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# Alzheimer's Global Challenge Ecosystem

*Teaser, 2024 Q1*

[www.philanthropy.international/alzheimers](http://www.philanthropy.international/alzheimers)

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## Introduction

The recently released report titled "**Alzheimer's Global Challenge Ecosystem**" by Longevity Industry Analytics and Deep Knowledge Group meticulously dissects the intricate landscape of Alzheimer's. The report not only scrutinizes the global ramifications of Alzheimer's as a pervasive health challenge but also investigates its **interconnection** with other conditions such as **Autism and Lyme Disease**. It presents the latest scientific discoveries, epidemiological data, and their implications for public health.

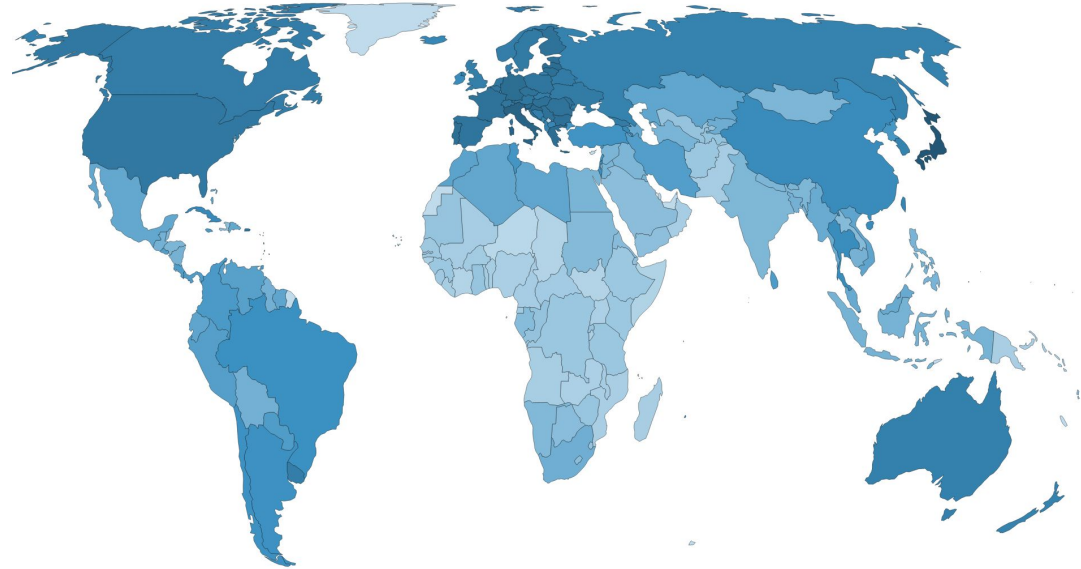
Comprehensively addressing **the Alzheimer's Global Challenge Ecosystem, the report outlines key stakeholders, collaborative initiatives, and emerging market trends**. By delving into the challenges and opportunities inherent in Alzheimer's diagnostics and treatment, it offers foresight into future regulatory considerations. The report further delves into the involvement of notable figures, governmental initiatives, and the imperative for collaborative endeavors, all pivotal components of this in-depth analysis.

## Executive Summary

**Alzheimer's** stands as the predominant form of dementia, characterized by a progressive trajectory commencing with subtle memory lapses and potentially evolving into an incapacity to engage in conversations and respond to the surroundings. **This neurodegenerative condition affects regions of the brain governing thought, memory, and language**, significantly impacting an individual's capacity to perform routine daily activities.

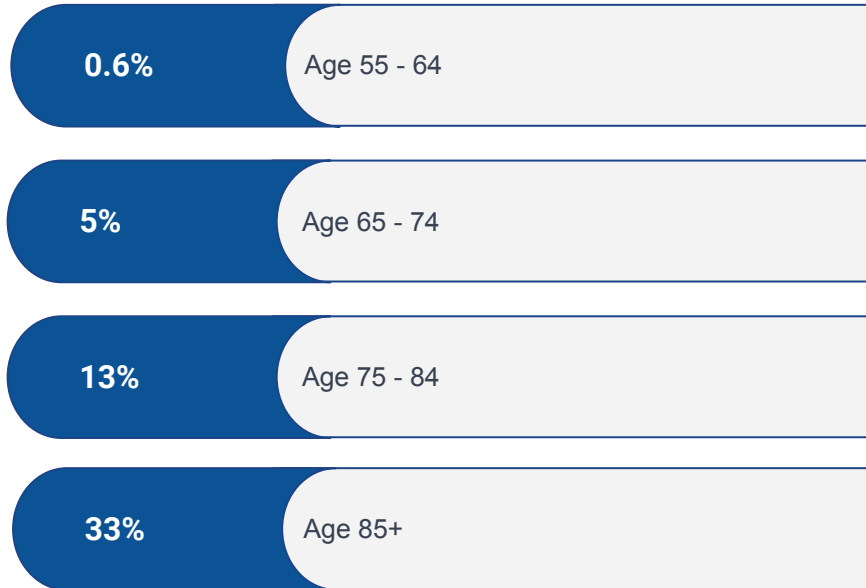
While Alzheimer's disease can affect younger individuals, it is relatively less prevalent. **The incidence of the disease doubles every five years beyond the age of 65, with projections indicating a nearly threefold increase to 14 million people by the year 2060.** Initial symptoms may manifest after the age of 60, and the likelihood of developing the disease escalates with advancing age. Understanding the intricate factors influencing Alzheimer's prevalence is crucial in formulating effective strategies for prevention, diagnosis, and management. One notable hypothesis links a substantial part of the increase in Alzheimer's prevalence to the **ongoing Lyme Disease Global Pandemic.**

## Prevalence of Alzheimer's Disease



# Link Between Lyme and Alzheimer

## Understanding Age-Specific Groups Impact



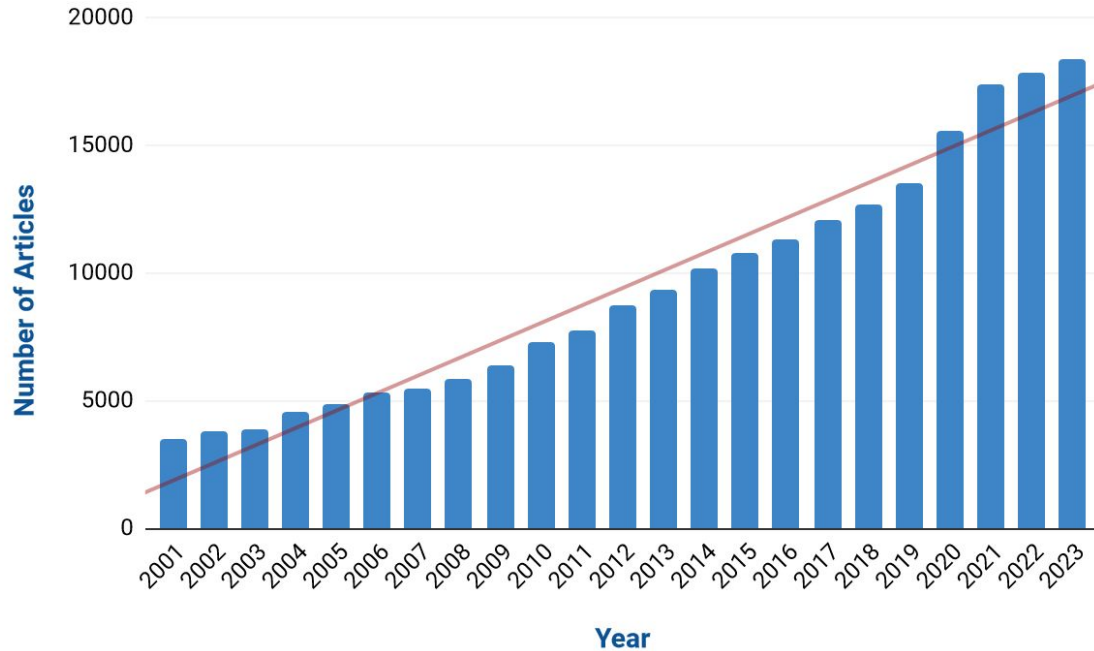
**Alzheimer's Disease is not a natural aspect of the aging process.** Memory issues generally serve as an initial indication of Alzheimer's disease and other forms of dementia.

There is **increasing scientific evidence establishing a direct link between Alzheimer's Disease and Lyme Disease.** Alzheimer's disease can be caused by a variety of factors and is characterized as a neurodegenerative disease associated with the accumulation of beta-amyloid plaques and tau tangles in the brain, while Lyme Disease is caused by the bacterium *Borrelia burgdorferi* and is transmitted through tick bites.

Some studies have examined potential links between infections and neurodegenerative diseases, including Alzheimer's disease, research **linking Lyme Disease specifically to Alzheimer's** is becoming increasingly compelling. It is critical to note that scientific understanding is evolving and new research findings are emerging.

# The Global Impact of Alzheimer's Disease on Public Health

Number of articles on Alzheimer Disease, 2000-2023, Pubmed database



The global prevalence of **Alzheimer's among adults aged 40 years and older is projected to nearly triple**, rising from approximately **58 million in 2023 to 153 million by 2050**. This significant increase is primarily attributed to both population growth and the aging of populations. This growing prevalence already now is reflected in the escalation of related PubMed articles over the years, signaling increased research attention. Alzheimer's complex presentations strain healthcare systems globally. **Connections** between Alzheimer and conditions like **Lyme Disease** and **Autism Disorder** further intensify the challenge, demanding collaborative efforts for effective prevention and management strategies.

## Key Global Findings



**1 of 9**

Adults beyond age 65 is diagnosed with Alzheimer's



**Lyme Disease**

can be responsible for a significant part of Alzheimer's



**Healthcare burden**

A range of physical and mental-health conditions frequently accompany Alzheimer's



**>60 million people**

In 2023 have Alzheimer's



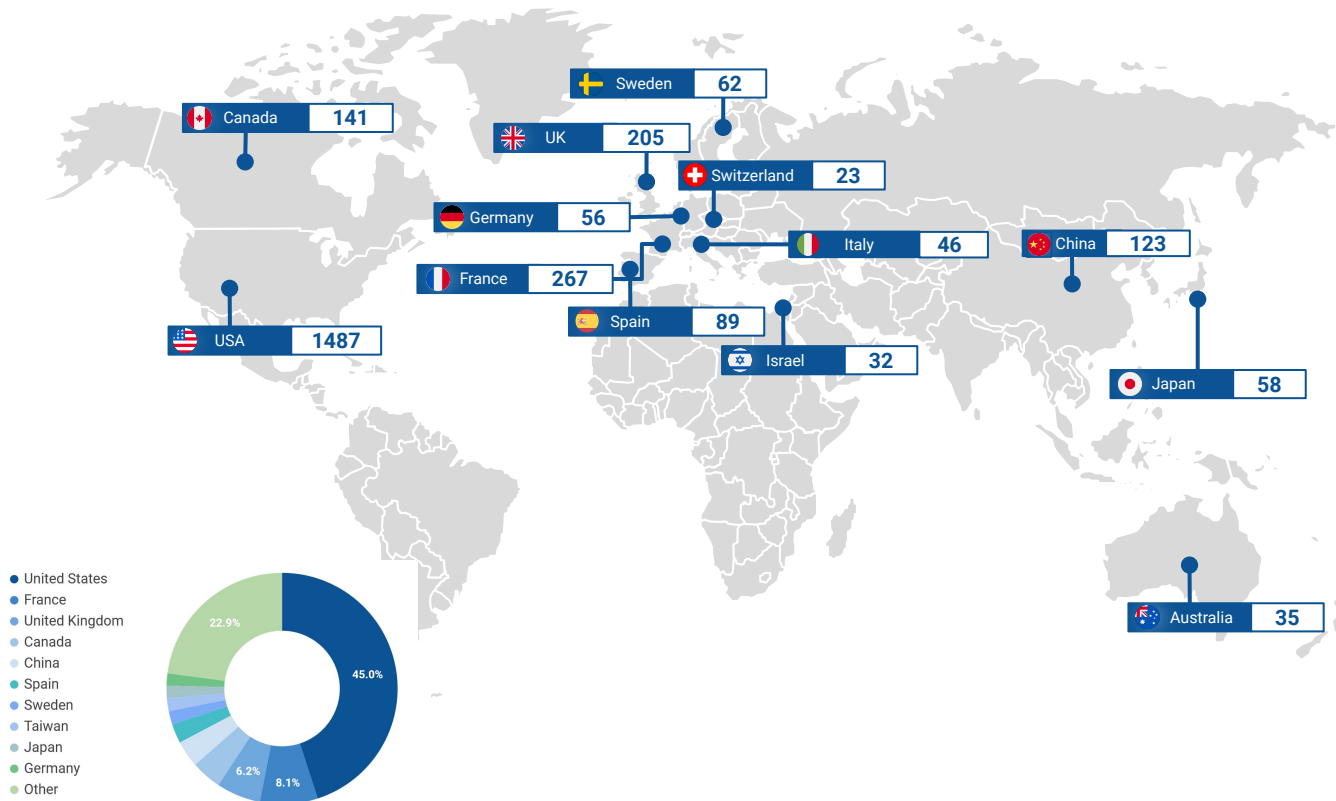
**> US\$ 340 billion**

Alzheimer's medical, nonmedical and productivity losses only for US

By 2023, the global population has surpassed 8.14 billion. It's estimated that between 1,5 % of this populace—over 60 million individuals—are affected by Alzheimer's Disease, with figures varying based on precise clinical definitions. The economic impact in the US alone is substantial, surpassing US\$ 430 billion due to Alzheimer's medical, nonmedical, and productivity losses.

# Geography of Clinical Trials, 2023

## Countries by Number of Clinical Trials for Alzheimer's Disease



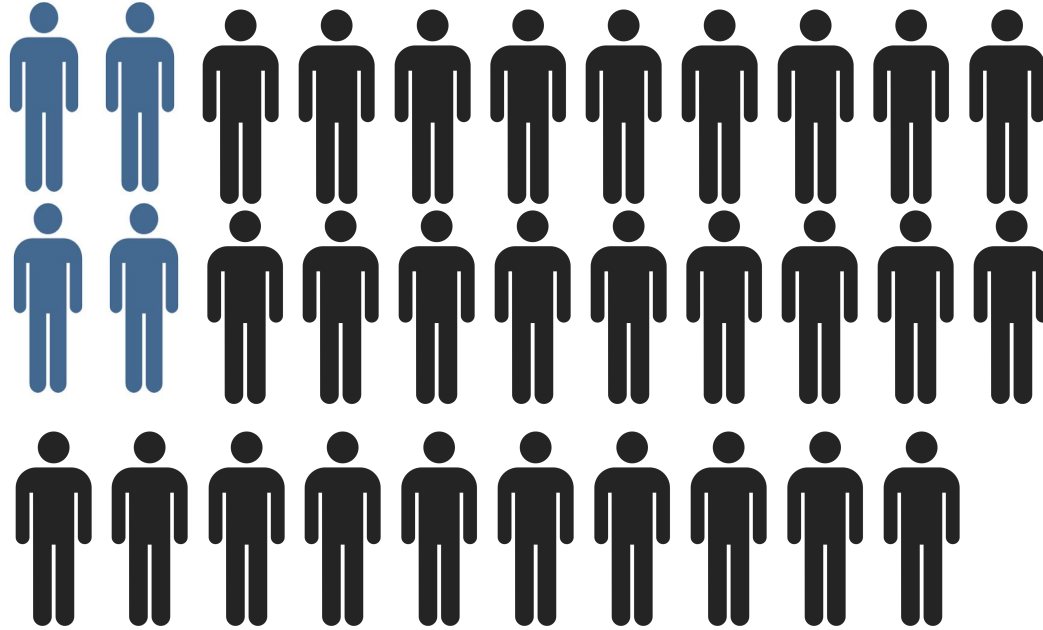
**3305** clinical trials were conducted on Alzheimer's Disease in the world.

**US** is the biggest research hub for Alzheimer's research, having started **45%** of clinical trials.

More than **8%** of clinical trials are launched in France, **6%** in UK, **~4%** in Canada and China. Together, European countries make more than **27%** of clinical trials.

In total, **more than 50 countries** have participated in Alzheimer's Disease clinical trials.

## Billionaires affected by Alzheimer's Disease



> 100

*Billionaires are Affected  
by Alzheimer's Disease*

Over **100 billionaires** are affected by Alzheimer's Disease, and most of them had a relative affected by Alzheimer's. This significant statistic underscores the far-reaching impact of the disease across diverse demographics, fueling optimism that substantial investments can be attracted for well-crafted initiatives showing promising outcomes in this field.



# Involvement of Celebrities in Alzheimer's Awareness



**Ashley Campbell**



**Bern Nadette Stanis**



**Bette Midler**



**Bill Gates**



**David Hyde Pierce**



**Frances Fisher**



**Hector Elizondo**



**Kathy Mattea**



**Lauren Miller Rogen**



**Leeza Gibbons**



**Lisa Genova**



**Lori La Bey**



**Maria Shriver**



**Meryl Comer**



**Fiona Phillips**



**Richard Lui**



**Sarah Rafferty**



**Ronald C. Petersen**



**Rudy Tanzi**



**David Amen**



**Seth Rogen**



**John Hardy**



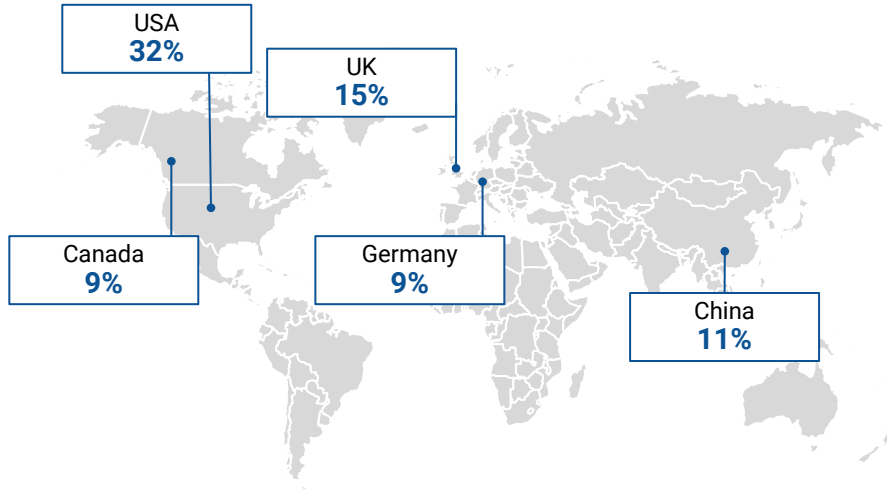
**Judy Woodruff**



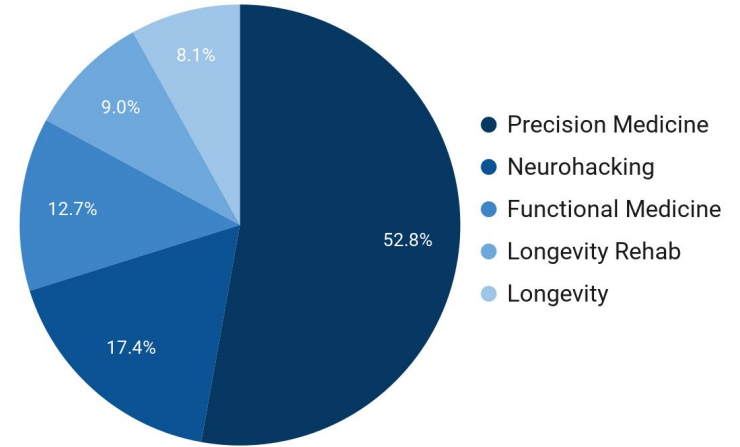
**Kimiko Matsuda-Lawrence**

# Market at a Glance: Alzheimer's Clinics

Distribution of Clinics by Country, %



Distribution of top 400 Alzheimer's Clinics by Type, %



The Global Alzheimer's Disease Diagnostic, Treatment, and Prevention Market is segmented here based on countries and categories.

The **majority** of the best clinics that offer services against ASD are located in the **USA** and the **UK**, the home of **32%** and **15%** of the whole range of companies analysed in the report. The USA is distantly followed by the China with **11%**, Canada with **9%**, and other countries, which together host remaining **24%** of the world's best Alzheimer's clinics.

# Alzheimer's Industry Framework

## Treatment

Alzheimer's Treatment	Gene and Cell Therapy
Small Molecules	Drug Delivery Systems
Supplements	Formulations (drugs)
Probiotics	Natural Products

## Clinics

Alzheimer's Screening and Management	Clinical Trials Management
Nursing	Rehabilitation
Patient Monitoring and Management	EHR
Residential, Home and Elder Care	Assisted living

## MedTech

Medical Supplies and Equipment, Raw Material	Devices (diagnostics, therapy)
Medical Suppliers	Diagnostics, Tests and Labs
E-Pharmacy	Medical Devices (Artificial Organs)
Imaging	Organ Engineering

Biologics (RNA, vaccines, AB)

Genomics and Genetics

AI for Drug Discovery

CRO

AI for Diagnostics (Omics, Imaging)

Physiological, Systemic and Digital Biomarkers

## Scientific innovation

Insurance

Contract Manufacturing

Clinical Data Storage and Management

Education platforms

Media

Non-Profits

## Civil services

Early Screening

Healthy Lifestyle

Genetic Testing

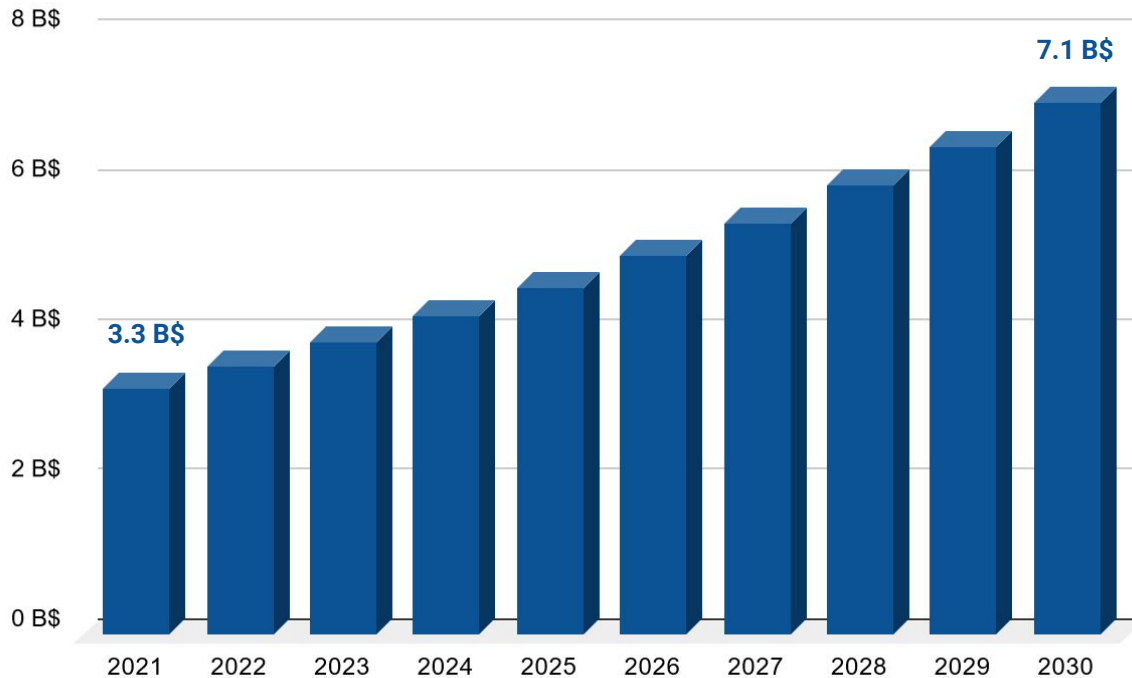
Support Services

Timely Treatment of Lyme Disease

Community Inclusion

## Prevention and Care

## Alzheimer's Diagnostic Market Size



The Compound Annual Growth Rate (CAGR) for this period is **~8.9%**. The growth in this sector is driven by various factors, such as increased awareness and reporting of Alzheimer's Disease cases, advancements in diagnostic technologies, and continuous investment in research and development to create more accurate and efficient tools for detecting Alzheimer's.

The market is projected to expand steadily **from USD 3.3 Billion in 2021 to USD 7.1 Billion in 2030**, emphasizing the increasing demand for advanced diagnostic instruments for the early detection and enhanced management of Alzheimer's Disease.

# Advanced Treatments for Alzheimer's Disease

## IHH Treatment



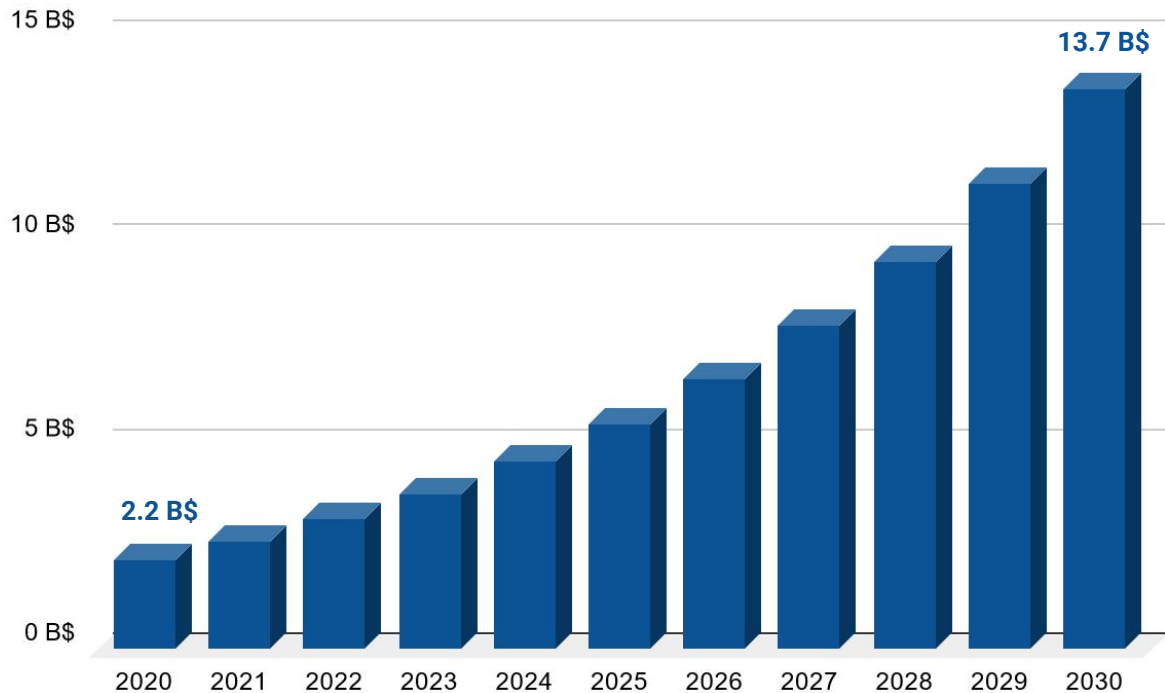
Currently, the prevailing strategy for managing **Alzheimer's Disease** includes preventive measures such as adopting a **healthy lifestyle, cognitive enhancement, utilization of modern drugs, behavioral therapies, and early interventions**, particularly effective during the initial stages of the condition. Alongside these interventions, **intermittent hypoxic-hyperoxic treatment** and **hyperbaric chambers** are emerging as potential complementary therapies. Recognized for their positive effects on chronic diseases and the aging process, these treatments show promise in boosting immunity and enhancing overall health.

## Brain Imaging



**Artificial intelligence models** analyze speech patterns and brain imaging data, enabling early detection and prediction of Alzheimer's onset. Neurostimulation techniques, including deep brain stimulation, are being explored to address cognitive decline. Immunotherapies target underlying disease mechanisms, aiming to slow down or halt progression. **Personalized treatment plans**, informed by genetic and biomarker data, are becoming more common, allowing for tailored approaches that consider the unique characteristics of each patient's condition. As research advances, a multidisciplinary approach incorporating technology, genomics, and novel therapeutics holds the promise of revolutionizing Alzheimer's care.

## Alzheimer's Disease Treatment Market Size



The global Alzheimer's Disease treatment market is expected to witness a rapid growth, rising from **USD 2.2 Billion in 2020** to **USD 13.7 Billion in 2030**, representing a staggering Compound Annual Growth Rate (CAGR) of approximately **20%**.

Progress in healthcare, fueled by increased investments from major corporations and government institutions, highlights the growing importance of refined treatment approaches and accurate diagnostics in addressing the complexities of Alzheimer's Disease. The emphasis on early intervention and comprehensive care is transforming the landscape of Alzheimer's management.

## Conclusions

- **Dementia is the seventh leading cause of death in the world.** The **predominant demographic affected by Alzheimer's** dementia comprises **individuals aged 65 or older**, a phenomenon commonly referred to as late-onset Alzheimer's. Experts posit that **Alzheimer's**, akin to other prevalent chronic diseases, **emerges due to a confluence of multiple factors rather than a singular cause.** It's worth noting that exceptions exist, primarily in rare instances where specific genetic mutations are linked to the development of Alzheimer's.
- The **most significant risk factors** for late-onset Alzheimer's encompass **advanced age, genetics, with a notable emphasis on the e4 form of the apolipoprotein E (APOE) gene, and the presence of a family history of Alzheimer's.**
- Extensive **research indicates that individuals with more formal education face a lower risk of Alzheimer's and other dementias than those with fewer years of education.** Previous studies lacked advanced technologies like PET imaging to examine Alzheimer's biomarkers. Recent research, leveraging these technologies, suggests that formal education may not directly reduce Alzheimer's risk but could help sustain cognitive function, delaying symptom development. **Some researchers propose that more education contributes to building a "cognitive reserve."**
- **Maintaining both social and mental activity throughout life could bolster brain health and potentially mitigate the risk of Alzheimer's and other dementias.** However, additional research is essential to comprehensively grasp the mechanisms connecting social and cognitive engagement to dementia risk, including identifying specific activities that offer the most significant benefits.

## Conclusions

- Alzheimer's Disease presents intricate challenges to public health, necessitating proactive measures. Collaborative efforts from healthcare professionals, policymakers, and the community are imperative. Elevating awareness, advancing research, and actively embracing cutting-edge **treatment methods such as Intermittent hypoxic-hyperoxic treatment and Cell therapy** are crucial steps to mitigate the impact of the rising prevalence of Alzheimer's Disease on global health. Investigating potential links between the increasing prevalence of Lyme disease and the growing incidence of Alzheimer's demands thorough research and heightened awareness.
- Within the Alzheimer's landscape, we confront complexities mirroring the dynamic healthcare terrain. In contrast to markets dominated by well-defined monopolies, **Alzheimer's Disease involves a diverse array of stakeholders, ranging from pharmaceutical companies and diagnostic innovators to treatment specialists.**
- Navigating the intricacies of Alzheimer's Disease involves exploring **potential connections to persistent inflammation, atrophy of brain tissues and associations with age-related conditions**, with a steadfast emphasis on promoting innovation and research. Unlike sectors marked by concentrated control, the Alzheimer's landscape encourages a diverse array of contributors in diagnostics, treatments, and preventive approach.
- In the Alzheimer's market, the combined endeavors of diverse contributors—including pharmaceutical firms, researchers, and healthcare providers—serve as the propelling force. This collaborative approach is essential to addressing the multifaceted challenges posed by Alzheimer's Disease and fostering advancements that will benefit individuals affected by this complex condition.



# Longevity Industry Analytics: Value Proposition

Visit Website



Longevity Industry Analytics is the only specialised analytics agency that focuses exclusively on the emerging Longevity Industry. We are recognised internationally as the premier analytics agency for advanced data analysis, industry reports, and next-generation infographics on ageing and Longevity.

## Longevity Industry Analytics focuses on three key activities:

### Providing Commercial Services

Conducting customised case studies, research, and analytics for (organisational) use, tailored to the precise needs of specific clients.

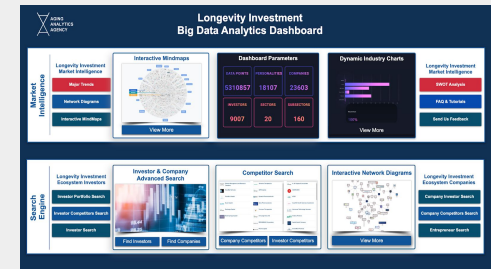
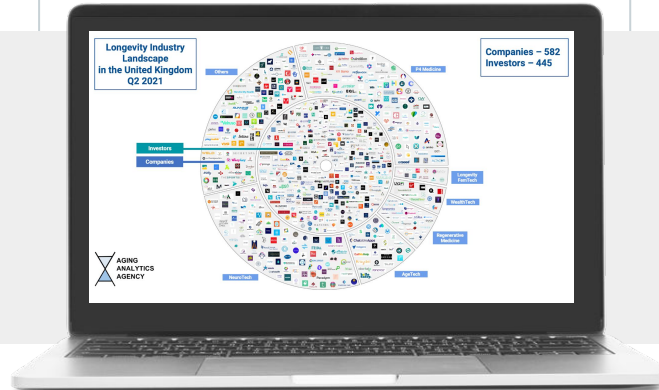
### Preparing Open-Access Reports

Producing regular open-access and proprietary analytical case studies on the emerging topics and trends in the Longevity Industry.

### Building Big Data Analytics Platforms

Offering customised analysis using specialised interactive industry and technology databases, IT-platforms, and Big Data Analytics Dashboards.

Global Medical Clinics  
Industry Big Analytical System  
Framework  
November, 2023  
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