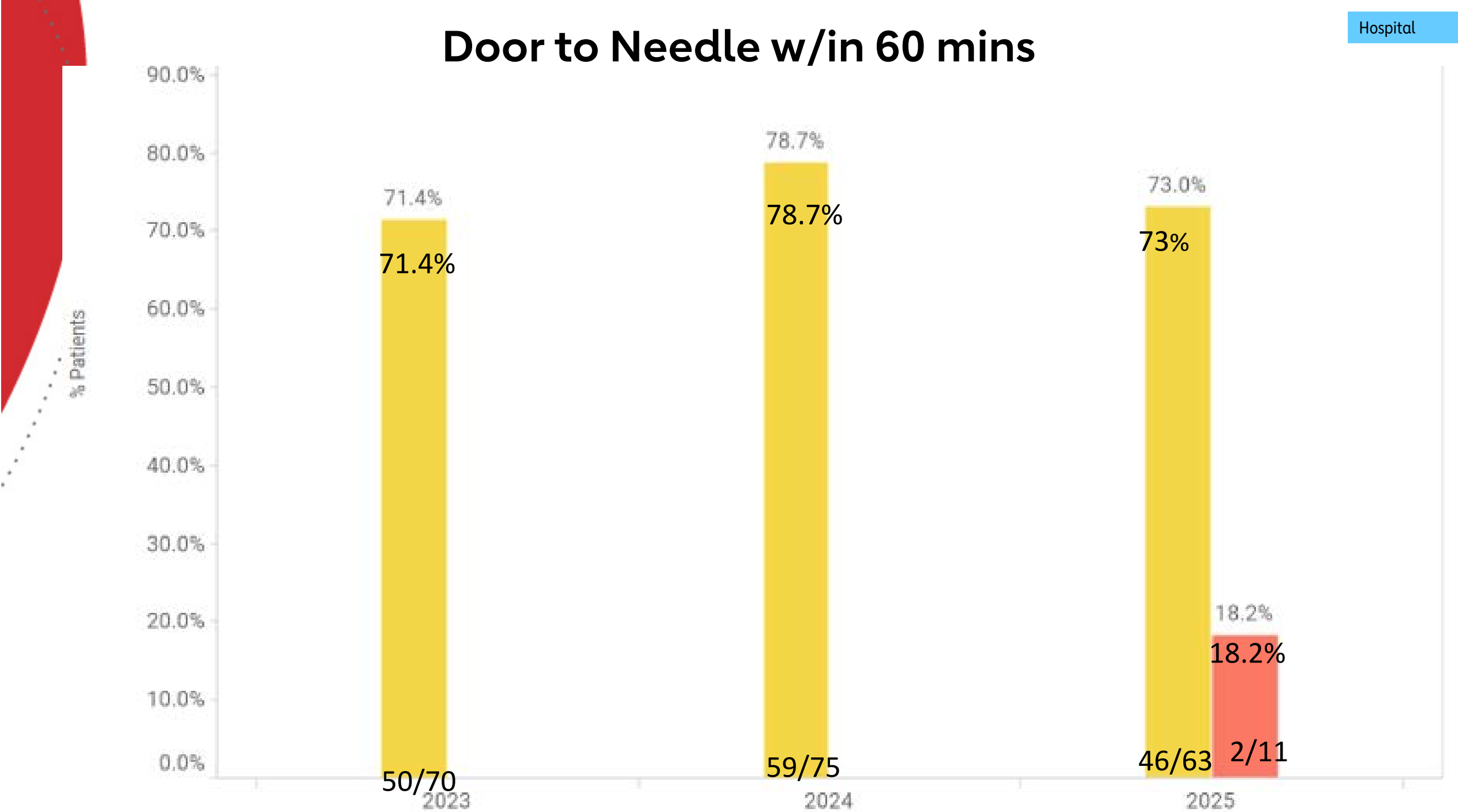
Stroke Consultation Done

Rural Stroke Achievement Measures »
AHASTR307: Stroke Consultation Done (Rural) »
Percentage of stroke patients who received a stroke consult »
Time Period: 2023 January - 2025 »



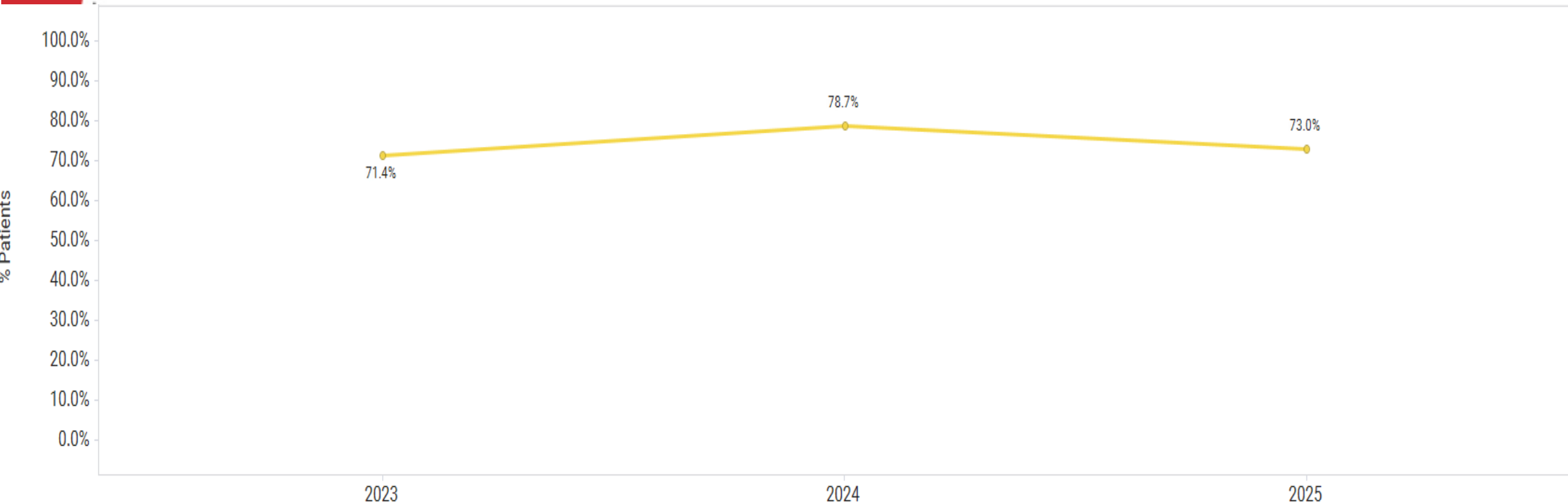
Door to Needle w/in 60 mins

Hospital



Door-to-Needle Time Within 60 Minutes

All SD Hospitals



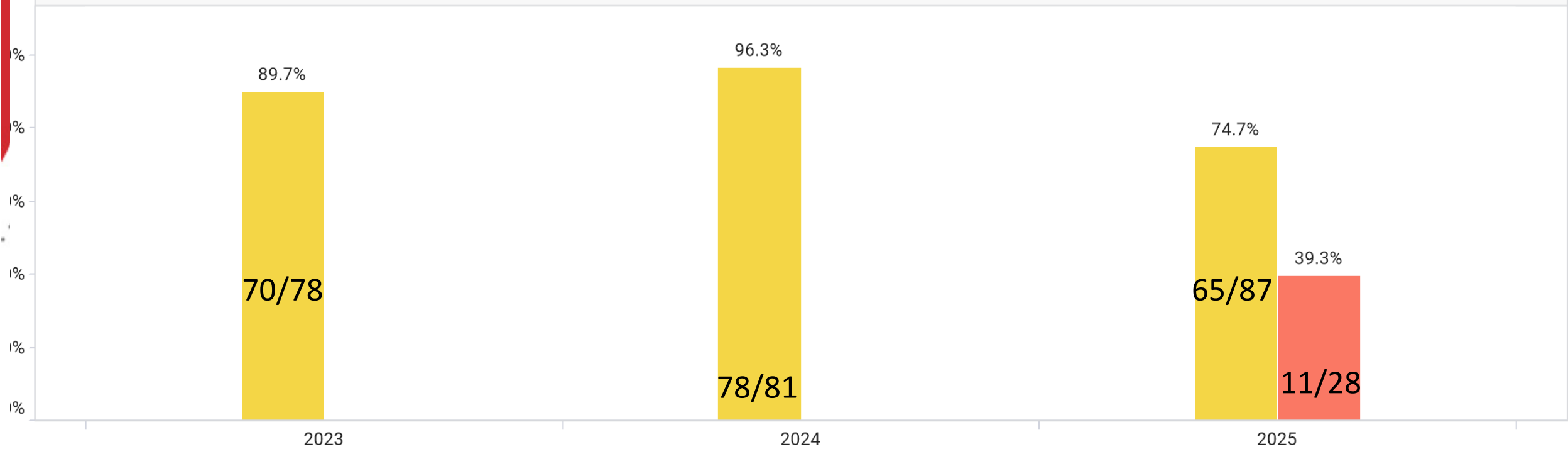
Median Door to Needle Times

	All SD Hospitals	Rural SD Hospitals
2023	49.5 mins (50 patients)	No data available
2024	44 mins (59 patients)	No data available
2025	42 mins (46 patients)	79 mins (2 patients)

Arrive by 3.5, Treat by 4.5

- Legend
- SD
 - South Dakota Rural

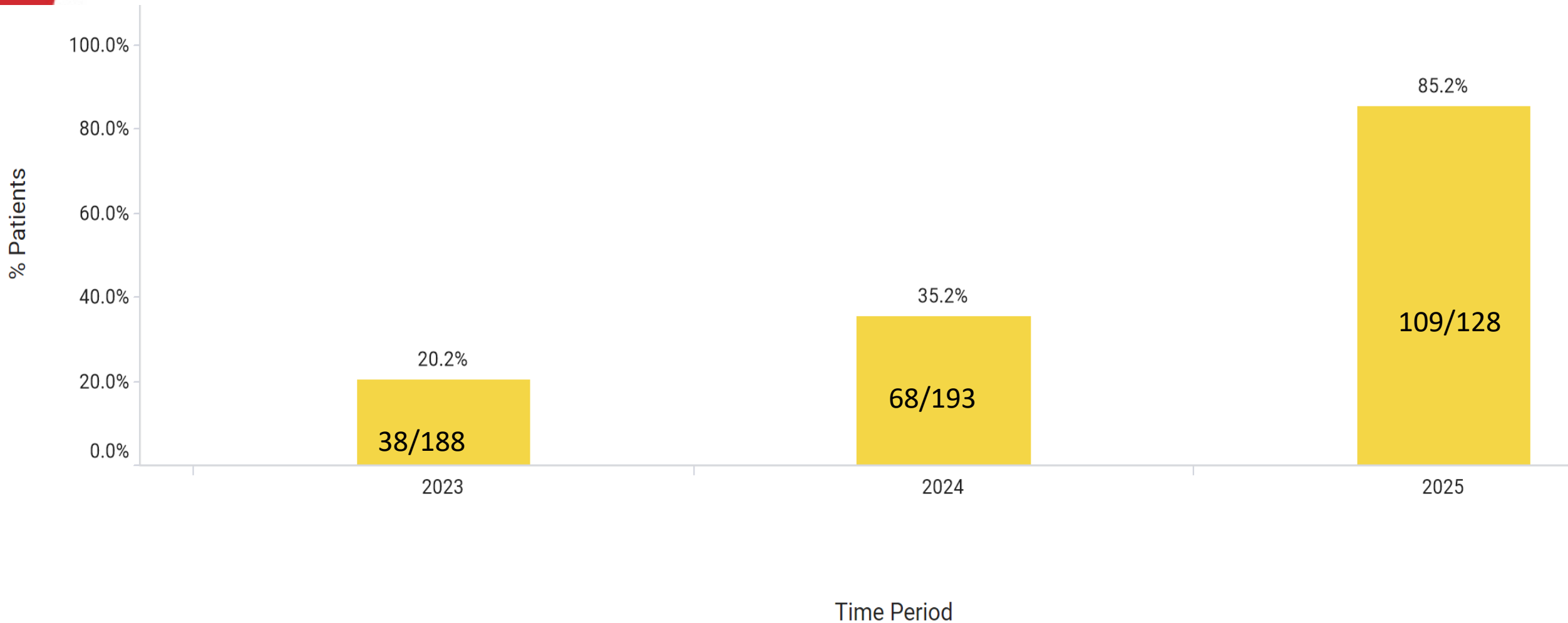
Rural Stroke Achievement Measures »
AHA5TR5: IV Thrombolytic Arrive by 3.5 Hour, Treat by 4.5 Hour »
Percent of acute ischemic stroke patients who arrive at the hospital within 210 minutes (3.5 hours) of time last known well and for whom IV alteplase thrombolytic was initiated at this hospital within 270 minutes (4.5 hours) of time last known well »
Time Period: 2023 January - 2025 »...



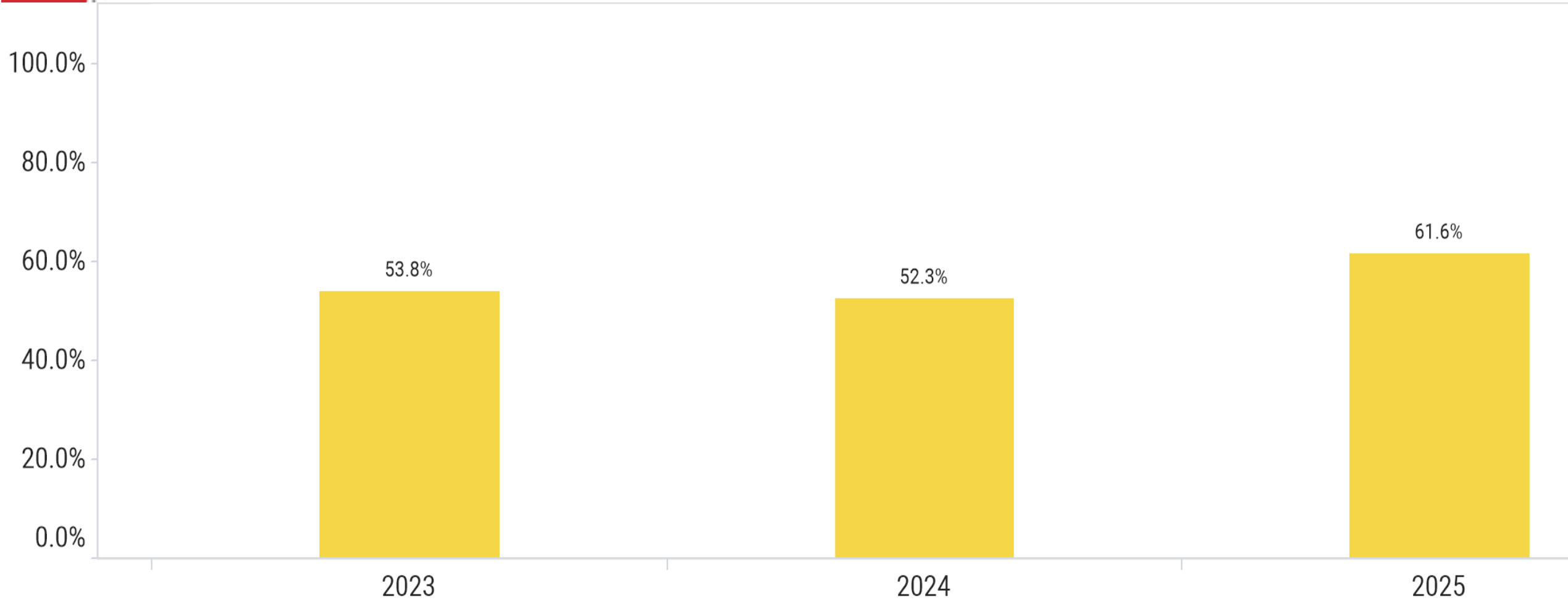
Door-in-Door-Out Time at First Hospital Prior to Transfer for Acute Therapy ≤ 90 Minutes (Referring Hospital)

	2025
Rural SD Hospitals	15.3% (2/13) Median time= 197 mins

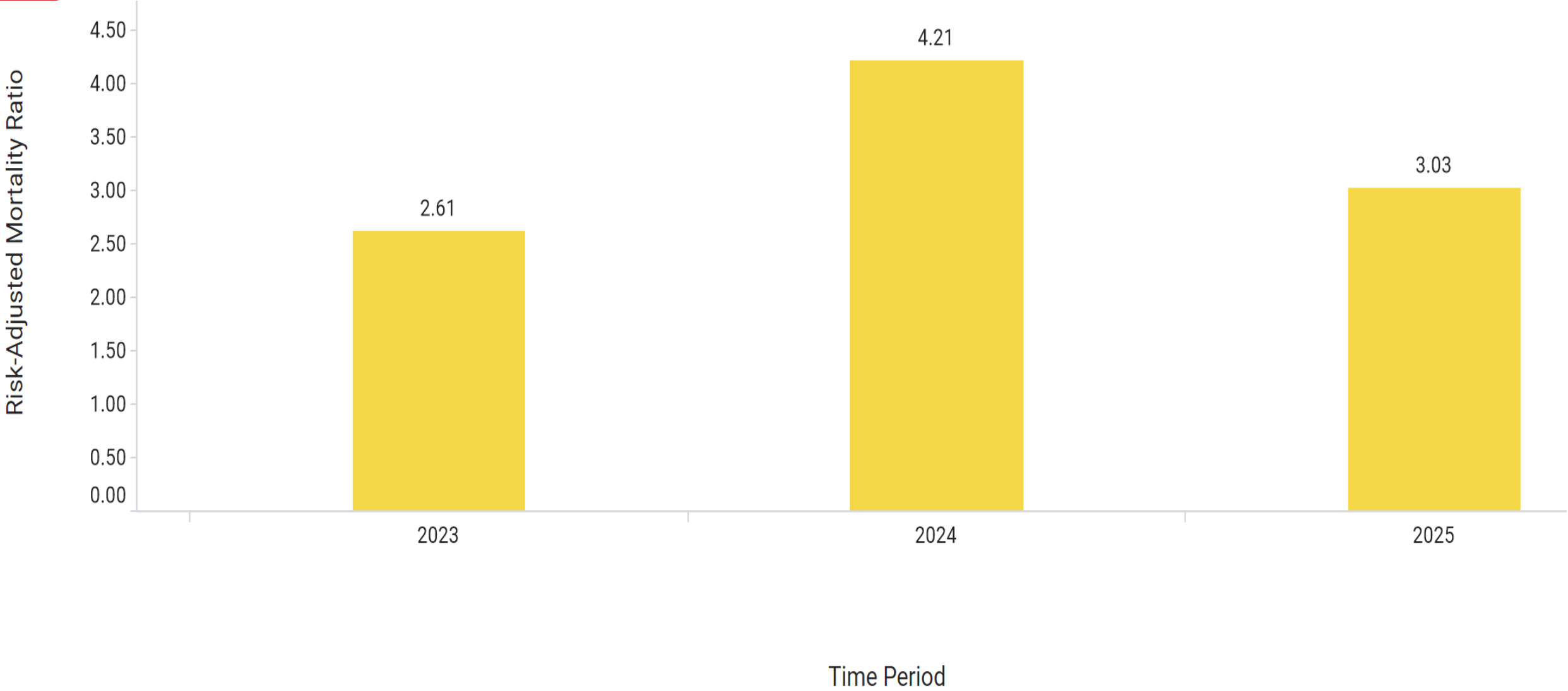
Rate of Substantial Reperfusion – Patients Who Receive Mechanical Endovascular Reperfusion



Door to Start of Device within 60 Minutes for Patients Transferred From an Outside Hospital OR within 90 minutes for Patients Presenting Directly



In-Hospital Mortality – Ischemic Stroke



Thank you... 
Questions????

References:

American Heart Association. (2021). *Care of the patient with acute ischemic stroke: Update to the 2009 comprehensive nursing care scientific statement*. Professional Heart Daily.

<https://professional.heart.org/en/science-news/2021-update-care-of-the-patient-with-acute-ischemic-stroke>

American Heart Association. (n.d.). Get With The Guidelines®–Stroke. American Heart Association. <https://www.heart.org/en/professional/quality-improvement/get-with-the-guidelines/get-with-the-guidelines-stroke>

South Dakota Department of Health. (2023). South Dakota Department of Health. Office of Rural Health. <https://doh.sd.gov/programs/>

Saver, J. L. (2006). Time is brain—Quantified. *Stroke*, 37(1), 263–266. <https://doi.org/10.1161/01.STR.0000196957.55928.ab>

Saver, J. L., Goyal, M., van der Lugt, A., et al... for the HERMES Collaborators. (2016). Time to treatment with endovascular thrombectomy and outcomes from ischemic stroke: A meta-analysis. *JAMA*, 316(12), 1279–1288. <https://doi.org/10.1001/jama.2016.13647>