

ASSOCIATION BETWEEN TAIWAN ACUTE CARE AT HOME PILOT PROGRAM AND QUALITY OF EMERGENCY CARE

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CROSS-SECTIONAL STUDY | JANUARY-SEPTEMBER 2025 | 190 NHI-CONTRACTED HOSPITALS

Emergency care quality data from Taiwan Health Care Quality Information Disclosure Network



INTRODUCTION

- Emergency department (ED) crowding and boarding can delay time-sensitive care and compromise patient safety.
- Taiwan launched the **Acute Care at Home (ACAH)** Pilot Program on 1 July 2024, providing appropriate home-based medical care to reduce post ED admission pressure.
- Whether hospital participation in ACAH can improve efficiency in ED boarding and inpatient transfer remains uncertain.

OBJECTIVE

Explore the association between hospital participation in ACAH and rates of admitted ED patients transferred to an inpatient ward within 8 hours.

METHODS

Design: Hospital-level cross-sectional study
Period: January-September 2025 (Q1-Q3)
Included: NHI-contracted medical centers, regional hospitals, and district hospitals with active contracts through Q3

Excluded: Specialist hospitals; hospitals that ended their contracts or ceased operations; hospitals missing at least 1 of the 3 ED indicators
Outcomes: Mean rates of Taiwan Triage and Acuity Scale (TTAS) Level 1, 2, or 3 ED patients transferred to an inpatient ward within 8 hours
Analysis: Separate multiple linear regressions adjusted for hospital level, NHIA branch, urbanicity, and mean general bed count

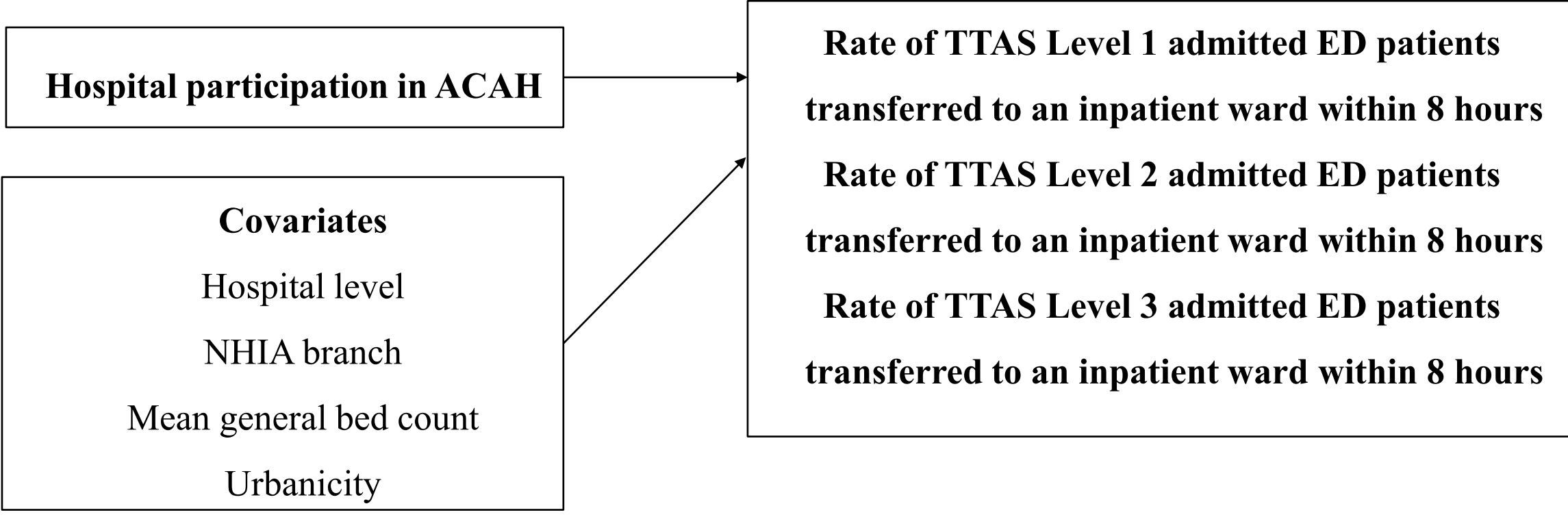


Figure 1. Research framework

RESULTS

190 Eligible Hospitals

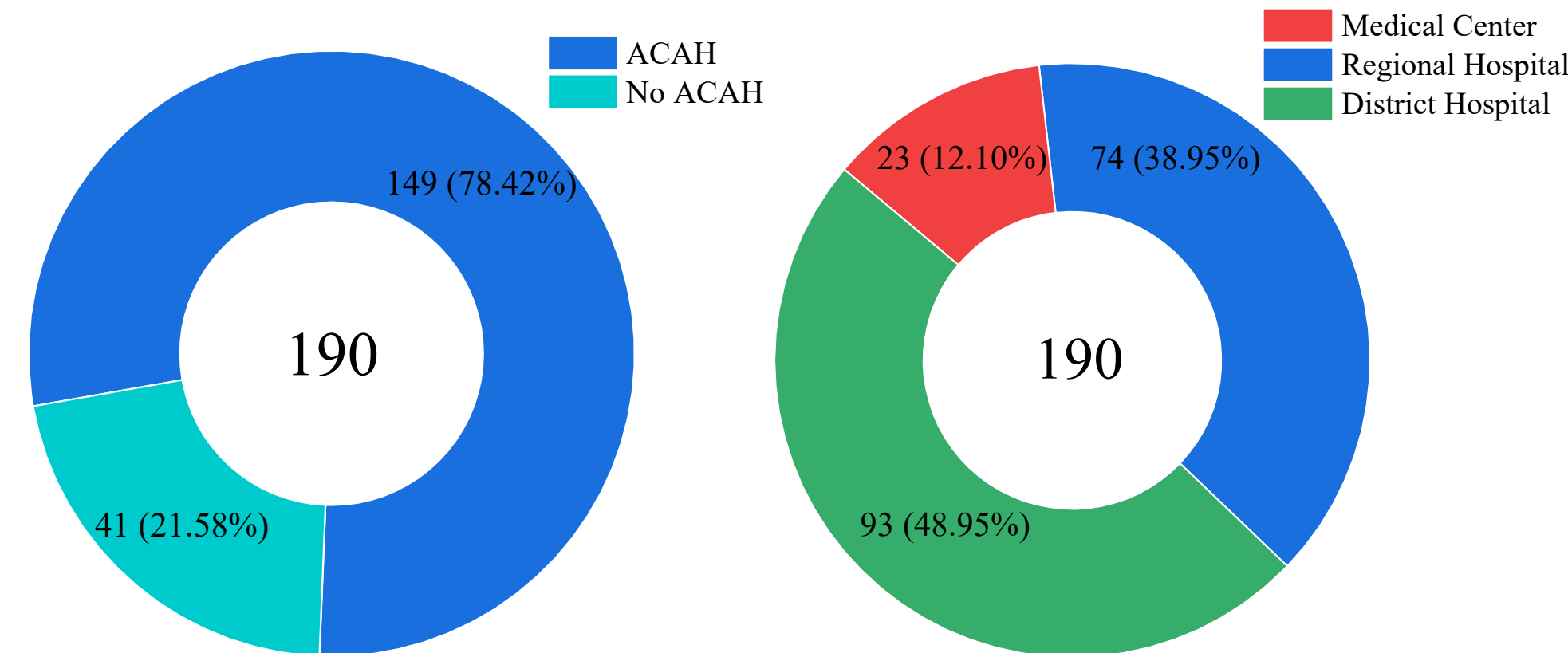


Figure 2. Hospital participation in ACAH

Figure 3. Hospital level

MEAN WITHIN-8-HOUR TRANSFER RATES IN ALL HOSPITALS

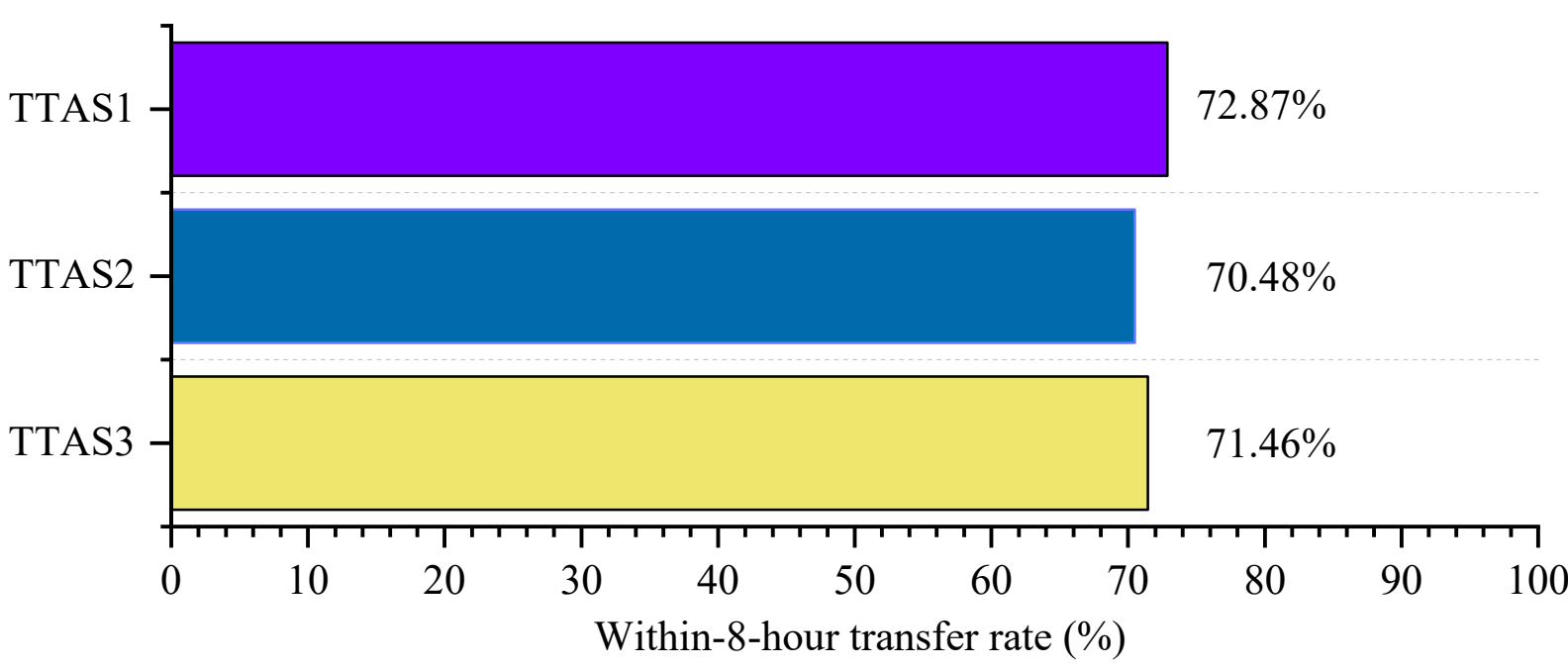


Figure 4. Within-8-hour transfer rates in all hospitals

ACAH PRIMARY ASSOCIATIONS

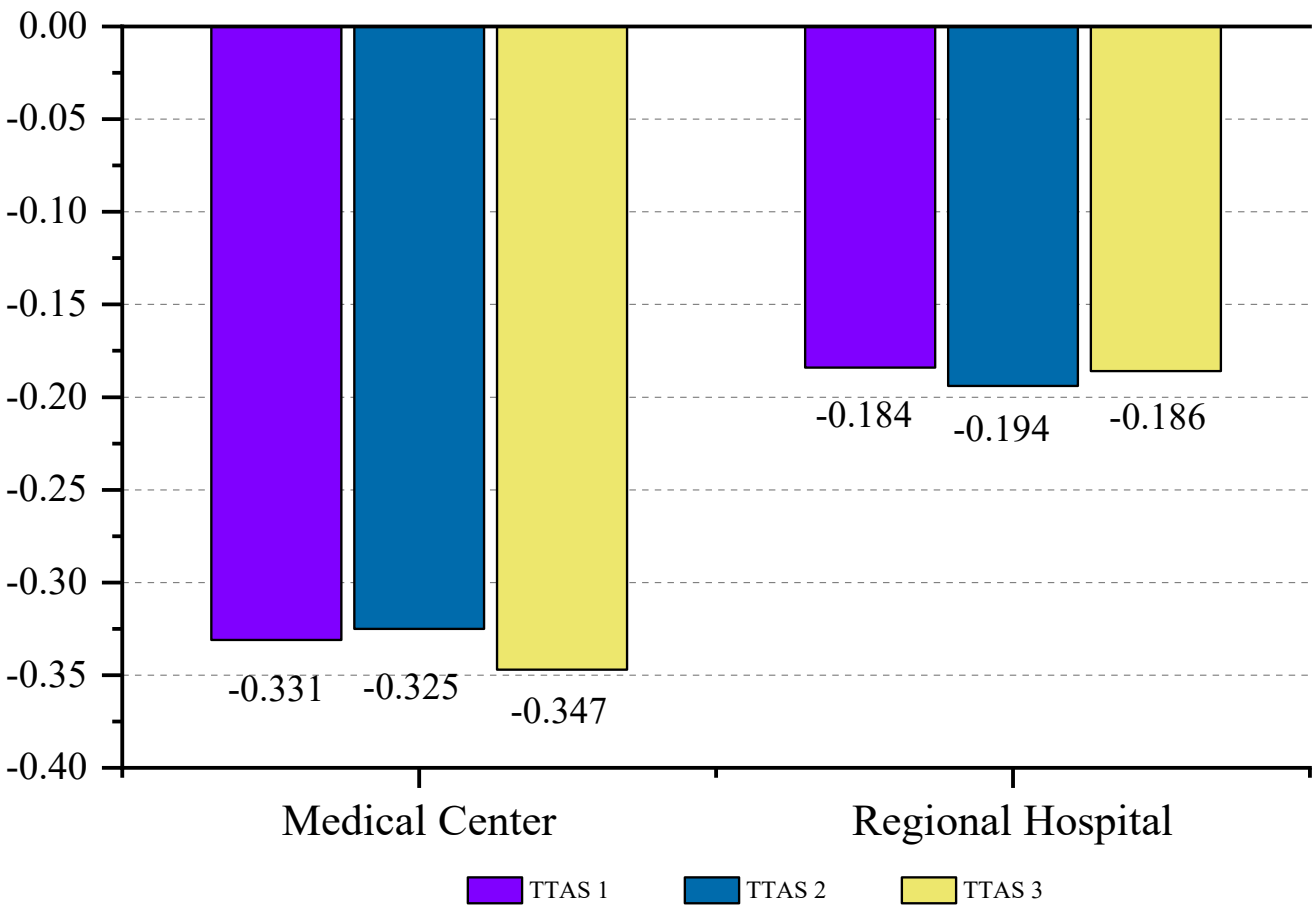
Outcome	B	P	VIF
TTAS 1	-0.018	0.563	1.202
TTAS 2	0.003	0.911	1.202
TTAS 3	-0.002	0.942	1.202

Reference group: hospitals not participating in ACAH

Table 1. ACAH primary associations across TTAS 1-3

ACAH participation was not significantly associated with any ED indicators.

HOSPITAL-LEVEL DIFFERENCES



Reference group: District Hospital

Figure 5. Hospital-level differences across TTAS 1-3

Medical centers and regional hospitals were lower than district hospitals across 3 ED indicators; all $p < 0.001$.

MODEL FIT AND DIAGNOSTICS

Outcome	TTAS 1	TTAS 2	TTAS 3
R	0.683	0.703	0.739
R ²	0.466	0.494	0.546
Adj. R ²	0.436	0.466	0.520
F(10, 179)	15.624	17.464	21.492
Model P	<0.001	<0.001	<0.001

All models adjusted for hospital level, NHIA branch, urbanicity, and general beds.

Table 2. Multiple linear regression models

- All models were significant (all $p < 0.001$).
- Maximum VIF=3.983.
- NHIA branch and urbanicity were not significantly associated with any ED indicators.
- General beds were significant only for TTAS 3 ($p=0.035$).

CONCLUSIONS

No significant short-term association was observed between ACAH participation and ED-to-inpatient transfer within 8 hours.

- Medical centers and regional hospitals consistently had lower within-8-hour transfer rates than district hospitals.
- The 9-month observation window and cross-sectional design limit causal interpretation.
- Longer follow-up should incorporate additional indicators, such as hospitalization rates among ED patients with ACAH-eligible conditions.

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