ECONOMIST IMPACT

Changing the narrative: Alzheimer's disease in Saudi Arabia

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Introduction

This policy brief outlines the current state of Alzheimer's care in Saudi Arabia, based on desk research and expert interviews. Alzheimer's disease (AD) is a neurodegenerative and progressive chronic condition that weakens cognitive abilities, resulting in a loss of autonomy and functionality.[1] AD is the most common form of dementia, with around 130,000 people living with the condition in Saudi Arabia.[2,3]

Owing to recent advancements in science and medicine, people living with AD can now experience improved quality of life through better symptom management and slower disease progression.[4] However, according to in-country experts we spoke to, **many people with symptoms face delays in diagnosis or remain undiagnosed**.

By 2050 the number of people living with dementia worldwide is expected to increase by nearly 900%, exacerbating the impact on healthcare systems, families and societies.[5,6] The projected rise in cases, along with an ageing global population, highlights the **urgent need for targeted policies and actions to tackle this growing public health challenge**.

Saudi Arabia has begun undertaking several strategic initiatives to address the needs of its ageing population as part of the government's comprehensive reform plan, Vision 2030.[7] These include developing a National Health Strategy for the Elderly, programmes to advance healthcare research, strengthening healthcare financing and delivery, and pursuing universal health coverage.[8,9,10] Through broader programmes for improvement and investment in the healthcare ecosystem, the country can achieve indirect benefits for AD. However, **real progress in improving the lives of people with AD, and their families and caregivers, will require a national plan for AD to yield strategic direction, focus and resources**.

"Elderly mental health and dementia are one of the primary goals of Vision 2030 to improve life expectancy. It is a national priority for the healthcare sector."

Walid Ahmad Alkeridy, Geriatric medicine consultant, Associate Professor, King Saud University

> **"We need to focus on improving awareness among the population, improving the awareness among the healthcare providers about the disease, and investing in building a national registry to document and track the number of patients suffering from this debilitating health condition."**
>
> **Yazeed Alruthia,** Professor of Health Policy and Economics, King Saud University

Areas of focus for policymakers in Saudi Arabia

- **Implement a national AD policy to standardise and unify action**—The Ministry of Health should lead on creating and implementing a national AD policy to identify and address the unmet needs of people with AD, their families and caregivers, engaging relevant stakeholders across and outside of government—such as the Saudi Alzheimer's Disease Association—throughout.
- **Create a data registry to guide policymaking**—Data are needed for evidence-based policy. The health ministry should develop a national AD registry to underpin a national AD policy, inform resource allocation and monitor and evaluate policy impact. The National Health Information Centre already runs a number of disease registries—it could provide support through sharing knowledge and information architecture.
- **Increase and upskill AD healthcare providers**—As a short-term solution, the Saudi Commission for Health Specialties (SCFHS) could collaborate with healthcare providers and universities to train primary care staff to better detect, diagnose and manage AD. In the longer term, the health ministry could partner with the SCFHS, the Ministry of Human Resources and Social Development, and healthcare providers across the public and private sector to address the shortage of healthcare professionals either with specialism or knowledge of AD.
- **Leverage Vision 2030 reforms to improve access for people with AD**—Vision 2030 is working towards universal health coverage. AD health professionals and groups such as the Saudi Alzheimer's Association and the Saudi Geriatrics Society can capitalise on this broader momentum to raise awareness of access issues for diagnostic services and holistic AD care.

Current snapshot

This table provides an overview of Saudi Arabia's AD policy landscape, identifying key areas for improvement. The existence of a policy does not guarantee effective implementation.

Yes Partly No

National AD plan

Saudi Arabia does not have a national plan to address AD.

AD awareness campaigns

Awareness of AD among the public and primary care staff remains low, while stigma and misconceptions persist.[11,12] There have been efforts to raise awareness—the Saudi Alzheimer's Disease Association (SADA) launched a campaign for World Alzheimer's Month 2024 in which over 300 organisations across Saudi Arabia participated in online lectures, workshops and art exhibitions to raise the profile of the disease.[13]

Clinical guidelines

The Ministry of Health has published guidelines on the Prevention of Cognitive Impairment (2023) and the Management of Behavioural and Psychological Symptoms of Dementia (2021).[14,15]

Patient support & advocacy

Organisations like SADA provide patient support through helplines and partnerships with universities and the health ministry to offer educational events and training to raise AD awareness.[16] There is still room for growth, especially when establishing structured patient-centric events that actively integrate individuals with AD into society and can be relied on by caregivers in the long term.

Healthcare workforce & training

Saudi Arabia has a shortage of doctors compared to similar countries. This is particularly acute in terms of AD specialists (according to experts) and in rural areas.[17,18]

Research & development

Saudi Arabia has a well-funded research infrastructure across universities, the private sector and government.[19,20,21] However, experts report that funding for AD research remains low.

Thriving in society

Saudi Arabia has multiple policies aimed at ensuring that the older population is supported in society.[22,23,24] Although these strategies support the wellbeing of older people, they do not specifically address the needs of people with AD and their caregivers.

AD registry

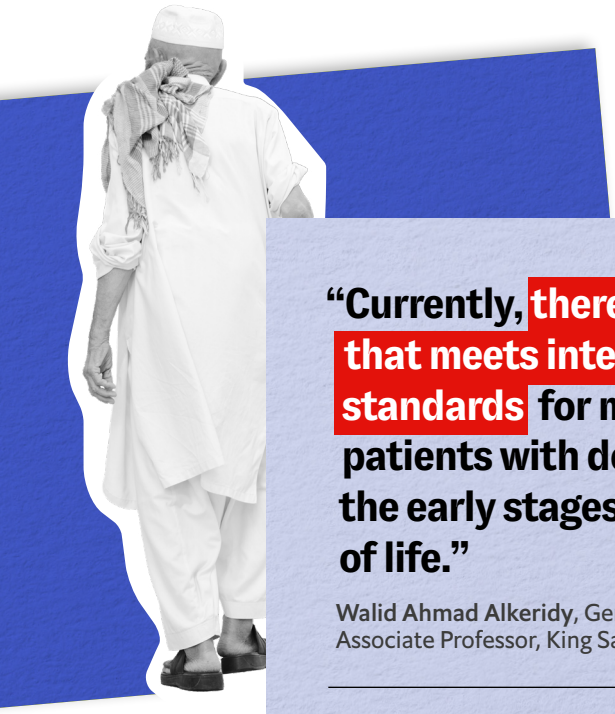
There is a lack of national-level AD data and no AD registry.

Source: Economist Impact analysis

Key policy takeaways and opportunities

Implement a national AD policy

The World Health Organisation (WHO) Global action plan on the public health response to dementia lays out the components of a comprehensive national AD plan.[25] It includes seven key action areas for countries to consider: recognising dementia as a public health priority; promoting awareness; building a dementia-friendly society and reducing risk factors; improving diagnosis, treatment, care, and support; providing support for carers; strengthening information systems; and advancing research and innovation. Many of the experts we spoke to highlighted that the tendency in Saudi society for families to oversee care of older adults can often mask symptoms. This delays care-seeking, especially because public awareness of AD is low and there is stigma around the disease.



"Currently, there is no policy that meets international standards for managing patients with dementia from the early stages until the end of life."

Walid Ahmad Alkeridy, Geriatric medicine consultant, Associate Professor, King Saud University

"The burden is more on the family in terms of taking care of individual people, rather than on the system."

Imed-Eddine Gallouzi, Professor of Bioscience, BESE Chair of KAUST Center of Excellence for Smart Health (KCSH), King Abdullah University of Sciences and Technology (KAUST)

Saudi Arabia does not have a national policy for AD. The WHO global action plan provides a good framework to follow.[26] Broadly, a national dementia/AD plan should identify what the health system needs to prepare for the impending increase in AD cases and create a prioritised action plan that encompasses the needs of people living with AD and their caregivers.

Although Vision 2030's broader goals of improving healthcare, supporting the ageing population and promoting innovation could indirectly benefit people with AD and their families, it does not directly seek to address the needs of people with AD.[27] To see real progress on AD requires a national dementia/AD plan that identifies and prioritises the actions needed.

The Ministry of Health, as the agency for health policy creation, would lead such efforts. Yet the nature of AD means that such a policy would need to involve other stakeholders to ensure that it is comprehensive, as recommended by the WHO.[28] For example, the health ministry would need to engage the Ministry of Human Resources and Social Development, which is responsible for ensuring that older adults live in an environment that protects their rights and dignity.[29] Policy creation should also actively include the input of patients, families and caregivers to gain a better understanding of their unmet needs. It is therefore important to engage patient advocacy groups, such as the Saudi Alzheimer's Disease Association, to ensure that patients' perspectives are incorporated into policymaking.[30]

Guidelines are in place to inform evidence-based practice

The WHO's Global action plan on dementia recommends evidence-based practice.[31] The Saudi health ministry has introduced two AD care guidelines to strengthen evidence-based care: the Protocol for the Prevention of Cognitive Impairment (PPCI; 2023) and the Protocols for the Management of Behavioural and Psychological Symptoms of Dementia (BPSD; 2021).[32,33]

The PPCI aims to promote lifestyle changes that can reduce the risk of developing AD, reflecting Saudi Arabia's move towards proactive and preventive healthcare.[34] The BPSD focuses on evidence-based guidance for pharmacological and non-pharmacological management of the complex behavioural symptoms of AD across psychiatric and general hospital settings.[35]

By creating these guidelines, Saudi Arabia is setting a strong foundation for AD care. These protocols ensure that clinicians have access to evidence-based recommendations, empowering them to deliver effective, person-centred care. It remains important to track implementation and guideline adherence to ensure evidence-based best practice is followed. Such guidelines would be complemented by an overarching policy strategy to support their implementation and prioritisation.

"The first priority is understanding how many people are affected by this disease."

Yazeed Alruthia, Professor of Health Policy and Economics, King Saud University

"The biggest challenge we have is the lack of statistics."

Roaa Khallaf, Cognitive and Behavioural Neurologist, Secretary General of the Cognitive and Behavioural Neurology Chapter, part of Saudi Neurology Society

Evidence-based policy requires data

To guide the creation of a national policy for dementia/AD requires data. According to the experts we spoke to, there is a lack of accurate epidemiological data on AD in Saudi Arabia. In addition, evidence suggests a high rate of undiagnosed AD in the Middle East, meaning that available estimates may also be inaccurate.[36]

Without data to understand the scale and scope of AD, it is difficult to assess the prevalence or understand the natural history of the disease, its management, and the impact of AD on individuals, families and the healthcare system in Saudi Arabia.[37] Establishing a national framework for data collection and research will be crucial in shaping evidence-based policy and resource allocation.[38,39]

The WHO recommends that all governments develop "national surveillance and monitoring systems, including registers that are integrated into existing health information systems".[40] The National Health Information Center has already created and launched several registries in other disease areas and would be well-placed to provide technical expertise and information architecture to support the creation of a dementia/AD registry.[41] Initiatives such as the Unified Health Record (UHR)–part of Vision 2030–may also support data collection and integration in time.[42]

Such data can also highlight inequalities, enabling interventions and services that are tailored to the needs of vulnerable communities, another key area of action identified by the WHO.[43,44]

Furthermore, both Imed-Eddine Gallouzi, professor of bioscience, King Abdullah University of Science and Technology for Smart Health, and Haythum O Tayeb, secretary general of the King AbdulAziz University Academic Council and president of the Saudi Chapter of Behavioural Neurology, flagged unique aspects to the Saudi population that mean, although lessons can be learned about care models and so on from elsewhere, there is a need for pilot studies and monitoring/evaluation to measure effectiveness in both the Saudi population as a whole and in relevant subgroups.

Address workforce issues by increasing numbers and upskilling current healthcare providers in AD

Training primary care providers as the initial point of contact

Primary care staff are typically the first point of contact for people with AD.[45] As such, the WHO recommends that primary care staff are trained to identify the signs and symptoms of AD and its management.[46] Yet, studies show a lack of knowledge about AD diagnosis and treatment among primary care staff in Saudi Arabia, which can lead to delayed referral for diagnosis and specialist care.[47]

"There is a significant shortage of skilled workers and practitioners able to early diagnose, prevent and manage people with AD."

Walid AlKeridy, Geriatric medicine consultant, Associate Professor, King Saud University

Recognising AD as a public health priority and identifying the importance of primary care staff in referral and ongoing care means that action is needed to improve limited knowledge among primary care staff about AD and the pathway for diagnosis and management. There isn't a "clear pathway on where to go" for either patients or healthcare professionals, says Roaa Khallaf, cognitive and behavioural neurologist, secretary general of the cognitive and behavioural neurology chapter, part of Saudi Neurology Society. Dr Khallaf adds that variations in care arise because the care pathway depends on which provider the patient sees, the provider's perception of the problem and whether they are connected with onward services such as specialist neurologists. Taim Muayqil, professor and consultant neurologist at King Saud University, reinforces the need for pathways to standardise care to the highest standard and ensure that patients are "recognised quickly and appropriately, that tests are done in the right group, and that they're interpreted by the right specialists".

Walid Ahmad Alkeridy, a consultant in Geriatric Medicine for the Saudi Ministry of Health and an associate professor at King Saud University, the role of "continuous professional development, workshops, lectures, and significant investment in building capacity and upskilling the workforce." Upskilling primary care staff through training programmes on AD would contribute to improving AD care. Such training would better enable primary care staff to identify people with AD and efficiently signpost them to specialist services, thereby improving access to timely diagnosis and quality care.

There are already examples of collaboration in this space. For example, Saudi Electronic University, in partnership with the health ministry and Saudi Alzheimer's Disease Association, hosted an event featuring educational and interactive sessions to raise AD awareness.[48] Similar university-led initiatives have also contributed to raising AD awareness among medical and nursing students, preparing the future healthcare workforce.[49,50,51]

> **"Equipping healthcare providers with the skills needed for timely diagnosis and treatment is the key to mitigating any negative impact of this disease in society."**
>
> **Yazeed Alruthia**, Professor of Health Policy and Economics, King Saud University

Building on these efforts, the health ministry could collaborate with the Saudi Commission for Health Specialties (SCFHS) and organisations like the Saudi Alzheimer's Disease Association and Alzheimer's International to develop accredited long-term training programmes for primary care staff.[52,53]

Addressing geriatrician workforce shortages

Despite being the largest economy in the Middle East and North Africa, Saudi Arabia has only 26.1 doctors per 10,000 people.[54] This is below the averages of other high-income countries such as the UK (58.2), Germany (43) and Australia (37.6).[55] To meet the needs of its growing population, Saudi Arabia will need to recruit 175,000 healthcare professionals by 2030, including 69,000 doctors, 64,000 nurses and 42,000 allied health workers.[56]

The experts we spoke to estimated there may be fewer than 100 geriatricians practicing in the entire country, highlighting the urgent need to expand the specialist workforce. Dr Tayeb says that the Behaviour Neurology Society, a group with subspecialty training in behavioural neurology and geriatrics, of which he is president, has only 12 members. Dr Muayqil says that although the number of neurologists is increasing at a fast rate, it is still challenging to get people to specialise in AD specifically. He adds that new recruits are focused on the country's major cities, leaving smaller cities and rural areas underserved.

There are three key approaches that the health ministry could utilise to address the workforce shortage: targeted foreign recruitment to address key gaps in the short-term, followed by medium-term solutions, including incentivising trainee doctors and primary care physicians to specialise in geriatric medicine.

Targeted foreign recruitment could address gaps in care in critical specialties such as geriatric medicine and neurology in the short term. The health ministry has launched various foreign recruitment drives in the past, and has longstanding relationships with recruitment agencies in a range of countries, so the infrastructure is there to launch a campaign to supplement the AD workforce.[57,58] A national policy on AD, reinforced with data on the scale and impact of AD in the country, would provide a case for action on AD-related recruitment.

Financially incentivising trainee doctors could address the workforce shortage in the medium term by encouraging more trainees into AD-related specialisms. This is a solution endorsed by the experts we spoke to. "[Geriatric care] is not an attractive option for most physicians," says Yazeed Alruthia, professor of health policy and economics at King Saud University. "But targeted financial support could encourage them to pursue it, ultimately improving care for older adults and those living with AD."

Financial incentives could encourage primary care doctors to complete additional training in AD care to boost their knowledge and become primary care specialists. The UK has a "[General Practitioner] with Special Interest" programme that includes dementia as one of the areas that primary care doctors can specialise in.[59] The Saudi health ministry could collaborate with organisations like the UK Royal College of GPs and similar institutions to learn from their AD training programmes and develop a tailored initiative for Saudi Arabia's primary care staff.[60] Vision 2030 emphasises the importance of building such strategic relationships to support knowledge sharing.[61] Introducing specially trained primary care doctors could contribute to addressing the knowledge issues currently seen in primary care, enhancing early detection and appropriate referral.[62]

Enhancing the role of the multidisciplinary team

Multidisciplinary and specialised teams of healthcare professionals are essential for providing comprehensive, personalised care and improving outcomes for patients with AD.[63,64] Providing multidisciplinary care requires a trained and specialised healthcare workforce. Both Dr Khallaf and Dr Tayeb believe that the Saudi Arabia would benefit from more specialised multidisciplinary practitioners to support AD care pathways, including geriatricians, speech and language pathologists, cognitive and behavioural neurologists, and neuropsychologists in clinics and memory centres. To make this happen, argues Dr Tayeb, training and care protocols are needed to define the work of multidisciplinary centres, with a network set up between them to enable high-quality care and continuous learning. Both Dr Tayeb and Dr Khallaf describe the model of multidisciplinary centres at The King Fahad Specialist Hospital in Dammam and how these could be used as a model to roll out such centres across the country.

Multidisciplinary AD care is in line with WHO recommendations to ensure seamless collaboration between healthcare providers at all levels and integrate AD care pathways into primary care.[65] The development of multidisciplinary teams also aligns with Vision 2030's strategy of creating specialty centres—while these are currently focused on other areas of health, Vision 2030 provides a framework for an integrated model of care and potential route for investment.[66]

A broader point made by Dr Tayeb is that to date "elderly care has not been medicalised enough" in Saudi Arabia.[67] This, combined with cultural attitudes meaning that elderly care is primarily given by family members rather than trained professionals, creates a high degree of caregiver burden.

Use broader health reforms to alleviate access issues for people with AD

Saudi Arabia's healthcare system operates on a mixed model reliant on government and private-sector collaboration, with the majority of funding provided by the state.[68] However, access to care can be inconsistent, particularly for those in rural areas.[69] A core component of the health system transformation laid out in Vision 2030 is to strengthen the finance and delivery of healthcare towards universal health coverage.[70] This aligns with the prioritisation in the WHO Global action plan on dementia of universal health and social care coverage as a means to ensure equitable access to a wide range of services delivering AD detection and management.[71]

The experts we spoke to highlight two practical barriers to accessing effective AD care: there is a lack of reimbursement codes for cognitive and functional assessments, fee-for-service models are ill-suited to long-term conditions like AD and insurance cover is inadequate. Dr Khallaf says that the lack of reimbursement codes for some AD assessments impedes their uptake and use. Establishing specific codes for AD cognitive assessments and other AD-based treatments would give physicians the time to conduct these structured assessments, while incentivising them to do so.

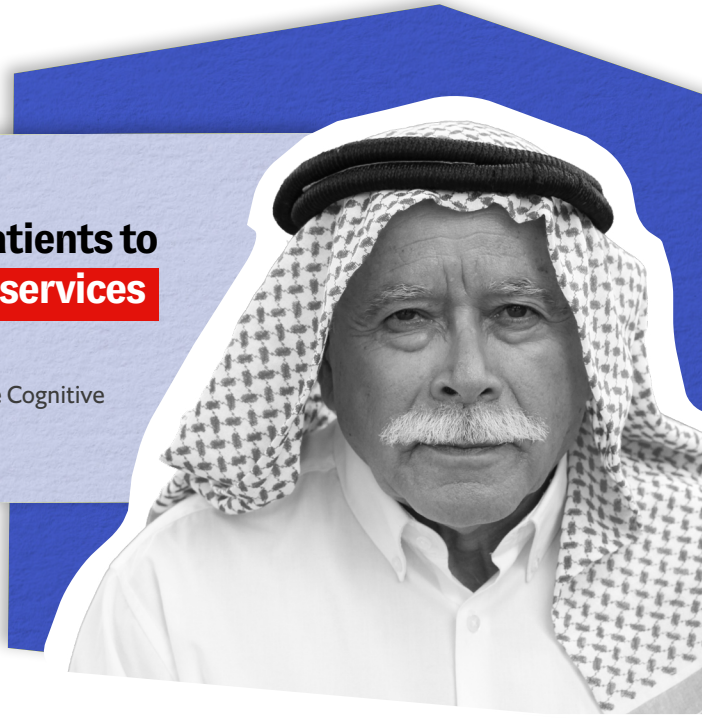
Saudi Arabia is also moving towards value-based payment models as part of Vision 2030.[72] A value-based model incentivises health providers to focus on health outcomes (quality of care), rather than the volume of services (quantity of care), and is particularly appropriate for long-term, complex conditions like AD.[73,74] A number of researchers and organisations—such as the Professional Society for Health Economics and Outcomes Research—have already made a case for value-based care in dementia/AD, alongside specialty care payment models, meaning that strategic, knowledge-sharing partnerships could enable the Saudi health ministry to explore how to implement value-based payments in the AD pathway.[75,76,77]

Dr Khallaf also points out that current insurance coverage for dementia services is extremely limited, equating to only SAR15,000—about US$4,000—per year). Dr Khallaf has found this does not adequately cover diagnostics and the comprehensive, multidisciplinary care that these patients require. This mirrors Dr Tayeb's experience that "most people" he sees in clinics are not covered by insurance. So although there has been great progress in diagnostics and treatment, many people continue to pay out of pocket for AD care and uptake is limited.

Another consequence of access difficulties described by Dr Tayeb is patients seeking treatment abroad—leaving them without the necessary follow-up and supervision.[78] Organisations such as the Saudi Alzheimer's Disease Association can make the case for AD as a key public health priority and for increasing insurance coverage across the clinical pathway as part of Vision 2030's plans to implement universal health coverage.

"Increased funding would make it easier for patients to access the diagnostics and multidisciplinary services that they require."

Roaa Khallaf, Cognitive and Behavioural Neurologist, Secretary General of the Cognitive and Behavioural Neurology Chapter, part of Saudi Neurology Society



Summary of key policy takeaways and opportunities for AD care and prevention in Saudi Arabia

Implement a national AD policy to standardise and unify action

Create a data registry to guide policymaking

Increase and upskill AD healthcare providers

Leverage Vision 2030 reforms to improve access for people with AD

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- **Dr. Roaa Khallaf**, Cognitive and Behavioural Neurologist, Secretary General of the Cognitive and Behavioural Neurology Chapter, part of Saudi Neurology Society
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