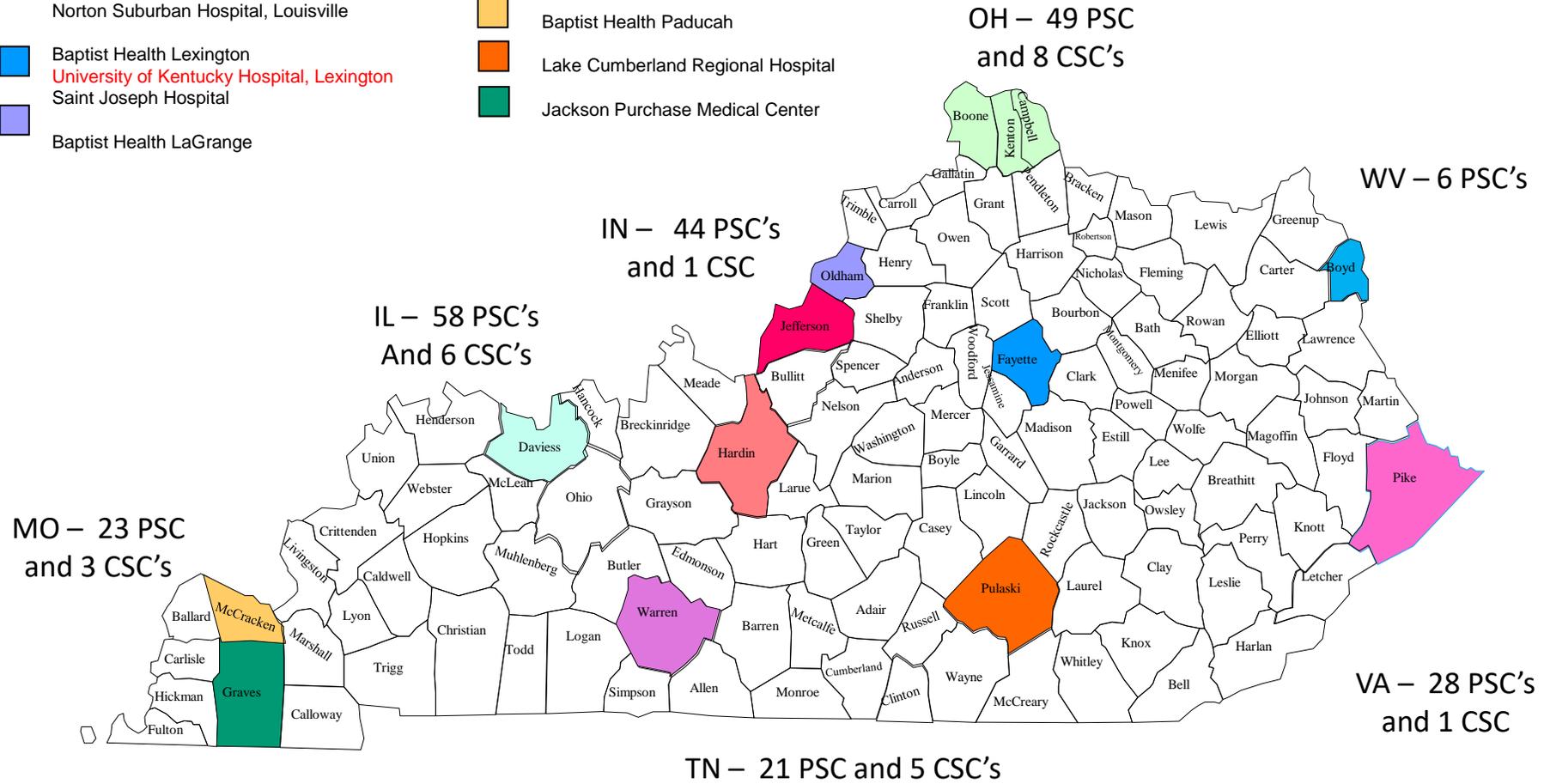


# Kentucky SEQIP Statewide Collaboration Improves rt-PA Administration Rates and Decreases Door to Needle Times



- St. Elizabeth Edgewood  
St. Elizabeth Ft. Thomas  
St. Elizabeth Florence
- University of Louisville Hospital, Louisville
- Baptist Health Louisville
- Jewish Hospital, Louisville
- Sts. Mary and Elizabeth Hospital, Louisville
- Norton Hospital, Louisville
- Norton Audubon Hospital-Louisville
- Norton Brownsboro Hospital-Louisville
- Norton Suburban Hospital, Louisville
- Baptist Health Lexington
- University of Kentucky Hospital, Lexington
- Saint Joseph Hospital
- Baptist Health LaGrange
- The Medical Center, Bowling Green
- TriStar Greenview Regional Hospital
- Hardin Memorial Health, Elizabethtown
- Owensboro Health, Owensboro
- Pikeville Medical Center, Pikeville
- King's Daughter's Medical Center, Ashland
- Baptist Health Paducah
- Lake Cumberland Regional Hospital
- Jackson Purchase Medical Center



**Joint Commission and HFAP Certified Primary Stroke Centers in Kentucky (21) – TJC Comprehensive Stroke Centers (3)**

# Background:

- 2<sup>nd</sup> SEQIP statewide performance improvement initiative
- Improved functional outcome and quality of life with IV rt-PA administration and shorter DTN times
- In KY
  - 60.4% of rt-PA eligible patients were treated in SEQIP hospitals
  - 22.3% treated in < 60 minutes

# AIMS:

- Improve rt-PA utilization and decrease Door to Needle times
- Utilize and share best practice models among certified stroke centers and those pursuing certification in Kentucky

# Methods:

- Review aggregate SEQIP hospital performance data from GWTG-S®
- Individual hospitals determine baseline rt-PA administration rates
  - Drill down data to determine why eligible patients may have missed rt-PA administration
  - Generate list of barriers
- Review examples of 2 hospitals triage and rt-PA protocols
- Open forum discussion
  - Strategies
  - Barrier solutions
  - Potential PI processes
- Utilization of Target Stroke
- Accountability
  - GWTG-S® data tracking at face to face meetings

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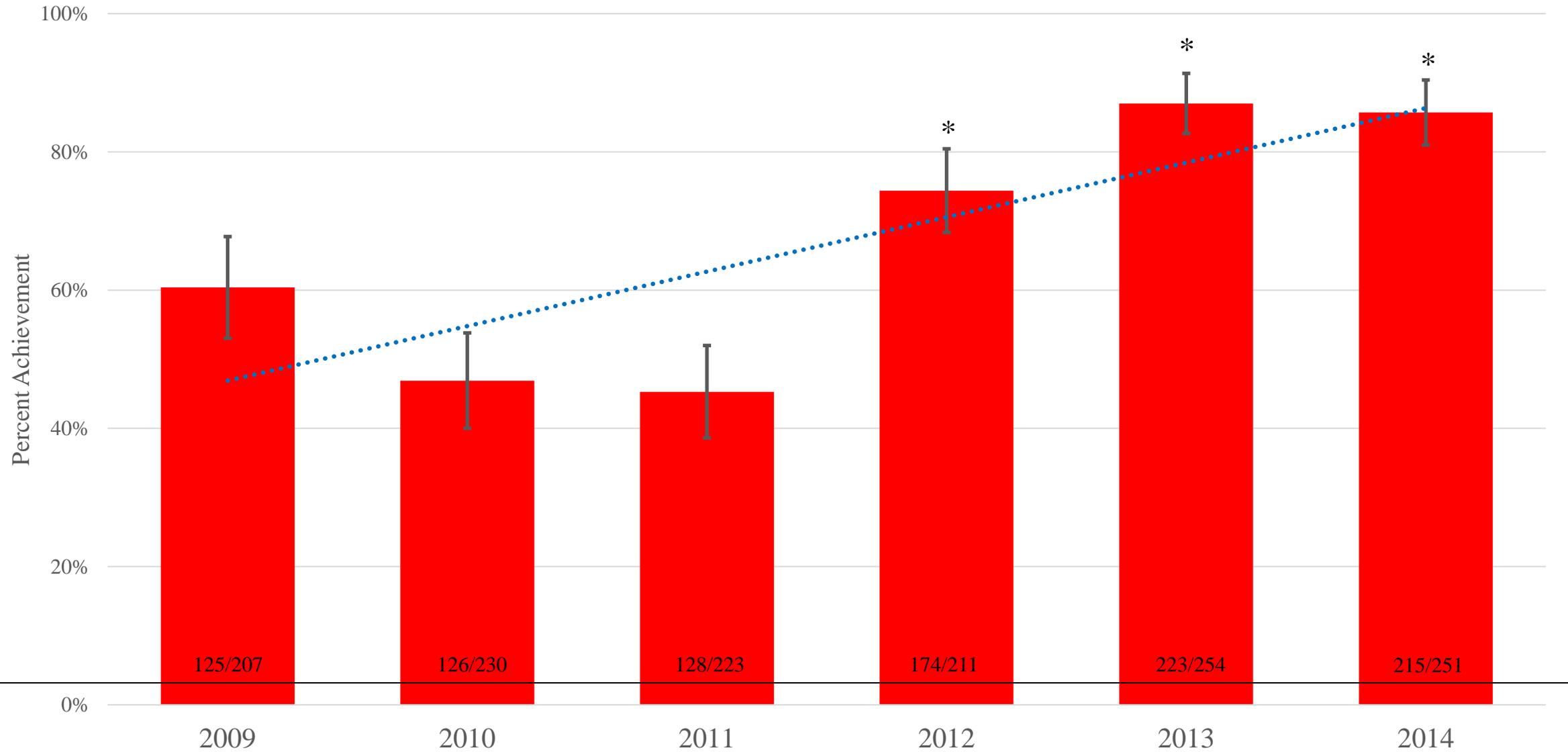
**Overall Demographics for SEQIP Hospitals 2009-2014, Arriving by 2 Hours,  
Receiving IV rt-PA by 3 Hours**

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| <b>Characteristic</b>   | <b>Percent receiving IV-<br/>TPA in 3 hours</b> | <b>95% Confidence<br/>Interval</b> | <b>Eligible Count</b> |
|-------------------------|---|------------------------------------|-----------------------|
| <b>Gender by Race</b>   |   |                                    |                       |
| <b>Black</b>            |   |                                    |                       |
| Male                    | 70%   | (54%, 82%)                         | [n=46]                |
| Female                  | 48%   | (34%, 62%)                         | [n=54]                |
| <b>White</b>            |   |                                    |                       |
| Male                    | 68%   | (64%, 72%)                         | [n=591]               |
| Female                  | 64%   | (60%, 68%)                         | [n=599]               |
| <b>Other or Unknown</b> |   |                                    |                       |
| Male                    | 100%  | (48%, 100%)                        | [n=5]                 |
| Female                  | 80%   | (28%, 100%)                        | [n=5]                 |

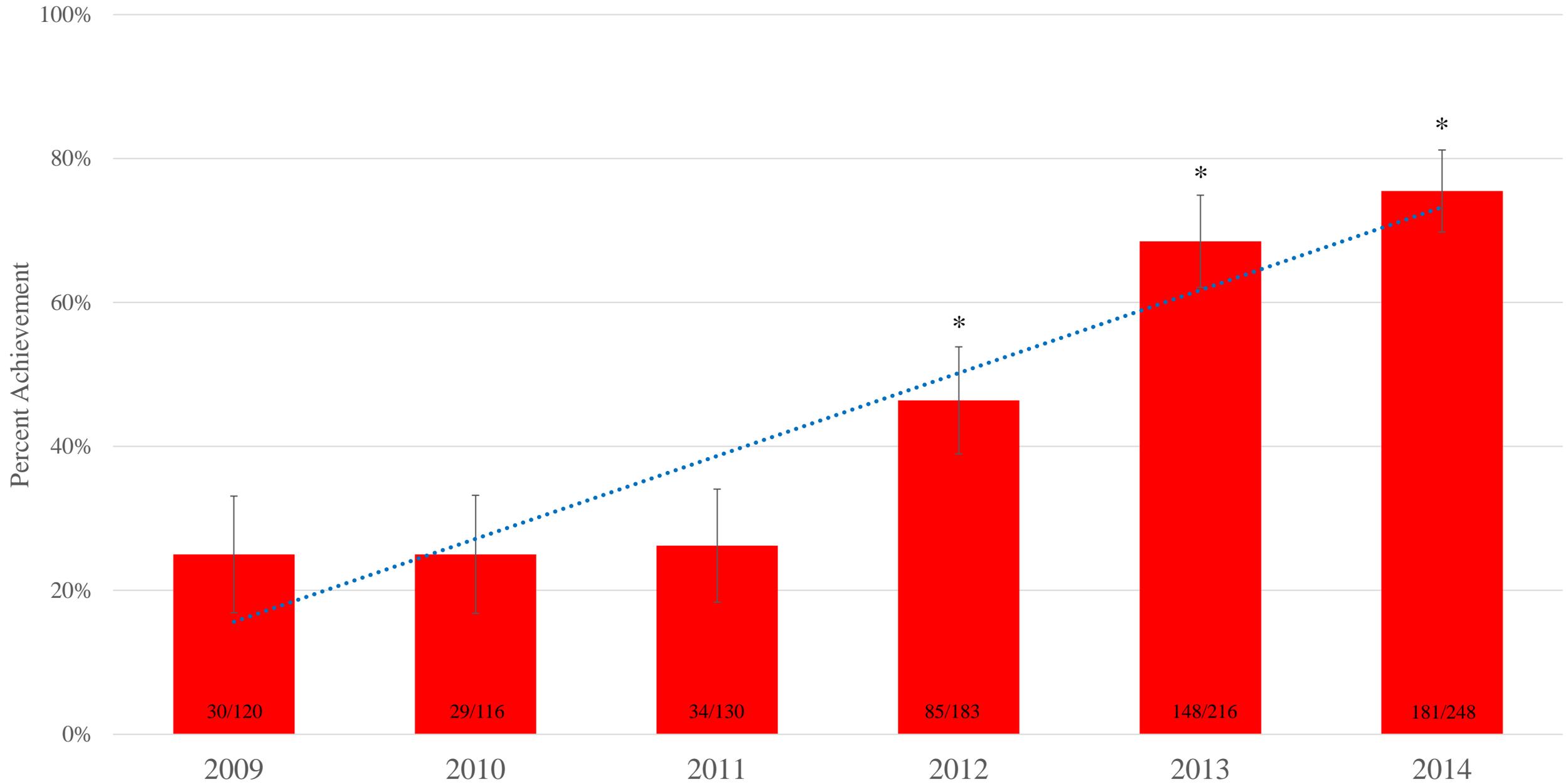
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# IV-tPA Arrive by 2, Treat By 3 Hours Achievement 2009-2014



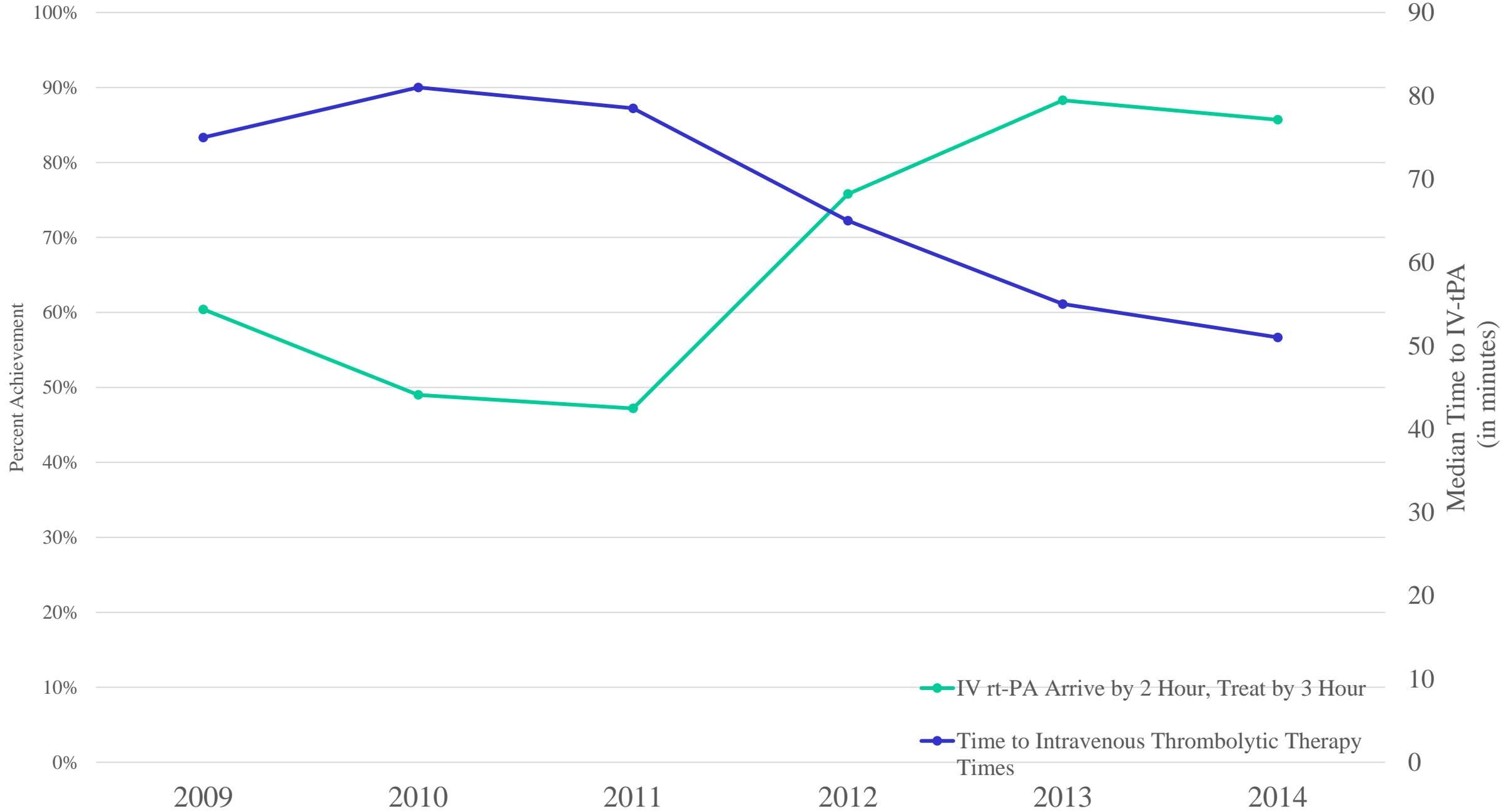
\* = p<0.001

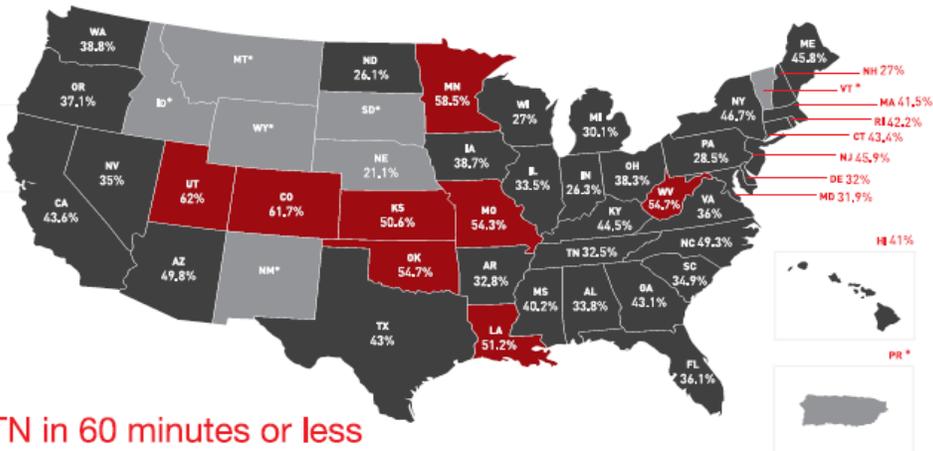
# Time to Intravenous Thrombolytic Therapy - < 60 min



\* = p<0.001

# IV-tPA Quality Achievement with Median Time to IV-TPA





**KENTUCKY**  
**73.4% in 2015**

**GOAL 50%**

**DTN in 60 minutes or less**

Eligible Get With The Guidelines-Stroke/Target: Stroke acute ischemic stroke patients January 2012 to December 2012

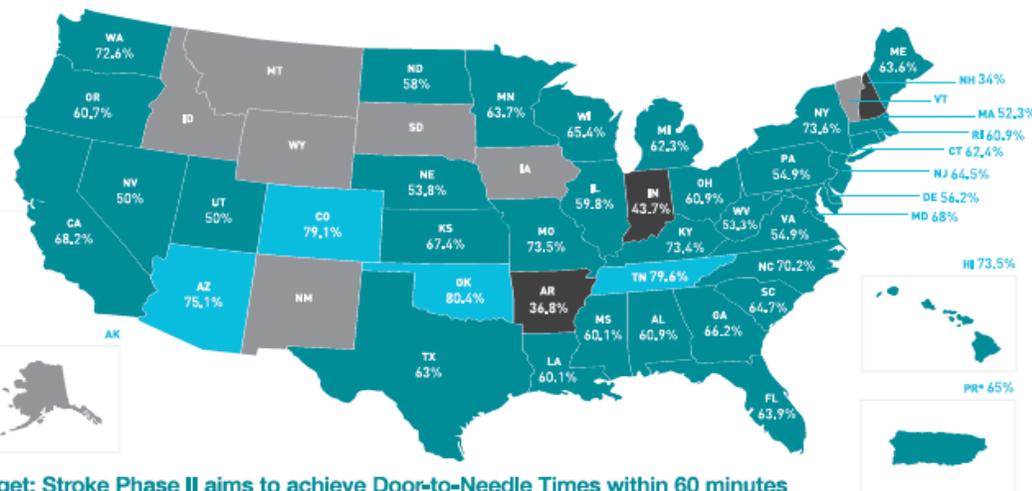
state numerator/denominator (number of hospitals participating per state)

| 0-24%               | South Dakota* |
|---------------------|---------------|
| Alaska*             | Vermont*      |
| Idaho*              | Wyoming*      |
| Montana*            |               |
| New Mexico*         |               |
| Nebraska 12/57 (12) |               |
| Puerto Rico*        |               |

| 50-74%                 | Utah 106/171 (17)       |
|------------------------|-------------------------|
| Colorado 190/243 (28)  | West Virginia 47/96 (7) |
| Kansas 83/164 (12)     |                         |
| Louisiana 131/256 (25) |                         |
| Minnesota 193/224 (21) |                         |
| Missouri 255/477 (27)  |                         |
| Oklahoma 70/128 (6)    |                         |

| 25-49%                    | Illinois 179/507 (7)       | Nevada 68/137 (12)          | Rhode Island 57/135 (6)    |
|---------------------------|----------------------------|-----------------------------|----------------------------|
| Alabama 45/133 (4)        | Indiana 61/232 (10)        | New Hampshire 10/37 (6)     | South Carolina 90/358 (23) |
| Arizona 255/452 (25)      | Iowa 36/83 (14)            | New Jersey 236/517 (45)     | Tennessee 47/126 (12)      |
| Arkansas 21/64 (16)       | Kentucky 61/137 (22)       | New York 667/1428 (112)     | Texas 490/1147 (86)        |
| California 768/1735 (131) | Maine 22/48 (7)            | North Carolina 264/536 (27) | Virginia 87/241 (37)       |
| Connecticut 102/235 (21)  | Maryland 130/408 (37)      | North Dakota 5/3 (5)        | Washington 137/553 (45)    |
| Delaware 21/56 (8)        | Massachusetts 214/316 (71) | Ohio 143/393 (48)           | Wisconsin 63/233 (45)      |
| Florida 677/234 (127)     | Michigan 142/471 (44)      | Oregon 78/210 (36)          |                            |
| Georgia 275/627 (55)      | Mississippi 45/112 (11)    | Pennsylvania 246/662 (77)   |                            |
| Hawaii 41/100 (11)        |                            |                             |                            |

**KENTUCKY**  
**44.5% in 2012**



**GOAL 75%**

**Target: Stroke Phase II aims to achieve Door-to-Needle Times within 60 minutes in 75% or more of acute ischemic stroke patients treated with IV tPA.\***

\*Eligible Get With The Guidelines-Stroke/Target: Stroke acute ischemic stroke patients treated between January 2014 to December 2014

state eligible patients treated with IV tPA within 60 minutes/eligible patients (numerator/denominator) (number of hospitals participating per state)

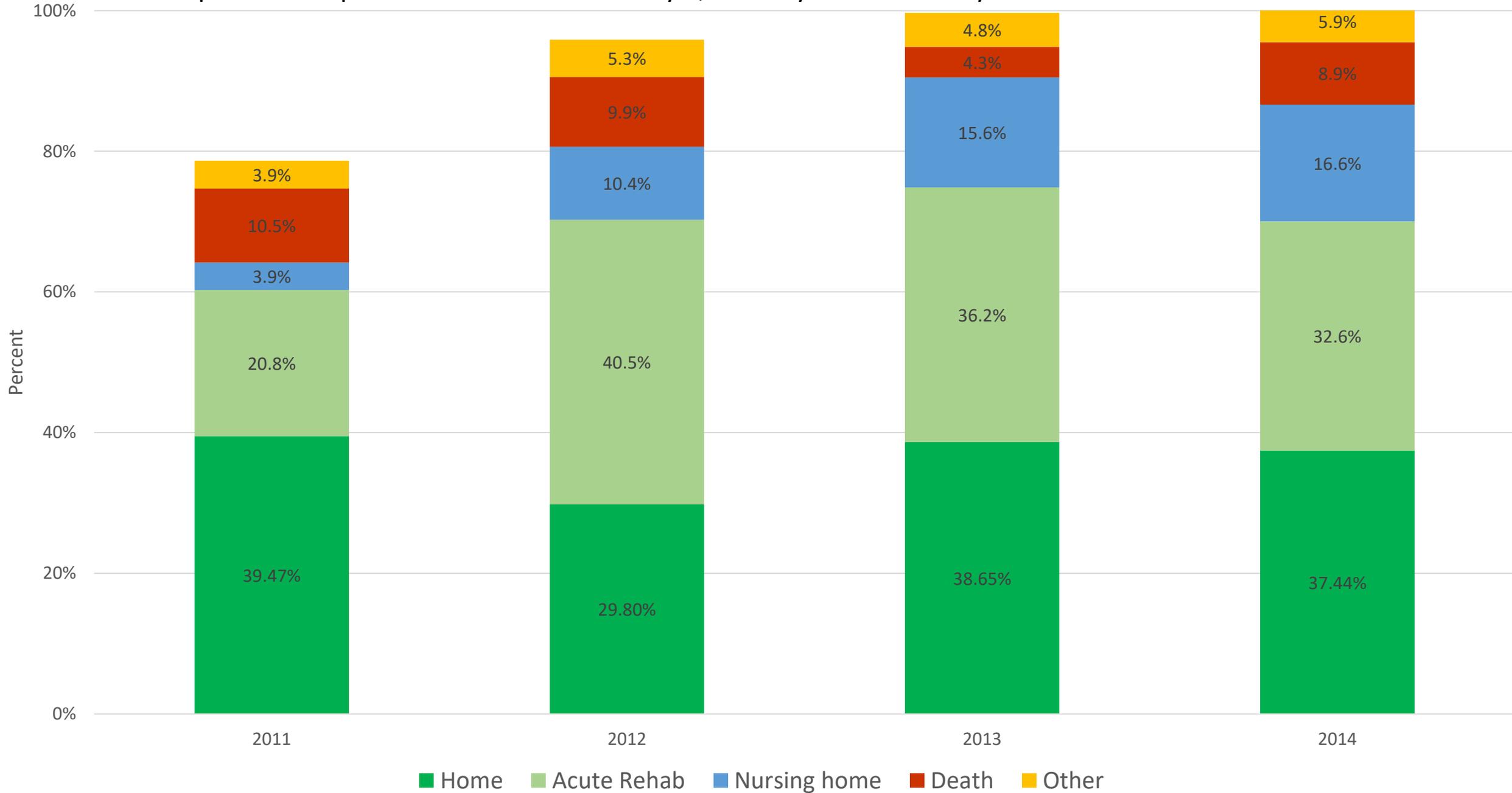
| FEWER THAN 6 HOSPITALS PER STATE (too few to report) | South Dakota |
|--|--------------|
| Alaska   | Vermont      |
| Idaho  | Wyoming      |
| Iowa   |              |
| Montana  |              |
| New Mexico   |              |

| 50-74%   | South Carolina 257/387 (23) |
|--|-----------------------------|
| Alabama 84/138 (18)                            | Texas 884/1401 (95)         |
| California 1436/2105 (114)                     | Utah 16/32 (7)              |
| Connecticut 135/213 (12)                       | Virginia 123/224 (22)       |
| Delaware 20/55 (6)                             | Washington 318/438 (37)     |
| Florida 1005/1573 (28)                         | West Virginia 57/107 (10)   |
| Georgia 432/743 (48)                           | Wisconsin 185/283 (34)      |
| Hawaii 75/102 (8)                              | North Carolina 417/594 (31) |
| Illinois 288/688 (53)                          |                             |
| Kansas 87/144 (13)                             |                             |
| Kentucky 189/271 (18)                          |                             |
| Louisiana 110/183 (10)                         |                             |
| Maine 35/55 (7)                                |                             |
| Maryland 300/441 (36)                          |                             |
| Massachusetts 334/639 (84)                     |                             |
| Michigan 271/435 (27)                          |                             |
| Minnesota 107/168 (6)                          |                             |
| Mississippi 107/178 (14)                       |                             |
| Missouri 436/593 (33)                          |                             |
| Nebraska 21/39 (7)                             |                             |
| Nevada 79/158 (13)                             |                             |
| New Jersey 438/681 (48)                        |                             |
| New York 1228/1668 (115)                       |                             |
| North Carolina 417/594 (31)                    |                             |
| North Dakota 23/65 (10)                        |                             |
| Ohio 377/619 (50)                              |                             |
| Oregon 193/318 (26)                            |                             |
| Pennsylvania 584/1063 (82)                     |                             |
| Puerto Rico (PR) Stroke Registry 859/1321 (65) |                             |
| Rhode Island 81/133 (7)                        |                             |

| 25-49%                  |
|-------------------------|
| Arkansas 42/114 (18)    |
| Indiana 129/295 (22)    |
| New Hampshire 16/47 (6) |

| 75-100%                |
|------------------------|
| Arizona 398/530 (28)   |
| Colorado 291/368 (28)  |
| Oklahoma 164/179 (6)   |
| Tennessee 257/323 (17) |

Disposition Proportions for IV-tPA Arrive by 2, Treat By 3 Hours – Only Patients that Received IV rt-PA



# Keys to Success:

- Strong leadership
- Relationship Development
- Clear communication
- Specific, measurable, and scientifically based goals

# Next Steps:

- Achieve same results with DTN < 45 minutes
- Review data for disparities
- Enhance data collection
- Continue community education
- Disseminate statewide drip and ship protocol
- Develop and disseminate statewide RN checklist for inter-facility transfers
- Continue to partner with and support hospitals seeking stroke center certification at all levels

# Acknowledgements:

- American Heart Association/American Stroke Association
- Kentucky Heart Disease and Stroke Prevention Program
- SEQIP Hospitals:
  - Baptist Health Louisville
  - Baptist Health Paducah
  - Baptist Health Lexington
  - Hardin Memorial Hospital
  - Jewish Hospital
  - King’s Daughters Medical Center
  - Lake Cumberland Hospital
  - Norton Audubon Hospital
  - Norton Brownsboro Hospital
  - Norton Hospital
  - Norton Women’s and Kosair Children’s Hospital
  - Owensboro Health
  - Pikeville Medical Center
  - St. Elizabeth Healthcare
  - Sts. Mary & Elizabeth Hospital
  - The Medical Center at Bowling Green
  - UK Healthcare
  - University of Louisville Hospital