



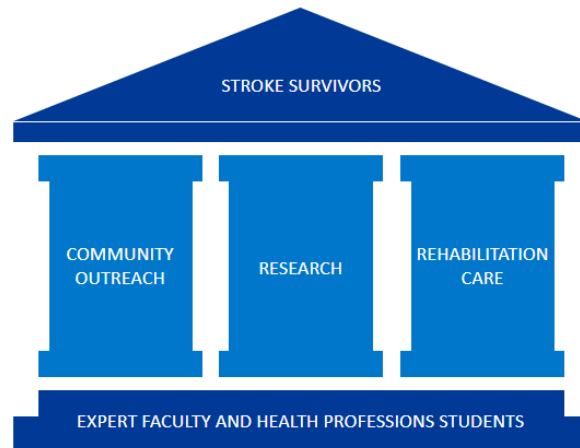
IMPACT REPORT
December 2023

Executive Summary:

During this reporting period, the Center has achieved significant progress in the treatment of stroke survivors, expanded its educational outreach, and made notable advancements in stroke-related research.

Treatment and Demographics

The Center treated 65 stroke survivors, averaging 62 years old, with ages ranging from 27 to 88 years. The patient group was about 60% male and 40% female, with time since stroke varying from 14 months to 25 years. This diverse demographic demonstrates the Center's capability in addressing the needs of a broad range of stroke survivors.



Educational Initiatives

Locally, the Center has been active in stroke prevention education in Boston's underserved areas, utilizing the BE FAST tool. Internationally, Center Director Kim Erler and the Assistant Dean for Interprofessional Practice presented at the Global Forum in Washington, D.C., emphasizing the integration of Tedy's Team Center of Excellence into our health system science education. This highlights our commitment to preparing students for leadership in healthcare and systemic change.

Research Contributions

The Center has published 13 papers in renowned journals on stroke treatment and outcomes, reflecting our dedication to advancing scientific knowledge in stroke recovery. We have also established three research teams of Fellows, funded by seed grants, to conduct innovative stroke research, fostering new leaders in the field.

Administrative and Strategic Developments

Our Administrative Team, including Dr. Kimberly Erler, Dr. Gwen Larsen, and Dr. Julie Keysor, is focused on strategic planning to enhance the Center's impact and efficiency. This ensures optimal resource use for the benefit of stroke survivors and the community.

The Center's comprehensive approach has greatly benefited stroke survivors, contributing insights into stroke treatment and recovery. Our educational programs, particularly the BE FAST campaign, have been pivotal in raising awareness in underserved communities. Collectively, our treatment services, educational efforts, and research activities demonstrate our holistic commitment to addressing stroke recovery and prevention challenges.

Pillar 1: Community Outreach

Increasing Community Awareness of Signs of Stroke

The Community Outreach Coordinator, in conjunction with dozens of student and faculty volunteers, provided community education within the MGH Institute of Health Professions (IHP) community and to local Boston neighborhoods about the signs of stroke using the BE FAST tool.

Community outreach activities included:

- August 8: National Health Center Week Block Party at NEW Health Charlestown
- September 8: Community Impact Day, [A Day of Giving and Learning and Community Service](#)
- September 27: Talk at ABCD North End in partnership with NEW Health
- October-December: Weekly exercise class at Chelsea Senior Center
- October 25: Talk at Winthrop Senior Center
- November 27th: Community outreach at South Boston Elderly senior housing development
- November 29: Community outreach at La Colaborativa Food Pantry, Chelsea



Stroke Education

On November 2nd, Center Director, Kim Erler, along with the Assistant Dean for Interprofessional Practice presented at the [National Academies of Sciences, Engineering, and Medicine Global Forum on Health Systems Science](#) in Washington, D.C. Dr. Erler and Assistant Dean Pittman described how Tedy's Team Center of Excellence in Stroke Recovery is an anchor for our health system science education helps us prepare our students to become healthcare leaders and to influence change at a systems level.

Tedy's Team Center of Excellence in Stroke Recovery hosted the first annual Invited Speaker Symposium on November 14th, bringing a nationally recognized speaker and foundation, Stroke Onward, to the Center's community. Debra Meyerson, a stroke survivor living with profound aphasia, spoke about her personal journey of rediscovering and redefining identity after stroke and the work of their foundation to support stroke survivors.



Pillar 2: Stroke Recovery Research

Publications

Since June 2023, there were 13 stroke-related papers published by researchers connected with Tedy's Team Center of Excellence in Stroke Recovery. These studies included topics such as rehabilitation technologies, motor control, emotional and social recovery, intervention approaches, and outcome measurement. Some of the journals that published these studies included *Topics in Stroke Rehabilitation*, *Neurology*, *Archives of Physical Medicine and Rehabilitation*, and *the International Journal of Language & Communication Disorders*. (Full listing available upon request).

Fellows

Tedy's Team Center of Excellence in Stroke Recovery launched [Tedy's Team Stroke Research Fellowship](#) for MGH Institute Faculty conducting novel stroke research. The aim of this Fellowship is to advance the mission of the Tedy's Team Center of Excellence through faculty led research by providing seed funding to support pilot data collection that will be leveraged to apply for external funding. This Fellowship bridges the gap between practice and research and provides investigators the opportunity to engage directly with stakeholders and seek input from stroke survivors and their care partners.

Three teams of Fellows were selected for 2023-2034: Dr. Megan Schliep, mentored by Physical Therapy Professor Dr. Prue Plummer; Communication Science Disorders Associate Professor Dr. Lauren Zipse; and the team of Communication Science Disorders Instructors Esther Ayuk and Suzanne Pennington, mentored by Dr. Marjorie Nicholas.



Megan Schliep,
PhD, CCC-SLP, MPH



Prudence
Plummer, PhD, PT,
BPhysio(Hons)



Lauryn Zipse, PhD,
CCC-SLP



Esther Ayuk, MS,
CCC-SLP, CBIS



Suzanne
Pennington, MS,
CCC-SLP



Marjorie Nicholas,
PhD, CCC-SLP,
FASHA

The three research areas include:

“Identifying the moderating roles of psychosocial, physical activity, and communication factors on fall status after stroke using ecological momentary assessment.”

Schliep will use ecological momentary assessment (EMA) to collect real-time information several times a day via text message about stroke survivors' daily activities, including what they are engaged in, where, with whom, and how they are feeling in the moment in regard to mood and ability to concentrate. The survey participants will include people with and without aphasia.



“Scaling up: Piloting a home-practice version of Melodic Intonation Therapy.”

Zipse will develop and test a home-practice version of an established aphasia treatment called Melodic Intonation Therapy, and test whether home practice can be used successfully to increase treatment dosage. If home practice is effective, it can allow people with aphasia to receive more frequent treatment over a longer period of time than most get following a stroke.

“Activating Life Participation: Tracking outcomes after an Intensive Comprehensive Aphasia Program (ICAP.)”

Ayuk and Pennington will design an aphasia-appropriate Behavioral Activation (BA) treatment program to address activity engagement after an ICAP program. Clients who recently completed the Spaulding Rehabilitation – Institute ICAP will be recruited for the project and will be followed for up to a year. Findings will provide insight into the effectiveness of their aphasia-adapted BA treatment program and highlight barriers and facilitators of activity engagement post-ICAP. At the Institute, the ICAP program is called S-IHP’s CAP. It’s a 6-week intensive treatment program where students in the speech-language pathology and occupational therapy programs work with people with post-stroke aphasia designed to maximize their recovery and return to activities. The program is a collaboration with Spaulding Rehabilitation Hospital.

Pillar 3: Rehabilitation Care

Therapeutic Approach

The Center follows a “Life Participation Approach” that was originally developed for stroke survivors with aphasia and has since been generalized to all stroke survivors. This approach is “a consumer-driven service-delivery approach that supports individuals with [stroke] and others affected by it in achieving their immediate and longer-term life goals.” It focuses on personalized care targeting engagement in meaningful life activities. The stroke survivor is empowered to identify goals and participate in therapy for as long as they find benefit. Given this approach to neurorehabilitation, clients in the Center are able to participate in therapy for a longer period than traditional treatment settings that are dictated by insurance coverage.

Number of Stroke Survivors Treated

The Center provided rehabilitation and nursing services to 65 stroke survivors (clients) between June and December 2023. Clients with stroke participated in physical therapy, occupational therapy, speech and language therapy, primary care nursing services, and counselling services provided by MGH Institute of Health Professions students under the supervision of faculty and clinicians.



The majority of clients participated in only one service while 20% of clients participated in more than one. Services across the Center were provided in a variety of formats to best suit the clients' needs; 44% of clients completed their sessions in-person only, 41% of clients participated in their sessions virtually, and 15% preferred a hybrid format consisting of a combination of in-person and virtual sessions. The average client age was 62 years (range= 27 to 88 years old). Approximately 60% of the population were male and 40% were female. The time since their stroke ranged from 14 months to 25 years. Satisfaction data is not available as surveys are completed at the end of the academic year.

Bio of a stroke survivor utilizing our services

In 2017, Gary Wilson had a stroke that impacted the use of his left arm, his walking, and his



ability to perform daily tasks. After time spent at Massachusetts General Hospital and Spaulding Rehabilitation Hospital's Outpatient Center in Braintree, he was discharged but knew he required further support to continue his recovery and regain his independence. Typically, insurance does not cover rehabilitation costs beyond the immediate aftermath of stroke. Needing long-term rehabilitation, Wilson had to seek options outside the traditional healthcare system. That's when he came to the MGH

IHP, ultimately receiving services at the Tedy's Team Center of Excellence in Stroke Recovery, whose goal is to improve the quality of life for stroke survivors. Over the past several years, Wilson has received both occupational therapy services through the Tabor/Connor Family Occupational Therapy Center for Learning, Participation, and Rehabilitation and physical therapy services through the Marjorie K. Ionta PT Center at the IHP, working with several students and clinicians. These two clinical centers work in partnership with the Tedy's Team Center to ensure stroke survivors receive holistic care.

"Everyone I've worked with has been very informative, helpful, and cooperative," he shared. "They have been so encouraging."

Wilson has built strong relationships with the students he's worked with in his time at the IHP, and these interactions motivate him to keep coming back.

Mr. Wilson shared more about his experience in this [article](#) published on August 15, 2023.

Specialized Programming

In addition to 1:1 therapy provided at the Center, Tedy's Team Center of Excellence developed two events focused on improving social participation for stroke survivors. Research shows that social participation leads to better quality of life, better physical outcomes, and better mental health for people with stroke. Therefore, we translated these findings from the research and



created the Waterfront Wellness Walk that was held on July 26th and the Seasonal Social on November 28th.

The Waterfront Wellness Walk took place at the New England Aquarium in partnership with Coalition for Resilient and Inclusive Waterfront. Seven stroke survivors and their care partners, family, or friends attended the event with overwhelmingly positive feedback. Stroke survivor Lisa A. Sims was there, accompanied by her adult son, Jevon Okundaye. She commented “As a stroke survivor, I look for anything that's going to have me connected with the stroke community



Tedy's Team Center of Excellence in Stroke Recovery Wellness Walk participants at the New England Aquarium. Front row: Physical therapy student volunteers, from left: Sarah Su (DPT '24), Josephine Nguyen (DPT '24), Kendra Andrada (DPT '24), Gabrielle Beaulieu (DPT '25). Back row from left: Kim Erlen, Rey Vazquez, Steve Parnell, Janet Nittman, Julie Hahnke, Lisa A. Sims, Jevon Okundaye, and Gwen Larson.

because it's always a good time,” said Sims, who suffered her stroke 11 years ago. “You're with like-minded people and you feel like you have the same values here, and you're doing things outside.” Steve Parnell who experienced his stroke in 2018 said “I thought it was so important to walk only because it helps your brain get better,” said Parnell, who has been receiving care at the IHP's Aphasia Center for two

and a half years. “For 43 days, I couldn't even tell you my first word, but to be with those people, to be at the aquarium, to see the penguins and everything else like that. It was something you couldn't even imagine. For me, it was critical to get involved.”

The Seasonal Social held on campus at Tedy's Team Center of Excellence in Stroke Recovery provided stroke survivors the opportunity to celebrate their progress toward their goals and the holiday season together. The event was designed to optimize interactions among attendees and create opportunities for stroke survivors to share their accomplishments this semester.



Client Stephen Parnell talks with OTD Class of 2025 students Joanna McDonough (right front) and Kristtyn Tran at the November 28 Seasonal Social for Impact Practice Center event, sponsored by Tedy's Team.

Number of people discharged from services

As discussed, we do not see the same discharge rates as hospitals since the treatment plans for stroke survivors who come through this center are different.