Leveraging Social Determinants of Health Data to Improve Postacute Stroke Outcomes: Implications for Practice

Eunice Park, OTD Student, *Boston University*
Carly Endres, MS, CBIST, *University of North Dakota*
Nandita Singh, MPH, OTR/L, *NYU Langone Health*
Molly Trammell, PT, *Baylor Scott & White Health*

Moderator: Emily Kringle, PhD, OTR/L, *University of Minnesota*

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Learning Objectives

1. Describe the Social Determinants of Health Model as defined by Healthy People 2030
2. Identify 2 Social Determinants of Health questionnaires that have been implemented in stroke rehabilitation or aftercare settings
3. List 3 ways that social determinants of health data can impact stroke rehabilitation outcomes

Panel Presentation and Discussion

- Overview of SDOH Model
- 3 Exemplars of SDOH in Stroke Rehabilitation Practice
  - Inpatient Rehabilitation in Dallas, TX, USA
  - Ambulatory Care in New York City, NY, USA
  - Community-Based Aftercare in Rural North Dakota, USA
- Facilitated panel discussion with opportunities for questions from the audience

Social Determinants of Health Overview

Eunice Park, OTD Student
Boston University

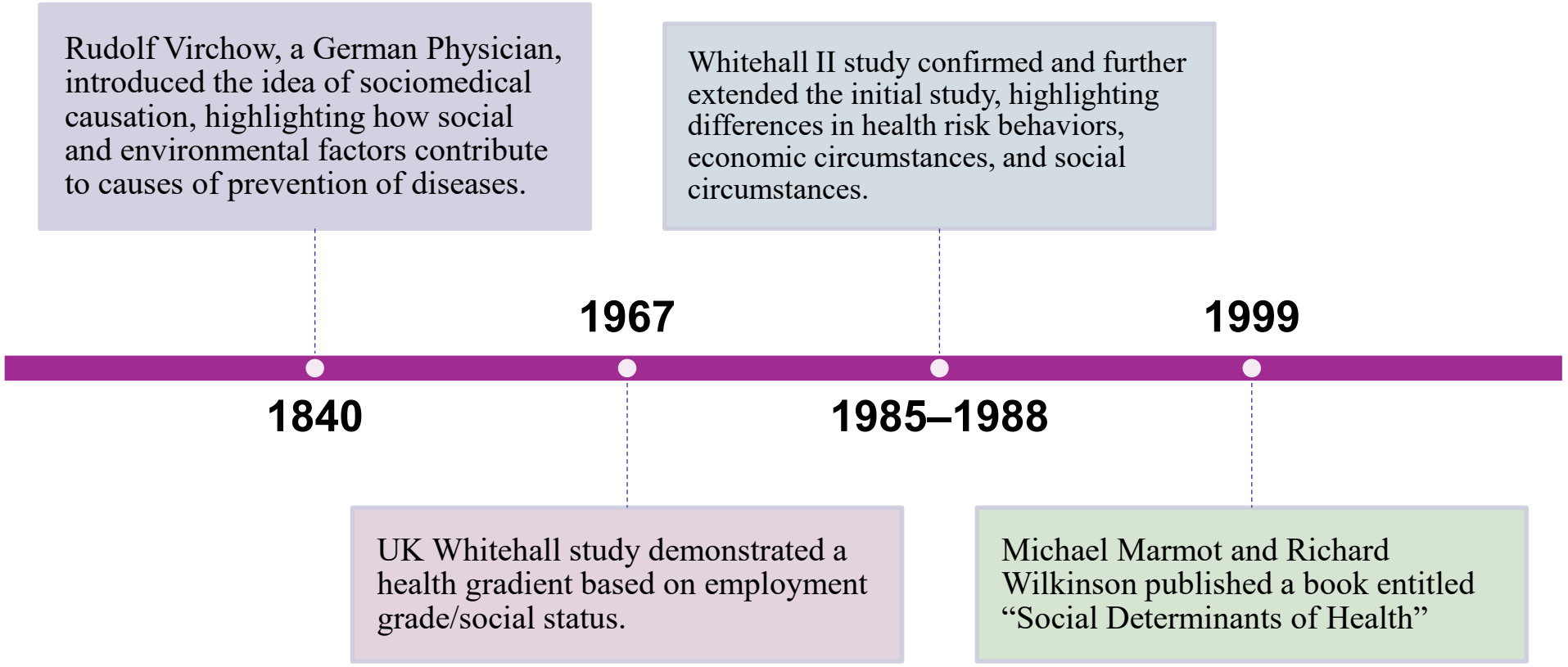
BOSTON UNIVERSITY

What are Social Determinants of Health?

Social Determinants of Health are the non-medical factors that influence health outcomes. They are conditions in the environments where people are born, live, learn, work, play, worship, and age that affect health and health outcomes.

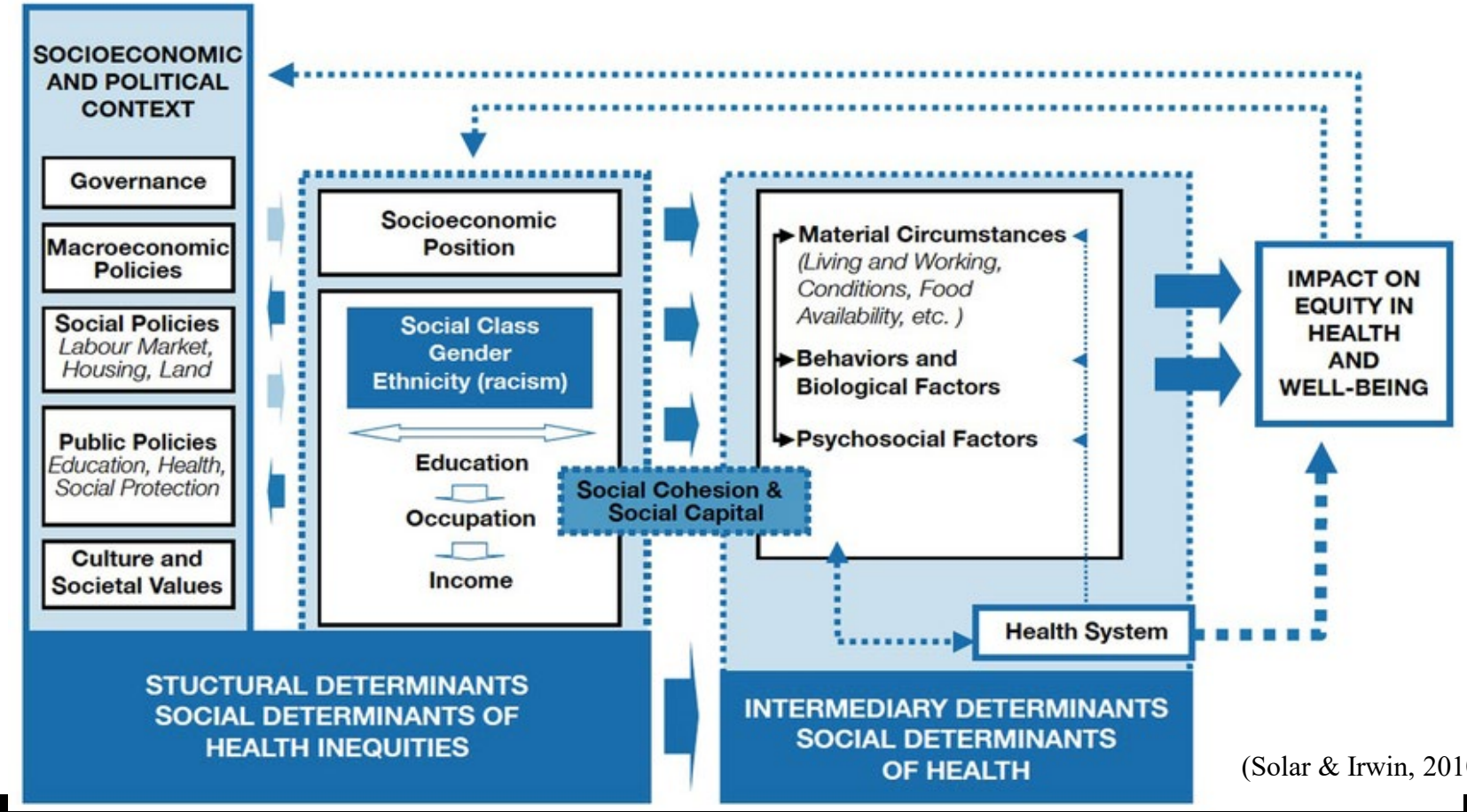
(Office of Disease Prevention and Health Promotion [ODPHP], n.d.)

History of Social Determinants of Health



(Osmick & Wilson, 2020)

Social Determinants of Health Framework by the World Health Organization



(Solar & Irwin, 2010)

Healthy People 2030

(ODPHP, n.d.)

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Baylor Scott & White Institute for Rehabilitation in Dallas: Implementation of social determinant of health

Molly Trammell, PT

2023

Baylor Scott and White is a 92 bed free standing inpatient rehabilitation hospital

Joint Venture with Select Medical Corporation

Located in Dallas Texas

Connected to a trauma 1 hospital close to downtown

Model System
- SCI
- TBI

In 2024 Select Medical rolled out a Health Related Social Needs Performance Improvement Initiative

- Expanding focus by a phase in Epic SDoH software
  - Making collection, interventions, data/collection/reporting automated
  - Working with staff to educate on health equity, quality and safety goals and use of software
- Exploring community services and providing information to patients identified with health related social needs

Focus of Epic Software: March 26, 2024

- Financial Resource strain
- Housing Stability
- Social Connections
- Utilities
- Food Insecurity

If a health equity risk was triggered

"Would you like information on services to assist you with_____"

Health Related Social Need Questions

- **Financial Resource Strain**
  - How hard is it for you to pay for the very basics like food, housing, medical care, and heating?
    - Very hard
    - Hard
    - Somewhat Hard
    - Not very hard
    - Not hard at all
    - Patient unable to answer
    - Patient declined

Health Related Social Need Questions

- **Housing Stability**
  - In the last 12 months, was there a time when you were not able to pay the mortgage or rent on time?
  - In the last 12 months, how many places have you lived? Free text
  - In the last 12 months, was there a time when you didn't not have a steady place to sleep or slept in a shelter(including now)?
    - Yes
    - No
    - Patient unable to answer
    - Patient delined

Health Related Social Need Questions

- **Social Connections**
  - In a typical week, how many times do you talk on the phone with family, friends, or neighbors?
  - How often do you get together with friends or relatives?
  - How often do you attend church or religious services?
  - Do you belong to any clubs or organizations such as church groups, unions, fraternal or athletic groups,or school groups?
  - How often do you attend meetings of the clubs or organizations you belong to?
  - Are you married, widowed, divorced, separated, never married, or living with a partner?

Health Related Social Needs (HRSN)

Time taken: 9/27/2024 0856 | Responsible | Create Note | Macro Manager | Show Row Info | Show Last Filed Value | Show Details | Show All Choices

Financial Resource Strain

How hard is it for you to pay for the very basics like food, housing, medical care, and heating?

Very hard | Hard | Somewhat hard | Not very hard | Not hard at all | Patient unable to answer | Patient declined

Housing Stability

In the last 12 months, was there a time when you were not able to pay the mortgage or rent on time?

Yes | No | Patient unable to answer | Patient declined

In the past 12 months, how many times have you moved where you were living?

At any time in the past 12 months, were you homeless or living in a shelter (including now)?

Yes | No | Patient unable to answer | Patient declined

Social Connections

In a typical week, how many times do you talk on the phone with family, friends, or neighbors?

Never | Once a week | Twice a week | Three times a week | More than three times a week | Patient unable to answer | Patient declined

How often do you get together with friends or relatives?

Never | Once a week | Twice a week | Three times a week | More than three times a week | Patient unable to answer | Patient declined

How often do you attend church or religious services?

Never | 1 to 4 times per year | More than 4 times per year | Patient unable to answer | Patient declined

Do you belong to any clubs or organizations such as church groups, unions, fraternal or athletic groups, or school groups?

Yes | No | Patient unable to answer | Patient declined

How often do you attend meetings of the clubs or organizations you belong to?

Never | 1 to 4 times per year | More than 4 times per year | Patient unable to answer | Patient declined

Are you married, widowed, divorced, separated, never married, or living with a partner?

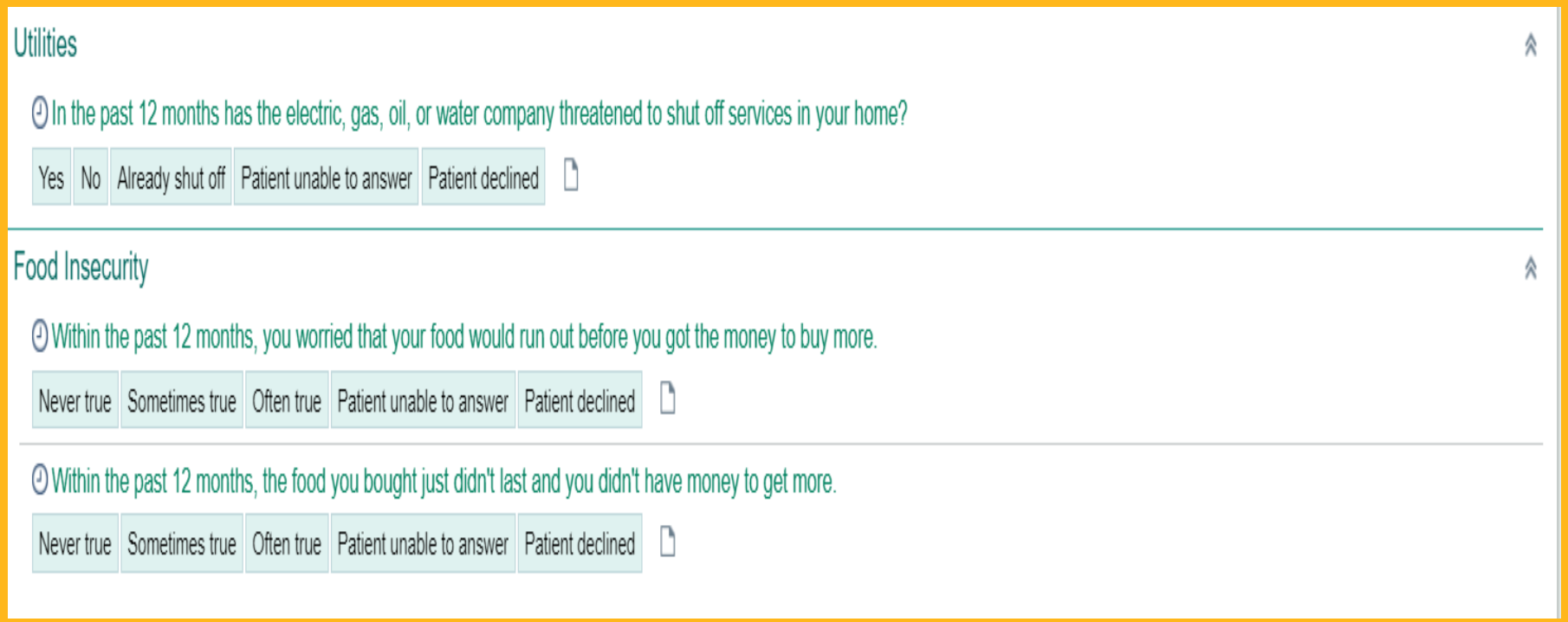
Married | Widowed | Divorced | Separated | Never married | Living with partner | Patient unable to answer | Patient declined

Health Related Social Need Questions

- **Utilities**
  - In the past 12 months has the electric, gas, oil, or water company threatened to shut off services in your home?
    - Yes
    - No
    - Already shut off
    - Patient unable to answer
    - Patient declined

Health Related Social Need Questions

- **Food Insecurity**
  - Within the past 12 months, you worried that your food would run out before you got the money to buy more.
  - Within the past 12 months, the food you bought just didn't last and you didn't have money to get more.
    - Never true
    - Sometimes ture
    - Often true
    - Patient unable to answer
    - Patient declined


Utilities
In the past 12 months has the electric, gas, oil, or water company threatened to shut off services in your home?
Yes
No
Already shut off
Patient unable to answer
Patient declined
Food Insecurity
Within the past 12 months, you worried that your food would run out before you got the money to buy more.
Never true
Sometimes true
Often true
Patient unable to answer
Patient declined
Within the past 12 months, the food you bought just didn't last and you didn't have money to get more.
Never true
Sometimes true
Often true
Patient unable to answer
Patient declined

Focus on Transportation

Has lack of transportation kept you from medical appointments or from getting medications?

No taken 3 weeks ago

Yes	No	Unable to respond	Patient declines to respond

Has lack of transportation kept you from meetings, work, or from getting things needed for daily living?

No taken 3 weeks ago

Yes	No	Unable to respond	Patient declines to respond

Case managers and Nursing ask the Health Related Social Needs questions

Resources are then provided for the patient and documented

Social Determinants of Health Ambulatory Care New York City

Nandita A. Singh, MPH, OTR/L, PMP
11/3/24

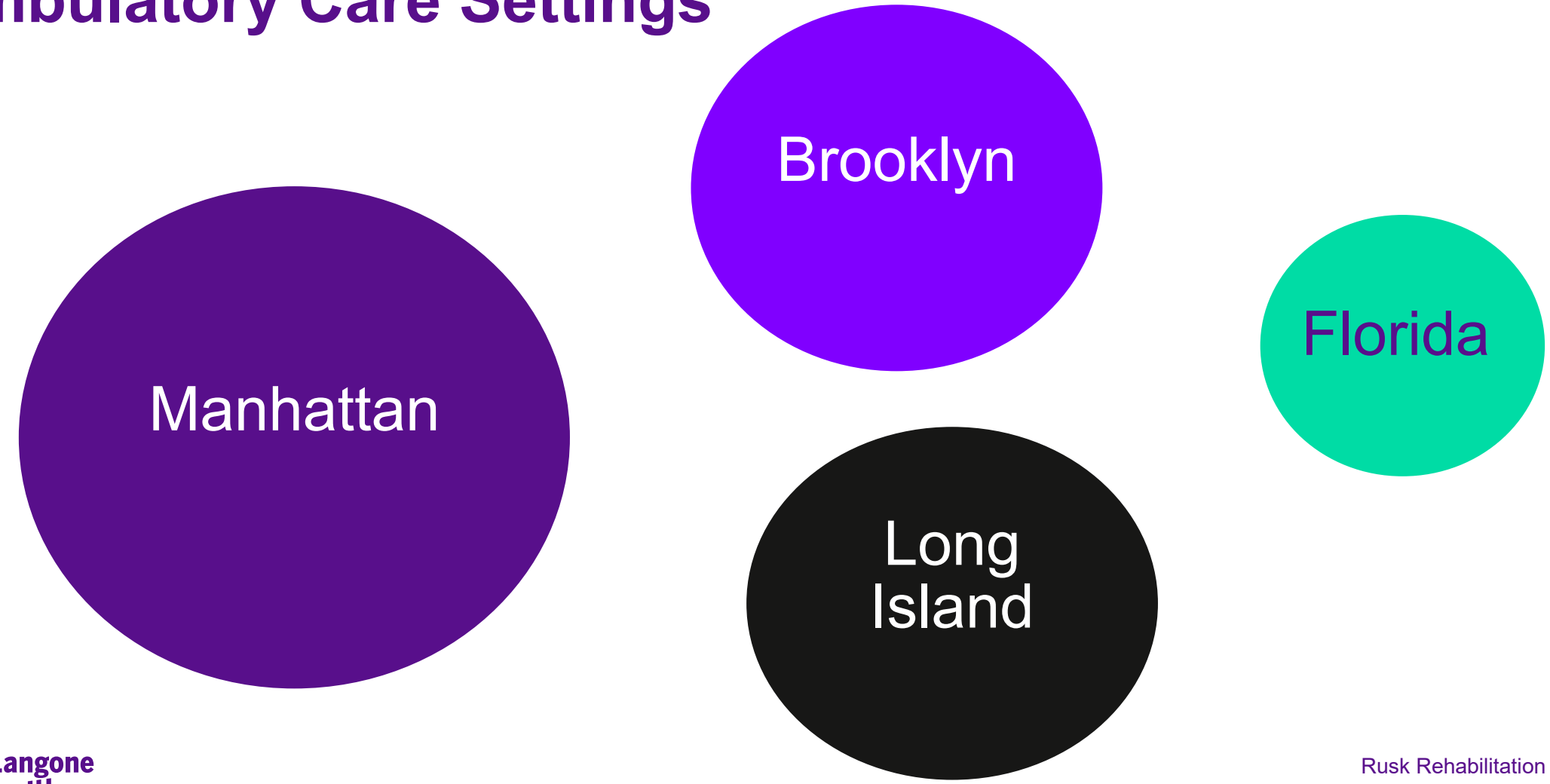
Rusk Rehabilitation

RUSK PHYSICIAN SERVICES

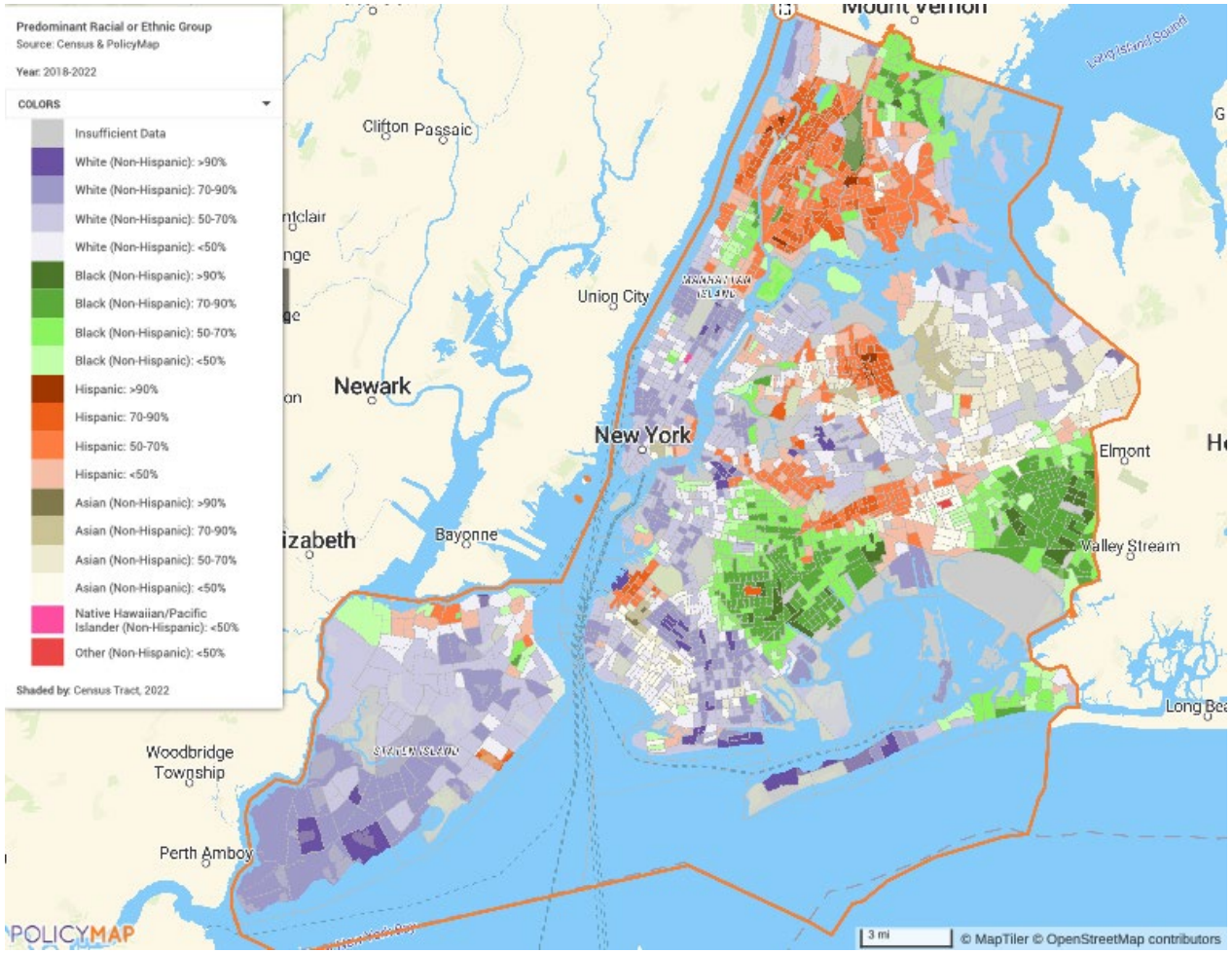
Brain Injury
Cancer Rehabilitation
Cardiopulmonary Rehabilitation
Concussion
Limb Loss
Spinal Cord Injury
Orthopedic Injuries / Sports Medicine
Pediatric Rehabilitation
Pain Management
Stroke Rehabilitation

Physiatry
Neurology
Physical Therapy
Occupational Therapy
Speech and Language Pathology
Psychology
Vocational Rehabilitation
Social Work

NYU Langone Health – Rusk Rehabilitation
Ambulatory Care Settings



NYC 5-Boroughs Racial Categorizations



1. NYC Department of Health Community Profile: This provides community health information based on neighborhoods
   - https://a816-health.nyc.gov/hdi/profiles/

2. NYC Department of Health Environment & Health Data Portal: This site provides health data sets based on categories such as housing safety and stability, mortality, violence, etc.
   - https://a816-dohbesp.nyc.gov/IndicatorPublic/data-explorer/

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Health disparities related to race are evident in rates of illness, death, and access to healthcare services. Health disparities are attributed to **systemic racism**, not race.

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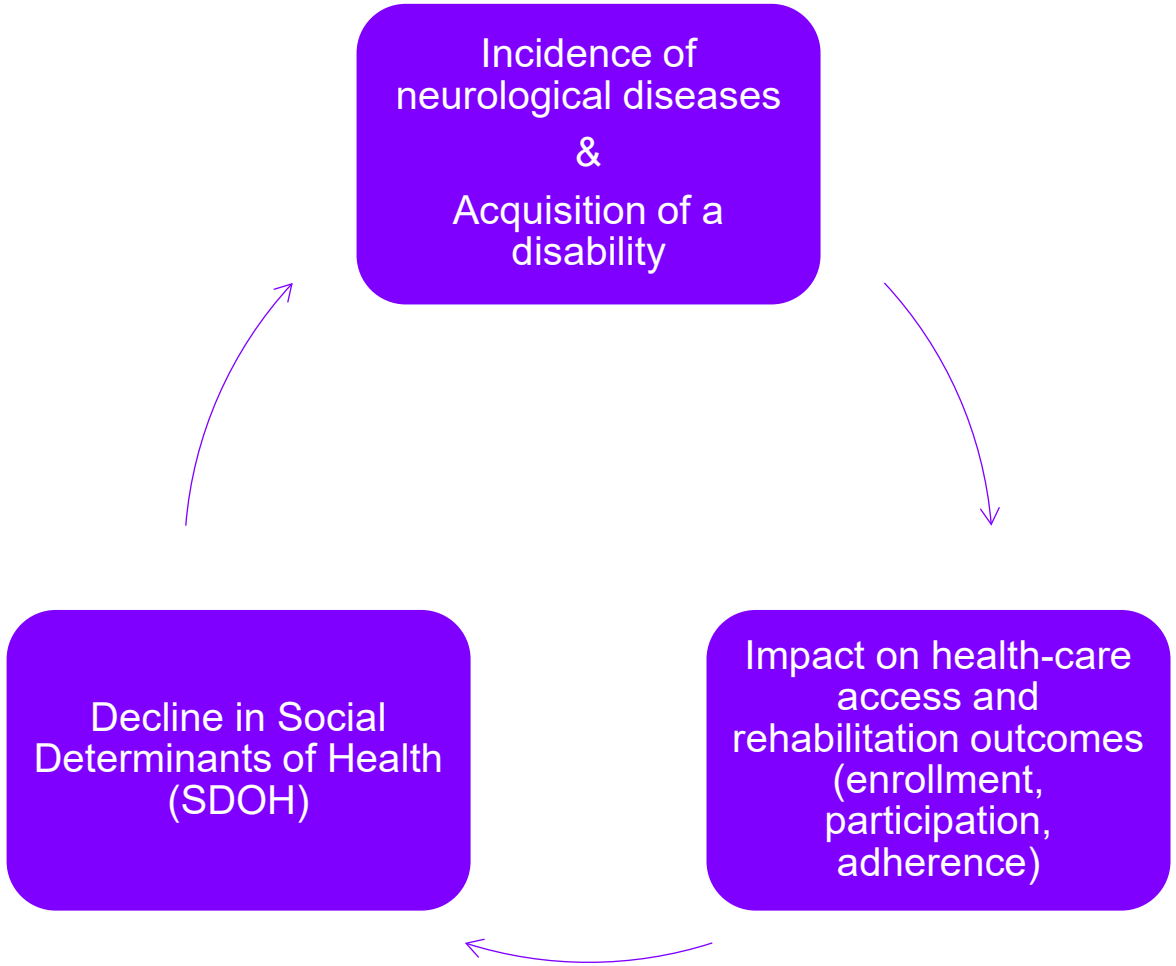
Disability as a Social Determinant of Health



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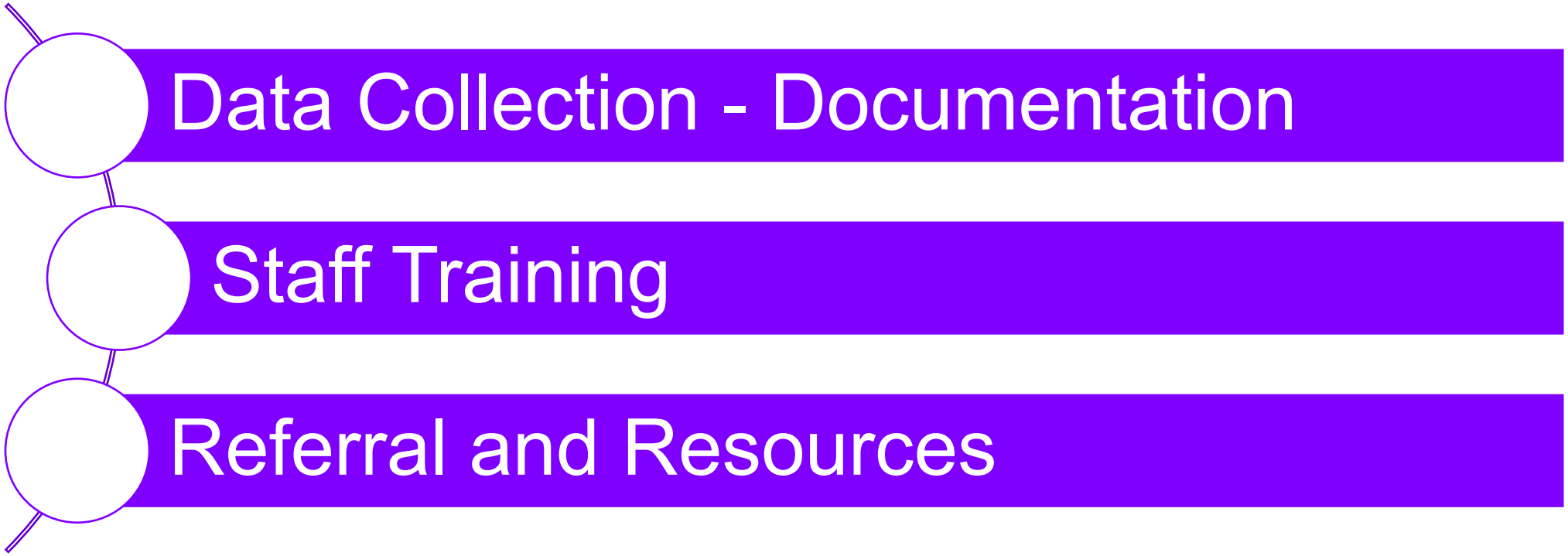
Program Approach



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The Complex Relationship of SDOH

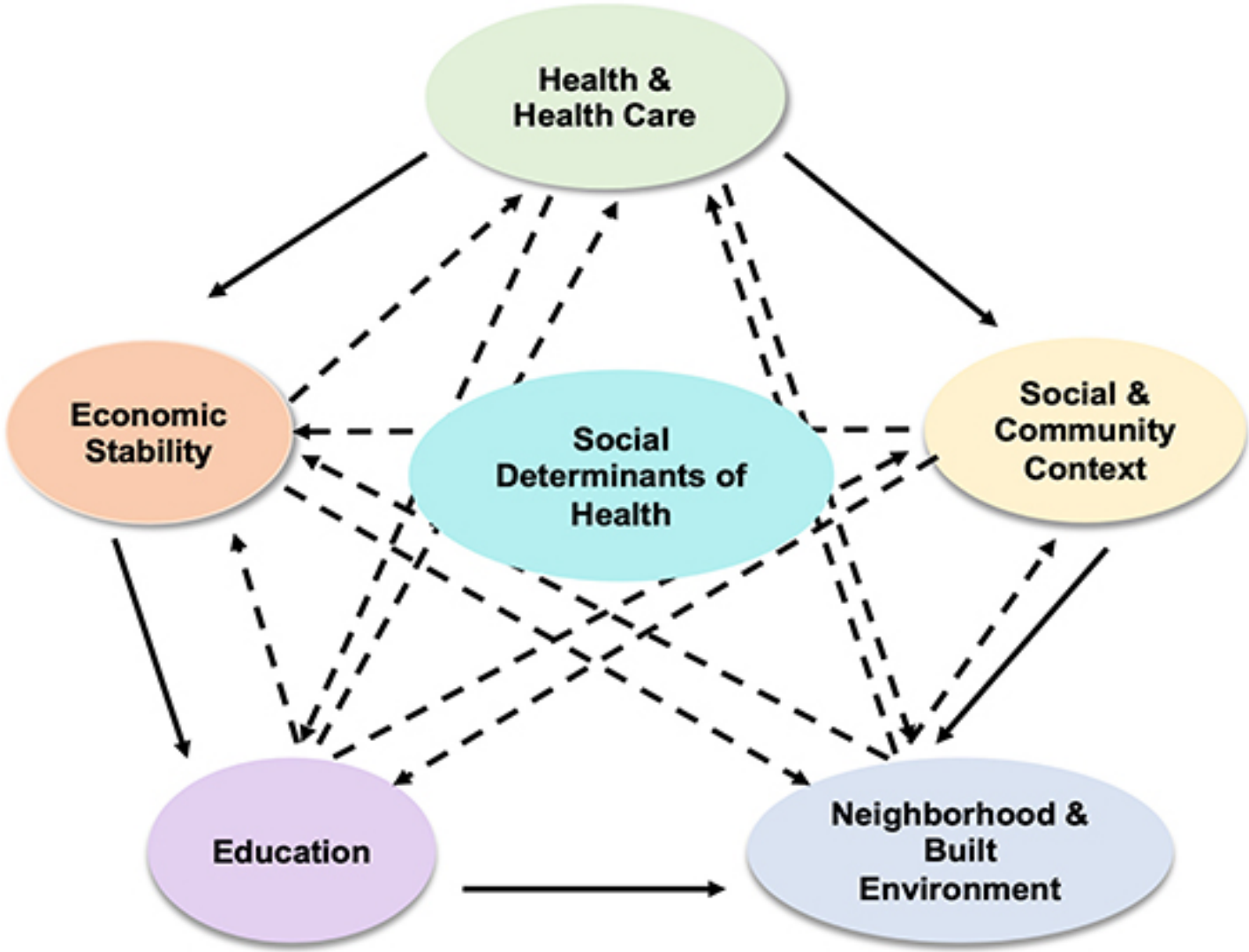

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Image retrieved from: Singu, S., Acharya, A., Challagundla, K., & Byrareddy, S. N. (2020). Impact of social determinants of health on the emerging COVID-19 pandemic in the united states. *Frontiers in Public Health, 8*, 406. https://doi.org/10.3389/fpubh.2020.00406

Standardized Patient Assessment Data Elements (SPADE)

Social History Questions

- How often do you need to have someone help you when you read instructions, pamphlets, or other written material from your doctor or pharmacy?
- How often do you feel lonely or isolated from those around you?
- Has lack of transportation kept you from medical appointments, meetings, work, or from getting things needed for daily living?
- What is the highest level of school you have completed or the highest degree you have received?

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Data Collection - Documentation

Document social need identified, and referrals provided in electronic health records (EPIC)

- Information in free form are not accessible
- Ask additional open-ended questions for clarification (ie. health literacy)
- Consider accessibility when deciding on plan of care

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Words that Work

Bringing up SDOH or asking about social needs may feel uncomfortable or difficult. Here are some ways to initiate the discussion:

"Just like your health affects your everyday life, your everyday life affects your health. We want to understand the different factors in your life that can affect your health."

"Knowing more about what's going on in your life outside of our office helps us work with you to achieve your best possible health."

“We like to get a holistic understanding of what may be impacting your health and everyday well-being so that we can provide appropriate care or resources”

Resources:

For more resources on patient communication look into:

- Motivational interviewing
- Empathic Inquiry

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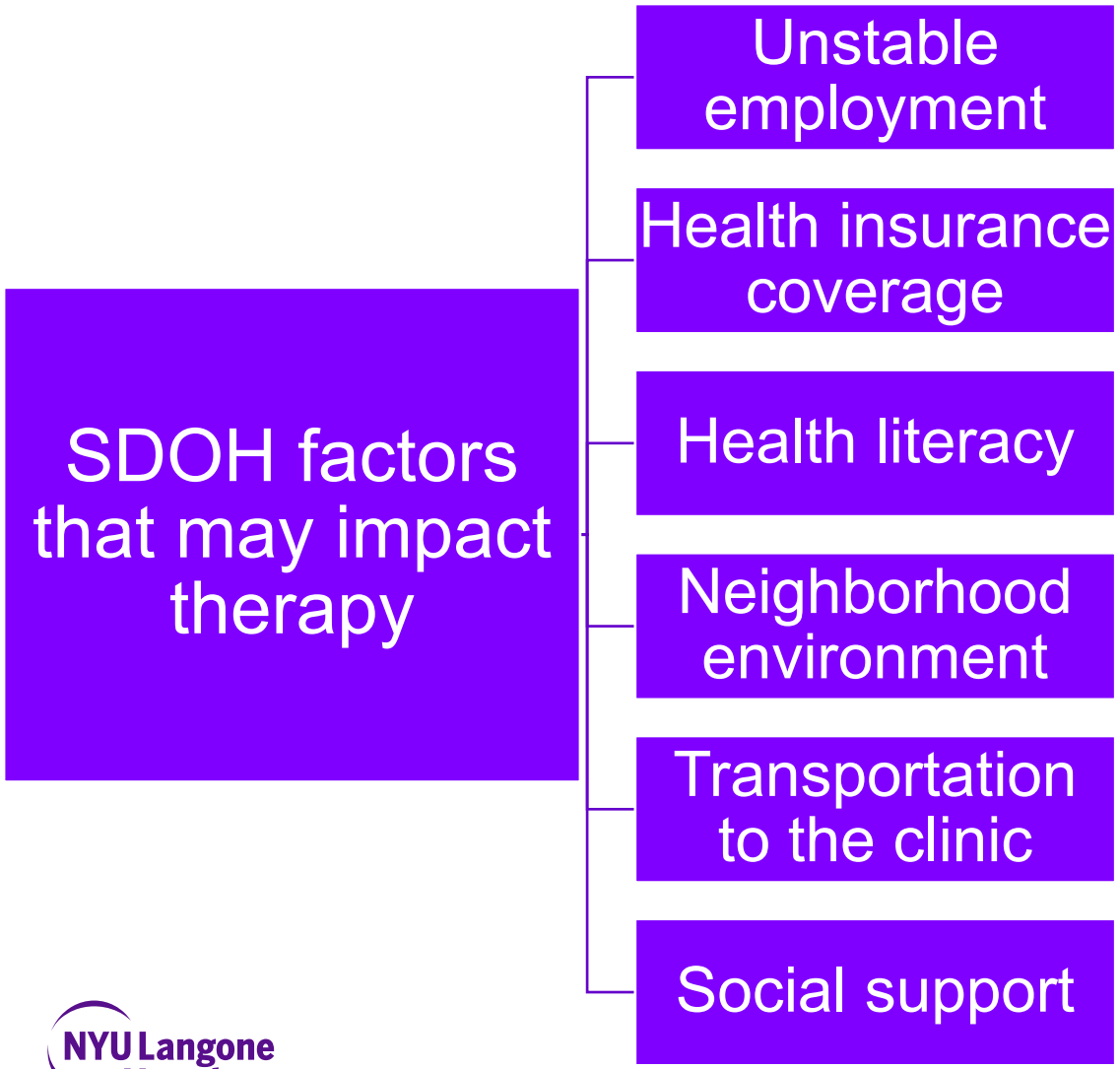
Adapted from “Words that Work, Social Determinants of Health” from UNC Health Alliance

Social Needs Screening - Open Ended Questions:



- What is your preferred language?
- How are you getting to occupational therapy?
- Are you planning on returning to work/the same job?
- Are you able to take time off work to come to therapy?
- What do you understand about having a stroke?
- What is your insurance coverage? co-pay?
- Do you have a primary care doctor?

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Available Resources

Consider:

- Type of Visit – In person vs. Telehealth
- Social Support – Support Groups
- Exercise or equipment recommendations
- Access – digital scheduling
- Transportation – Access a ride
- Health literacy - (i.e., interpretation, visual materials).
- Cultural and language differences
- Advocacy for patients by exploring community resources and educate patients on how they can advocate for themselves.

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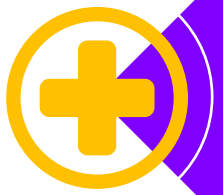
General Strategies to improve Health Literacy

Use plain language and avoid jargon.

Use models, illustrations, or demonstrations to educate.



Use a medical translator or interpreter when there is a language barrier.

Use effective teaching methods

- Teach back
- show back

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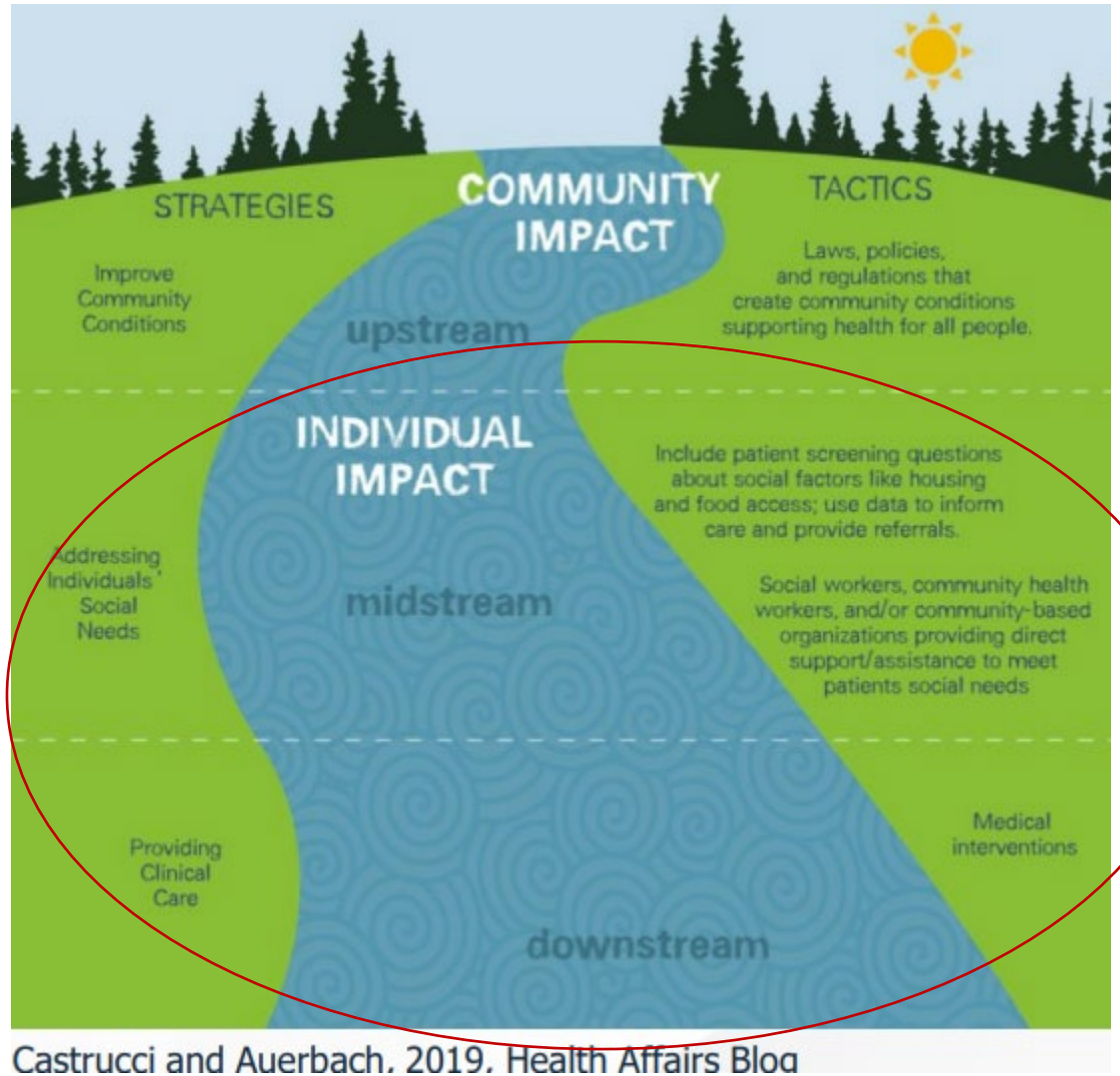
(Fleary & Ettienne, 2018)

Addressing Social Factors



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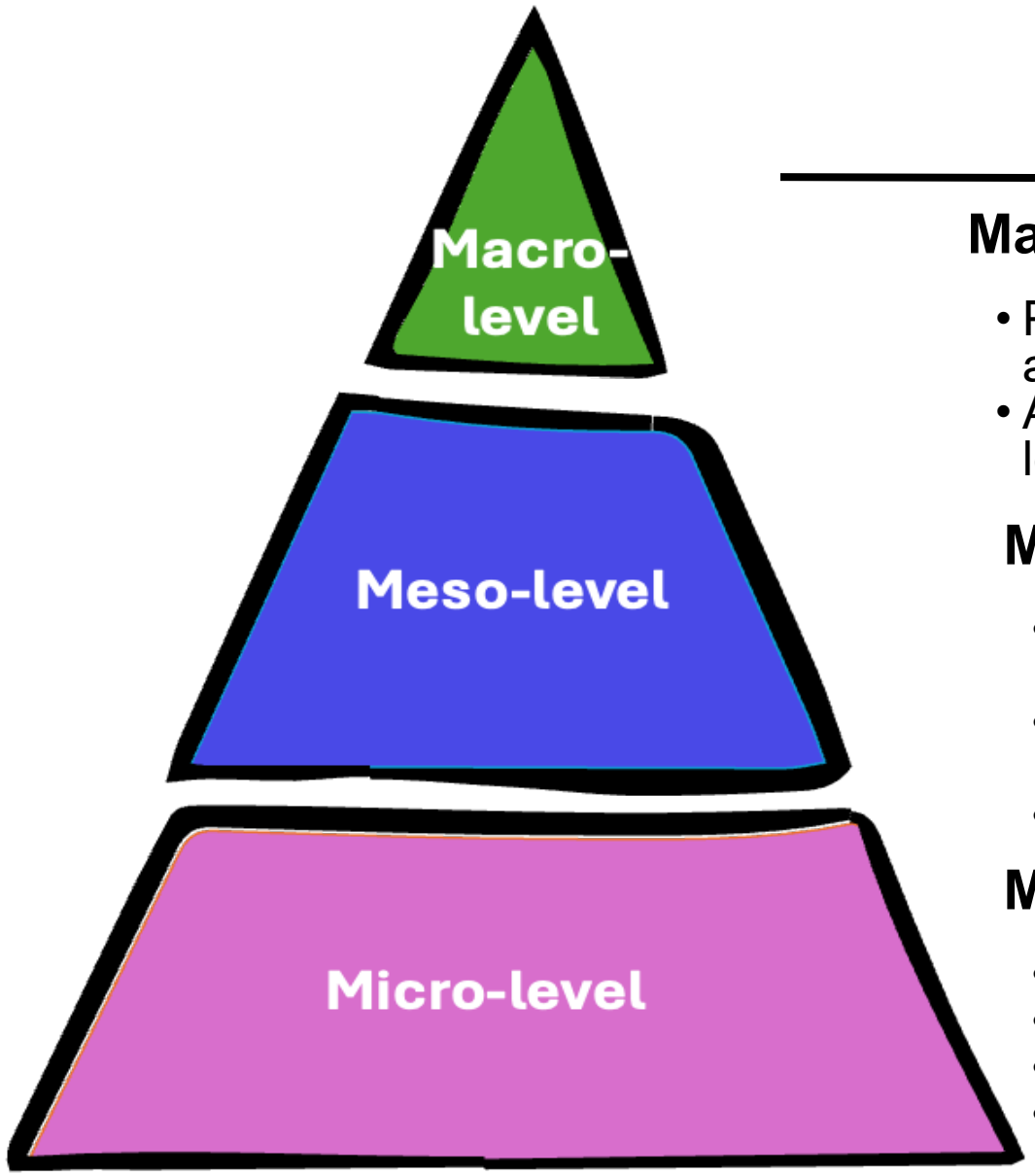
Making a difference



Macro-level impact:

- Practice cultural humility and awareness of one's power and privilege dynamic.
- Advocate for the social needs of communities with leadership responsible for policy.

Meso-level impact:

- Create direct relationships with community organizations.
- Proactively find information on programs and community resources.
- Provide a bridge to patients for community support.

Micro-level impact:

- Social screening tools and occupational profile.
- Consider the context and adapt when deciding plan of care.
- Make social care referrals.
- Collaborate with interprofessional team to provide care.

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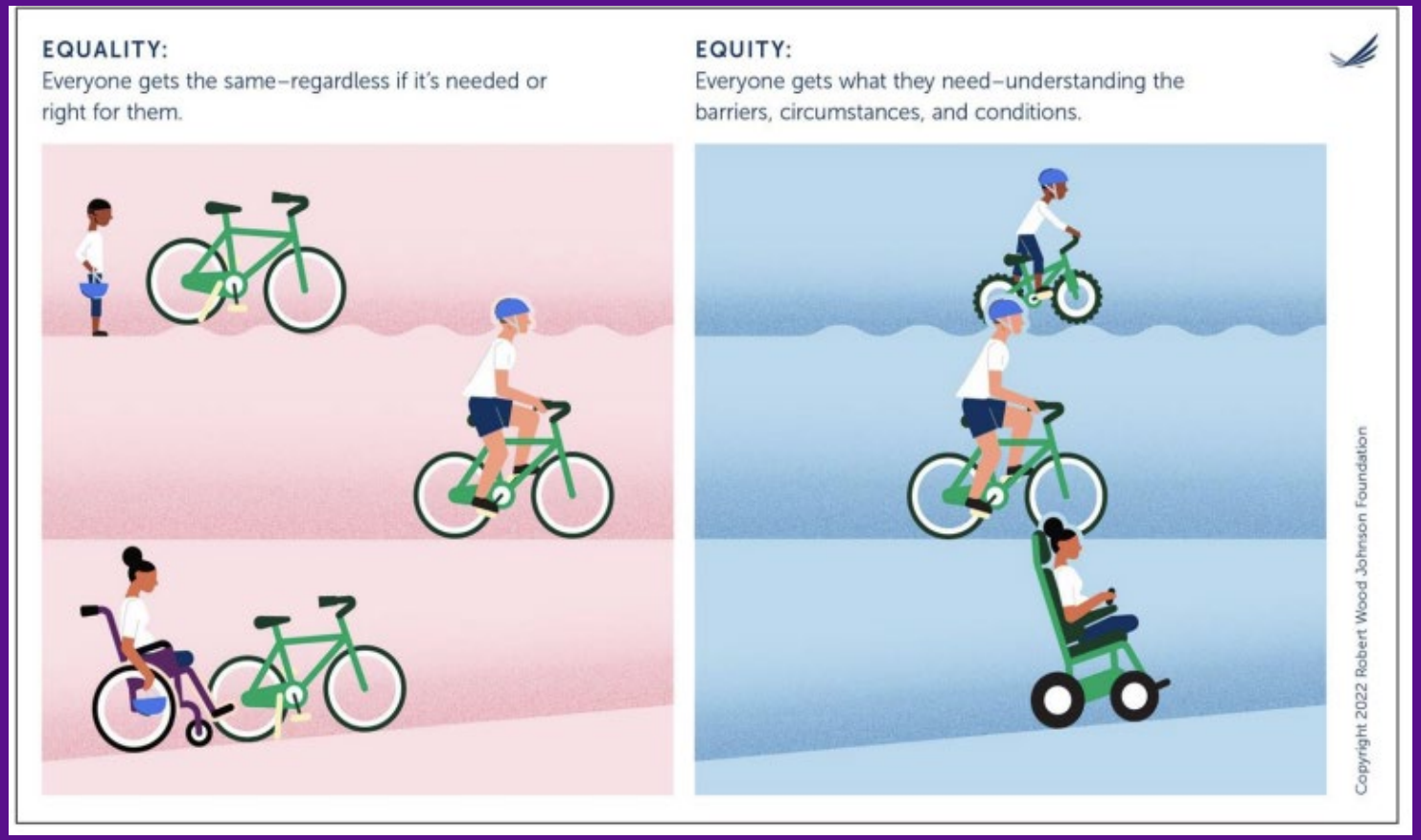
Thank you



Nandita Singh, MPH, OTR/L, PMP
nandita.singh@nyulangone.org

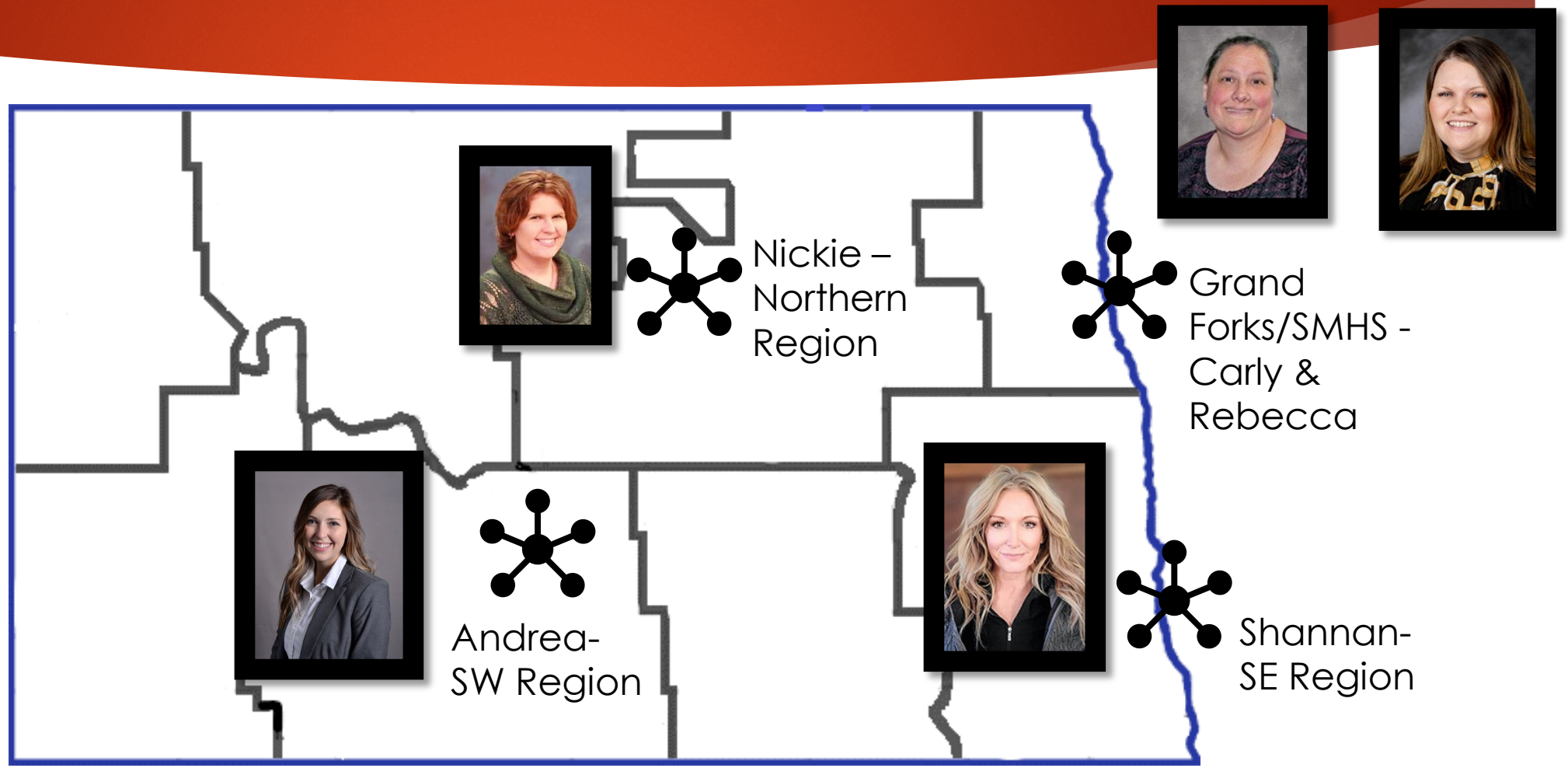
Community-Based Aftercare in Rural North Dakota

CARLY ENDRES, MS, CBIST
SENIOR PROJECT COORDINATOR

www.ndbin.org • 1 (855) 866-1884 • info@ndbin.org

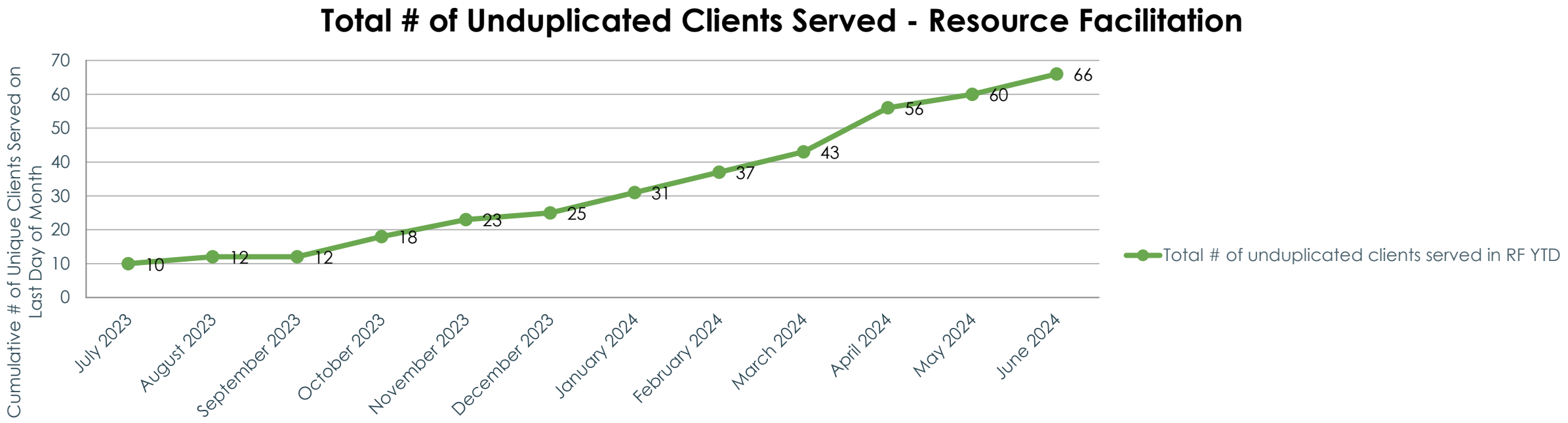
NORTH DAKOTA BRAIN INJURY NETWORK

North Dakota's Service Model



Salesforce!

- July 2023, NDBIN invested in and started using Salesforce to collect data



North Dakota Numbers

- Each year in ND, ~5,500 individuals sustain traumatic brain injuries (TBI).
- 14,400+ (or 2.5%) of ND adults reported they had been previously told they've had a stroke

  *according to the 2015 ND Behavioral Risk Factor Surveillance System.
- More than 13,000 North Dakotans are currently living with a long-term disability from TBI.

Rural

- People living in rural areas have a greater risk of dying from a TBI compared to people living in urban areas.
- Some potential reasons for this disparity include:
  - more time needed to travel to emergency medical care,
  - less access to a Level I trauma center,
  - difficulty getting services, such as specialized TBI care

Ways we are addressing barriers…

- Survivor Connections: 3-way phone call with experienced survivor, new survivor and Resource Facilitator
- Screening: evidence-based practice of asking verbatim questions to determine brain health history
- Cognitive Symptom Inventory: placeholder for full neuropsychological battery developed by MINDSOURCE in Colorado, covers 9 most common symptoms
- Resource Facilitation: evidence-based practice of linking survivors to appropriate resources.

Panel Discussion

Moderator: Emily Kringle, PhD, OTR/L

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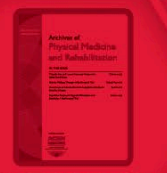

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CANCER REHABILITATION

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ARTS & NEUROSCIENCE

LIMB CARE

PAIN REHABILITATION

NEURODEGENERATIVE DISEASES

LIFESTYLE MEDICINE

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MEASUREMENT

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REHABILITATION TREATMENT SPECIFICATION

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