IMPROVING TELESTROKE CARE: DECREASING "DOOR-IN–DOOR-OUT" TIMES (DIDO)

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DISCLOSURES

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- Special thanks to our telestroke sites for providing the data, participating in discussion, and being excellent partners.

DOOR IN, DOOR OUT IMPROVEMENT PROJECT

Reduce Door-In-Door-Out Times because …

- It's patient oriented.
- It's a critical metric associated with clinical outcomes.
- It's a statewide effort led by Utah Stroke Task Force.
- Recommendation of transfers < 75 minutes.

BACKGROUND

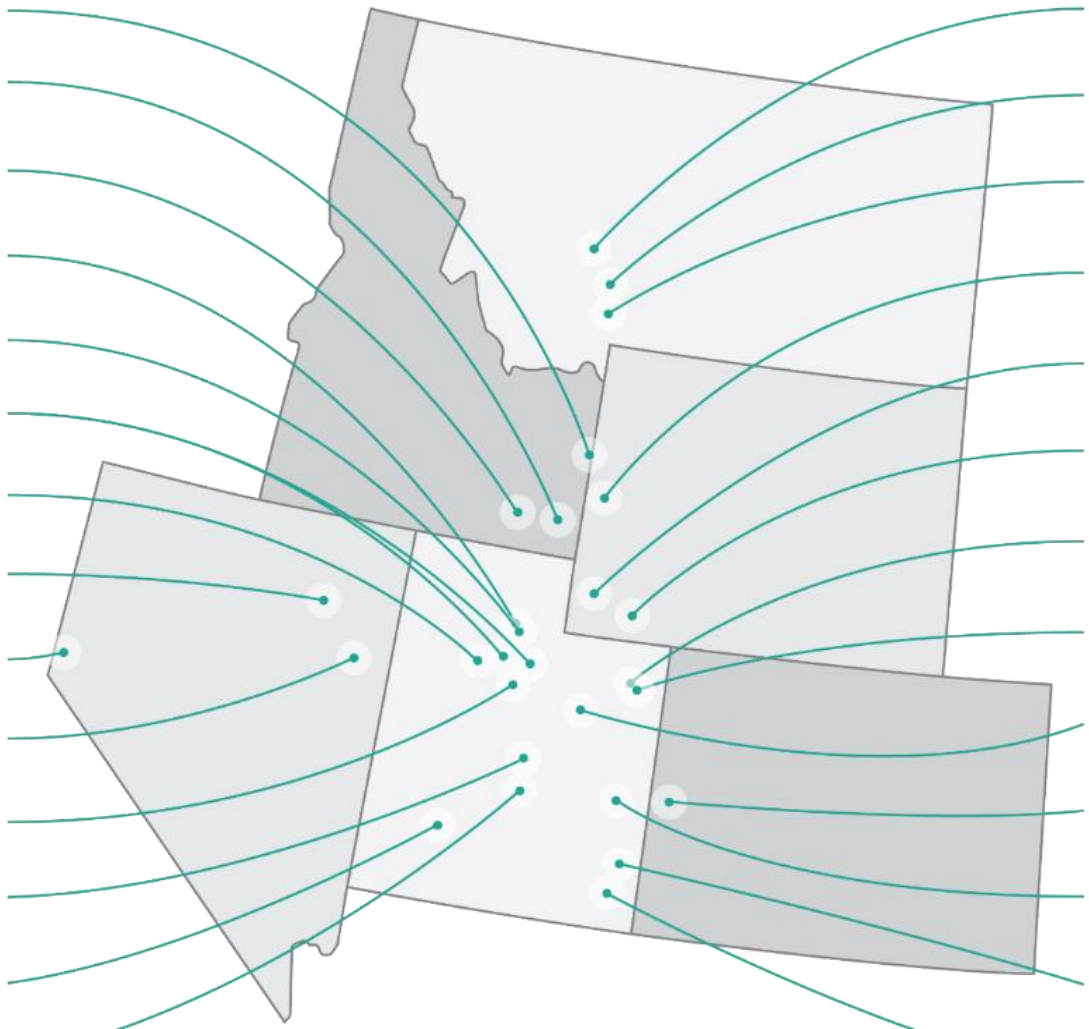
Certification
Meets standards for
Comprehensive Stroke Center

UUHC Comprehensive Stroke Center

Stroke Receiving

Critical Access

TeleStroke Sites



Teton Valley Health Care
Driggs, ID

Caribou Memorial Hospital
Soda Springs, ID

Portneuf Medical Center
Pocatello, ID

Davis Urgent Care
Roy, UT

Davis Hospital
Roy, UT

Jordan Valley Medical Center
West Jordan & West Valley, UT

Mountain West
Tooele, UT

Northeastern Nevada Regional Hospital
Elko, NV

Carson Tahoe Health
Carson City, NV

William Bee Ririe Hospital
Ely, NV

South Jordan Medical Center
South Jordan, UT

Central Valley Medical Center
Nephi, UT

Beaver Valley Hospital
Beaver, UT

Gunnison Valley Hospital
Gunnison, UT

St. Peter's Hospital
Helena, MT

Bozeman Health
Bozeman, MT

Big Sky Medical Center
Big Sky, MT

St. John's Medical Center
Jackson, WY

Evanston Regional Hospital
Evanston, WY

Memorial Hospital of Sweetwater County
Rock Springs, WY

Uintah Basin Medical Center
Vernal, UT

Ashley Valley Medical Center
Vernal, UT

Castleview Hospital
Price, UT

Community Hospital
Grand Junction, CO

Moab Regional Medical Center
Moab, UT

San Juan Hospital
Monticello, UT

Blue Mountain Hospital
Blanding, UT

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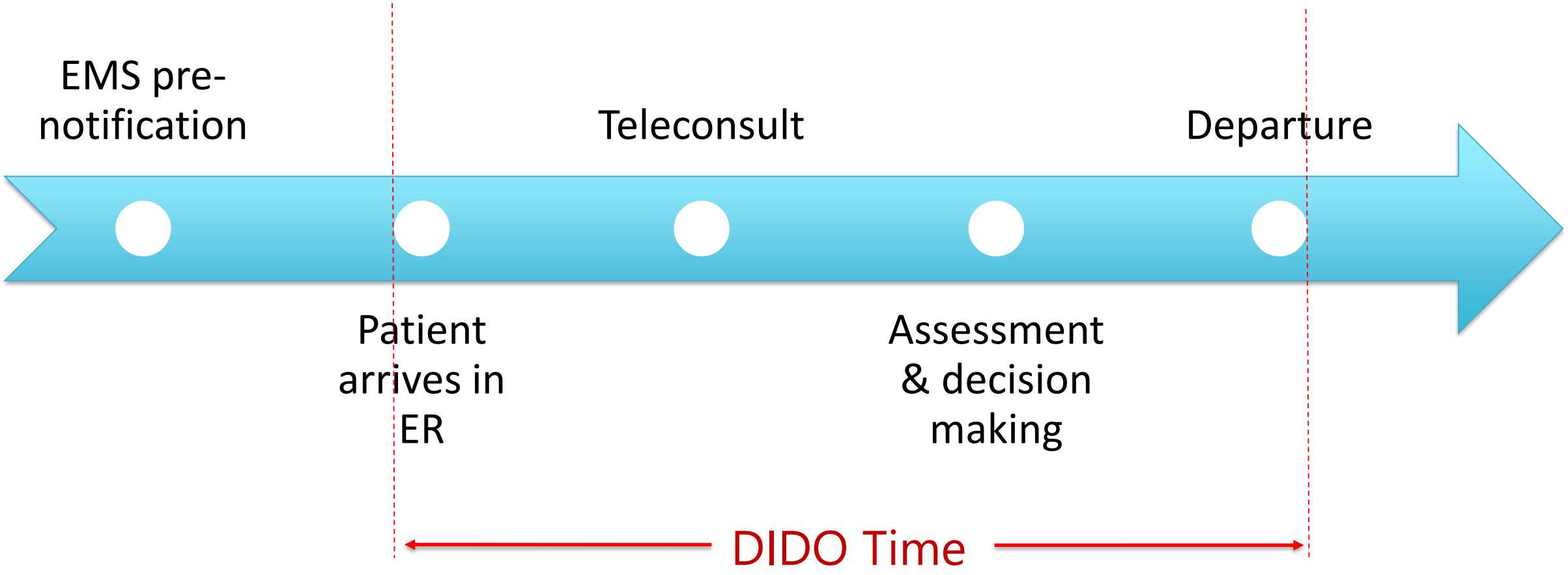
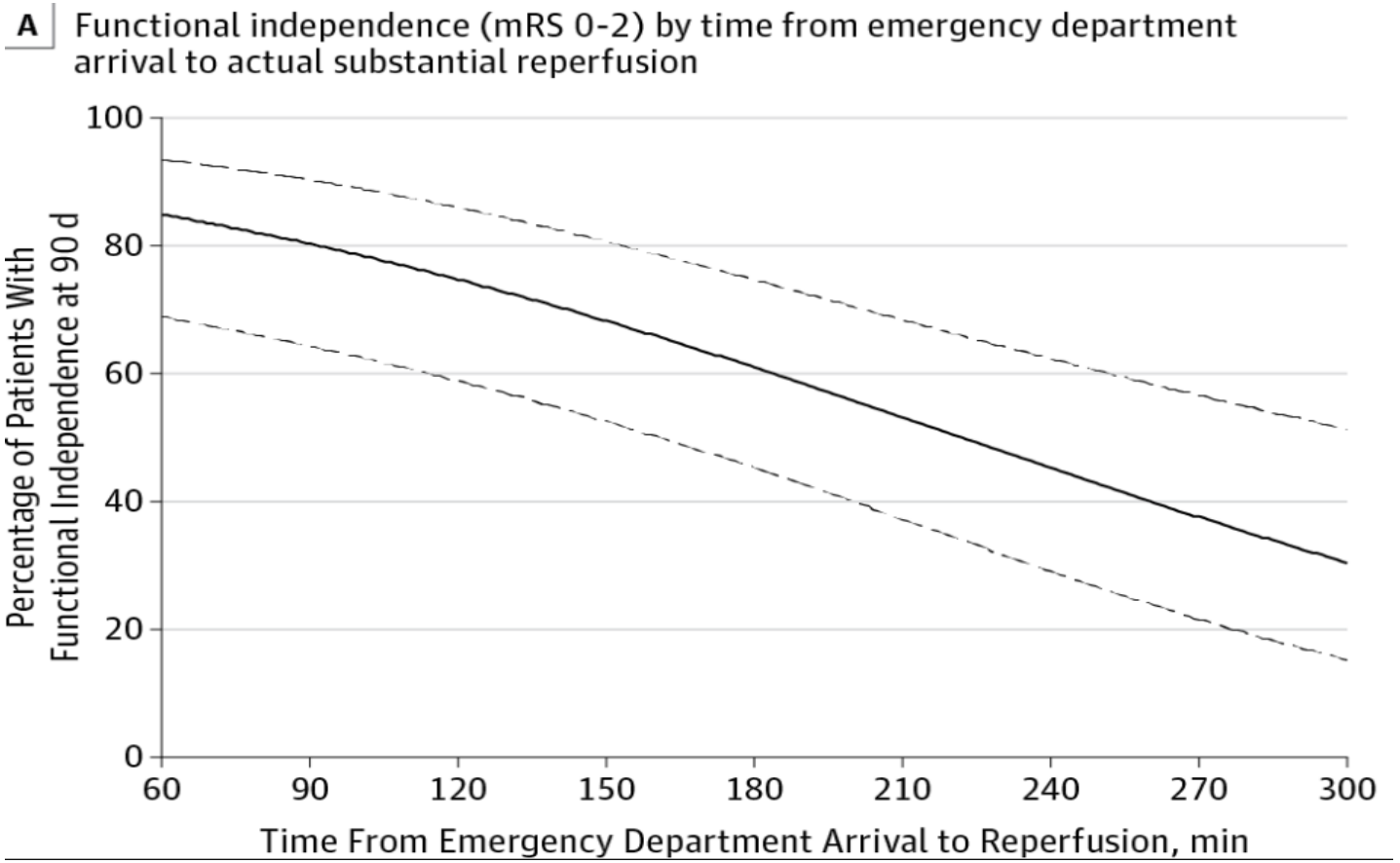
Simplified Process Map



DIDO - THE NEED FOR SPEED

Why is this so important?



Note: Reprinted from Time to Treatment With Endovascular Thrombectomy and Outcomes From Ischemic Stroke: A Meta-analysis by JL Saver, 2016.

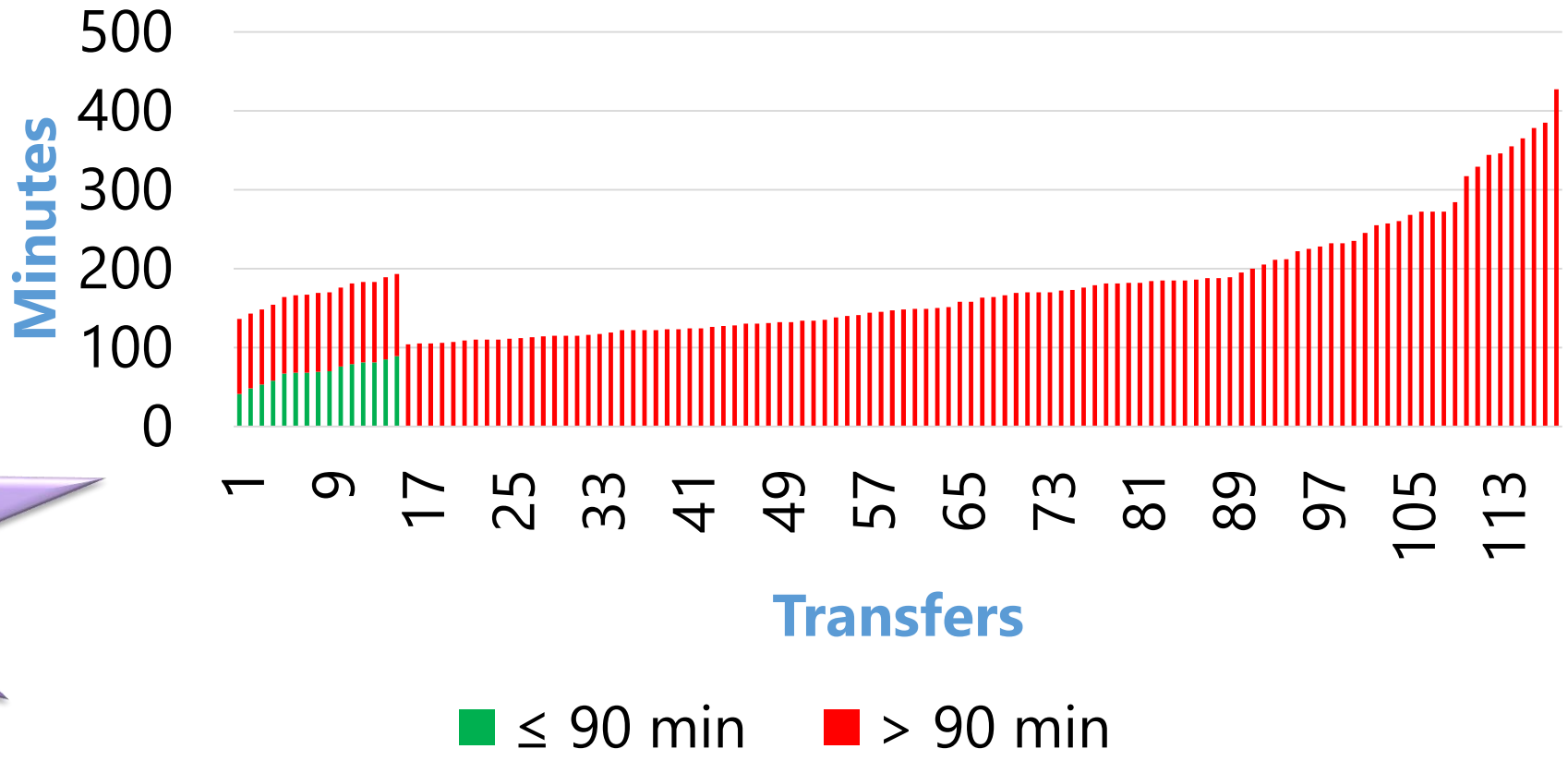
Tissue reperfusion within 150 min of Last Known Well carries a ~91% probability of regaining functional independence. (*Curr Atheroscler Rep* (2017) 19:52)

UTAH STROKE TASKFORCE RECOMMENDS A GOAL OF 75 MIN!

DIDO Average: 158.6 minutes!

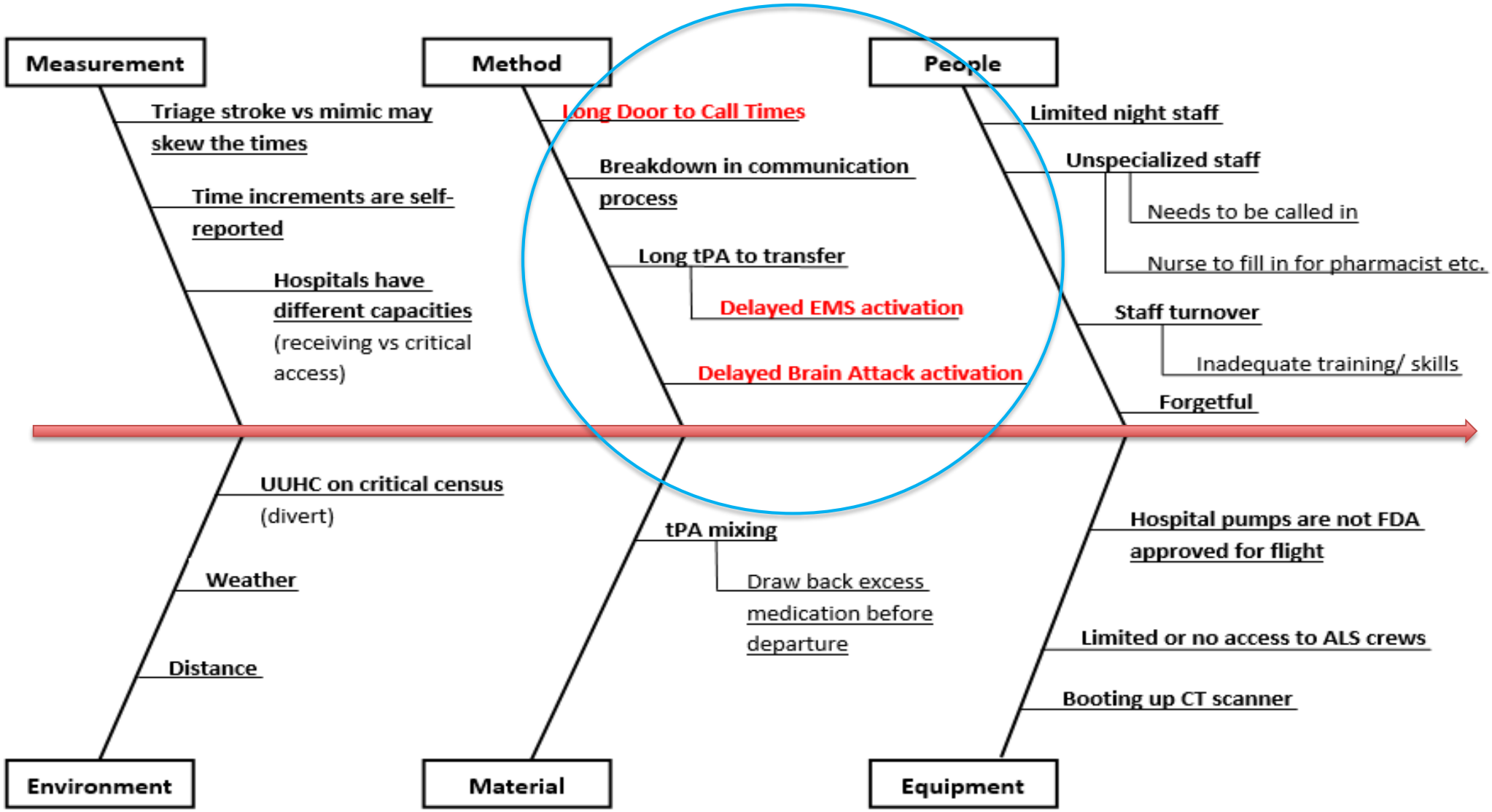
January ‘17 – March ‘18

Baseline DIDO Times for UUHC Network



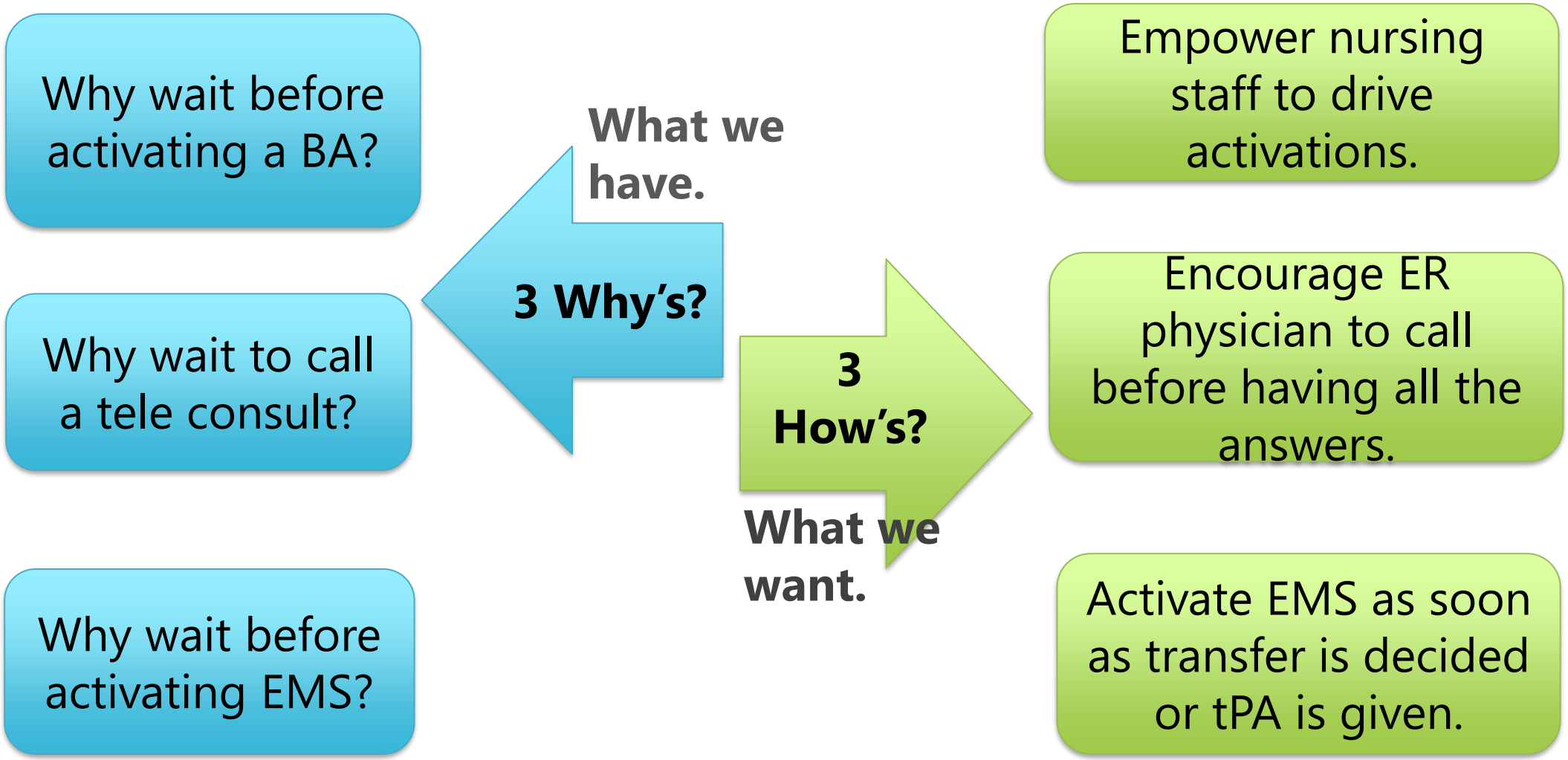
OUR 5 SELECTED SITES STATEWIDE

Root Cause Analysis

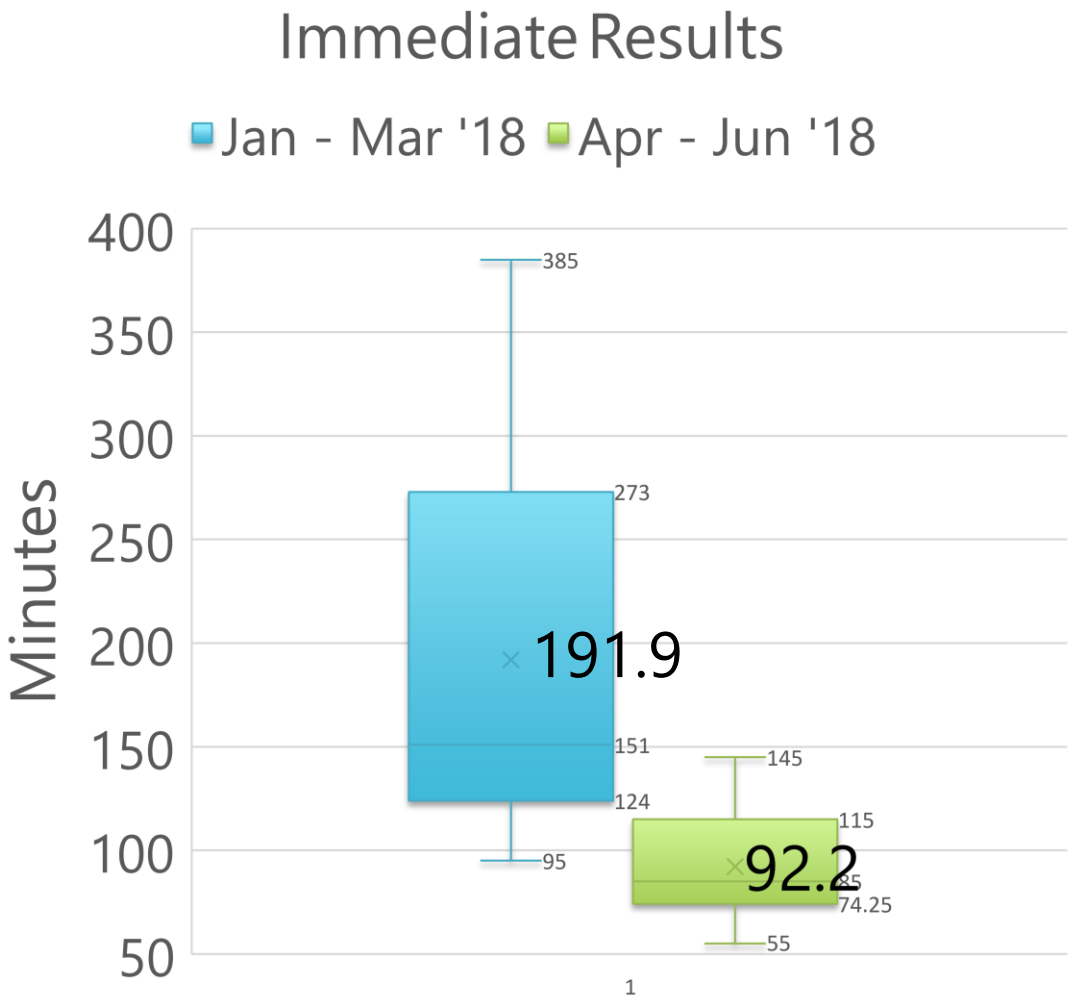


Long Door to Transfer Times

Targeted Root Causes

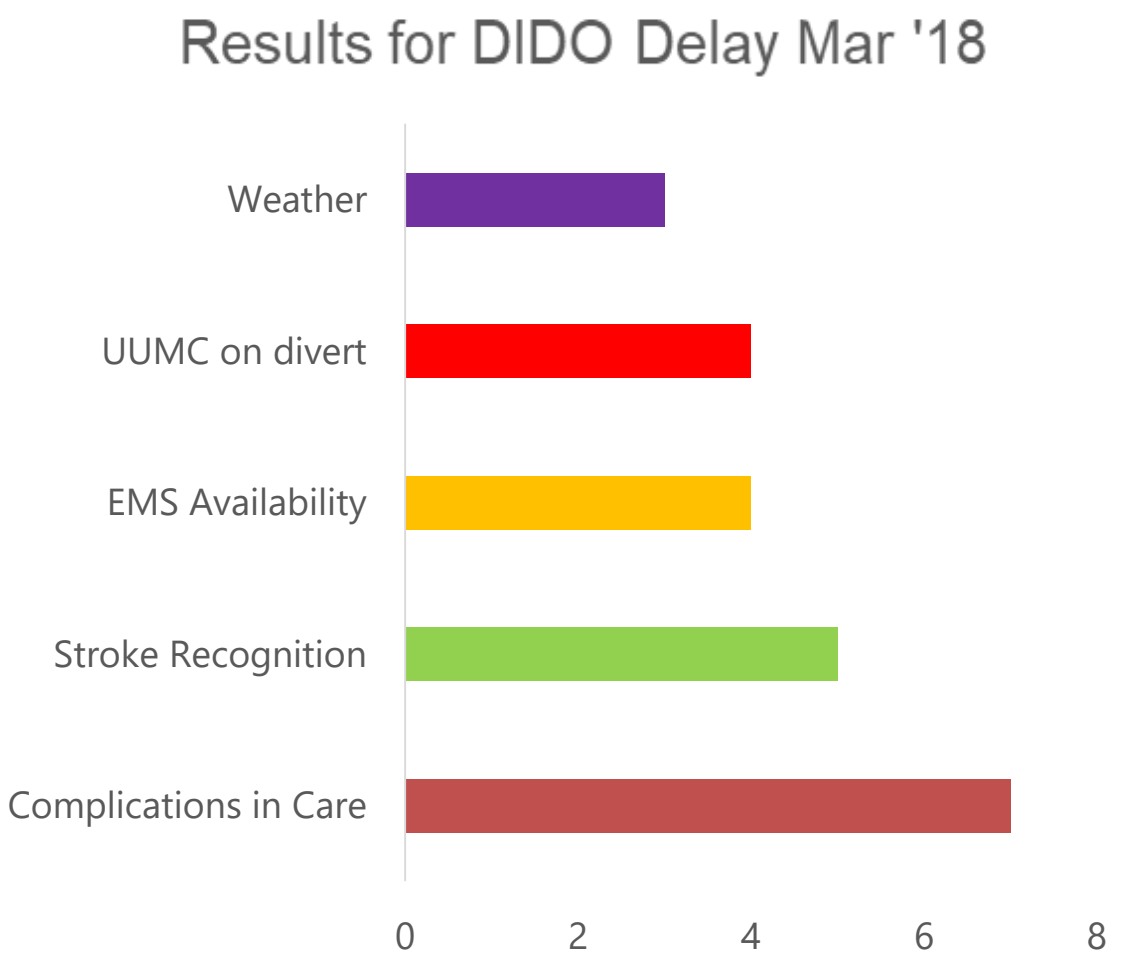


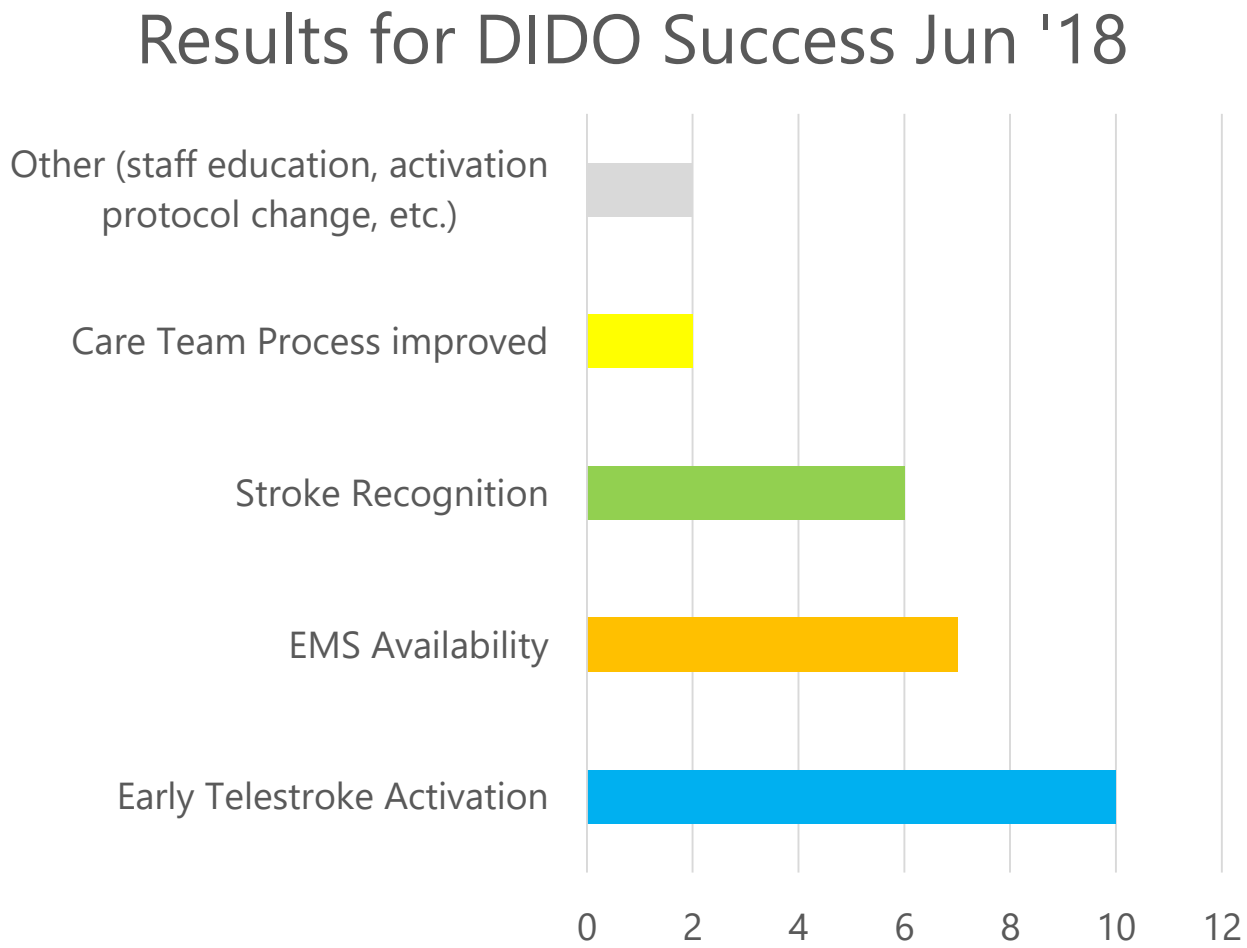
RESULTS (SELECTED SITES)



	Jan'17-Mar'18	Apr'18-July'19
Mean	148.5 min	115.9 min
Median	123 min	99.5 min
25% Quartile	102 min	81.25 min
75% Quartile	176 min	139.5 min
Two-tailed p-value		**0.0024**

Survey Results for DIDO





DISCUSSION

What were our 5 sites doing differently?

They targeted barriers that could be easily changed while still yielding a high return.

- ED Physicians felt more comfortable activating a tele consult.
- Nurses were empowered to activate BA's in triage.
- They improved communication with EMS & activated crews sooner.

What were we (UUHC) doing differently?

Metric	Goal
Door to CT	15 min
Door to Call	15 min
Door to Camera	30 min
Call to Camera	10 min
Door to Bolus	60 min
DIDO	75 min

We conducted visits together with EMS to each facility.

We provided physician driven, individualized education on site.

We followed up via surveys, newsletters, and phone calls.

We tracked and recognized best DIDO times each month.

IMPROVING CLINICAL PROCESSES

Take Away Key Points

- Foster relationships
- Set explicit DIDO goal
- Standardize Brain Attack protocols
- Provide visible support
- Data Feedback and Recognition
- Stay persistent

THANK YOU!

Source: https://healthcare.utah.edu/publicaffairs/news/2014/images/hospital-university-2014.jpg