



^DNext Steps: Transitions of Care Post Stroke

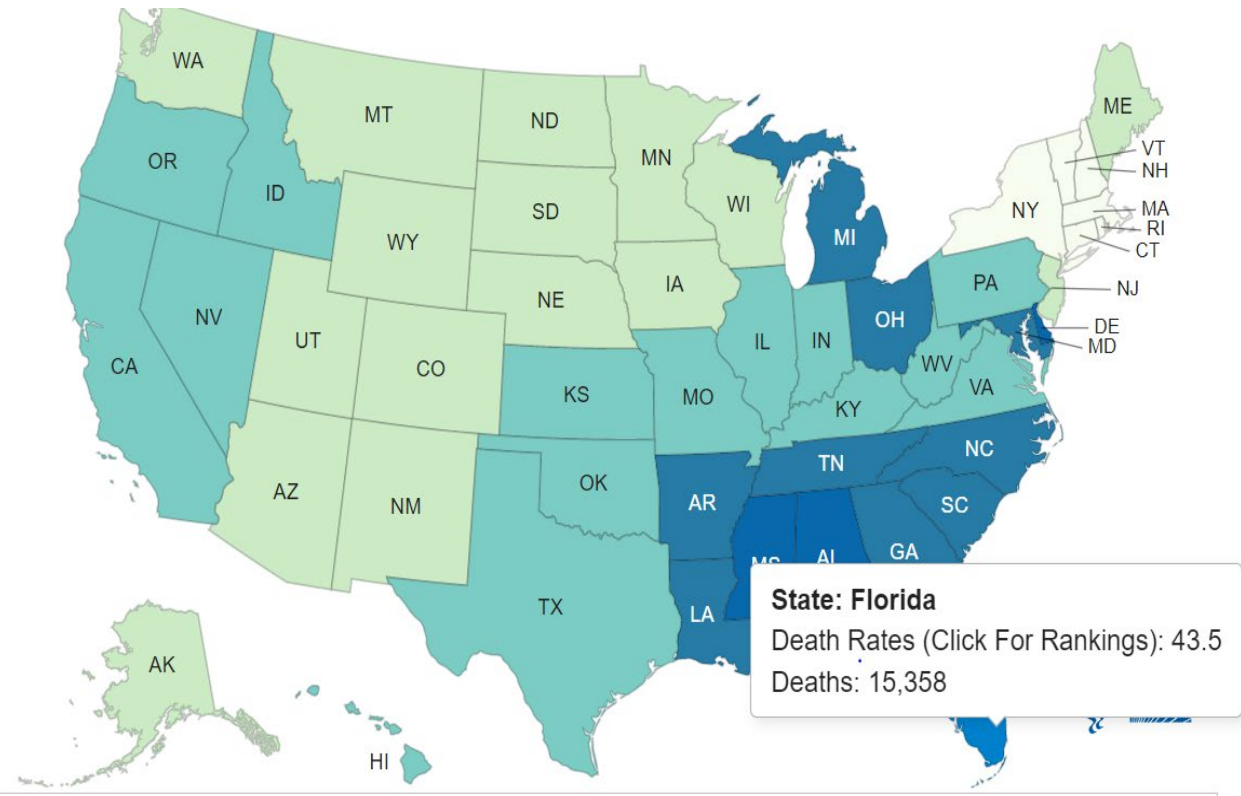
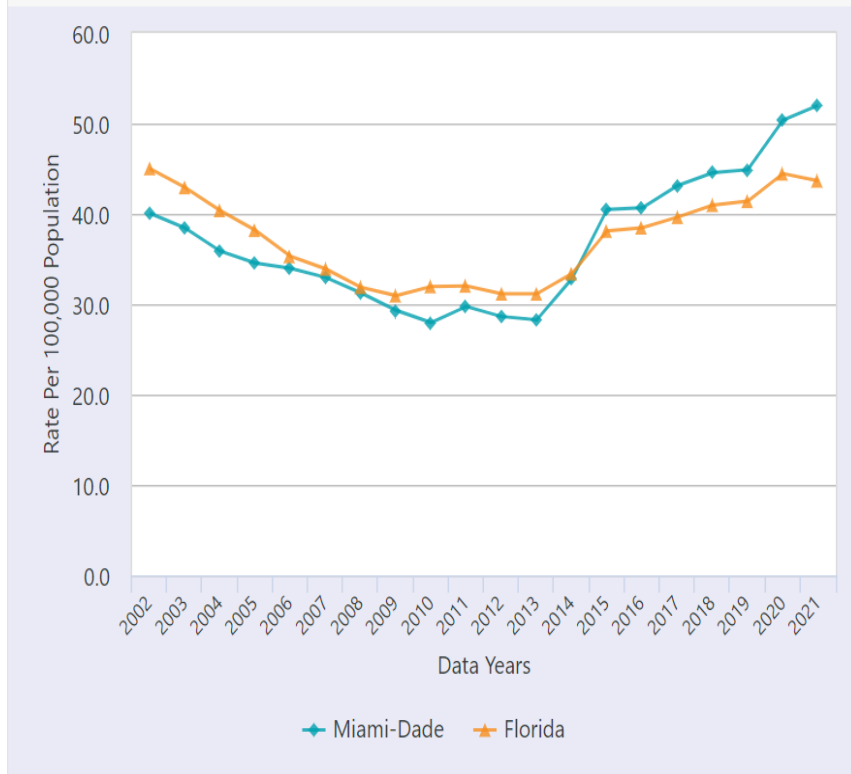
Pamela Duncan, PhD, PT, FAHA
Professor, Neurology

Do Policy and Care Align ?

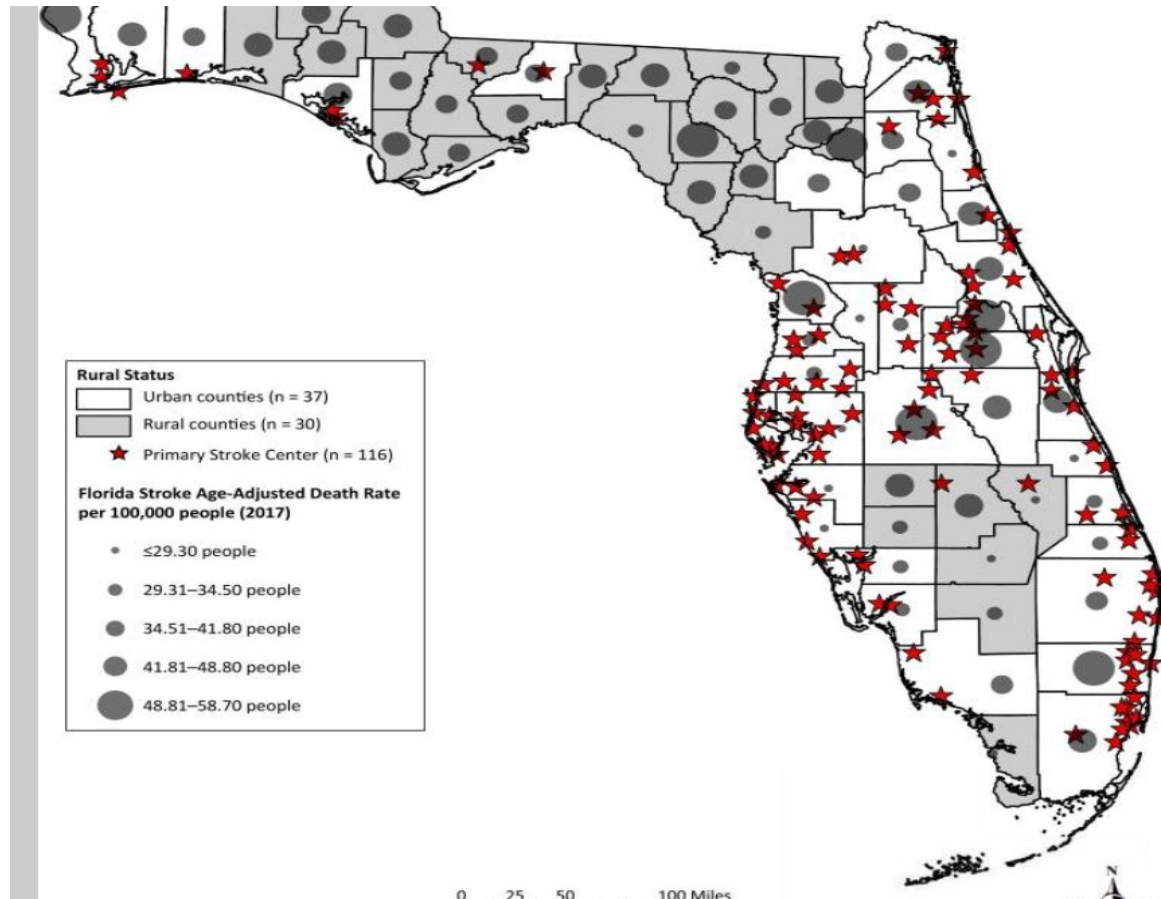
Department of Neurology

Burden of Stroke in Florida

Age-adjusted Deaths From Stroke, Single Year



In 2021, the age-adjusted rate per 100,000 population of Deaths From Stroke (All) in Miami-Dade County was 52.0 compared to Florida at 43.7



Prevention Chronic Disease 2021
Relationship between age adjusted mortality and location of primary stroke centers

Differences in Incidence?
Case Fatality (Hospital Care, **Post Acute Care?**)

Transformative Acute Care: The Journey



The Joint
Commission



American Heart
Association
American Stroke
Association

CERTIFICATION

Meets standards for

Comprehensive Stroke Center

- tPA
- Public Health Message – FAST – Stroke Warning Signs
- Get With The Guidelines
- Endovascular Treatment for Large Vessel Occlusion

1996

FDA
approves
IV rtPA

2003

Primary Stroke
Centers AHA/ASA
GWTG—Stroke and
CDC Coverdell
Registry launched

2012

Joint Commission
Comprehensive
Stroke Center
certification

2015-2018

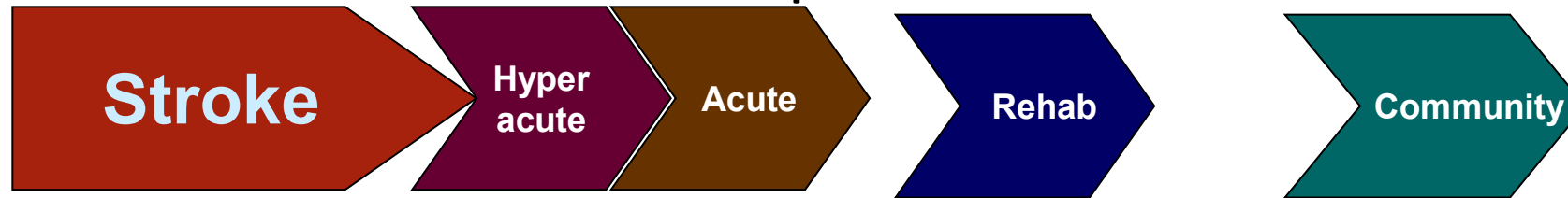
Endovascular
Treatment for
Large Artery
Occlusion

The Monumental Challenge...

- Stroke Systems of Care:
 - **Best** prepared for managing complex acute stroke patients
 - **Least** prepared for managing what happens in post-acute care settings for **stroke recovery and secondary prevention**

We need a paradigm shift to **expand** the definition of Comprehensive Stroke Care, to reduce the escalating mortality and burden of stroke disability.

Post-Acute Comprehensive Stroke Care: MANY Gaps



- Fragmented silos of care
- Unmeasured and often undetected social and functional determinants of health for recovery and secondary management
- Complex patients with **CHRONIC** conditions, multidimensional interventions for recovery and prevention, complex health systems
- Insufficient quality indicators of comprehensive management

Hypertension after Stroke: Extremely Vulnerable Population

- Stroke patients with physical or cognitive deficits
- Stroke patients over age 75, higher risk for poor outcome
- Social determinants of health: poor access to medications and services that could impact BP

Programs have not specifically focused on how to most effectively lower BP in stroke patients with physical and cognitive disabilities, and those at highest risk for stroke, including African Americans and the elderly.

The Data

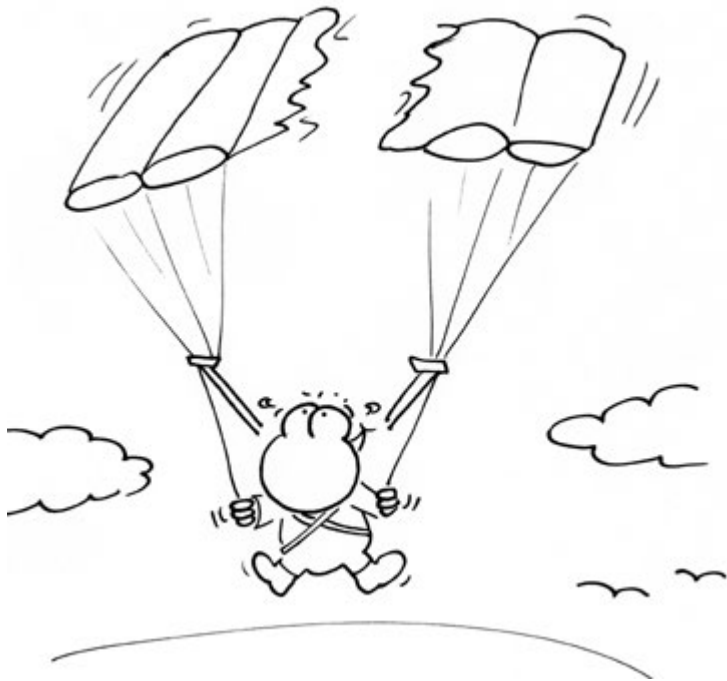
In 2,600 mild stroke and TIA survivors discharged home:

- 70% were on 5+ medications
- 36% had cognitive deficits
- 18% were depressed
- 20% could not afford their medications
- 48% did not identify hypertension as a risk factor for stroke
- 20% were medication non-persistent within 7-14 days



The Patient Voice – The Gaps Between Acute and Post-Acute Care are Huge

“I was ‘life-flighted’ in and parachuted out with a hole in the parachute”





Post-Acute Outcomes

- **Majority of patients return home** (>50% from acute care and >66% from inpatient rehabilitation)
- **Complex with Chronic Conditions** (Multiple comorbidities, suboptimal risk factor management, residual disabilities, at risk for complications)
- **Outcomes:**
 - 24% readmitted in 90 days
 - 75% fall in 6 months and, if they fall, are 4 times as likely to break a hip
 - <30% have BP under control
 - 75% medication adherence at 3 months
 - Decreased physical activity (>78% time in sedentary behaviors)

National and International Recommendation for Comprehensive and Integrated Stroke-Care

[J Stroke Cerebrovasc Dis.](#) 2013 Oct;22(7):e173-80. doi: 10.1016/j.jstrokecerebrovasdis.2012.10.016. Epub 2012 Dec 21.

Development of a poststroke checklist to standardize follow-up care for stroke survivors.

[Philip I¹](#), [Brainin](#) [Stroke.](#) 2019 Jul;50(7):e187-e210. doi: 10.1161/STR.000000000000173. Epub 2019 May 20.

Recommendations for the Establishment of Stroke Systems of Care: A 2019 Update.

[Adeoye O](#), [Nyström KV](#), [Yavagal DR](#), [Luciano J](#), [Nogueira RG](#), [Zorowitz RD](#), [Khalessi AA](#), [Bushnell C](#), [Barsan WG](#), [Panagos P](#), [Alberts MJ](#), [Tiner AC](#), [Schwamm LH](#), [Jauch EC](#). [Int J Stroke.](#) 2014 Oct;9 Suppl A100:4-13. doi: 10.1111/ijis.12371. Epub 2014 Sep 23.

World Stroke Organization global stroke services guidelines and action plan.

[Lindsay P¹](#), [Furie KL](#), [Davis SM](#), [Donnan GA](#), [Norrvig B](#).

[Int J Stroke.](#) 2020 Jan 27:1747493019897847. doi: 10.1177/1747493019897847. [Epub ahead of print]

Canadian Stroke Best Practice Recommendations: Rehabilitation, Recovery, and Community Participation following Stroke. Part Two: Transitions and Community Participation Following Stroke.

[Mountain A^{1,2}](#), [Patrice Lindsay M³](#), [Teasell R^{4,5}](#), [Salbach NM⁶](#), [de Jong A³](#), [Foley N⁷](#), [Bhogal S⁷](#), [Bains N⁸](#), [Bowes R⁹](#), [Cheung D¹⁰](#), [Corriveau H¹¹](#), [Joseph L¹²](#), [Lesko D¹³](#), [Millar A¹⁴](#), [Parappilly B¹⁵](#), [Pikula A¹⁶](#), [Scarfone D¹⁷](#), [Rochette A¹⁸](#), [Taylor T¹⁹](#), [Vallentin T²⁰](#), [Dowlatshahi D²¹](#), [Gubitz G^{1,22}](#), [Casaubon LK²³](#), [Cameron JI²⁴](#).

[Circ Cardiovasc Qual Outcomes.](#) 2015 Oct;8(6 Suppl 3):S190-2. doi: 10.1161/CIRCOUTCOMES.115.002288.

Transitions of Care for Stroke Patients: Opportunities to Improve Outcomes.

[Broderick JP¹](#), [Abir M²](#).

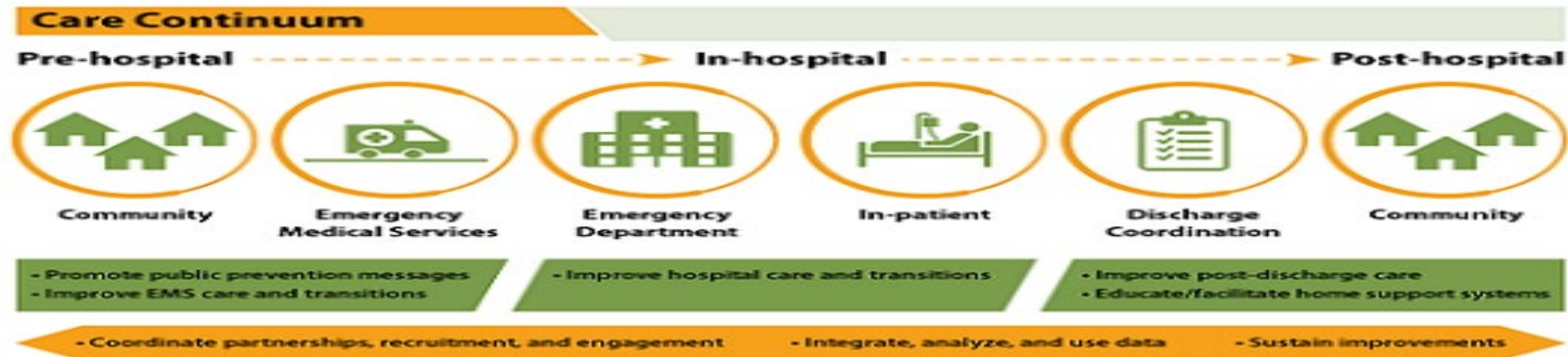
Stroke systems of care recommendations for post-acute care

- A stroke system should **establish support systems** to ensure that all patients discharge from hospitals and other facilities to their homes have **appropriate follow-up with specialized stroke services when needed and primary care arranged on discharge.**
- To standardize post acute care after stroke discharge, stroke centers should **comprehensively screen for post-acute complications, provide individualized care plans during the transition of care, provide referrals to community services, and reinforce secondary prevention and self-management of stroke risk factors and lifestyle changes** to decrease risk of recurrent stroke.

Adeoye, et al. Stroke 2019;50:e187-e210

CDC Paul Coverdell Program

- Measure, track, and improve the quality of care and access to care for stroke patients from **onset of stroke symptoms through rehabilitation and recovery**
- Support the implementation of **comprehensive stroke systems across the continuum of care**



Transitional Care - A Place to Start



- Poor transitional care costs CMS over \$50 billion dollars per year
- US Center for Medicare and Medicaid Services (CMS) established priorities to improve post-acute transitional comprehensive care
- Established models and reimbursements for transitional care



COMPASS

COMPREHENSIVE POST-ACUTE STROKE SERVICES

Centers for Medicaid and Medicare Services (CMS)- 2013



- Transitional Care Management (TCM) codes
- From date of discharge through first 30 days
- Only one provider can bill these codes, CMS will pay the first claim it receives

99495 TCM Moderate Complexity

Communication with patient and/or caregiver within 2 business days post-discharge

Medical decision making of at least moderate complexity

Face-to-face visit within 14 days post-discharge

Medicare fee schedule: \$152.02

99496 TCM High Complexity

Communication within 2 business days post-discharge

Medical decision making of high complexity

Face-to-face visit within 7 calendar days post-discharge

Medicare fee schedule: \$214.76

TCM Billing - Requirements



- Assess social and functional status
- Establish needs for rehabilitation and community services
- Medications and medication management
- Knowledge of community services and referrals
- Develop a Care Plan

CMS Framework 2022

- certain settings — including Post-Acute Care and Home and Community Based Services — offer unique opportunities to connect individuals with social services while receiving health care services and as they transition across care setting



Published Ahead of Print on January 11, 2019 as 10.1212/WNL.0000000000006921

CONTEMPORARY ISSUES

Meeting Medicare requirements for transitional care

Do stroke care and policy align?

Janet Prvu Bettger, ScD, Sara B. Jones, PhD, Anna M. Kucharska-Newton, PhD, Janet K. Freburger, PhD, PT, Sylvia W. Coleman, MPH, BSN, Laurie H. Mettam, MEd, Mysha E. Sissine, MSPH, Sabina B. Gesell, PhD, Cheryl D. Bushnell, MD, MHS, Pamela W. Duncan, PhD, PT, and Wayne D. Rosamond, PhD

Correspondence

Dr. Bettger
janet.bettger@duke.edu

Neurology[®] 2019;92:1-8. doi:10.1212/WNL.0000000000006921

Medicare TCM : Do Stroke Care and Policy Align?

32% of hospitals reported services that met TCM criteria

Stroke center certification and Magnate status no different for hospitals that did and did not meet TCM criteria.

Prvu Bettger, et al.
Neurology, 2019;92:1-8.

“Houston We Have A Problem”

Guidelines, Policy and Care Do Not Align



Transitional Care Implementation

- Clinical provider endorsement and clinical workflow
- Health System Priority and Resources
- Policy

Pamela Duncan,
PhD, PT, PI



Wayne Rosamond,
PhD, co-PI



Cheryl Bushnell,
MD, MHS, co-PI



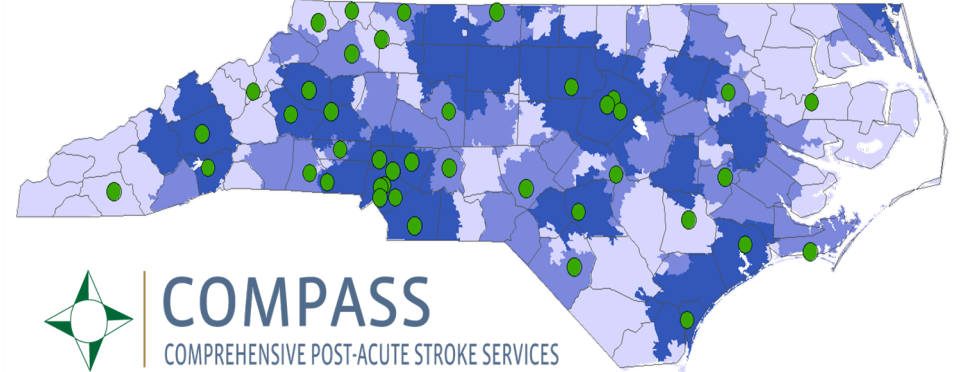
(COMPASS)- A Pragmatic Trial of Transitional Care

Transitional care model tested in real world practice



Pragmatic Trial of Transitional Care Management

- Cluster-randomized pragmatic trial
- 40 randomized hospital units in North Carolina
- 10,,266 patients discharged home
- Transitional care was implemented in clinical workflow, **consistent with CMS policies and reimbursement**
- Primary outcome: 90-day functional status using Stroke Impact Scale (SIS-16)



Objective

- Evaluate effectiveness of comprehensive transitional care versus usual care on patient-centered outcomes after stroke or TIA 90 days after discharge
- **Primary outcome:** Stroke Impact Scale-16 (functional status)
- **Secondary outcomes:** BP self-monitoring, survival, incident falls, disability (modified Rankin Score), depression, self-rated health, satisfaction with provider communication and care coordination



Developed by Front-Line Clinicians & Vetted in Clinical Workflows with Research Partners

Developed at Wake Forest Baptist Health (WFBH)

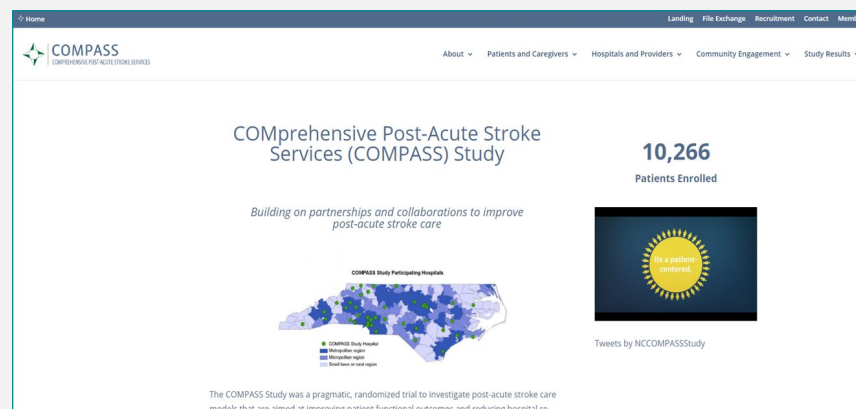
- A Learning Laboratory for clinical management of complex chronic conditions
- Teams of clinicians, patients and caregivers, information technologists, software developers, analysts, health system leaders and population health managers, and community leaders

Based on years of clinically oriented R&D focused on improving outcomes

- Vetted, peer-reviewed and funded in the most competitive research environments
- > \$45M in grant and product development funding (PCORI & WFBH Catalyst Fund)

Scaled, implemented and evaluated with thousands of patients in numerous health systems

Study included 41 Health Systems and Communities Across North Carolina



Optional remote patient monitoring (RPM) and patient coaching



Intervention: A Comprehensive Care Model

2 Day Call

Clinic Visit by
Day 14

30 Day Call

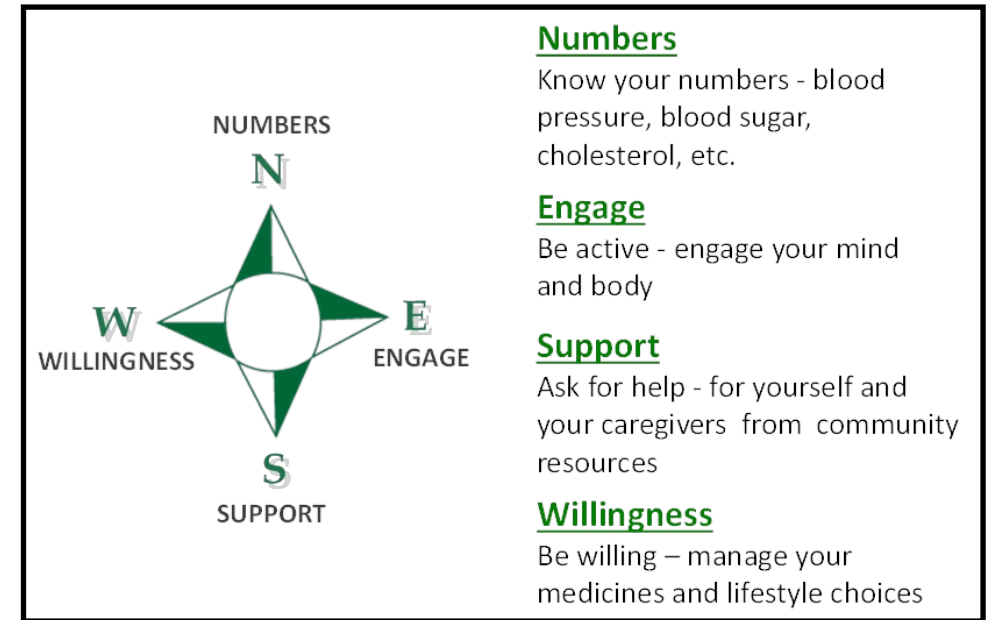
60 Day Call

Care Team:

- Advanced Practice Provider (APP) or Physician
- Post-Acute Care Nurse Coordinator (PAC)

Intervention Highlights:

- Digital tool to assess functional and social determinants of self-management and health
- Individualized care plans:
 - Secondary Prevention
 - Rehabilitation and Recovery
 - Caregiver Support
 - Referrals to Community Resources
- Quality performance measures



Algorithm Driven, Stroke Specific Functional & SDoH Assessments

Psychological Concerns

- Anxiety
- Depression
- Cognitive Functioning

Physical Concerns

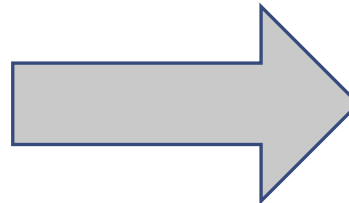
- Physical Functioning
- Falls

Health Behaviors

- Medication Management
- Physical Activity
- Tobacco Use/Cessation
- **Manage BP -Monitor**

Social Determinants of Health

- Health Literacy (Risk Factors, Medication)
- Financial Resources for medication
- Transportation
- Caregiver abilities and Support
- **Ability to Participate in Social Roles**



Actions: [Download PDF of instrument\(s\)](#) VIDEO: Basic

Post Stroke Functional Assessment

Editing existing Record ID 2 0

Event Name: **Surveys**

Record ID

Monitor/control of stroke risk factors (bl

Chart Review


Blood Pressure : Systolic
* must provide value

Blood Pressure : Diastolic
* must provide value

Date
* must provide value
 Today M-D-Y

HgA1c value
* must provide value

Personalized Focus on *Medication Adherence*

 Willingness I Will Manage My Medication and Lifestyle Choices		
What are my concerns?	Why is this important to me?	How do I find my way forward?
I may need someone to help me manage my medicines, and I may be getting confused about when to take them.	Remember the third M: Medication. Regularly taking medicines that can lower your blood pressure can decrease your chances of having another stroke. Skipping doses or stopping my blood pressure medicines may increase my risk of another stroke.	I will need someone every day to help manage my medicines, fill my pillbox, or remind me so I can take them right. I will need a local pharmacy that can provide special services that can help me take my medications correctly.

Auto-Generated Personalized Care Plan

logo

Stroke And Your Journey Forward

Recovery, Independence and Health

REMEMBER

After a stroke you can get better.

The purpose of our evaluation today and this Care Plan is to:

- ▶ Identify factors that you, your family and health care team need to manage in order to ensure your optimal health
- ▶ Provide referrals and community resources that will help facilitate your journey to your best health.
- ▶ Identify additional assistance your caregiver(s) may need to assist you in your recovery

My goals for recovery are:

Work

Social

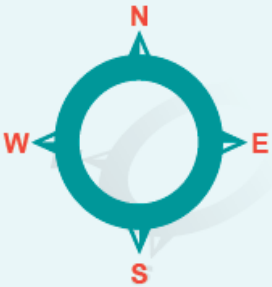
Independence

Improved Quality of Life

Hobbies

This is **YOUR INDIVIDUAL** plan and it's tailored to your specific issues. This plan may identify several unique needs that you may have which your health team will address to ensure your best recovery possible.

And know, the best way to find your way forward to recovery, independence and health will require you to dial into your compass:



NAVIGATE

I will know my numbers, monitor and manage my blood pressure - everyday.

SEEK

I will ask for help when I need it.

ENGAGE

I will stay physically active - movement matters.

WORK

I will manage my medications and make smart lifestyle choices – and yes it's work, work that's worth it.

Your Care Coordinator will review this plan with you and be available for any follow-up questions you or your caregiver(s) may have.

Care Coordinator: (Name) _____ (phone #) _____

After hours triage (24/7):(phone #) _____

Follow-up appointments:(phone #) _____

Thank you,
Your Stroke Team at _____

Be Hopeful. Be Confident. Be Positive.

These Are the Most Important Concerns that Could Affect My Recovery:

- ▶ I may not know, or fully understand, my risk factors that could lead to another stroke.
- ▶ I feel hopeless and sad, or I have lost interest in doing my favorite things.
- ▶ I have fallen or I am at risk of falling.
- ▶ I have concerns about how I take my medicines.

Am I Getting the Type of Care I Need?

My Care Plan Suggests I May Benefit From:

- ▶ Home health care uses a variety of health care services to optimize stroke recovery and help you regain your independence. You may benefit from Home Health Nursing to provide you with assistance monitoring your blood pressure, understanding your medications, and/or risk factors for another stroke.
- ▶ Physical, Occupational and or Speech Therapy to optimize your stroke recovery and regain independence. You can get this type of therapy with an Outpatient therapist (requires transportation to get to therapy appointments) or through Home Health Services which can be provided in your own home.
- ▶ Assistance with activities such as activities such as meal planning, taking my medications, bathing and/or dressing.
- ▶ Assisted living is an option for people like me who require assistance with these every day activities while still maintaining my independence.

Stroke-specific Patient Education (AVS)

Can be used at bedside, discharge or post-DC

logo

Controlling Your Blood Pressure

It All Begins With You

DID YOU KNOW?

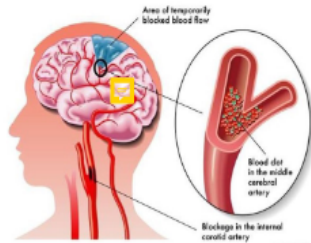
High blood pressure is the most common cause of stroke. 75% of Americans who have a stroke have high blood pressure.*

What is Blood Pressure (BP)?

Your heart pumps blood through your body in channels called blood vessels. The pressure of the blood flowing through these vessels is your "Blood Pressure".

If your blood pressure is too high, then your vessels can get damaged, clogged, or even rupture (burst), which can cause strokes, heart attacks, and damage to your kidneys and other organs.

High blood pressure is also called hypertension, but that does not mean you are "hyper" or nervous. A calm person can have high blood pressure and have no idea they have it unless it is checked using a blood pressure monitor. This is why high blood pressure is often called the "silent killer."



Here's How to Take Control of Your Blood Pressure

Measure, Movement and Meds

It's as easy as one, two three.

- #1 MEASURE:** Take your BP at least 3 days per week so you know your numbers
- #2 MOVEMENT:** Stay physically active and lower your BP. Following a healthy diet low in sodium, like the (DASH) Diet**. Why? Because being physically active and eating healthy will go a long way in helping you maintain a healthy weight and lowering your BP.
- #3 MEDS:** You should take your BP medications every day as prescribed by your healthcare provider – always!

Goal Setting and Instructions for Using Your Blood Pressure Log

If you've had a stroke, it is important to get your blood pressure to a point where:

- ▶ Your **top number** "Systolic" (when your heart is pumping the strongest) is **130** or lower
- ▶ Your **bottom number** "Diastolic" (when your heart is in a resting state) is **80** or lower



Systolic
130
Diastolic
80

Things to Remember During the Study

WEEK 1:

- ▶ Take your blood pressure every day, 2 times in the morning (Note: before you take your blood pressure medicine)
- ▶ And, make sure you take it 2 more times later in the day, like before dinner or bed time.





WEEK 2 & BEYOND:

You can continue to take your blood pressure every day if it is easier for you or pick 3 days a week to take it, but please make sure you take it.

IMPORTANT: If your healthcare provider suggests that you change your BP medicine, it will be important to start another cycle of taking your BP - (returning to Week1's monitoring schedule)


Your Numbers & Knowing What to Do

The information below will help you know what to do based upon your "top" (Systolic) BP number - the number we are focusing on to help you reduce your risk of having another stroke.

ZONE 1	ZONE 2	ZONE 3	ZONE 4
 Systolic Blood Pressure 130 or lower	 Systolic Blood Pressure 130-140	 Systolic Blood Pressure 140-180	 Systolic Blood Pressure 180 or higher
ACTION REQUIRED			
Continue monitoring your BP and taking your medications	You are not yet at your target BP. Review with your provider what specific actions are needed	You are too far from your target BP. Contact your provider to determine the next specific actions	Your BP is critically high. Contact your provider immediately or go to the nearest Emergency room!



Provider Reports



Provider Report

Patient Name: Lucas Test **Identifier:** 3547 **Date of Birth:** 1984-12-27

Admission Date: 2022-05-20 **Discharge Date:** 2022-06-09 **Discharge Diagnosis:** n/a

Timestamp: 2022-08-17

Secondary Discharge Diagnosis/Complications/Co-Morbidities: n/a
Final diagnosis at D/c: n/a
Allergies: n/a
Discharge medication list: n/a
Follow up appointments:
Primary care provider and follow up visit:

Comments/Notes to coach:

Patient Contact Information
Best way to reach patient:

Stroke Team Contact Information
24/7 triage line at: Phone: (336) xxx-xxxx
 Atrium Health Wake Forest Baptist Fax #: n/a

Post-Stroke Provider: Phone: (336) xxx-xxxx
 Dr. Who Email: PostStrokeProvider@wakehealth.edu

Research Coordinator: Phone: (336) xxx-xxxx
 RCO name

Follow-up Phone Call after Hospital Discharge
 Post-discharge Follow-up Call at 2022-06-27 15:09



Provider Report

Patient: Mock Patient #1 **Identifier:** TEST1 **Timestamp:** 2021-01-15 08:33 am **Generated by:** Stephanie Sold

Measurement	Scores	Category	Notes
Symptom Scores			
Global Pain	2	normal	Numeric rating scale from 0-10
Numbness and Tingling	4	very severe	0-4 Scale (none to very severe)
PROMIS Symptoms (please refer to image)			
Pain Interference	41.6	normal	
Anxiety	51.4	normal	
Depression	41	normal	
Fatigue	75.8	severe	
Sleep Disturbance	49.9	normal	
Cognitive Concerns	26.2	normal	



Function

*These are general guidelines to aid in interpreting PROMIS T-scores. Individual scores may vary.

Patient does not have a follow-up appointment for an INR test.

Blood pressure
 Patient does not have a device to take their blood pressure at home.

Falls
 Patient has had a fall since their discharge.
 Patient has sustained injuries requiring a visit to the emergency room or to see a provider.

Primary care provider
 Patient does not have a follow-up appointment scheduled to see their primary care provider.

Caregiver
 Patient does not have a primary caregiver to assist with activities such as taking medications, dressing, performing housework, and/or going places around town.

Home health services
 Patient does not know if home health services were prescribed after discharge.

Outpatient services
 Patient does not know if outpatient therapy services were prescribed after discharge.

COMPASS: Patient Characteristics

Severity: Mild Stroke or TIA

Age: 67.1 years old

Race: 27.4% non-white

Multiple Comorbidities:

75% Hypertension

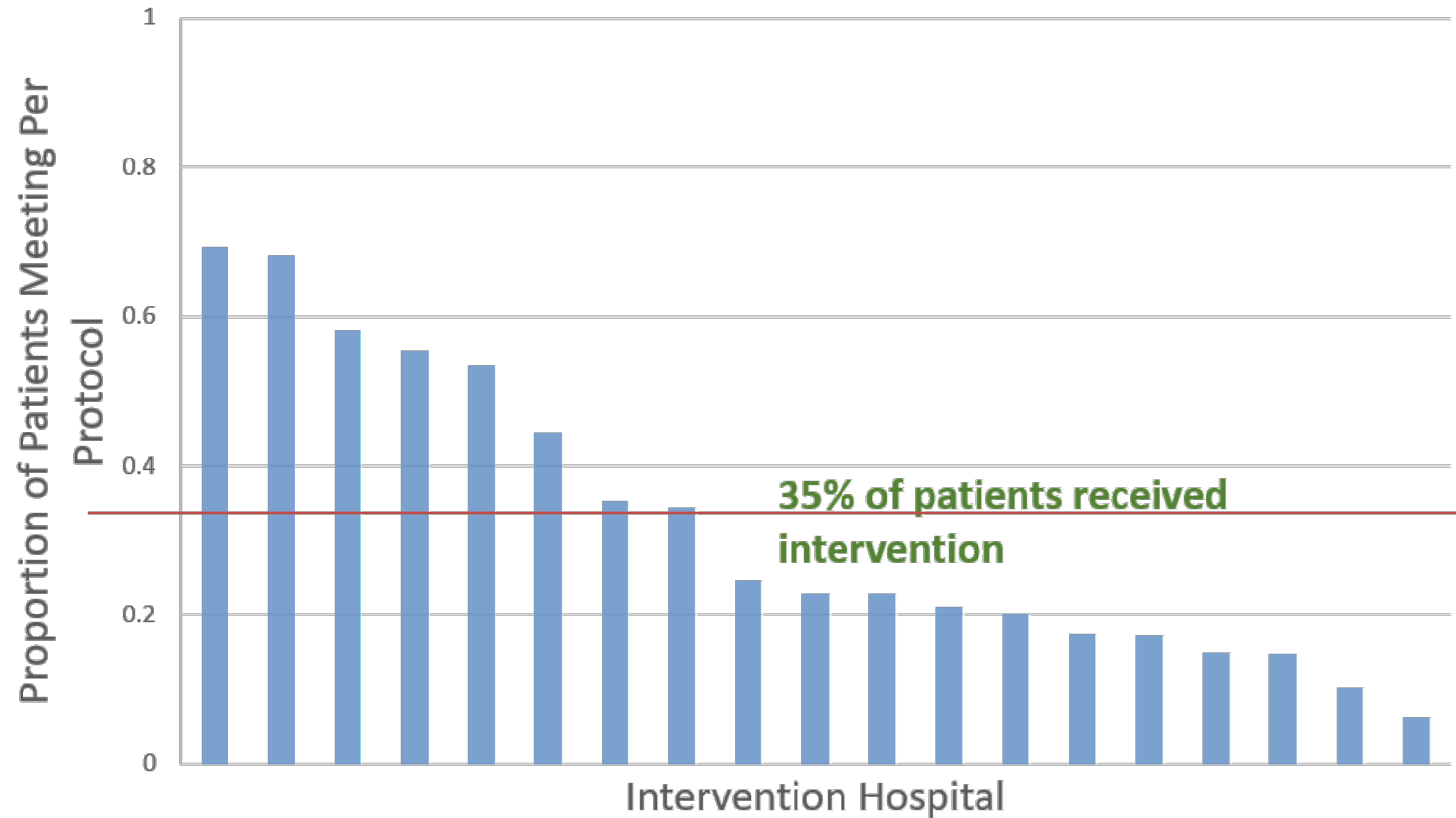
34% Diabetes

20% prior stroke



Duncan et al. *Circ Qual Cardiovasc Outcomes* 2020;13(6): e006285.

Variable Receipt of Care Model Across Hospitals

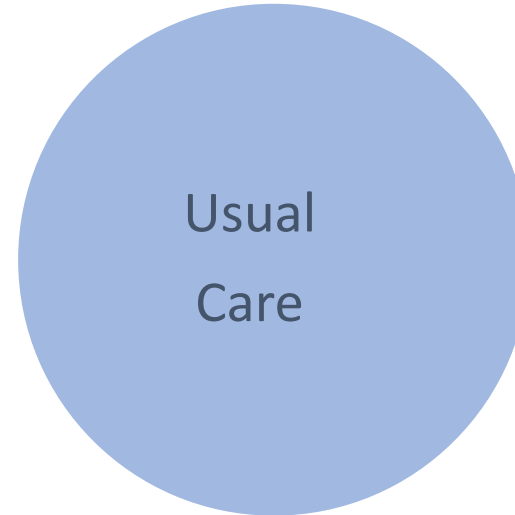
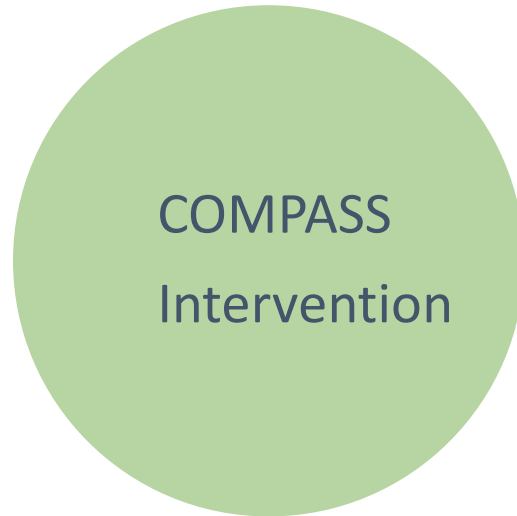


- **System-level barriers:** consistent staffing, competing priorities, did not enroll or schedule patients prior to acute care hospital discharge.
- Only 58% of hospitals delivered the intervention uninterrupted

Primary Results: Intention to Treat (ITT)


All patients in the Intervention compared to Usual Care

**Self reported
BP monitoring**
was higher in the
Intervention Group
(72% vs 64%)



Duncan et al. *Circ Qual Cardiovasc Outcomes* 2020;13(6): e006285.

Primary Conclusions

- CMS  has established priorities and reimbursement for TC for complex patients like stroke and TIA
- Pragmatic nature of this trial provided a realistic measure of TC uptake and its impact for stroke and TIA patients as delivered in real-world practice within diverse health systems and among diverse patients:
 - COMPASS-TC was not easily incorporated into systems of care
 - Only 35% of patients received the intervention
- No significant effect on post-stroke functional outcomes compared with usual care
- **There were consistent findings of improved BP monitoring**



COMPASS
COMPREHENSIVE POST-ACUTE STROKE SERVICES

In Other Words...

- As implemented, a comprehensive care model for stroke (COMPASS) within 30 days of hospital discharge was not effective.

Why?

- Efficacy of the Intervention?
- Challenges in real-world implementation?

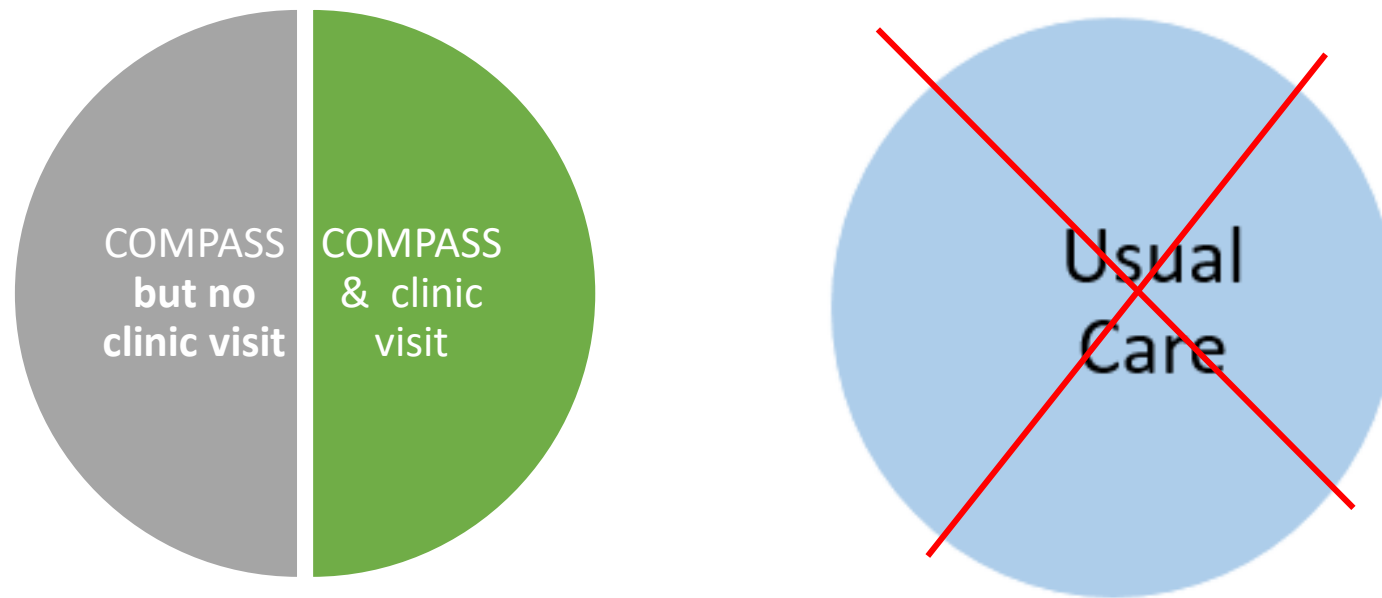


COMPASS

COMPREHENSIVE POST-ACUTE STROKE SERVICES

Within Intervention Hospitals

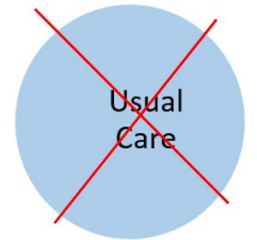
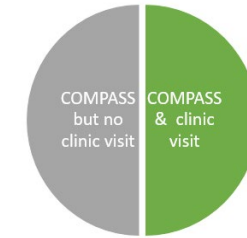
Within the intervention hospitals, we compared patients who got the intervention with patients who did not



Duncan et al. *Circ Qual Cardiovasc Outcomes* 2020;13(6): e006285.

COMPASS-CP Produced Results

Within Intervention Hospitals



We looked at just the COMPASS intervention group and compared the patients who **GOT** the intervention with the patients who did **NOT GET** the intervention

Outcome: Improved 90-day Functional Status

**Decreased
Disability**

**Increased
90 day
Survival**

**Blood
Pressure
Monitoring**

**Decreased
Depression**

**Decreased
Falls**

Shorter times to ambulatory care visits and use of TCM billing with COMPASS intervention

	Overall (N=2263)	Intervention Group (N=1069)	Usual Care Group (N=1164)
Days to first post-discharge ambulatory care visit, days for those with a visit within 1 year			
N with visit	2180	1050	1130
Mean (SD)	14.3 (31.1)	12.0 (26.0)	16.3 (35.1)
Days to first primary care provider visit			
N with Visit	1089	505	584
Mean (SD)	10.7 (17.2)	10.3 (17.2)	11.0 (17.3)
Days to first specialty care provider visit			
N with visit	297	138	159
Mean (SD)	13.3 (27.5)	11.0 (26.6)	15.2 (28.1)
Proportion of patients with claims for TCM billing codes overall, n, %, range	584 (25.8)	345 (32.3)	239 (20.0)

Medical Care vol 61: March 2023

Transitional Care Implementation

Health System Level

Reach:

Organizational Characteristics

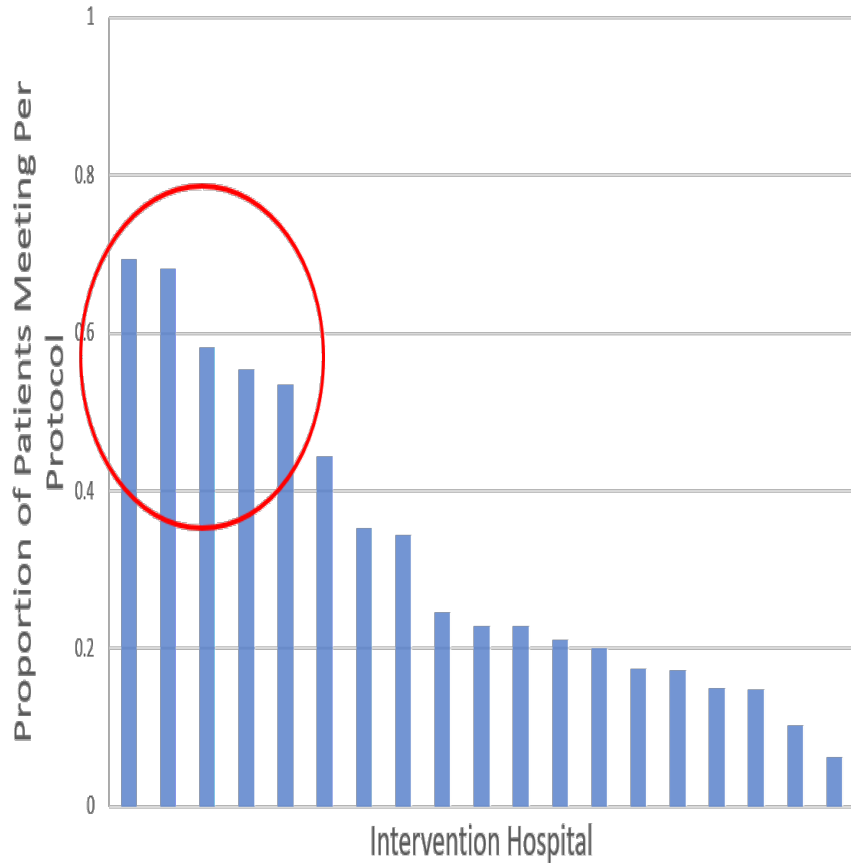
- Reach was lower at both primary care physician (PCP)-based clinics and hospital-based non-specialty clinics vs. neurology-based clinics.
- Urban hospitals had lower Reach vs. non-urban hospitals.
- Patients introduced to the intervention before discharge were more frequently Reached than those notified post-discharge by mail or phone.
- Those with a clinic visit appointment scheduled prior to discharge vs. not were more frequently Reached.
- Higher **organizational readiness** (a clinical champion, administrative support, and considered part of their expanded care vs. research) was associated with higher Reach.



COMPASS
COMPREHENSIVE POST-ACUTE STROKE SERVICES



Characteristics of Successful Sites



- Commitment/Champion for the Model in Acute Care
- Vision
- System Resources
- Flexibility/Collaboration
- Location of Practice (Neurology Clinics)
- New Standard of Care

Qualitative Findings

- **Staffing** was critical
- Implementation enhanced if the PAC and APP (and back-ups) were the “right people”:
 - adaptable problem solvers
 - committed to implementing the model
 - had autonomy and administrative support
 - communicated value of COMPASS to patients and families
 - saw COMPASS as standard of care

Lessons Learned

- **Mild Stroke and TIAs are a chronic condition** and require more than a 30-day transitional care program.
- **Mild stroke and TIA patients have high health care utilization** (ED visits, readmissions) and high mortality.
- Post-acute care models, such as COMPASS, help patients and providers navigate transition to ambulatory care
- Extension of TC beyond the immediate post acute phase may be needed to improve long-term health outcomes and address stroke patients' and their caregivers' social and behavioral needs.

Shifts in Paradigms To Improve Comprehensive Care

- Manage stroke as a chronic condition
- Manage across the continuum and from **population perspective**
- Assess and manage the functional and social determinants of health
- Improve self-management for lifestyle modifications
- **The Goal:** Improve long-term functional status and risk factor reduction



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Transitional Care Implementation

Policy Level

THE FLORIDA SENATE

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Home > Laws > 2021 Florida Statutes > Title XXIX > Chapter 395 > Section 30381

2021 Florida Statutes (Including 2021B Session)

Title XXIX PUBLIC HEALTH	Chapter 395 HOSPITAL LICENSING AND REGULATION Entire Chapter	SECTION 30381 Statewide stroke registry.
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395.30381 Statewide stroke registry.—

(1) Subject to a specific appropriation, the department shall contract with a private entity to establish and maintain a statewide stroke registry to ensure that the stroke performance measures required to be submitted under subsection (2) are maintained and available for use to improve or modify the stroke care system, ensure compliance with standards and nationally recognized guidelines, and monitor stroke patient outcomes.

(2) Each acute stroke ready center, primary stroke center, thrombectomy-capable stroke center, and comprehensive stroke center shall regularly report to the statewide stroke registry information containing nationally recognized stroke performance measures.

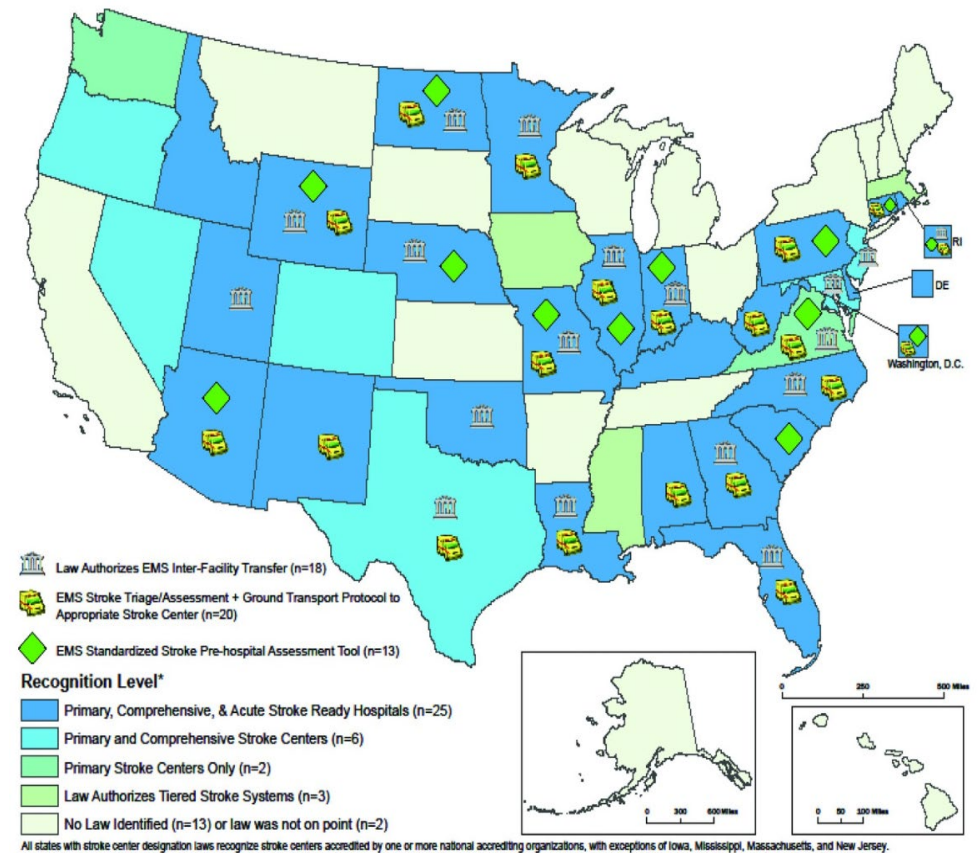
(3) The department shall require the contracted private entity to use a nationally recognized platform to collect data from each stroke center on the stroke performance measures required in subsection (2). The contracted private entity shall provide regular reports to the department on the data collected.

(4) A liability of any kind or character for damages or other relief shall not arise or be enforced against any acute stroke ready center, primary stroke center, thrombectomy-capable stroke center, or comprehensive stroke center by reason of having provided such information to the statewide stroke

[enate.gov/PublishedContent/.../Preface to the Florida Statutes \(2022\).pdf](#)

Quick Links

- [Florida Statutes Definitions Index \(2022\)](#) [PDF]
- [General Laws Conversion Table \(2022\)](#) [PDF]
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- [Index to Special and Local](#)



United Kingdom – National Health Service



Post Acute Stroke is a Priority



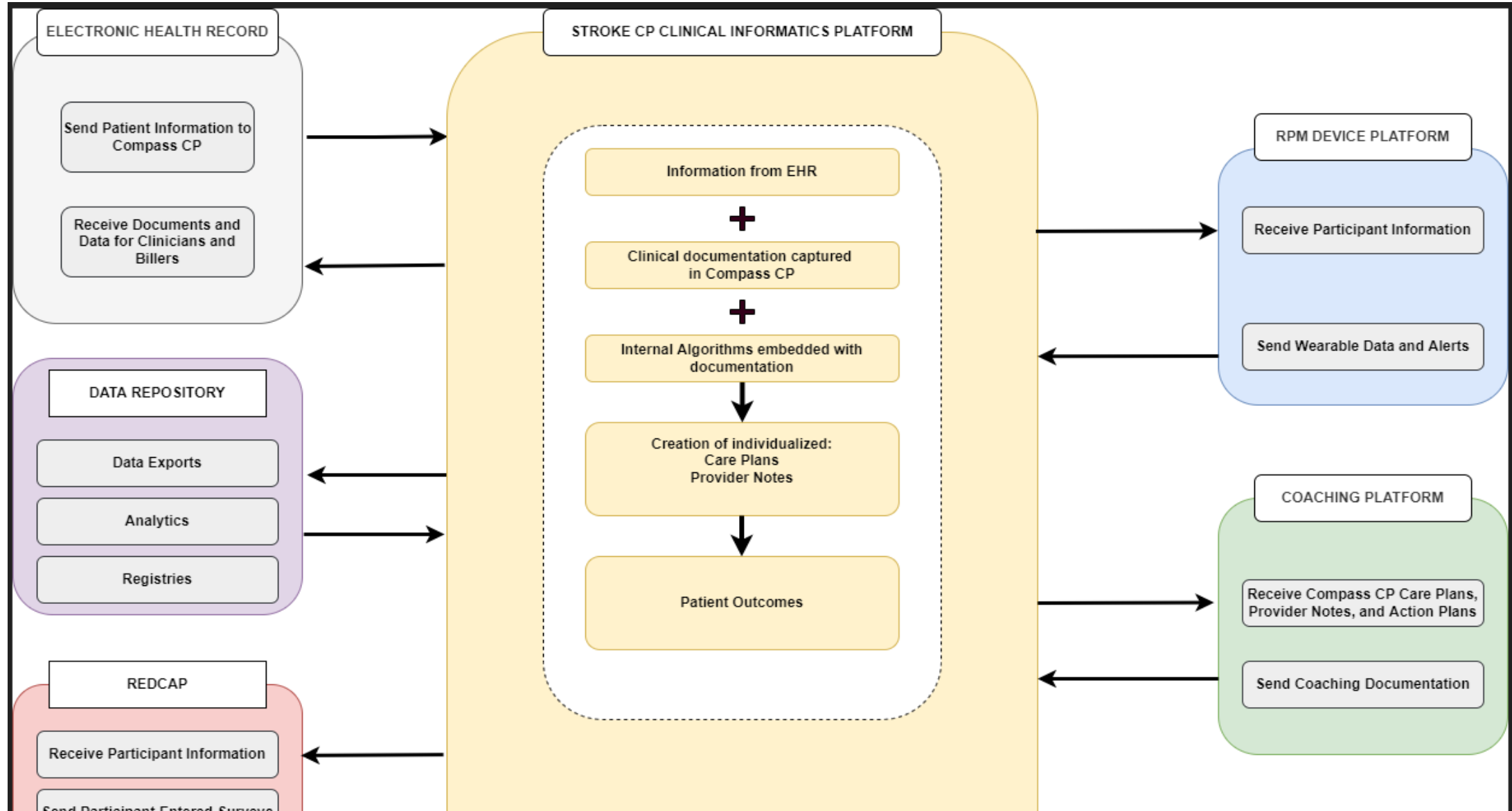
Dr. Tony Rudd
Acute Stroke
Neurologist
Population Health
Scientist
Kings College London

- Better **Investments in Community Care**
 - 20 Regional Stroke Networks To Integrate Care
 - Audits of Post-Acute Care
 - 6 month assessment of stroke survivors with care planning
- **Financial Investments**
 - Financial bundle for acute and community care
 - Incentive – 50% 6 month assessments to avoid 1.2% reduction in provider payment
- **Resources**
 - Pilots with evaluation – staffing for post acute
- **CLINICAL CHAMPIONS**

Data/Registries are needed to follow the patients longer than 30 or 90 days

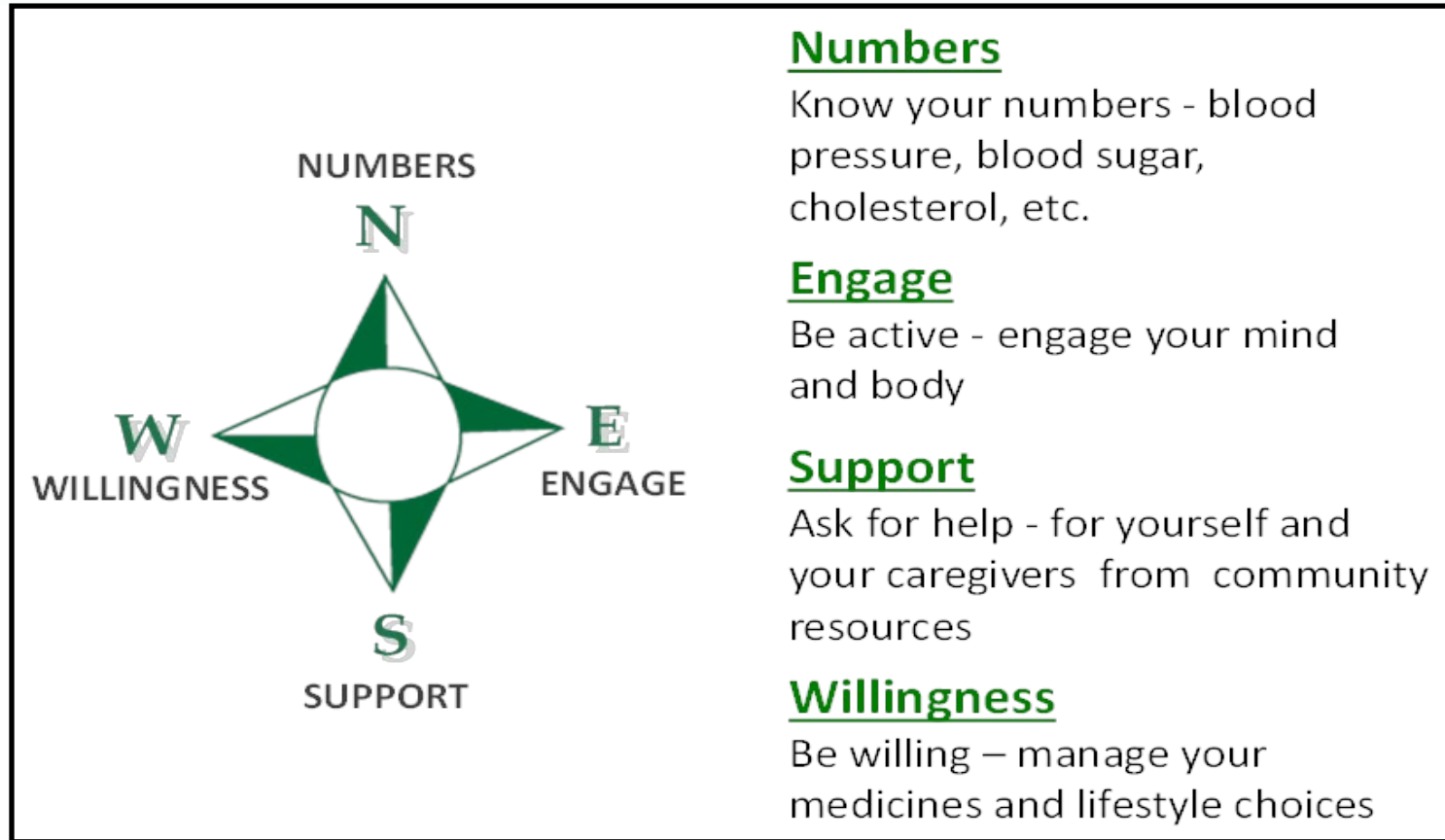
- **Acute Quality and GWTHG Data are Necessary But Not Sufficient?**
- Data Elements Expanded (Sociodemographic, Social and Functional Determinants of Health, Clinical Data, Discharge Disposition
- OUTCOME consistently captured beyond those who get tPA and thrombectomy and (mortality beyond hospital mortality)
- Data Required Beyond Acute Care (e.g monitor discharge location and outcomes)

Data to Facilitate System Wide Coordinated Optimal, Capture of Outcomes Across the Continuum. and Available for Data Analysis



PUBLIC HEALTH MESSAGING

COMPASS: Finding Your Way Forward to Recovery and Health



COMPASS

COMPREHENSIVE POST-ACUTE STROKE SERVICES

Team, Hospitals and Communities

Transformative Care Requires Transformative Teams



A **multidisciplinary** team with a shared vision,
respectful of diversity, accountable, committed to
patient and community engagement, perseverance
and innovation