

# **Who's Care**

## **A Comprehensive Analysis of Opportunities and Challenges in Alzheimer's Disease**

### **Global and Local Perspectives**

Alzheimer's disease is not merely a medical challenge, it is a profound human issue that touches the lives of millions of families worldwide. This report seeks to understand the complex reality of caring for Alzheimer's patients by exploring the challenges faced by patients and caregivers, and searching for innovative solutions that can genuinely improve quality of life for everyone involved.

This research focuses on the early to moderate stages of Alzheimer's disease, where appropriate interventions can make a real difference in the lives of patients and their loved ones. We believe that human-centered design is the key to finding effective and sustainable solutions.

### **Research Objectives**

#### **1. Analysis of Current Situation**

Understanding the current challenges faced by Alzheimer's patients and their caregivers in different environments (home, community, medical centers) at both global and local levels, with special focus on Egypt and the Arab world.

#### **2. Evaluation of Existing Solutions**

Conducting a critical review of currently available digital technologies and solutions, measuring their effectiveness in supporting Alzheimer's patient care from a scientific and logical perspective.

#### **3. Identifying Opportunities and Gaps**

Revealing areas that need improvement and new opportunities for developing better services, with special attention to the cultural and social context in the Arab region.

## **Key Findings and Insights**

### **1. Undeniable Facts**

#### **Economic and Social Burdens Alarming Global Statistics**

The numbers speak clearly about the magnitude of the challenge we face. In 2024 alone, unpaid caregivers provided more than 19 billion hours of work, representing an economic contribution estimated at over \$413 million USD<sup>12</sup>. These figures reflect not only invaluable love and sacrifice but also reveal the urgent need for support. Future projections indicate that disease prevalence rates will double by 2060 compared to 2014, confirming the importance of preparing for this growing challenge<sup>3</sup>.

#### **The Situation in the Arab World Requires Innovative Solutions**

In our Arab region, dementia prevalence rates range from 1.3% for individuals over 50 years old to 13.5% for those over 80 years old<sup>4</sup>. These numbers carry human stories that deserve our attention and support.

Specifically in Egypt, Alzheimer's prevalence reached 2.9% among the population over 50 years old<sup>5</sup>, highlighting the urgent need to develop comprehensive strategies for early detection and support.

What characterizes the Arab region is the significant reliance on traditional family care, as evident in countries like Egypt, Algeria, and Morocco<sup>6</sup>, where informal care costs rise noticeably.

### **2. Silent Heroes Need Support**

#### **The Global Burden on Caregivers**

Research reveals a painful reality: 69% of caregivers experience moderate to severe fatigue<sup>7</sup>. These silent heroes face daily challenges in navigating complex healthcare systems, increasing their psychological and physical pressures<sup>8</sup>.

#### **Additional Pressures in the Arab Context**

In our region, 30% of family caregivers suffer from moderate to severe fatigue, while 43% face anxiety<sup>9</sup>. These percentages reflect the deep impact of providing care on mental health, especially in Egypt, where a clear relationship was found between providing care and mental health deterioration<sup>10</sup>.

The challenges in the Arab region have a special character, including financial pressures and social burden (which often falls on women's shoulders), in addition to lack of government support and limited knowledge about the nature of the disease<sup>11</sup>.

### **3. Real Challenges and Promise**

#### **Navigating the Gap Between Technological Potential and Real World Adoption**

Despite the availability of many assistive technological devices and applications, their actual use remains limited. The main reason is the difficulty of involving patients themselves in the design and development process<sup>12'13</sup>.

#### **Inspiring Mobile Health Success Stories**

Mobile health applications (mHealth) have shown encouraging results in improving quality of life for non-specialist caregivers<sup>14</sup>.

This success opens the field for major investments in developing these technologies.

#### **The Importance of Human-Centered Design**

Real success lies in adopting the Human-Centered Design (HCD) methodology and design thinking to ensure solutions are responsive to real needs and sustainable<sup>15</sup>.

### **Final Conclusions and Recommendations**

#### **1. Comprehensive Understanding of the Challenge**

Through this research, we reach a deeper understanding of the nature of challenges facing the Alzheimer's care community.

These challenges are not merely statistical numbers but real human stories that require urgent, studied, and effective intervention.

#### **2. The Need for an Integrated Approach**

The results confirm that facing Alzheimer's care challenges requires a multi-dimensional approach that includes :

- **Psychological and Social Support**

Providing comprehensive support programs for caregivers and patients.

- **Assistive Technologies**

Developing user-friendly technical solutions designed with care.

- **Education and Awareness**

Raising awareness levels about the disease nature and methods of dealing with it.

- **Supportive Policies**

Establishing government policies that support patients and caregivers.

### **3. Opportunities in the Arab Context**

The Arab region needs solutions that consider the local cultural and social context.

The strength of family bonds in our communities can be a starting point for developing innovative care models that combine modernity with authenticity.

### **4. Immediate Intervention Priorities**

Based on the results, we identify the following priorities:

- Developing specialized psychological support programs for caregivers in the Arab region.
- Creating easy-to-use digital platforms that provide support and information in Arabic.
- Training specialized teams in Alzheimer's patient care considering cultural specificities.
- Developing sustainable economic models for financing care services.
- Conducting local research to understand the specific needs of each community.

### **5. Towards a More Humane Future**

This research confirms that confronting the Alzheimer's challenge requires more than just medical or technical solutions.

We need to redefine the concept of care to place humans at the center, considering their dignity and comprehensive needs.

The future holds tremendous possibilities if the efforts of researchers, developers, policy makers, and caregivers unite.

Together, we can create a world that is more supportive, understanding, and caring for Alzheimer's patients and their loved ones, and the community as a whole.

## 6. Call to Action

This report is not the end of the journey, but the beginning of a long journey towards improving the lives of millions of people.

Caring for Alzheimer's patients is a community responsibility that requires collaborative efforts, and we invite all interested specialists to participate in this collective effort.

## Research Methodology

**Sources:** 15 academic and professional references.

**Geographic Focus:** Global perspective with emphasis on Egypt and Arab world.

**Target Population:** Alzheimer's patients (early to moderate stages) and their caregivers.

**Research Approach:** Mixed methods combining quantitative data analysis and qualitative insights.

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