

# Innovation in Alzheimer's Treatment:

## Early Detection and Diagnosis Will Empower Global Health Care Systems

Every 3 seconds, a new case of dementia occurs somewhere in the world. But all too often, it's not detected or diagnosed soon enough. Our ability to detect dementia prior to the onset of symptoms is central to the efficacy of emerging treatment and prevention strategies. Advances in science and imaging technology are allowing us to visualize and evaluate the living brain, granting clinicians a twenty-year "head start" in treating dementia.

Early detection and diagnosis of Alzheimer's, dementia, and cognitive impairment will unlock the opportunity for countries to make national commitments and preparations that will improve and safeguard the brain health of today's populations and tomorrow's ageing populations, result in significant cost savings for health systems, and prepare those systems for the time when treatments become available.

Right now, 25 Phase Three drugs exist that could reach the market in the next five years. But many of these new drugs are most appropriate for patients with early-stage dementia, making early detection critical for effective treatment. Early detection and diagnosis also unlocks the opportunity for patients to participate in clinical trials where innovative treatments are provided at no charge and enables health systems, governments, families, and communities to meet the needs of the rising tide of people living with dementia.

**Most importantly, early detection and diagnosis will improve the quality of life for people living with dementia, their families, and caregivers.**

*Improving Detection and Diagnosis of Alzheimer's Disease and Related Dementias: An Urgent Call to Action for Health Care Systems Worldwide* is the first in a series of white papers from the Global CEO Initiative on Alzheimer's Disease to address the current and future needs of global health systems to address Alzheimer's disease and dementia.

## Alzheimer's and Related Dementias: The Growing, Global Impact

Our health systems, governments, families, and communities are ill-equipped to care for aging populations and a continuously rising tide of people living with dementia.

Dementia has no survivors. The average Alzheimer's patient will only live for six to eight years after the onset of their symptoms. The most critical factor in determining a person's dementia risk is age. We must prepare our health systems for the realities of aging populations and longer life expectancies—in countries across the world. Global advances in fighting the disease must include the collection of more and better data from diverse geographies and contexts.

**50 million.** People worldwide live with dementia.

**Every 3.2 seconds.** A new case of dementia occurs somewhere in the world.

**89 percent.** Increase in Alzheimer's disease deaths between 2000 to 2014.

*Deaths from stroke and heart disease have decreased by 21 percent and 14 percent respectively.*

**\$818 billion.** The estimated worldwide cost of dementia, up 35 percent since 2010.

**63 percent.** Of people with dementia will live in low- or middle-income countries by 2030.

## KEY RECOMMENDATIONS

The Global CEO Initiative on Alzheimer's Disease provide six key recommendations that represent a roadmap to inform global policy conversations and actions on dementia management, including:

Further include goals and activities related to Alzheimer's disease and dementia within national plans

Educate primary care providers on appropriate dementia detection and follow-up actions

Improve public awareness of dementia

Boost the public's perception of the importance of caregivers and enhance mechanisms for caregiver support

Incentivize the introduction of innovative prevention, diagnosis, and treatment modalities

Emphasize the collection and analysis of comprehensive data on Alzheimer's disease, dementia, and its common comorbidities

## Progress & Opportunities: Mounting a Global Response

Early detection is the key to unlocking an effective treatment for dementia. Progress in research and drug development, coupled with our growing ability to detect cognitive decline and mitigate the risk that it progresses to dementia, will result in better outcomes for patients.

### *The Global Policy Community Grapples with Dementia's "Inconvenient Truth"*

- Dementia research, awareness, and care have benefited from increased focus and investments over the course of the past ten years.
- Alzheimer's disease investments by the National Institutes of Health in the United States have more than quadrupled in the past four years.

Underdiagnosis remains common. Dementia patients continue to be subject to care pathways that are inefficient or suboptimal with a risky over-reliance on informal care, especially in developing countries. Opportunities for improvement begin with optimizing the detection and diagnosis of dementia at a patient's first point-of-care and potentially employing widely-available mobile technologies to extend health system reach.

### *The Growing Care Gap and Potential Solutions*

- A coordinated approach has been proven to decrease the unnecessary use of medical services, delay institutionalization, decrease the cost-of-care burden for hospitals and payers, and, most importantly, improve quality of life for people living with dementia, their families, and caregivers.
- The World Health Organization's Global Action Plan on the Public Health Response to Dementia 2017-2025 recommends increased dementia-related task-shifting from specialists to primary care providers and other health care professionals.

Building an adequate pipeline of health care providers to meet these capacity challenges will be critical to strengthening health care infrastructure in the face of a growing population of people affected by dementia, an imperative that has informed the WHO's recommendation to increasingly shift responsibility for dementia diagnosis and management to primary health care settings.

Globally, three-quarters of all Alzheimer's cases go undiagnosed.

A 2017 study by the RAND Corporation determined that health care systems in the United States are unprepared to deliver Alzheimer's disease treatment.

25 Phase Three drugs could reach the market in the next five years.

## Improved Prevention, Detection, and Diagnosis: The Starting Point for Changing the Impact of Dementia

Early detection and diagnosis facilitates the development of a non-medical treatment plan and a long-term care plan, mitigates dementia-associated risks, opens the opportunity to participate in clinical trials, and provides people affected by dementia with the tools and lifestyle practices associated with slowing the progression of the disease.

New research has demonstrated that lifestyle changes, management of risk factors, and other medical care strategies may be able to defer or prevent the development of dementia symptoms.

### *Prevention is Power*

- Emerging research suggests that diet, exercise, and engaging in activities such as reading and navigating new environments may stave off dementia.
- 35 percent of dementia cases might, by one estimate, be prevented by modifying nine risk factors: low education, midlife hearing loss, obesity and hypertension, late-life depression, smoking, physical inactivity, diabetes, and social isolation.

### *Why Early Diagnosis Matters*

- Early diagnosis can guard against a patient's declining ability to manage their disease by alerting caregivers to the need for increased support.
- Early diagnosis of dementia can result in significant savings for health systems through smaller "spikes" in health care costs immediately prior to and after a diagnosis, and lower medical and long-term care costs associated with people with diagnosed and managed dementia versus people with unmanaged dementia.

## Improving Detection and Diagnosis— Reaching the Sustainable Development Goals (SDG)

The effective management of dementia is the prerequisite for the effective management of other non-communicable diseases in people living with dementia—in line with the targets established in the **World Health Organization's Sustainable Development Goals (SDGs)**.

Given the sheer costs associated with dementia care, adequately and efficiently addressing the future care needs of people living with dementia will be a critical component in meeting 2030 goals around the provision of universal health coverage and the provision of health services without risking financial hardship.

## About The Global CEO Initiative on Alzheimer's Disease

The Global CEO Initiative on Alzheimer's Disease (CEOi) is an organization of private-sector leaders who have joined together to provide business leadership in the fight against Alzheimer's. CEOi believes that, during this era of aging populations, it will take visionary, coordinated, goal-oriented leadership of public and private leaders working together to solve our greatest challenges. It is convened by UsAgainstAlzheimer's, a US-based patient-led non-governmental organization.