### Pilot Awards for Global Brain Health Leaders

2022-23











### PILOT AWARDS FOR GLOBAL BRAIN HEALTH LEADERS 2022-23

Dementia is rapidly increasing around the world. By 2050, the number of people with dementia could triple from 50 million to 152 million, overwhelming families, communities, public health care systems, and economies worldwide.

The Global Brain Health Institute (GBHI), the Alzheimer's Association, and Alzheimer's Society in the UK share the commitment to developing the next generation of brain health leaders and aim to support these emerging leaders by funding small-scale pilot projects, activities or studies to advance skills, knowledge, and general efforts to delay, prevent, and mitigate the impact of dementia.

The goal of the Pilot Awards for Brain Health Leaders is to both support leadership development of the Atlantic Fellows for Equity in Brain Health and to advance pilot projects that improve outcomes in brain health. The program prioritizes activities that demonstrate potential to evolve into larger projects in the awardees' home regions, especially those that use an evidence-based approach to identify need, direct change, and improve care and outcomes around age-related cognitive loss and dementia.

### **AWARDS IMPACT**

Since the program was established in 2017, 137 pilots across 42 countries and administrative regions\* have been awarded a total of \$3.4M and resulted in...



\*Argentina, Belgium, Bermuda, Botswana, Brazil, Canada, Chile, China, Colombia, Costa Rica, Cuba, Denmark, Ecuador, Egypt, Ethiopia, France, Ghana, Greece, Hong Kong, Jordan, India, Indonesia, Ireland, Israel, Italy, Lithuania, Mexico, Mongolia, New Zealand, Nicaragua, Nigeria, Peru, Romania, South Africa, South Korea, Spain, Sweden, Taiwan, Turkey, UK (England, Northern Ireland, Scotland, Wales), USA, Zimbabwe

### **AWARDS FUNDED**

Funded pilot projects range from advocacy and systems change to applied research. Fellows are addressing challenges to brain health such as access to care, stigma, education, and social determinants of brain health. As the range of project topics grows, so does the geographical diversity, including several forthcoming projects across Africa, Europe, and South America. Following is a sample of the diverse pilot projects funded to date.





## IMPLEMENTING A DEMENTIA TRAINING PROGRAM IN ECUADOR: A promising step towards the improvement of early diagnoses

Martha Unaucho Pilalumbo, MD Neurologist, Ecuador

Lack of dementia diagnostic tools is a global issue, as many cases worldwide are misdiagnosed. Given limited dementia training in the field, especially in developing countries like Ecuador, these facts raise concerns about how well primary care doctors can recognize dementia symptoms. These

shortcomings present an opportunity for healthcare providers to identify the symptoms of dementia.

"I live convinced that there is not an impossible."

For her pilot project, Unaucho Pilalumbo recruited 175 primary

care physicians working for the Ecuadorian Ministry of Public Health in Loja, Zamora, and El Oro zones to participate in a five-month training course. Before, during, and three months after the program's execution, each participant answered questions about their understanding of dementia (DKAS-S) and degree of confidence in their capacity to make a diagnosis. The participants claimed to have more knowledge overall and self-confidence in their capacity to identify dementia and employ cognitive screening tools.

The project emphasizes the need to improve the education and training for physicians to recognize and diagnose dementia, highlighting the need to create structures within the national healthcare system to care for patients with dementia in Ecuador.





## CULTURALLY ADAPTING A COGNITIVE TRAINING PROGRAM: An Intervention for Adults Aging with HIV

Primrose Nyamayaro, PhD Mental Health Researcher, Zimbabwe

More than three-quarters of people with HIV live in sub-Saharan Africa, including Zimbabwe. HIV-associated neurocognitive disorders (HAND)—consisting of HIV-associated dementia, mild neurocognitive disorder, and asymptomatic neurocognitive

impairment—are one of the biggest threats to brain health in this region.

Cognitive training is effective in improving cognitive function. It may also help patients with HAND. Led by Nyamayaro, the current project aims to adapt and translate Smartbrain Pro—a computerized cognitive training

"We need to ensure the interventions and evidence-based practices for cognitive impairment are also accessible to low-income countries."

program with training tasks on processing speed, attention, executive function, and memory—for adults aging with HIV.

This project will be conducted at an urban clinic in Zimbabwe that offers HIV treatment services. The relevant tasks from Smartbrain Pro will be selected, culturally adapted, and translated.

Nyamayaro expects that this project will offer a robust cognitive training program to improve the brain health of adults aging with HIV. Subsequently, it will be tested in a randomized control study on cognitive rehabilitation of adults with HAND.





## STORIES IN THE MOMENT: Using dance to build spaces of belonging with people living with dementia

Magda Kaczmarska, MFA
Dance artist, United States, Poland

People living with dementia inevitably experience shifts in their modes and capacities for expression which influence their ability to express and feel connected to the communities

around them. They also often experience widespread stigma, manifesting in a reduction in the size of their social networks and loss of connection with others. But meaningful connection is paramount for maintaining dignity and extending a sense of purpose.

Stories in the Moment is partnering with people living with dementia online and in person, to amplify their expressive voices through co-creative dance. Dance is increasingly recognized to promote and

"All of us have stories to tell. And when we connect together to discover and co-create these stories through dance, we cultivate new narratives that celebrate our individuality while amplifying our unity."

extend brain health among older adults through amplifying coordination and gait, supporting wellbeing, offsetting depression, and offering ameliorative cognitive effects.

The Stories in the Moment program uses dance to unite these pro-active brain health elements with narrative and meaning-making, and to highlight individual story and imagination while bolstering community building.



قوة تكوين وحفظ الذكريات في الذاكرة طويلة الامد وتذكر احداث الماضي وحفظ معلومة جديدة بتتكون من خلال الاتصال بين الخلايا العصبية في الدماغ

تقوية الاتصال العصبي بين الخلايا بطرق طبيعية من الجسم مصمم لعملها بيدعمها اتباع نظام غذائي صحي وممارسة انشطة لتحفيز المخ علي تكوينها زي الرياضة ﴿ والعاب العقل والتركيز علي حفظ آيات قرآنيه بشكل منتظم لانها بتقوي من حدة المخ علي عملية التذكر. دمتم بخير ﴾

#mentalhealth #healthy #BrainAwarenessWeek #aging #healthyaging

...https://www.ninds.nih.gov/.../brain-basics-life-and-death







# FACEBOOK INTERACTION AS A POTENTIAL MARKER OF COGNITIVE DECLINE: Investigating the relationship between daily activity patterns and markers of cognitive decline

Mohamed Salama, PhD Neuroscientist, Egypt

Predicting cognitive decline is a critical step to manage dementia. Typically clinical, biochemical, or imaging data is used to develop such early predictive tools. However, Salama opted for a different approach: social media.

"We are using Facebook activities to build an artificial intelligence (AI) model that can predict the possibility

of cognitive impairment and advise seeking medical consultation," says Salama.

Tapping into a popular social media network presents a unique opportunity to collect a time

"Thinking differently was my main motivation to lead this project."

series of historical data, from which Salama can make predictions about future cognitive status. While it has been established that social interaction is essential for physical health and well-being, it is also costly for the individual, demanding mental and physical resources.

Coping with the fact that social life is moving virtual, Salama believes that changes in Facebook activities could reflect the earliest changes in cognitive functions. Using the data derived from recruited subjects, Salama developed a predictive model for cognitive impairment to identify at-risk patients and provide a pathway to early intervention. It is currently being validated

### 2022-23 PILOT AWARDS CYCLE

Alzheimer's disease physiopathology in a Brazilian psychiatric ward

(Brazil; Aguzzoli, Cristiano)

The Bloom Social Therapeutic

Horticultural Project for the elderly

(Nigeria; Akindejoye, Funmi)

Early identification of neurodegenerative dementias in psychiatry clinics

(Turkey; Ayhan, Yavuz)

Amplifying the voices of people with dementia and carers in South Africa

(South Africa; Chan, Melissa)

Increasing dementia awareness in Brazil through education

(Brazil: Cominetti, Marcia)

Validation of screening tools for detection of dementia in Mongolia

(Mongolia: Daria, Tselmen)

Nature art walks for people living with dementia and their care partners

(United States; Fallon, Gillian)

**Evaluation of the circadian rest-** activity rhythm in adults with

**DS** (Spain; Gimenez, Sandra)

Feasibility of use of a new cognitive battery for patients with stroke

(Spain; Gutierrez Zuniga, Raquel)

A brief cognitive assessment for the diverse Israeli Arab population (Israel: Hadad, Rafi)

Gendered racism & Black women's cognition: an intersectional investigation

(United States; Hill-Jarrett, Tanisha)

Modified Brief Cognitive Screening Battery-Indonesian Version (INA-SKRin)

(Indonesia: Irfani Fitri, Fasihah)

Blood-brain barrier in preclinical Alzheimer's disease: the missing piece (Spain; Lage, Carmen)

Dementia and the seventh art in South Africa: Producing an advocacy film

(South Africa; Modjadji, Paul)

Sex and gender equity in traumatic brain injury: Implications for dementia

(Canada; Mollayeva, Tatyana)

Knowledge, attitudes and practices on dementia in healers and physicians

(South Africa; Ngcobo, Khanyo)

Deployment of cognitive assessment tool for primary health care in Nigeria

(Nigeria; Ogbuagu, Chukwuanugo)

Mapping the space of dementia

(Ireland; O'Kelly, Mick)

Predicting brain health in individuals exposed to violence in Colombia (Colombia; Santamaria-Garcia. Hernando)

Preferences for Everyday Living Inventory-Korean (PELI-K)

(South Korea; Shin, So Young)

A deep learning tool for FTD and AD by automated facial expressions

(United States; Smith, Erin)

A new care model for the treatment of behavioral symptoms of dementia (Ethiopia; Yoseph, Selam)

Cultural adaptation and validation of Brain Health Assessment in Ethiopia (Ethiopia; Zewde, Yared)

Number of Pilots

>20

11-20

6-10

2-5

### **EMERGING LEADERS**

The Atlantic Fellows for Equity in Brain Health program at the Global Brain Health Institute - which includes artists, journalists, and entrepreneurs, as well as neuroscientists, neurologists, and psychologists—takes an inter-professional approach to disrupt conventional thinking about aging and dementia. Fellows nurture and learn from each other in a unique bi-directional thought exchange, fostering innovative interventions.

The experience and knowledge around dementia prevention, care, and treatment varies greatly around the world, with regions facing the greatest increases in incidence of dementia also having the fewest resources to address it. The Atlantic Fellows program at GBHI strives to tackle these issues by training, mentoring, and supporting emerging global leaders across multiple disciplines to create a sustained and resourced momentum for equitable change and action on dementia.

### JOIN A GLOBAL COMMUNITY

Join a diverse community of over 200 Atlantic Fellows from nearly 50 countries dedicated to protecting the world's aging populations from threats to brain health. To learn more, visit www.gbhi.org/apply.



If you are interested in finding out more about the Pilot Awards for Global Brain Health Leaders or how to get involved as a supporter, please contact <a href="mailto:pilots.projects@gbhi.org">pilots.projects@gbhi.org</a>. You can also learn more at <a href="mailto:www.gbhi.org/pilots">www.gbhi.org/pilots</a>.

### Global Brain Health Institute

The Global Brain Health Institute is a leader in the global community dedicated to protecting the world's aging populations from threats to brain health.

gbhi.org

### Alzheimer's Association

The Alzheimer's Association leads the way to end Alzheimer's and all other dementia — by accelerating global research, driving risk reduction and early detection, and maximizing quality care and support.

alz.org

### **Alzheimer's Society (UK)**

Alzheimer's Society is the UK's leading dementia charity. Campaigning for change, funding research to find a cure and supporting people living with dementia today.

alzheimers.org.uk